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Montessori Parent Education: Supporting Early Childhood Independence through Social-Emotional Learning

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Abstract

This action research project evaluated how a one-time parent education session focused on emotional coaching and social-emotional learning affected children's independence in a small, private Montessori preschool. During the five-week study, children's task independence and self-management at home and school were assessed by parents and teacher, respectively. Parents reported greater confidence in supporting children's independence and emotion regulation following the intervention. Both task independence and self-management levels were high at school. While task independence at school did not increase due to parent education, task independence increased at home. There was a trend toward increased self-management at home following intervention, and two of the five intervention group children also showed greater self-management at school. Results suggest that even in a school where parents are educated about the practical steps of supporting children's independence, teaching parents how to support children emotionally has additional positive effects.

Keywords: social-emotional learning, parent education, Montessori, independence

The impact parents and primary caregivers have on early childhood development is a topic of interest for its many facets and far-reaching implications. Researchers seek to understand the nature of parenting characteristics and how to support those parenting skills most conducive to positive development. Practically, countless parent education initiatives exist in order to maximize the positive potential parents have on their children's development. While parenting education opportunities exist both in and outside of schools, early childhood education programs are especially well-situated to create these opportunities. Educators can use existing relationships with families to understand the particular needs of their parent-child community and further serve those needs with existing professional knowledge. Importantly, parent education fosters family engagement in school and in home life (Kelty & Wakabayashi, 2020). Family engagement predicts greater success for children by nurturing enriched social experiences related to enhanced cognitive and social-emotional skills (Kelty & Wakabayashi, 2020; Galindo & Sheldon, 2012).

Family engagement that nurtures cognitive and social-emotional skills is an ever-pertinent issue as parents support their young children's natural growth. However, support for social-emotional learning is particularly timely given the social and emotional stressors experienced during and after the COVID-19 pandemic. Caregivers themselves experienced a variety of stressors potentially impacting health, safety, and economic well-being and directly impacting parenting and the home environment they created for their children (Brown et al., 2020). Otherwise, the social-emotional consequences of prolonged isolation during the pandemic have also been a theme of concern for these children who were infants and toddlers during the quarantine periods (Ferrari et al., 2022). With this context, the need to support parents and children through parent education is especially advisable.

The Montessori early childhood education model has strong ties with parent education given its philosophical emphasis on well-prepared adults and its unconventional take on children's capacity for independence and how to foster it. As a Montessori educator, I bring these values into my daily practice and action research. Beyond trying to inform parents about the philosophy of early childhood development, I am interested in equipping parents with practical, learnable skills that meet their immediate needs. My action research aims to supplement the existing parent education opportunities at my school, which already has a tradition of parent education promoting childhood independence in daily home life. With this study, I aim to understand how highlighting parents' social-emotional coaching skills will affect children's independence. The research questions directing my action research include:

1. How will children's independence at home and at school be affected by parent education highlighting skills that support social-emotional learning (SEL), namely parent modeling and emotion coaching?

2. How will measures of independence compare at home versus at school?

3. If children were previously physically independent, will they show higher levels of overall independence following the intervention?

4. How will the parent education opportunity affect parents' self-reported actions at home?

5. In a community that already discusses the importance of preparing the home for children's independence, will addressing the social-emotional components of growing independence affect parents' ability to support this growth more effectively?

Theoretical Framework

Social Constructivism

Constructivism, as an educational theoretical framework, values the processes by which learners actively construct their own learning through self-discovery rather than passively taking in information from external sources (Crain, 2000; Akpan et al., 2020). By actively manipulating information obtained through personal experiences, learners are able to integrate these impressions into their existing knowledge base and expand their understanding. *Social constructivism* goes beyond this purely independent, spontaneous learning to acknowledge the existence of sociocultural influences on concept and skill development (Crain, 2000). In this context, learners internalize the information they obtain through social interaction and apply it to their own private thinking (Crain, 2000; Akpan et al., 2020; Schnuk, 2012). This socially mediated understanding of learning emphasizes that some learning happens directly from vital social relationships–be it with teachers, parents, or peers (Schnuk, 2012).

Intellectual Tools: Language and Self-Regulation

According to theorist Lev Vygotsky, while the intrinsic developmental drive for knowledge-building is essential, learning is driven further by the intellectual tools children find through social experiences– most significantly through language (Schnuk, 2012). On the whole, language affects how people experience, communicate, and understand reality (Akpan et al., 2020). Language has the power to make concepts more concrete, thus allowing learners to manipulate them more effectively while internalizing them. On an individual level, private speech (i.e., talking to oneself rather than for the purpose of person-to-person communication), whether expressed out loud or internally, has the positive power to help children keep track of their own thoughts as they think through issues (Crain, 2000). Looking at this phenomenon this

way, Vygotsky understood private speech also has connections to the development of self-regulation (Schnuk, 2012) and willpower as children talk themselves through internalizing external expectations while their nervous system naturally matures (Crain, 2000).

Social constructivism is a valuable lens through which to evaluate the value of parental influence on children's learning at a young age. Learning does not just happen in the context of official teacher-student lessons, nor solely in the confines of school buildings. The richness in experience that the parent-child relationship has to offer children's cognitive development is a valuable resource in education. Further, the featuring role of language in the social constructivist view of learning provides context for understanding the role that parents' modeled language plays in children's social-emotional learning as well as children's experience internalizing this language into their self-regulation.

Literature Review

Independence in Early Childhood

One operational goal of Montessori education is the development of independence. Maria Montessori (1967a) wrote in The Absorbent Mind:

> The child has to acquire physical independence by being self-sufficient; he must become of independent will by using in freedom his own power of choice; he must become capable of independent thought by working alone without interruption. [...]We must teach the child to act, will, and think for himself. (p. 281)

This philosophy is rich in its understanding of childhood development and unique in its prescription for how to nurture it. A great theme of activity in the primary-level classroom is the drive to become functionally independent through mastery of physical capability and skill acquisition, accomplished primarily through the practice of daily life exercises (Montessori,

1967a; Montessori, 1967b; Gilder, 2012). Building this physical independence is vital in developing independent motivation, thought, and choice.

Developmental studies utilize research definitions that can be related to Montessori's depiction of independence above. In particular, physical independence can be linked to task performance or completion (Zhang & Whitebread, 2021; Zhang & Whitebread, 2017) and further related to questions of task persistence (Prendergast & MacPhee, 2018; Mokrova et al., 2012). The ability to make choices and think for oneself can be related to research exploring self-direction (Mokrova et al., 2012), problem-solving (Ervin, Wash, & Mecca, 2010), self-regulated learning (Zhang & Whitebread, 2017), and autonomy support (Zhang & Whitebread, 2021; Neubauer, Schmidt, & Kramer, 2021). Examining research related to these terms provides direction in evaluating early childhood development and the role adults play in the development of early childhood independence.

Self-Regulation

Underlying the capacity for independence lie many operations functioning together as self-regulation, a "dynamic process of determining a desired end state and taking action to move toward it while monitoring progress along the way" (Inzlicht et al., 2021, p. 320). As a dynamic process, there are multiple perspectives of self-regulation. Through the 2021 literary review, Inzlicht et al. identify these perspectives through cognitive control (e.g., inhibition), cognitive functioning (e.g., including executive functions), and emotions. Similarly, Korucu et al. (2022) were able to show through their original research that emotion regulation, cognitive regulation (e.g., executive functions), and behavioral regulation (e.g., inhibitory processes) share common processes under the general construct of self-regulation. These three constructs, combined as composite self-regulation, were positively associated with pre-academic skills (i.e., cognitive

skills) and social-emotional competence in preschoolers– even when controlling for age, gender, and socioeconomic status.

Inzlicht et al. (2021) observed that the role of emotion in self-regulation had to date been under-researched, a note similar to Mermelshtine's 2017 review of literature positing that research lacked an understanding of children's social-emotional development within the context of parent-child scaffolding interactions. With this agreement in reviews, it is noteworthy that Korucu et al. (2022) attempted to track the effects of emotion regulation, cognitive regulation, and behavior regulation separately in preschool-aged children. They found that, like composite self-regulation, executive function as an individual component was positively associated with pre-academic and social-emotional skill outcomes. Additionally, while emotion regulation was uniquely associated with social-emotional competence, it did not have an individual direct relationship with pre-academic (i.e., cognitive) skills. This input is a helpful beginning to understanding the nuance in relationships between perspectives of self-regulation. However, more research is indicated to fully understand how these factors work together and separately to influence children's developmental outcomes.

Development of Self-Regulation

Children are not born capable of self-regulation with their immature nervous systems and rely on caregivers to help them co-regulate through experiences via coregulation (Paley & Hajal, 2022). Early childhood is a critical time in the development of self-regulation and, consequently, the support of self-regulation (Perry, 2019; Paley & Hajal, 2022). Feng, Hooper, and Jia (2017) tracked the development of self-regulation manifestation through behavior from toddlerhood through preschool without looking at underlying cognitive or emotional processes. They found that how well a child complied with parent direction in a clean-up task when they were 2 years

old directly related to the same clean-up compliance at 3 years old. It was also positively related to whether they complied when a non-parent instructed them not to play with a forbidden toy at 3 years old. In other words, if a child demonstrated situational compliance at 2 years old, they were more likely to demonstrate situational compliance and committed compliance at 3 years old. Situation compliance at 3 years old and committed compliance at 3 years old were unrelated. In contrast, whether they complied with the clean-up task at 3 years old did not predict their assessed self-regulation at 5 years old; instead, their performance in the committed compliance forbidden toy task predicted it. Feng, Hooper, and Jia concluded that the externally motivated, co-regulated behavior led to internalizing parents' expectations and to internally motivated committed compliance and self-regulation by the time children reached Kindergarten age. They also looked at the influence of maternal sensitivity at play in these co-regulating opportunities. They found that maternal sensitivity assessed at earlier ages was directly related to children's compliance or self-regulation when they were older. The influence of parents' co-regulation in early childhood in preparation for middle childhood is evident here.

Parental Influence

Parents' support of their young children is evaluated and understood from as many dimensions as children's self-regulation. The importance of parental sensitivity to children's experiences is a theme throughout early childhood literature, and its implications are far-reaching. It is, for instance, found in research on parent scaffolding (Leith, Yuill, & Pike, 2018). This seemingly straightforward skill is nuanced, necessitating evaluation beyond mere behavior changes to look at the interactive parent-child relationship within the moment (Mermelshtine, 2017; Leith, Yuill, & Pike, 2018). Instances of scaffolding must be evaluated on the basis of the parent's ability to provide flexible, adaptive cognitive stimulation without

over-managing, based on real-time evaluation and sensitivity to the child's emergent ability cues (Leith, Yuill, & Pike, 2018). When proper maternal sensitivity, cognitive stimulation, and positive regard are present in scaffolded experiences, children grow to display higher levels of persistence by the time they are three (Prendergast & MacPhee, 2018). Persistence, in turn, serves a mediating role in later developmental outcomes, including greater school cognitive and social-emotional readiness by Kindergarten (Prendergast & MacPhee, 2018). Contingency in parent scaffolding uniquely predicts children's task performance and self-regulated learning during independent problem-solving tasks (Zhang & Whitebread, 2017). Similarly, when responsiveness is rated as a component of emotional support separately from cognitive support, emotional support rather than cognitive support is associated with the development of persistence (Mokrova et al., 2012). During problem-solving tasks, if parents are considered to support their child's initiative and autonomy, children are more likely to display successful task performance (Zhang & Whitebread, 2021). In all these cases, parent sensitivity led to positive developmental outcomes. Training parents in how to effectively coach their children through scaffolded emotional experiences could help support the development of all these traits associated with self-regulation and successful independence.

Parental Beliefs

While the child's outcomes within a scaffolded experience are often the subject, it takes place in the context of reciprocal, dual-affecting interactions. Parents' outcomes offer additional valuable insight. When toddlers are developing self-regulation, if they respond positively with high levels of situational compliance, mothers' responses become even more supportive; if children do not comply, mothers' responses become less supportive (Feng, Hooper, & Jia 2017). It is understandable, then, that parents' perceptions about their child's emotional reactivity

influence how a child actually behaves, like a self-fulfilling prophecy (Lincoln et al., 2017). Parents' beliefs in this context can affect the quality of parent-child interaction essentially from both directions. The beliefs parents hold also pertain to the values they hold. When parents value self-direction over conformity, they are more likely to engage in more cognitively stimulating and emotionally supportive behaviors with their children (Mokrova et al., 2012). Valuing self-direction is associated more with higher socioeconomic family statuses. However, when parents value self-direction, they exhibit greater support regardless of family status, thus nurturing qualities like persistence in their children. This highlights the value of parent education in service of empowering parents and nurturing positive early childhood development.

Methodology

My action research project took place in a small, private Montessori school serving a major university town with a mix of urban, suburban, and rural residents from the surrounding area. The sample population included all 15 students in my classroom and their parents. There were two sibling pairs. Per the balanced Montessori primary multi-age classroom structure, the children's ages were evenly distributed between 3-6 years old (i.e., five children were 5 or 6 years old, five children were 4 years old, and five children were 3 years old) with 8 girls and 7 boys. Given the springtime execution of the action research, first-year students had been in the classroom for about five months, except for one child who transitioned from the toddler classroom mid-year. The second-year and third-year students experienced at least one prior year in this same classroom with the same teaching staff.

The children primarily came from single-family households with both biological parents present; one family had a dual-residence family structure with joint custody. Most families were White and U.S. citizens; one family was from a country in central Asia, and one had one parent

from a country in East Asia. I gained permission to gather data on all children in the classroom. I

received data evaluating children at home from at least one parent for 12 children; there was

partial data for one more child. Five parents (all mothers) attended the parent education meeting.

Two children in the intervention group were boys, and three were girls. One was a third-year

student, one was a second-year student, and three were first-year students.

Intervention

The parent education intervention, in accordance with the school's COVID-19

restrictions, was a virtual video meeting. It lasted 90 minutes and involved a teacher presentation

and interactive components. I presented the basics of social-emotional learning and placed it in

context along with topics covered in established parent education opportunities the school

already holds (i.e., practically supporting Montessori-style independence at home while

considering scaffolding and a parent-led question-and-answer session based on emotion

regulation). Parents may or may not have attended these previous meetings.

After establishing this connection to past meeting content, I presented information on

how to engage in emotion coaching, which intentionally included practices of acknowledging,

validating, and naming emotions and perspectives. I also presented information on engaging in

parent modeling of emotion regulation, positive self-talk, and growth mindset. Content included

general topic guidance as well as examples of concrete language to use. Parents also had a

chance to ask questions and present their own scenarios to receive feedback for helpful language.

I also shared book recommendations at the end of the meeting should parents desire further

resources. As I usually share at the end of parent education meetings or email communications, I

offered to follow up individually if they wanted additional support. No parents took advantage of

this offer.

Data Collection

Parent Assessments

Independent Behavior. In order to measure levels of children's independence at home, parents completed pre- and post-assessments, which were electronically administered before the intervention and during week five of the study, respectively. This assessment consisted of four sections. While content within a section was consistent, particular items were randomized according to the electronic survey generator. Sections one and two asked parents to identify, on a 5-point Likert-type scale, the frequency at which their child engaged with self-care and home-care activities with little to no assistance. The activities represented were intended to reflect those of interest in a primary Montessori classroom (see Table 1). During analysis, these items were evaluated independently. Responses to these items were assigned corresponding numerical values (e.g., "Nearly Always/Always" independent equaling four and "Never" independent equaling zero) and added together to produce a composite independence score.

Table 1

Targeted Activities of Independence

Self-care activities	Home-care activities
Gets drink for themselves	Cleaning up after eating
Prepares or serves own snacks	Cleaning up spills
Chooses own clothes	Sweeping table crumbs
Gets dressed	Washing table
Puts on/takes off jacket	Sweeping floor
Puts on/takes off shoes	Washing floor
Uses bathroom	Putting toys away
Uses tissues to clean nose	Loading/unloading dishes
Packs belongings for school	Folding laundry
Carries their own lunchbox/water bottle	Putting laundry away

Parents then rated the *degree* to which their child engaged in these same activities by selecting between the options "does not attempt or immediately gives up," "attempts with physical assistance," "attempts with verbal support," and "successfully completes independently." Asking about both the frequency of independence and the degree of engagement helped establish a degree of reliability in the child's independence as well as adult involvement in a given activity. Finally, parents identified how their child typically responds when invited to engage in these self-care or home-care activities, whether exhibiting confidence, determination, avoidance, or distress. This measure established some understanding of each child's emotional relationship and comfort with the activities.

Self-Management. Section three of the parent assessment measured the child's self-direction (see Appendix A). Parents identified how often their child typically asks for direction throughout the day as well as the percentage distribution for the typical amount of time their child spends with adults versus independently or with other children while engaged in self-initiated versus adult-initiated activities on a daily basis. They also rated how strongly they agreed with statements regarding their child's independence on a 4-point Likert-type scale. During analysis, these items were assigned corresponding numerical values (with items phrased contrary to independence being reverse scored) and added together to produce a composite score of self-management.

Parent Role. Section four of the assessment asked the parents questions about their own sense of comfort in meeting the emotional needs of their child (i.e., emotion support) as well as confidence in creating space for their child's independence at home (i.e., autonomy support) (see Appendix B). Parents indicated their agreement level to statements on a 5-point Likert-type scale. During analysis, responses were assigned corresponding numerical values (with items

phrased contrary to independence being reverse scored) and added to produce a composite score of parent support to independence. Select items were also evaluated independently to understand particular relationships between parent answers and child independence. Section four also offered parents an open-ended chance to offer additional information.

Teacher Assessments

Independent Behavior. Just as the parent assessment allowed for a view into children's independent behaviors at home over the course of the study, I gathered data regarding children's independent behaviors at school. In week one and week five, I completed a teacher assessment that mirrored sections one and two of the parent assessment for self-care and classroom-care activities. To measure students' self-direction in the classroom, I used two data collection measures. Every day during the morning work cycle of weeks one through four, I kept a tally of adult-seeking behaviors for each child. Restricting the observation to the morning work time allowed for consistency in measures as some children stay for a half-day program while others stay for a full-day program. The work time during the morning is also theoretically a time when children can manage their own activity with practice. The adult-seeking tally provided a space to differentiate between behavior geared toward seeking directions (e.g., asking what activity they should do next or just saying to an adult "I don't know what to do next"), seeking feedback (e.g., asking if they were doing something right or how their work looked), and seeking help (e.g., literally asking for help). As adult-seeking tallies were low overall, these categories were counted together in the analysis. This log also held a space for general notes in case the need arose for qualitative information. For data analysis, tallies across a given week were averaged based on the number of days a child was present to come up with a weekly tally score that could be compared across children.

Self-Management. In addition to the adult-seeking tally, I filled out a work choice and redirection log once a week during the full morning work cycle during weeks 1 through 4. I only filled this out once a week because filling it out adequately meant I did not present new lessons during this time. This form allowed me to track the status of children's activities, particularly whether they were making independent choices, if adults made choices for them, or if a peer explicitly directed their choice. These distinctions were logged as I (independent), A (adult), and P (peer). I also used this space to keep track of redirection (logged as R) by an adult (e.g., if a child was using a material but was extremely distracted or damaging the material). Work choices were counted if a child got out lesson materials and used them (rather than immediately put them away again) or engaged in classroom-care or self-care (e.g., put dishes away). While children watching other work is a valuable feature of a primary Montessori classroom and a valid choice, these were not logged as work choices. A choice was independently-chosen if a child got the material out without it being named by another individual. A choice was adult-chosen if the adult explicitly directed the child to get the material. A choice was peer-chosen if a peer explicitly directed the child to get the material (e.g., "Let's get out the metal inset."). A choice could be inspired by another child's work but still logged as independent, for instance, if a child watched someone else working on a puzzle map and then got it out themselves after it was put away.

Emotion Observations. Finally, I kept an emotion incident observation log during the morning work cycle every day for weeks one through four. The log allowed space to record a child's pseudonym ID, the date, level of distress, perceived cause, resolution, and extra notes. The perceived cause was logged as either a challenging task, a social exchange, redirection, a physical occurrence (such as falling down), or "other." The distress level was logged on a level from 1-5. Even though the rating was subjective, it was a useful reference. Evaluations were

based on the volume of distress (crying, yelling) and duration. The emotional resolution was evaluated according to whether a child independently resolved their distress (I), whether a peer helped them resolve their distress (P), and whether an adult helped to a small degree (AL - adult, light) or a greater degree (AH - adult, heavy). An example of low adult intervention would be simply checking in on a child (e.g., sportscasting "You fell down."). An example of high adult involvement in emotional distress would include needing to take a child from the immediate environment and coach them in managing their emotion (e.g., move to a quieter part of the classroom and coach them to take breaths). While this data was collected, its results did not ultimately play a significant role in the analysis of this study's effects.

Data Analysis

Parent Need

Parent responses regarding comfort and preparedness in supporting their children's emotions and autonomy varied greatly (see Figure 1). No parent exhibited complete confidence, though some scores were significantly higher than others. There was no overwhelming rule behind the variation, reflecting the complicated nature of the parent-child dynamic. Further support of complicated parent-child dynamics is that even if the same parent completed the assessment for their two children, their support score differed (i.e., parent CA/H-A and parent D-A/N-A). Parenting partners also reported different support scores (i.e., F-A/F-B and O-A/O-B). A Montessori professional parent (i.e., C-A/H-A) reported high support scores. Broadly, parents of first-year children with no older siblings who had been in my classroom scored lower, which is in contrast to parents who might have older children who did not go through a Montessori program or who did go through a Montessori program but in a different classroom. Additionally, parents of children with neurodiversity statuses reported lower scores.

Figure 1

Baseline Parent Support Scores by Individual
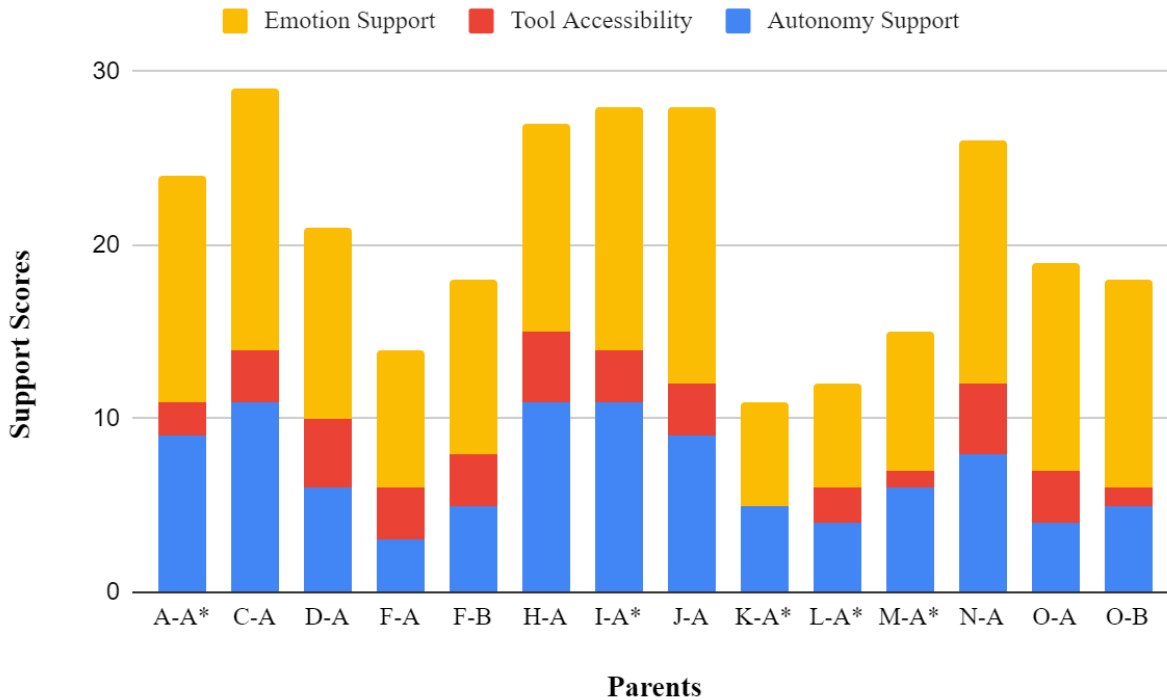
Note. Scores self-reported for parents' preparedness and behavior related to emotion support, autonomy support, and tool accessibility for children. Parents identified by pseudonym ID corresponding to their child's pseudonym ID. Parents who attended the education session are indicated by an asterisk.

These responses indicate the need for parent support, and parents' eventual choice to attend the parent education session indicates a desire for the information offered. Of those that attended the meeting, three reported the highest need. The fourth-highest need score came from a parent who could not attend the parent meeting.

Taking individual scores and averaging them among the condition groups resulted in similar baseline group scores; however, the parents who ultimately attended the parent education

session reported a slightly lower group supportive score (see Figure 2). While the groups were

relatively similar at the baseline measurement, the post-assessment reflected significant change

for the intervention group. Parents who attended the education session reported improved scores

as a group while the control group did not significantly change. Individual scores show some

parents who did not attend the meeting even experienced a score decrease. Data trends suggest

the education session provided supportive benefits to the parents in attendance.

Figure 2

Effect of Parent Education Session on Parent Support Scores
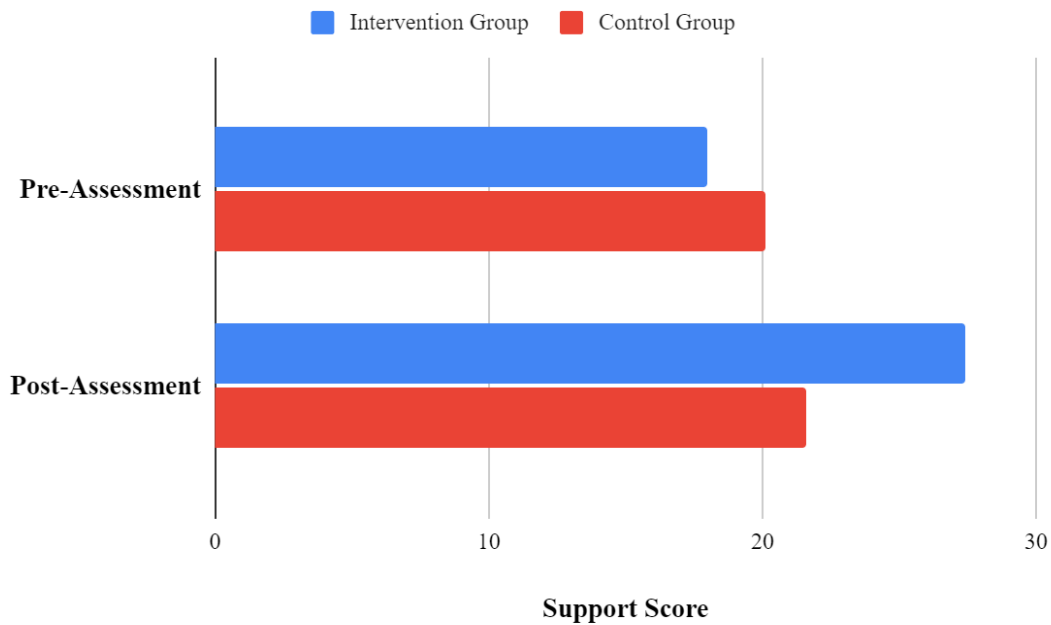
Note. Comparison of average parent self-assessment pre- and-post scores per group. The

intervention group (n = 5) attended the parent education meeting, and the control group (n = 6)

did not. Scores from parents with multiple children were averaged to create a single score.
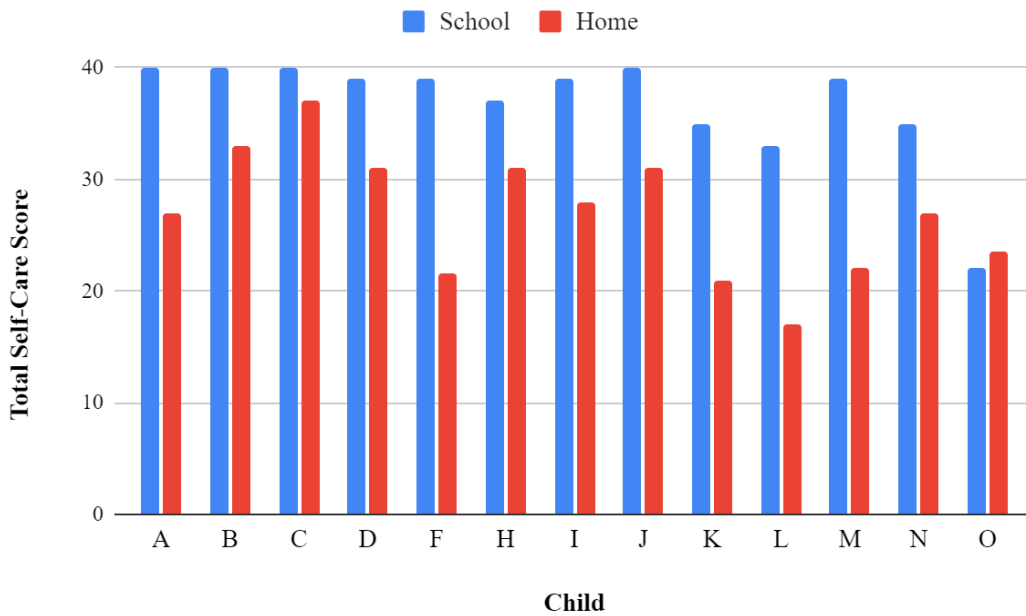
Independence

Self-Care Skills Independence

　　　　Children exercised greater self-care independence at school than at home (see Figure 3).

Even given age differences, there was little score variation in self-care independence at school.

As this study was conducted in the latter part of the school year, this would allow even the first-

year students time to foster self-care independence. The greatest variation in score came from a

child who transitioned from the adjoining toddler classroom just weeks before the start of the

study (Child O). Aside from this child's lower score, the average self-care independence score (n

= 12) was 38 out of the possible 40 points. Children's independence at home varied more than at

school. The average independence score (n = 13) was 27 points out of 40 points.

Figure 3

*Baseline Comparison of Total Self-Care Scores at School Versus at Home*

Note. Comparison of total self-care independence scores on teacher and parent pre-assessments

While the children were generally reported as more independent at school than at home, there was variation between specific self-care tasks (see Figure 4). The tasks with the most similar scores of independence between environments included putting on/taking off jackets, putting on/taking off shoes, and using the bathroom. The tasks with the greatest score differences included the children getting drinks for themselves (with 26 points greater independence at school), preparing/serving their own snacks (with 25 points greater independence at school, and packing belongings (with 36 points greater independence at school).

Figure 4

*Baseline Independence Per Self-Care Task at School Versus at Home*
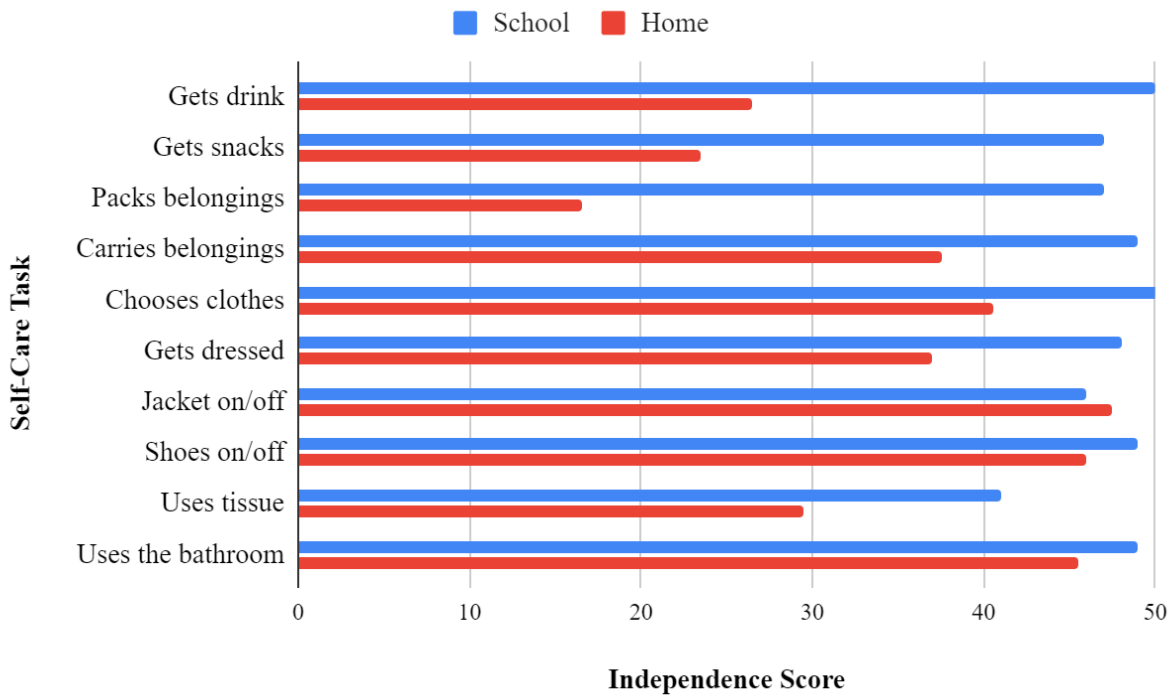
Note. Comparison of aggregate self-care task scores on teacher and parent pre-assessments. Tasks were given abbreviated titles for the purpose of chart simplicity.

There was not much change in self-care independence at school for students from the beginning to the end of the study. The greatest amount of change was observed for the first-year students (see Figure 5). Given little to no change among older children's self-care scores and the comparable change among the first-year students regardless of study condition, this shared skill improvement is likely due to natural development in a supportive environment. The change in self-care at school for the intervention group versus the control group was almost identical.

Figure 5

At School Self-Care Scores for First-Year Children from Week 1 to Week 5
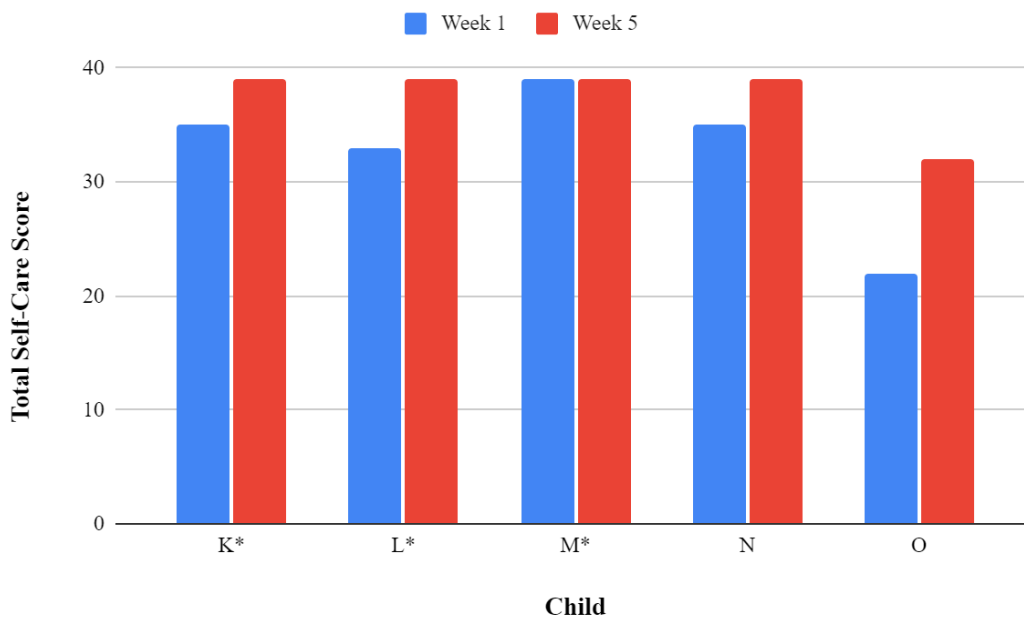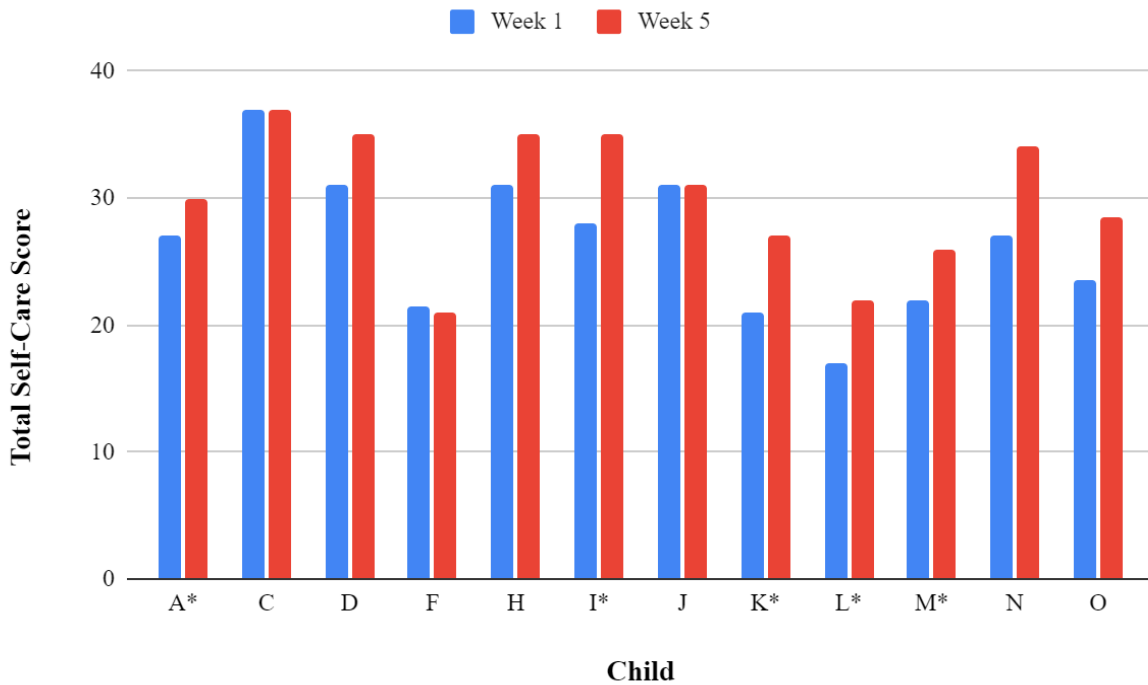

Note. Comparison of total self-care scores on teacher pre-assessment versus post-assessment for first-year children. Children of the intervention group are marked by an asterisk.

There were greater gains in independent self-care skills at home than at school over the study period (see Figure 6). Three children in the control condition saw no significant change in

score. The average score change for the third-year students (n = 3) as a group was 2.3 points

increased independence, 2.6 points for the second-year students (n = 4), and 5.4 points for the

first-year students (n = 5). The children in the intervention group showed a change toward 5.4

points of greater independence while the control group showed 2.8 points toward greater

independence at home.

Figure 6

At Home Self-Care Scores for Children from Week 1 to Week 5

Note. Comparison of total self-care scores on parent pre-assessment versus post-assessment for

children. Children of the intervention group are marked by an asterisk.

Environment-Care Skills Independence

As with self-care skills, children were more independent at school than at home in terms of environment-care skills (see Figure 7). Scores were more varied at school and home compared to self-care skills. There was an occurrence of similar scores across environments for three children, with a score difference within a point of each other. Two of these instances were owing to the parent responding being a Montessori professional and more likely to support similar practices at home as at school. The average classroom-care independence score was 29 points out of the possible 40 points. The average home-care independence score was 18 points.

Figure 7

*Baseline Comparison of Total Environment-Care Scores at School Versus at Home*
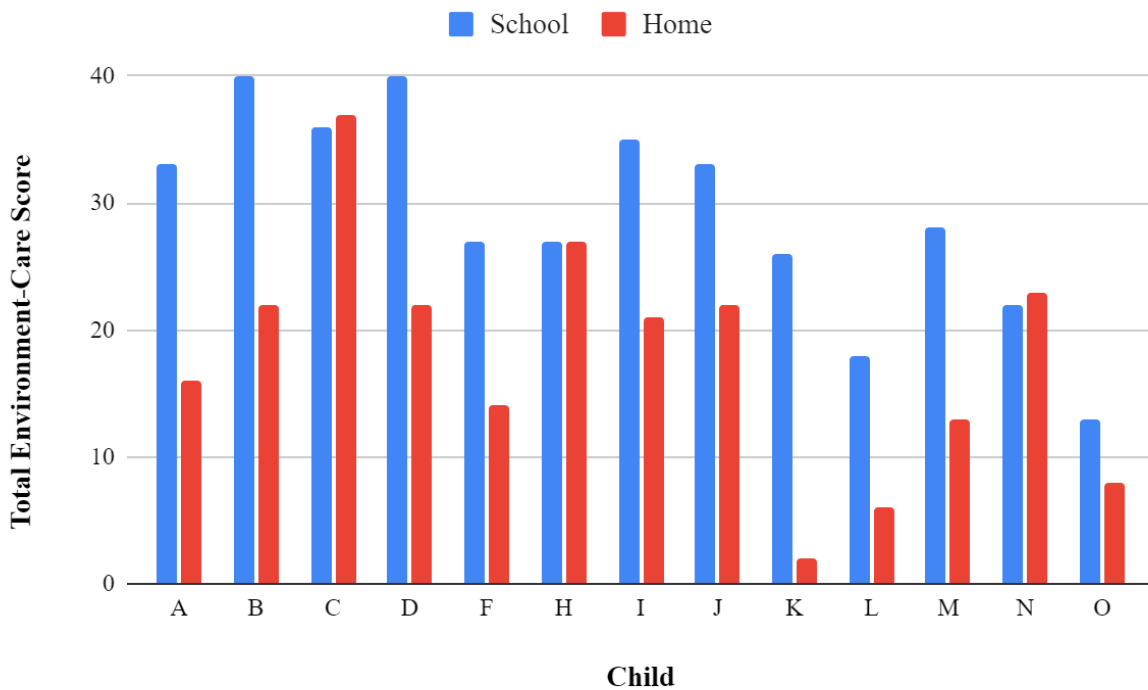
Note. Comparison of total environment-care scores on teacher and parent pre-assessments per child

There was even greater variation between the independence scores of specific environment-care tasks than was found with self-care tasks (see Figure 8). The three classroom-care tasks with the greatest average independence at school (i.e., cleaning up after eating, putting away activities, and cleaning up spills) were also the three highest-scoring home-care tasks. However, loading/unloading the dishwasher was a high-scoring task at school, yet the lowest-scoring item in home-care, leading to a 23.5 score difference. Another task with wide independence score gaps included putting materials away at school versus putting toys away at home (with 18.5 points greater independence at school).

Figure 8

*Baseline Independence Per Environment-Care Task at School Versus at Home*
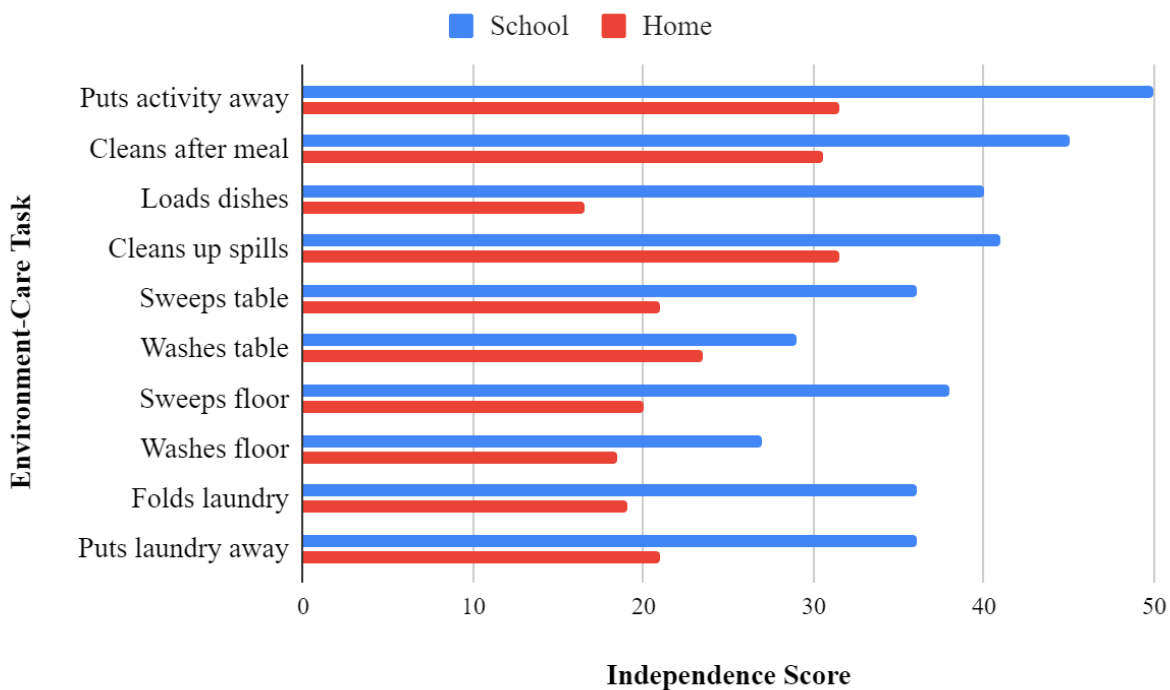
Note. Comparison of composite environment-care task scores on teacher and parent pre-assessments

From week one to week five at school, there was little change in the environment-care skills of the third-year students (n = 5) as their skills were relatively high to begin with (see Figure 9). The second-year students (n = 5) showed an average of 6 points increased independence, while the third-year students (n = 5) showed an average of 9.6 points increased independence. The intervention group (n = 5) showed an average of 6.2 points of increased independence, while the control group (n = 10) showed an average change of 5.1 points.
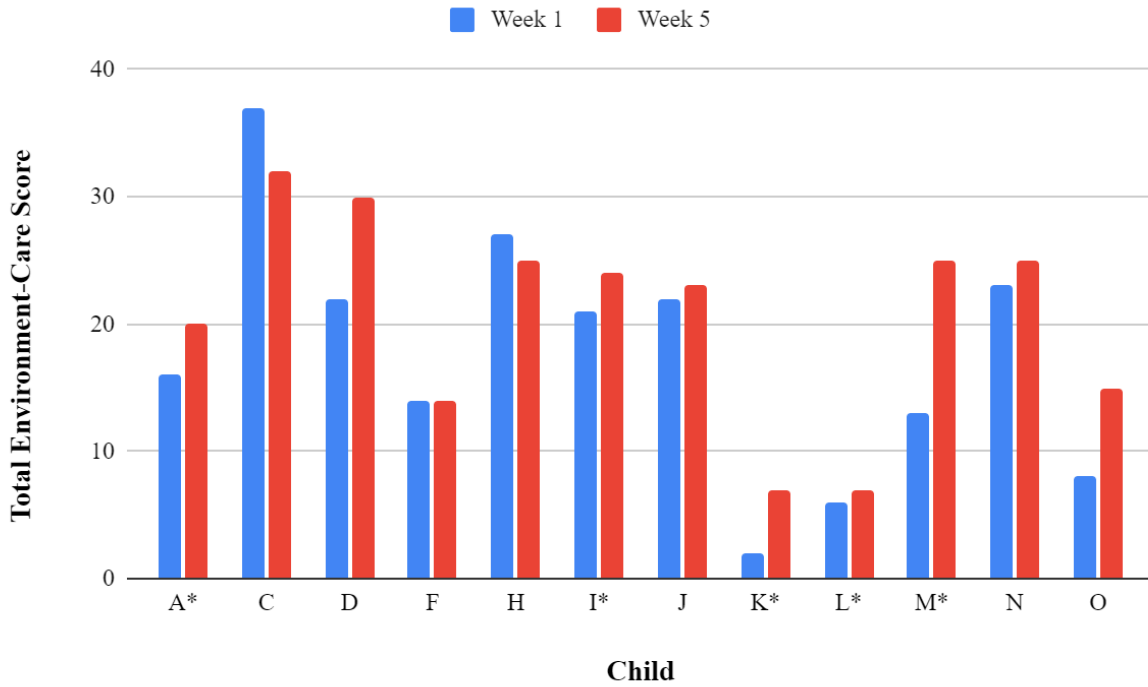
Figure 9

At School Environment-Care Scores from Week 1 to Week 5
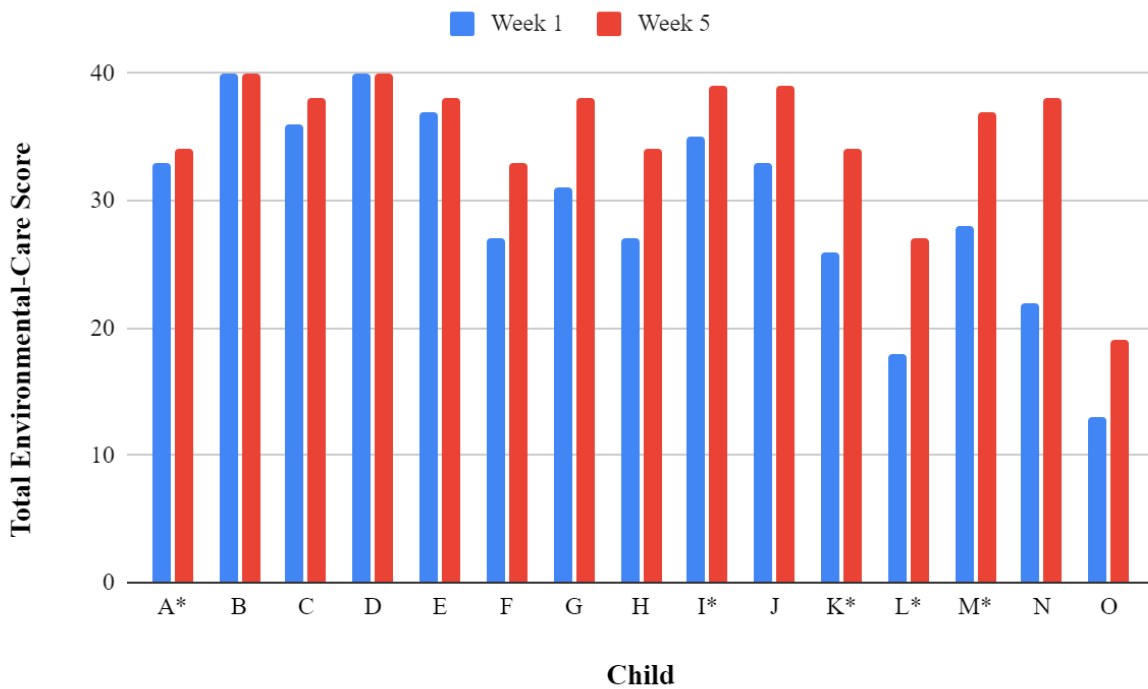
Note. Comparison of total environment-care scores on teacher pre-assessment versus post-assessment for children. Children of the intervention group are marked by an asterisk.

Figure 10

*At Home Environment-Care Scores for First-Year Children from Week 1 to Week 5*

Note. Comparison of total environment-care scores on parent pre-assessment versus post-assessment for children. Children of the intervention group are marked by an asterisk.

Changes in environment-care independence skills at home showed more meaningful changes over the course of the study (see Figure 10). Of note, the sibling pair C/H showed decreased independence because their mom had a baby during the study. However, even though their independence decreased, the degree of assistance needed decreased as well. For instance, a verbal cue was sufficient when physical assistance was needed before. The third-year students' independence increased by 2.3 points, and without this C/H sibling by 6 points. The degree of assistance required improved for the intervention child but not the control child. The second-year students' independence skill scores did not change significantly, but the degree of required

assistance improved by an average of 3 points. The first-year students' at-home environment care

independence increased by 5.4 points. The level of required assistance decreased for two first-

year students in the control group who had older siblings in the program. One child in the control

group (Child K) experienced a sharp decrease in the level of assistance required, while the other

two children's level of assistance only improved by one or two points. As a group, the control

group's independence only increased by a single point, while the intervention group's

independence increased by an average of 5 points.

Figure 11

Adult Input Seeking at School
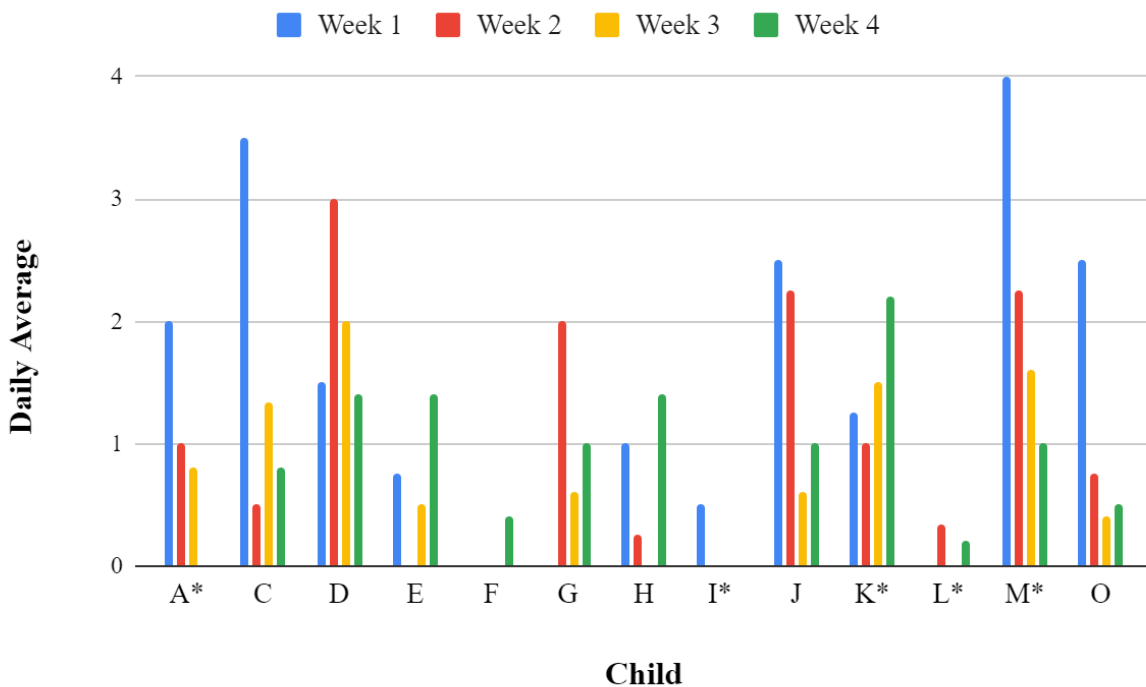
Note. Count of each child's daily average of adult-seeking per week. Children of the intervention

group are marked by an asterisk. Child N, as a high-frequency outlier, was omitted for chart

readability. Child B was omitted due to prolonged absence.

Self-Management

At school, most children did not often seek adult attention regarding feedback or activity choice direction (see Figure 11). There were outliers in every age group and no patterns of behavior within identifying groups, neither age nor intervention condition. There were, however, identifiable patterns over time for individual children. There was a clear pattern of steadily decreasing adult seeking across the four weeks of data collection for Child A and Child M, who were both in the intervention group. Two children in the intervention condition did not typically ask for help throughout the study, and the final child of the intervention group exhibited a slight increase in adult seeking. Consequently, these patterns do not allow for conclusions for the intervention group as a whole.

Most children were highly independent in choosing classroom work across the four-week data collection, and adult-chosen activities were infrequent. The most evident pattern in this data was that Child M's independence in selecting work increased over the study. Their ratio of independent choice to peer choice to adult choice progressed from 8:1:2 in week one to 5:0:3 in week two to 2:1:0 in week 3 to finally become completely independent by week four. Coupled with the decrease in adult input seeking over time, it is clear that Child M of the intervention group experienced increased significant self-management in the classroom. Otherwise, Child K was the only child who engaged in adult-chosen activities at school over the study period, showing no change in their ability to self-manage.

At the beginning of the study, most parents reported that children did not tend to ask daily for direction on how they should spend their time at home. Only five children received ratings for asking for direction daily. Child F asked parents for direction between two to four times daily; this rating remained unchanged by the end of the study. Child K and L, both of the

intervention groups, were assessed to ask for activity direction more than four times a day in week one, yet zero to one time in week five, showing greater self-management and potential positive effects of the study's intervention. Child D and Child I showed slightly increased dependence, receiving initial ratings of up to once daily to two to four times daily at week five.

At home, the children began with similar percentages of how they spent their time at baseline measurement (see Table 2). Children spent about half their time with an adult or independent of an adult; however, children of the control group moved towards independence while the intervention group moved towards dependence. At baseline, the groups were more likely to engage in child-initiated activities than adult-chosen ones. The most significant difference in activity status balance between the groups was that the control group rated as more likely to engage in child-initiated activities independent of an adult than were children of the intervention group.

Assessing the change from pre-assessment to post-assessment, the control group saw almost no change. The only difference was two percentage points greater occurrence of adult-initiated activity. At the same time, the intervention group experienced greater change, with a trend towards greater independence and greater child initiation. The intervention group's percentage of time with adults versus independent of adults changed to match the times of the previously more independent control group. Additionally, the intervention group's experience of child-initiated activity versus adult-initiated activity surpassed the control group's independence by the post-assessment, suggesting that the parent education intervention potentially affected how the children spent time at home.

Table 2

Percentage of Time Spent at Home by Activity Status

Activity Status	Intervention Group			Control Group		
	Baseline	Post	Change	Baseline	Post	Change
Dependent & Adult-Initiated	21	16	-5	20	22	+2
Dependent & Child-Initiated	30	31	+1	27	25	-2
Independent & Adult-Initiated	14	16	+2	13	13	0
Independent & Child-Initiated	35	37	+2	40	40	0
Dependent	51	47	-4	47	47	0
Independent	49	53	+4	53	53	0
Adult-Initiated	35	32	-3	33	35	+2
Child-Initiated	65	68	+3	67	65	-2

These patterns were similarly reflected in parent assessments of the children's self-management when isolating the prompts relating to time and activity management ability. Six of the seven children in the control group scored eight or nine points out of the possible nine on the self-management pre-assessment. Even with this high score of self-management, they still averaged a high score of preferring to have help making choices. Conversely, the children of the intervention group scored an average of four points. With this lower score of self-management, they also scored high for preferring to have help. When comparing the pre-assessment scores to the post-assessment scores, the group average for the control group remained high. Assessment

scores for their preference for help reflected greater preferred independence. However, there were lower scores in the post-assessment for two children. The child with an initially low score of 1.5 out of nine scored just one point better on the post-assessment. The post-assessment scores for the intervention group increased for three children by an average of two points and unchanged for two children. The intervention group also continued to prefer adult assistance when making choices. The occurrence of lower post-assessment scores for some control group individuals and a significantly low control group individual score remaining low versus the change in scores among the intervention group scores suggests that the parent education possibly had a positive effect on children's self-management at home. However, the continuance of preferring adult help making choices reflects incomplete influence.

Parental Influence

The data reflects the relationships between parents' support and children's skills independence at home. At baseline measurement, a higher parent support score was generally associated with greater self-care and environment-care skills independence (see Figure 12). This relationship was stronger for parent support and children's self-care skills than for environment-care skills, which is likely a factor of self-care skills being a priority. However, the association between parent support scores and children's skills independence at home weakened at the end of the study. The weakened relationship for both independence areas and emphasized incongruence with environment-care independence suggests that, by the study's conclusion, children's demonstration of independence had not yet caught up to their parents' improved support skills. It is possible that the strength of the relationship between parents' support score and their children's independence would return over time.

Figure 12

Relationship Between Baseline Parent Support Score and Child's At-Home Independence
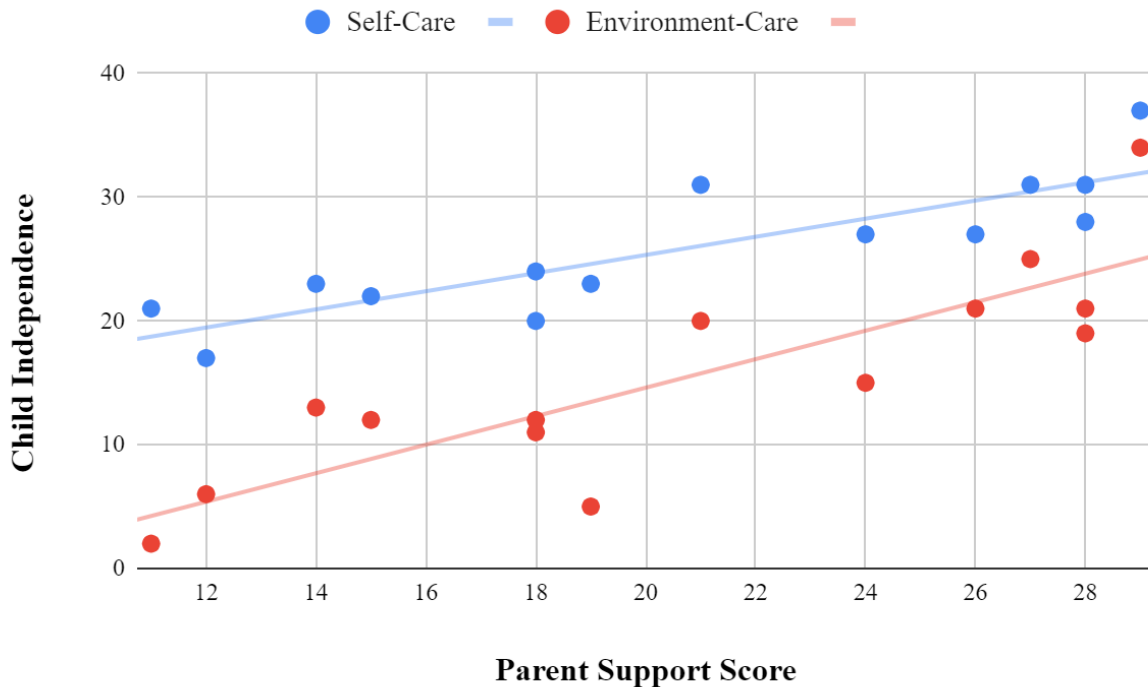
Note. Parents' support scores on pre-assessment versus associated children's total self-care independence scores on parent pre-assessment. Pre-assessment parent support-child self-care independence $R^2 = 0.731$. Pre-assessment parent support-child environment-care independence $R^2 = 0.718$

Action Plan

The purpose of this action research project was to understand how children's independence and self-management at home and school would be affected by educating parents on social-emotional learning and emotion coaching. Parents' lack of initial confidence, seen in the parent pre-assessment, reflected a need for support in fostering this growth in their children. Additionally, parents' choice to attend the education event during their personal time concretely

demonstrates interest in this topic. Parents in their first year with the classroom particularly

desired this support. Following the education meeting, parents reported improved understanding

and confidence in supporting their child's independence through emotion coaching and social-

emotional modeling strategies. Acknowledging these findings follows guidance from Gärtner et

al. (2018) to look at the influence of interventions on parent attitudes and self-efficacy, not just

changes in behavior.

Further, in an educational philosophy article, Frierson (2016) called for the need to

understand the assumptions of children's inability to engage in independence or autonomous

pursuits come from the lack of creating the right conditions. These right conditions require both

space and ample time to allow children to properly learn and display the developmental potential

that Montessori (1967a) describes. A meaningful example within this study comes from Child C

and Child H, a sibling pair of a Montessori professional. Though these children were emotionally

reactive (evidenced by their higher number of emotional incidents and adult-dependent calming

in the classroom), their parent's comparatively high support abilities allowed them to maintain

high levels of independence at home that matched their school-based independence. With ample

time in a space inviting autonomy, like in the classroom or this home environment, even these

young children show their potential to act, will, and think for themselves. The relationship

between parent support scores and children's home independence at the study's onset, though not

as strong at the conclusion, promises further growth of independence for the children whose

parents participated in the education session. Though their progress was not exaggerated

compared to the control group, their advances in the short five-week time are encouraging.

Children were more independent with self-care and environment-care at school than at

home. This discrepancy is appropriate given that independence is a defining purpose of

Montessori pedagogy (Montessori, 1967a); however, this occurrence shows the potential for

future parent education and targeted support to ensure children are experiencing full

developmental benefits. The variation of independence scores at home did not follow age lines,

which suggests that other child-specific characteristics and family dynamics came into play at

home. Independence scores reflected that parents were more comfortable or familiar with

supporting children's self-care skills than supporting children's care of their home. Independence

did not change at school based on parent education, but there was evidence of the youngest

children experiencing natural skill maturation. At home, however, self-care and environment-

care independence increased more for children whose parents attended the education meeting.

The fact that all these children showed either linear or positive change while the control group

had some instances of negative change further suggests that the intervention positively

influenced skills of independence.

Children's self-management at home and school revealed greater self-initiation rather

than adult-initiated activity at home and school. At home, children still spent around half their

time engaged with adults, which indicates room for possible independence and self-management

growth. After the intervention, children spent more of their time independently and engaged in

activities chosen without adult influence. There was not much noticeable change in the

classroom, but two children from the intervention group (Child A and Child M) did display a

steady decrease in seeking adult input. One of these children (Child M) also steadily increased

independent work choices. While parent education influenced self-management at home, the data

at school was too limited to draw conclusions overall. It affected Child M, who showed

increased independence skills and self-management at school.

Limitations

It is important to understand these results in the context of the design limitations present. Firstly, the study's limited intervention group sample size and length of five weeks did not provide sufficient conditions to assess the intervention's full impact. Other limitations center around data collection means. Data assessing children's independence at home relied on parent reports, which are susceptible to bias and subjectivity. However, the biased nature of parent perceptions and beliefs was an acknowledged, even meaningful, factor throughout this action research. Even though the parent assessment invited honesty by stating that no "right" answers existed, the intervention group could have been influenced by a desire to give post-assessment answers based on parent education content.

Classroom observations were more objective in nature, but their execution was still potentially flawed. Daily observations relied on my awareness of target behaviors while also presenting lessons and managing the classroom. Further, the tallies recording adult input seeking did not allow for differentiation between purposeful, healthy adult-seeking (like when a child needs to verify understanding when practicing a new lesson) and unnecessary or problematic adult-seeking. The data might have been more elucidating, especially considering some children do not ask for help even when they truly need it. A zero value as the tally existed suggested self-reliance, but this is sometimes maladaptive. Considering this, it might have also helped with analysis efforts to collect measures of children's characteristics, including temperament.

Future Action Research

The present action research adds to the conversation about emotional support and autonomy support in early childhood development, but it does not do much to answer the question of differentiating the influence of these two lenses (see Mermelshtine, 2017). Further

research is needed to address this gap. Additional action research topics should further explore

the impacts of parent self-efficacy and how it relates to questions of children's development as

well as how it interacts with school and classroom community-building endeavors. Beyond

focusing solely on the existing community, bringing in the perspective of families who

previously finished the program would provide valuable insight to meeting the needs of current

families. Research should also explore the effects of targeted assistant professional development

on social-emotional learning and emotion coaching in an effort to understand its impact on

classroom staff and children's developmental outcomes. It is also promising to design action

research based on the findings of Cadima et al. (2019), who studied how children's language

development and self-regulation are impacted by teachers' autonomy-supportive behaviors in the

context of the teacher-child relationship.

Recommendations

It is advantageous to build social-emotional learning perspectives and coaching skills into

parent education initiatives. Based on the data in this study, it is necessary to address needs on

several levels. Professionals should nurture positive parent beliefs in an effort to positively

influence parent self-efficacy and prepare them to effectively and adaptively meet their

children's developmental needs (Mokrova et al., 2012; Gärtner et al., 2018). However, even

though families may be aware of best practices, practices do not always measure up at home,

especially when the effects of family dynamics are acknowledged (see Walls, 2018). To

maximize the benefits from social-emotional learning topics, parent education could build on

concepts of effective scaffolding (see Leith, Yuill, & Pike, 2018) and incorporate principles of

emotional regulation for the parents to practice themselves, which has shown positive results in

previous research (Sanders & Mazzucchelli, 2013). This could be especially beneficial in the

aftermath of COVID-19 pandemic stressors. It is also necessary to empathetically guide parents

out of autonomy-discouraging habits, evidenced in this study's data by children not even

engaging in simple behaviors like carrying their own lunchboxes and water bottles.

Recognizing the value of this parent education also invites the effort to increase parent

attendance. With reasons ranging from scheduling conflicts to disinterest, it is necessary to

consider how to make it more accessible and alluring to families. Issues of scheduling conflicts

may be remedied by sharing information through multimodal means, including asking

experienced parents to share the knowledge and experience they have gained through years of

experience with the program. This suggestion would also add the benefit of increasing parent

engagement for those who decide not to attend meetings when they anticipate repeated content.

Differentiated instruction to meet the diverse needs of families would also increase family

engagement. These efforts are in line with creating a culture of systemic engagement that

strengthens the school community while creating integrated partnerships that provide for greater

developmental gains and school experiences (Boberiene, 2013).

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Appendix A

Parent Assessment: Child's Self-Direction

1. How many times a day on average does your child ask you how they should spend their

   time?

   - 0-1

   - 2-4

   - 4+

2. While in your care, what percentage of time does your child engage:

   - with you (or another adult) in an activity that was adult-chosen

   - with you (or another adult) in an activity that was self-chosen

   - independently (or with a sibling) that was adult-chosen

   - independently (or with a sibling) that was child-chosen

   *Responses should add up to 100.

   Example: 50 - 20 - 10 - 20

3. How strongly do you agree or disagree with the following statements?

   (Strongly disagree - 2 - 3 - Strongly agree)

   - My child can manage their own free time.

   - My child can manage their own activities.

   - My child needs help making choices.

   - My child likes help making choices.

   - My child transitions from one activity to another independently.

Appendix B

Parent Assessment: Parent Support

How strongly do you agree or disagree with the following statements?

 (Strongly disagree - 2 - 3 - 4 - Strongly agree)

- I give my child time to try tricky things before I step in.

- I know how to give my child as little help as possible to help them help themselves.

- I stand back and watch to see if or how my child needs help before stepping in.

- I make sure tools for self-care and home-care are accessible for my child at home.

- I find it hard to help my child when they are upset.

- I would rather help my child than watch them struggle when I can help.

- I try to step in to help before my child gets upset.

- I feel equipped to help my child keep trying when something is tricky.

- I know what to say to give my child encouragement to keep trying.

- I make myself available to help as soon as my child asks for it.

- I try to do tasks right alongside my child so we do things together.