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## **The Effects of Modeling High-Leverage Practices on Classroom Management Skills**

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**The Effects of Modeling High-Leverage Practices on Classroom Management Skills**

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in fulfillment of final requirements for the MAED degree

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### **Abstract**

The purpose of this study was to see how using High-Leverage Practices with a novice teacher would affect her classroom management skills in a lower elementary, Montessori classroom. Teaching in a lower elementary, Montessori classroom is always difficult as it is a mixed-age environment of first through third grade students. It is also difficult when the teacher is new to the field of teaching. Since many teachers come to teaching from other careers, learning how to effectively manage their classrooms is an on-going struggle. This study focuses on what happens when a master teacher, with more than 20 years of experience, works with a novice teacher who has taught for less than 3 years. The researcher used High-Leverage Practices to model teaching practices in the novice teacher's classroom based on observed areas for growth. Improvements were seen in the areas selected by the novice teacher, such as giving individual and group lessons, redirecting students who are not engaged, and lesson preparation. Research should continue in this area as there is little history of this practice in Montessori teacher education. Research should also continue to see if the effects of the interventions would be more significant over a longer period of time.

*Keywords:* Montessori, High-Leverage Practices, Practice-Based Teaching, modeling, classroom management

### **The Effects of Modeling High-Leverage Practices on Classroom Management Skills**

As more and more teachers enter the field and begin to work in classrooms, it has become apparent to me just how much practice they need to do their jobs well. Over my twenty years as a teacher I have seen that children are changing, as is the world around them. Teachers are not being equipped to handle the changes they are seeing in children within their classrooms.

Through the use of High-Leverage Practices, or Practice-Based Teaching, novice teachers are beginning to gain a better understanding of the process of teaching rather than relying on just the theory that is taught in their college education classes (Ball & Forzani, 2014; Ball et al, 2009; Forzani, 2014; Hlas & Hlas, 2012; Maheady et al, 2019; McLeskey et al, 2018; Vartuli et al, 2016; Zeichner, 2012). High-Leverage Practices was a program originally developed for math teachers as a way to help them be more effective in their teaching of mathematical skills. As more and more teachers are joining the education field without prior teaching experience, it is proving to be a technique that can be used to aid any novice teachers in becoming stronger in their classroom routines and interactions with students.

Just as traditional teachers are in need of practice before entering the classroom, Montessori teachers are also in need of thorough practice and guidance prior to becoming the lead teacher in their classrooms. Many Montessori teachers do not have an undergraduate degree from a college teacher education program where they would have received direct instruction on the various facets of teaching. Instead, most Montessori teachers come to teaching through a career change and, therefore, do not have the same background knowledge in teaching that many traditional teachers who are trained in college do. Montessori training centers accept candidates with undergraduate degrees in any field and offer them specialized training in Montessori

philosophy and methods. Training programs could span anywhere from a few months to two years. Once in the classroom, Montessori teachers are often responsible for the full curriculum, on top of which, they need to learn how to present materials that are specific to Montessori and are presented in very prescribed ways. High-Leverage Practices give master teachers (those who have been teaching at their level for more than five years) the opportunity to guide novice teachers (those with less than three years of teaching) through a myriad of scenarios that can come up in the classroom. This helps those novice teachers learn how to handle each classroom scenario effectively through practice and repetition. As a Principal in a bilingual, public charter, Montessori school, it became clear to me that novice teachers would benefit from being exposed to High-Leverage Practices during their internship or first few years of teaching. This would help ensure they are receiving direct feedback on their skills that will help them become better classroom managers and more effective in their delivery of the curriculum.

This research study was conducted in a bilingual, public charter school in Washington DC. The school has eight lower elementary classrooms which have a mixed-age group consisting of grades one through three. Each of these classrooms are co-taught by two-trained Montessori teachers. One teacher is responsible for the English curriculum which covers the subject areas of mathematics-operations, English language, history, cosmology, and political geography. The other teacher is responsible for Spanish curriculum which covers the subject areas of mathematics-geometry, measurement and data, Spanish language, the sciences-biological, physical and earth, and physical geography. Each teacher is also responsible for various assessments, some of which are standardized, throughout the year in order for the school to keep its charter. One of the unique challenges of our school is it requires that teachers deliver their portion of the curriculum in less time than in a monolingual setting. Teachers must be able

to manage their classrooms in an efficient way where students are constantly engaged and the delivery of the curriculum is effective and direct. This research involved the novice teacher observing the master teacher in the classroom on more than one occasion. The novice teacher would then make notes of those classroom management behaviors she wanted to emulate and practice. Then at another time, the novice teacher would have an opportunity to demonstrate that particular behavior while the master teacher observed. Following both observations, a debriefing would occur between the master teacher and the novice teacher on what was observed. This research project was designed to show how modeling High-Leverage Practices can assist novice teachers to become more fluid in their classroom management skills.

### **Theoretical Framework**

This action research will be working from the perspective of social learning theory. This theory posits that people demonstrate new behaviors through observation and imitation of others around them (David L, 2019). Throughout the 1960s and 1970s, Albert Bandura worked to refine his view of the social learning theory. But it was not until 1986 when Bandura's "interest in self-regulative capacities and self-efficacy grew, [that] he became even more distant from the anticognitive stance of the behaviorist tradition" and he relabeled his approach social cognitive theory (Grusec, 1992, pp. 776-777). The social learning theory is based on four major tenets of modeling that include attention, retention, reproduction, and motivation (McLeod, 2016). The literature suggests that people need to pay attention in order to learn. Based on those tenets, it is important that the learner retain what was taught otherwise imitation will not be as successful (McLeod, 2016). Once the learner has retained the information, then she can reproduce the behavior she had observed and learned. This pattern of learner observing in order to then teach is repeated various times and with various objectives so that the learner can improve. As the

learner reproduces the behavior, it is important that she receive reinforcement when it is reproduced correctly so that she feels motivated to do it over and over again. As a requirement of this theory, the learner must be able to perform the behavior while being observed in order to gain mastery (Schunk, 2012). This gives the observer a chance to see if the process has been internalized and can be done independently. Using social learning theory in a Montessori classroom would be beneficial for novice teachers so that they can begin to internalize the curriculum and eventually move towards greater independence.

Social learning theory supports Montessori teaching as it mimics what Montessori teachers do in the classroom, guiding students through a curriculum that supports their individual learning styles and needs. This method of education gives teachers the chance to work closely with students who need more assistance in order to model for them how to use the materials in the classroom properly, as well as modeling expected behaviors and appropriate social interactions. On a daily basis, teachers are working with students on developing their plans for learning, modeling the use of the materials, and observing their use of the materials. Montessori teachers often allow older children to present lessons to younger children in order to solidify their knowledge of the material and content. The same process would occur between the master teacher and novice teacher in a study based on the social learning theory. By having the master teachers model in the classroom, knowledge can be gained by the novice teacher in the areas of observation, effective lesson presentation, and planning.

From the time that Montessori teachers begin to train in this methodology they are constantly surrounded by master teachers who model for them how to use the Montessori materials and how to present lessons in ways that are engaging for the students. During their training, teachers are instructed on how to use the Montessori materials by master teachers.

They are taught to replicate each lesson and to practice giving those lessons throughout training. Most training centers also require that teachers complete a practicum, or internship, where they spend a school year working under the direct supervision of a master teacher. This process is carefully constructed, creating an approximation of practice where novice teachers can learn from master teachers. “Approximations of practice are designed settings in which teacher candidates practice and receive targeted feedback regarding their implementation of pedagogical practices” (Vartuli et al, 2016). As the teaching of teachers has evolved, it has become clear that teachers need more time to see master teachers in classroom environments. “Researchers have substantiated the useful role of cognitive modeling and shown that modeling combined with explanation is more effective in teaching skills than explanation alone” (Rosenthal & Zimmerman, 1978, as cited in Schunk, 2012, p. 129). Through the use of the social learning theory, the master teacher and novice teacher would be going through a continuous cycle of repetition and observation in order to achieve the mastery of an effectively run classroom.

### **Literature Review**

Focusing on “what teachers do rather than what they know calls for teacher education to provide significantly more purposeful practice within the limited time they are given” (Hlas & Hlas, 2012, p. S77). Studies have shown that “providing opportunities for new teachers to learn how to enact specific core practices...by seeing them modeled and then by rehearsing them, studying them, and repeatedly practicing them is necessary” (Zeichner, 2012). There is a growing need for teachers to spend more time learning how to teach rather than spending their time learning theory and traditional things that won’t be of use to them in the classroom. (Forzani, 2014). This review of literature will show that using High-Leverage Practices, or

Practice-Based Teaching, with novice teachers is needed and could be a way to ensure teachers are armed with the skills they need to succeed in their classrooms.

### *High-Leverage Practices*

High-Leverage Practices, also referred to as Practice-Based Teaching, came about in the 1990s from a group at the University of Michigan that was designing a program focused on preparing teachers to teach mathematics (Ball et al., 2009). They had come to the realization that “initial teacher preparation must help novices learn how to *do* instruction, not just hear and talk about it” (Ball et al, 2009) and they realized that “little support exists to help teacher educators develop their practice” (Ball et al, 2009, p. 459). Ultimately the goal had been to give teachers the opportunity to practice what they would be teaching prior to entering the classroom. This process would involve providing “opportunities to practice the kinds of thinking, reasoning, and communicating used in teaching” (Ball et al, 2009, p. 462). It is also something that allows novice teachers to learn slowly so that they can master the techniques over a given period of time rather than in an instant (Vartuli et al, 2016). Using this method also gives master teachers a chance to “support candidates to propose adjustments, try unfamiliar strategies, and gain confidence in their own teaching skills” (Vartuli et al, 2016, p. 507-508).

“The thinking and logic involved in studying the activities and practices in which teachers engage, as the basis for teacher education curriculum, is a strategy that has been used in some form for many years” (Zeicher, 2012, p. 376). By allowing teachers to focus on the “act of teaching” and not just the theories behind teaching, novice teachers are able to gain more knowledge that applies in the classroom (Forzani, 2014). Practice-Based Teaching came about and showed that “teaching was viewed as skilled work, and it was assumed that novices could get better at it through ample practice and prescriptive feedback” (Forzani, 2014, p. 361).

Through practice-based experiences that occur when they are still in school, teachers would practice and receive feedback, over and over again so that they could engage with their instructors about best practice. “There was a body of knowledge and skill for prospective teachers to learn, and they were helped to learn it through intensive cycles of observation and practice, often with highly prescriptive feedback” (Forzani, 2014, p. 362). As children have changed and as curriculums have become more intense, it has become imperative that teachers learn how to interact with the children as they are giving lessons and leading discussions about various topics, not just learn about content and theory. This method will also allow master teachers to help novice teachers “construct new knowledge and practices in how best to help diverse populations of children learn in classrooms” (Vartuli et al, 2016, p. 504).

### *Planning*

Bhatia (2014) notes that having teacher education programs with strong mentoring/coaching programs will be important to helping Montessori teachers get the support and guidance they need so that they can make a connection between the philosophy and the methodology. This kind of guidance can be used to help teachers learn how to plan. In order to plan correctly, three things need to occur: (a) the learning goals for students [that] target higher order skills need to be addressed, (b) novices need to be trained to deal with uncertainty, and (c) the subject matter of the practices needs to be critical component of acquisition of the practices” (Knight et al., 2014). Focusing on this reminds teachers of the various layers involved in their teaching process. It is simply not enough to plan the lesson and then give it. “When planning and executing their lessons, teachers need to be able to anticipate how students will likely react to new academic material” (Hlas & Hlas, 2012, p. S80). Planning requires that they think about their students’ needs and how they will best serve those needs throughout the lesson. Skillful

teaching includes how they apply specific actions based on what they know about their students and how they apply their professional judgment to the situations they confront in the classroom (Ball & Forzani, 2009). Through the use of High-Leverage Practices, novice teachers “are introduced to the elements of planning in a gradual way, mastering certain components at a time” (Vartuli et al, 2016, p. 505) which will help them implement new skills more effectively once they enter the classroom on a full-time basis.

### ***Modeling***

According to research, teachers should be involved in seeing examples of each task they are to do, dissecting and analyzing their work, watching demonstrations, and practicing under supervision so that they can improve (Ball & Forzani, 2009). Similar to how medical students learn, novice teachers will learn “from and within authentic contexts under the guide of experts in the education field” (Vartuli et al, 2016, p. 504). Modeling allows master teachers to view their novice teachers as “students,” which means they see the opportunities to teach those novice teachers differently (Aguilar, 2018), rather than seeing them as full-fledged colleagues who should have mastery of their skill. Through modeling, novice teachers develop self-efficacy because they connect with someone who they feel has the skill they want to acquire, and they become aware that they can also do what they have seen (Bhatia, 2014). Modeling becomes a way for novice teachers to see how the lessons or interactions could be done so that they can replicate those techniques in their own classrooms in the future. Observing master teachers ultimately helps novice teachers develop new strategies and classroom management skills, while becoming more aware of how they engage in the classroom, therefore owning their growth process (Saylor et al, 2018). It is important that teacher training centers begin to approach their model this way because it will allow teachers to have more hands-on experiences and will teach

them to learn how to dissect their work. They will also have the opportunity to watch master teachers more often, and then practice under close supervision by those master teachers who can guide them through the learning process (Ball & Forzani, 2009). Research shows that if teacher education programs develop these close ties between mentors and teachers, those master teachers can provide adequate support to the novices (Bhatia, 2014). It is clear that teacher education programs should be helping teachers “as they continue to learn and grow as professionals who are proficient in a wide range of effective practices that improve academic and behavioral outcomes for all students” (McLeskey et al., 2018, p. 13).

### ***Lesson Giving***

Montessori teachers are known for having rigorous training courses and lesson-giving preparation before entering the classroom. Bhatia (2014) has claimed that it is clear that those novice teachers are not always learning to be self-aware and that more of that skill is needed prior to entering the classroom. “High self-efficacy teachers have more confidence in their conceptual understanding of the philosophy and methodology which [gives] them more confidence as Montessori teachers” (Bhatia, 2014, p. 50). While Montessori teachers are in their training, it is important to remember that the focus should not always be on how the teacher gives the lesson or uses the material. During this time, they are learning how to lead discussions about the lessons being given with students. Through modeling, novice teachers can learn how to get students to share their thoughts during lessons and then learn how to respond to students, scaffold content, and help students reach higher levels of thinking (Hlas & Hlas, 2012). Learning through modeling means that teachers can learn how to react to diverse interpretations of content and can help students work through error and misunderstanding in a way that is productive (Forzani, 2014). Watching master teachers give lessons allows novice teachers to learn how to

predict what students may say. This enhances their lesson giving practice to be richer and more meaningful to the students. “This is all done, of course, with the implied purpose of improving student outcomes” (Maheady, 2019, p. 357).

### ***Conclusion***

Research suggests that giving novice teachers the chance to learn from master teachers will not only enhance their teaching but will give the students a more robust experience in the classroom. They will experience better teaching, more engagement, and a deeper understanding what they are learning. It is clear that more Montessori teacher training centers should move to requiring more practice under the supervision of a master teacher so that novice teachers can really differentiate their instruction. This gives teachers a sense of mastery that helps develop their feeling of success and helps them move towards accomplishing more of their goals (Bhatia, 2014). “Aligning professional education with skilled practice requires multiple opportunities for candidates to develop, refine, and reflect upon teaching” (Vartuli et al, 2016, p. 505). When teachers feel this way, they are more likely to succeed and can tackle more challenges in the classroom, thereby assisting more of their students achieve greater success.

### **Methodology**

This study used High-Leverage Practices as a way to model classroom management skills for a novice teacher. Qualitative assessments included a pre- and post-self-assessment completed by the teacher (Appendix A). Along with field notes (Appendix B), behavior tallies (Appendix C), and teaching logs (Appendix D) that were used by the novice and master teachers during observations. The subject of this study was a novice teacher in a Lower Elementary (ages 6-9) Montessori classroom. She had previously taught in Lower Elementary for two years and then had pursued a different career track. She had just returned to teaching during the 2019-2020

school year and was new to the school. I, as a master teacher, have been teaching in a Montessori classroom for 21 years and had just left the classroom this year to become a full time Principal. The study was conducted over a four-week period early in the second semester in February and March.

The pre-self-assessment (Appendix A) was given to the teacher the week prior to beginning observations and High-Leverage Practices. This assessment was designed to provide baseline data regarding how the teacher felt about her classroom management skills. It was utilized to identify what she felt her strengths and weaknesses were and to define which behaviors would be most beneficial for me to model for her.

During the first week, the teacher observed me teaching in her classroom for 60 minutes. The plan had originally been to observe me modeling twice a week but was modified due to illnesses and absences. She used the field notes (Appendix B) to record behaviors she observed me doing that she would like to learn and implement in her own classroom. She sat and observed me during the course of one hour as I replaced her as the English teacher in the classroom. During this time my job was to simply teach as if it were my classroom. I circulated, gave lessons to individuals and small groups, redirected students, and paused to observe so that she could see how I managed the classroom. She took observation notes by hand and later typed them into a computer document and then sent them to me electronically. Unfortunately, I was unable to observe her again until two weeks later. The observations were delayed due to her being out sick and then a week of mid-winter break in February that was pre-scheduled on the school calendar.

Upon our return from our mid-winter break, we began our observations and modeling again. I completed an observation of her to see if she had been able to implement any of the

behaviors we had discussed. I then modeled for her during week two, continuing to focus on classroom management. She took field notes as she observed. After I had modeled for her, we met for a short time to discuss the observations she and I had both made. She discussed with me the things she observed and shared her thoughts about those observations. I gave her feedback about my second observation. From this observation, she was able to decide on a behavior she wanted to change. I would then focus on looking for that changed behavior during Observation #3. On the next observation of week two, I went and observed her for a one-hour period. My observation was focused on lesson presentation and redirecting students, as these were the behaviors she had selected to work on. I used the teacher behavior tallies sheet (Appendix C) so that I could mark off how many times she was able to accomplish the specific behaviors she wanted to improve. I also used the teaching log (Appendix D) to keep a running record of where she was in the classroom and what she was doing during those times. I noted her behaviors and location on the teaching log every three minutes in order to have sufficient data to analyze.

We repeated this process in week three. I was able to model for her one more time for a period of 60 minutes. During this session of modeling, I made sure that she saw me try to accomplish all three behaviors of redirecting students who were not engaged, giving lessons, and pausing to observe, so that she could emulate that during my next observation of her. During my one-hour observation in week three, I was looking at how she redirected students and gave lessons, while also seeing if she could take time to observe. I then debriefed with her again at the end of the day to go over what I felt were improvements she had made and where she could continue to improve. At the beginning of week four, I gave her the post-self-assessment. This assessment was the same one she had filled out before beginning our cycle of observations and interventions.

After the research was complete, I compared the pre-self-assessment and the post-self-assessment. This allowed me to find those things that she felt she had improved upon and make note of them. I then looked at my behavior tallies to see if those behaviors she had identified in the pre-self-assessment had changed over the course of the three-week intervention period. I also looked at the teacher log to track the changes she had made in her movements in the classroom over the three-week intervention period. After looking at both the behavior tallies and the teacher log, I looked again at her post-self-assessment to see if she felt she had grown in the areas she wanted to grow in. I also met with her over the phone to discuss more in detail how she felt about her progress.

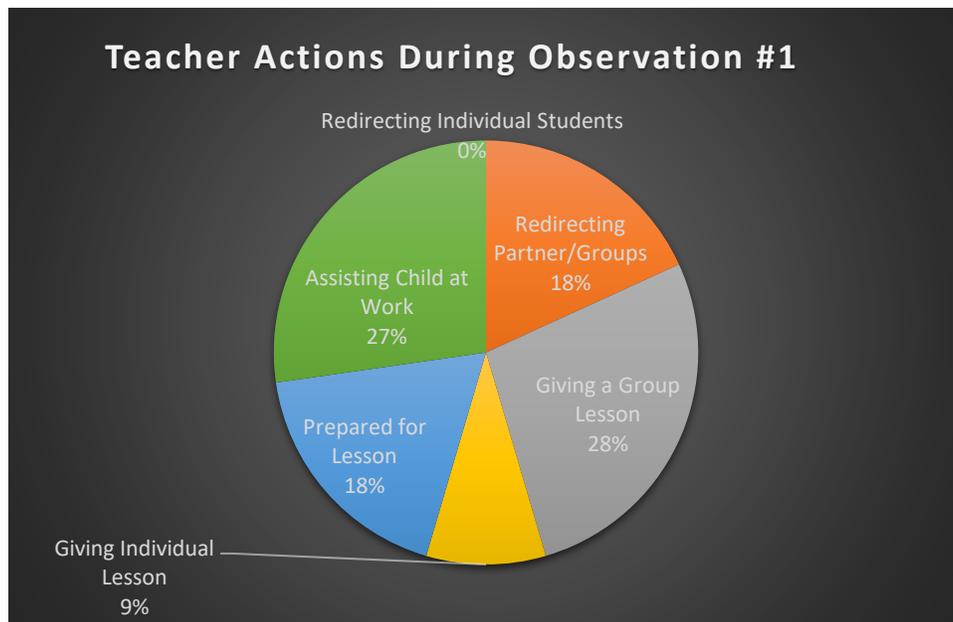
### **Data Analysis**

I began by analyzing the novice teacher's pre-self-assessment in order to determine the skills she would like to improve. She indicated that she was weak in the following areas: maintaining a clear overview of the room, having students who are not in the lesson engaged in work while she is giving small group or individual lessons, having enough time during a work cycle to give small group or individual lessons, determining from a scan of the room when a child needs assistance, and having a chance to sit and observe the classroom. After our three-week intervention, the teacher completed the same self-assessment. I compared the pre- and post-assessment data to see if she felt she had improved in any of her previously indicated weak areas. She felt she had improved in all of her previously mentioned areas and had moved her answers from 'disagree' to 'undecided,' indicating an improvement in her practice. Her comments for each identified change mention that she felt she was improving and was getting better but was looking to become more consistent over time.

I compiled the information from the Teacher Behavior Tally form I used during my observations (Appendix C). This data illuminated how frequently the teacher exhibited the following actions: preparedness for a lesson, redirecting individual students, redirecting partners/groups, stopping to observe, making notes/record keeping, leaving the room, assisting a child at work, giving individual lessons, and giving group lessons. The data showed that she had spent the majority of her time on two behaviors: giving a group lesson (28%) and assisting a child at work (27%). During Observation #1, she had only spent a total of 27% of her time engaging in other actions, such as redirecting partners or groups or giving individual lessons.

### Figure 1

*Novice teacher actions during observation #1*

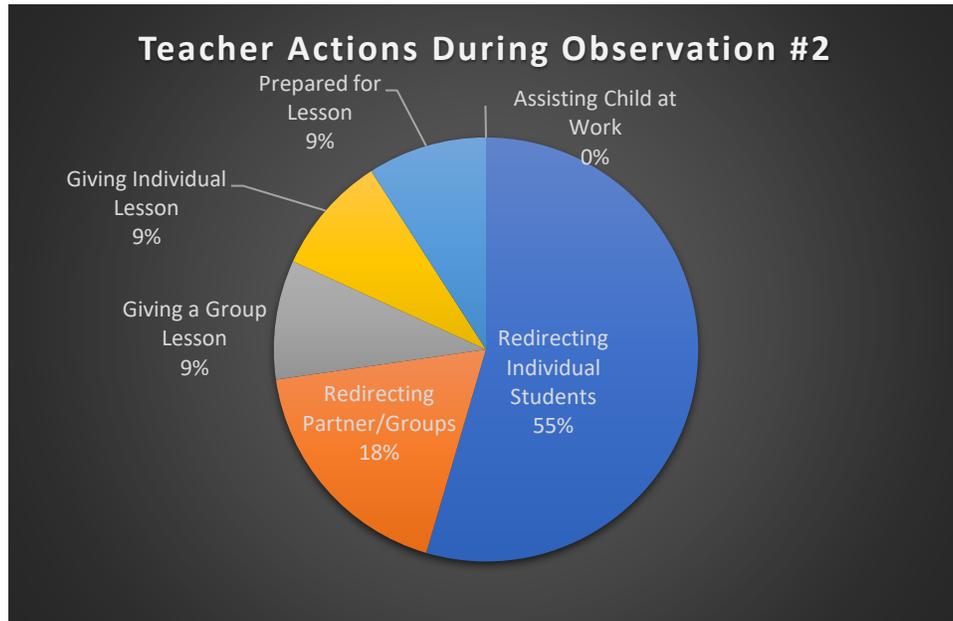


*Note:* Graph measured by percentage of time spent on action during the first one-hour observation.

After completing Observation #1, I compared the pre-self-assessment and the behavior tallies and was able to determine that I should model for her how to redirect students who are not engaged in other parts of the classroom, while I am giving lessons to students individually or in

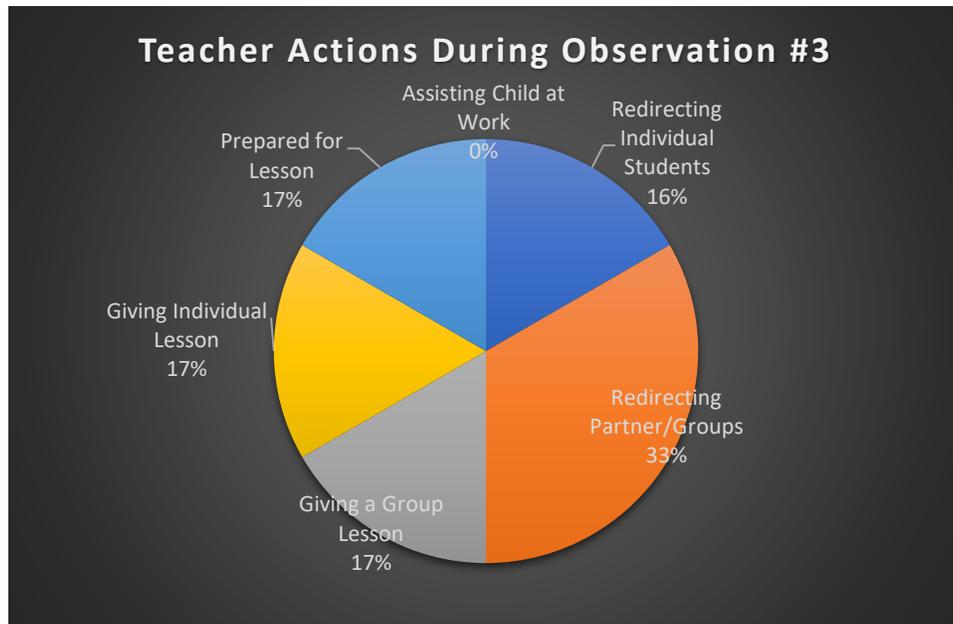
small groups. These were not behaviors she felt she was able to do in her classroom and had indicated that in her pre-self-assessment. During Observation #1, I noticed that she spent her time engaged with the student in the lesson but was so focused on that one student that she was not aware of what was happening in the rest of the classroom and could not intervene if needed. She would leave that to her co-teacher, but there were instances when she could have easily said something to a student who was near her in order to redirect their behavior.

The tally data from Observation #2 suggested that she had adjusted her behaviors. During this observation, I noted that she had spent 55% of her time redirecting students who were not engaged in an activity. The data also showed that she still spent 9% of her time giving individual lessons. According to the teaching log, it took the novice teacher 6 minutes from the time she finished an individual reading assessment to the time she was able to start the class meditation circle during her first observation. During Observation #2, however, the teaching log shows that the novice teacher was able to gather the children after her completing the individual reading assessment in under 5 minutes. The data also showed that she reduced the amount of time she was in a group lesson from 28% of her time to 9% of her time and reduced her lesson preparedness from 18% to 9%. This was important because she was more effective at giving her group lessons and was able to gather what was needed for her lesson in a short period of time, minimizing the time she had previously spent getting herself organized. The teaching log supported this data. It took 9 minutes from the time the group meditation had finished to the time she was able to begin her planned stamp game lesson in Observation #1. The stamp game is a material used in Montessori classrooms for math. In this case, she was planning on giving a lesson on dynamic addition to a student. During Observation #2 she was able to reduce her time to 3 minutes from the end of the group time to beginning her stamp game lesson.

**Figure 2***Novice teacher actions during observation #2*

*Note:* Graph measures percentage of time spent on action during the second one-hour observation.

After Observation #2, I looked back at the behaviors she indicated she wanted to improve from the pre-self-assessment. Based on her comments during our debrief session, I determined I should model how to diversify teaching time to give more lessons, do more check-ins, do more redirecting of students who weren't engaged during my final modeling, and pause to observe. After modeling, I completed a final observation of the novice teacher. The data gathered showed that she was able to spend her time more equally in the areas that she wanted to improve upon. She spent 16% of her time redirecting individual students, 17% giving individual lessons, 17% giving group lessons, 17% of her time being prepared for a lesson, and 33% redirecting partners or groups.

**Figure 3***Novice teacher actions during observation #3*

*Note:* Graph measures percentage of time spent on action during the third one-hour observation.

After analyzing the behaviors of the teacher during the observations, I moved onto the Teaching Log (Appendix D) where I had written my observations of her actions in three-minute intervals to determine what she had been doing during the observation. I noted that she had given a stamp game lesson on dynamic addition during all three of my observations. While it was not planned that she present the same lesson each time I came to observe, the fact that she did allowed me to note the various times it took her to complete the lesson. This was important to see in the data because it would show if she was able to participate in all of the behaviors she wanted to during a work cycle rather than spending such a large portion of her time giving a lesson. While the goal was not to rush any lesson given, it was important for her to streamline her presentations to improve effectiveness so that she could continue working with other students in the classroom.

During Observation #1, I saw that her stamp game lesson lasted 27 minutes. During Observation #2, I saw that her stamp game lesson had lasted 20 minutes, representing a 7-minute decline in time spent on the lesson. By Observation #3, she reduced the time it took for her to give the lesson to 18 minutes, an even further decline in time spent on the lesson. Her increased lesson efficiency allowed her to move on to address the other behaviors she had wanted to implement during her work cycle. It indicated that the novice teacher was becoming more knowledgeable of the curriculum and was able to spend more time on critical behaviors such as redirecting partners or groups, giving group lessons, redirecting students who were not engaged in an activity and possibly observing her students.

#### Figure 4

*Stamp Game lesson duration time*



*Note:* Graph measures amount of minutes taken by novice teacher to teach the same stamp game lesson to individual students.

#### Action Plan

The purpose of this research study was to determine if modeling High-Leverage Practices for a novice teacher by a master teacher would improve her classroom management skills. The researcher in this study used a combination of quantitative and qualitative data tools including a pre- and post-self-assessment (Appendix A), field notes (Appendix B), a teacher behavior tally

(Appendix C), and teacher behavior log (Appendix D). The data collected throughout the study indicates a change in the novice teacher's classroom management skills by reducing the time she spent in a lesson and increasing the amount of times she was able to exhibit the other behaviors such as redirecting students who were not engaged, giving lessons, and observing students at work.

After further analyzing the data and teacher pre-/post-self-assessments within the context of High-Leverage Practices, the findings support the theory that having a master teacher model and a novice teacher practice can improve the quality of management in a classroom. This is supported by the data seen in figures 1, 2, and 3. The teacher went from redirecting individual students 0% of the hour observed to redirecting individual students 55% of the time, and finally to 33% of the time at the final observation. This final time, although lower in percentage than the previous observation, shows that she was able to diversify her time better in order to accomplish more of the various behaviors she was working on. It is also supported by analyzing the pre-self-assessment where the teacher originally felt that she was unable to manage the classroom versus the post-self-assessment where the teacher stated that she felt better equipped to manage the classroom.

Further, through the assessment of the teacher log and the behavior tallies, the research indicates that the teacher was able to improve on redirecting students who were not engaged and giving lessons more effectively but was not able to take time to sit and observe in the classroom. Lesson planning in Montessori is marked by the teacher being able to observe students at work in order to determine if they are ready for the next lesson or need to be reintroduced to a concept. Because of this, it is important that the teacher begin to develop observation skills and carve out the time in her work cycle to ensure that she is observing the work of those students that are

engaged. This will also help her future planning so that she has a fuller picture of each child's need.

Based on the research done in this study, two distinct conclusions were drawn. Firstly, novice teachers can benefit from observing master teachers as they begin their journey in the classroom. Despite the intervention happening over a short time period of four weeks, the teacher felt as though she improved her classroom management skills. She was also able to identify how to make changes in her behavior during each week of the intervention and could see how her behavioral improvements were changing the landscape of the classroom. It would have been beneficial to this researcher, however, to see what would have happened if the intervention had lasted a significantly longer period of time, perhaps over the course of an entire semester or school year.

Maheday et al (2019) found that this was also the case in their study of High-Leverage Practices with university students. They saw that “to develop some degree of HLP fluency, teacher candidates will require multiple opportunities to practice and receive performance-based feedback” (p. 362). This supported the conclusion that the teacher had improved, but also provides support for a longer research period. This is also evident in other research studies where researchers determined that despite the issues with content of curriculum, High-Leverage Practices are an effective way to prepare novice teachers for running a classroom (Ball et al, 2009; Maheady et al, 2019; Vartuli et al, 2016).

Secondly, it is important to isolate the behavior that the teacher should be mastering in order for the learning to be more effective. The novice teacher in this study was able to focus on three behaviors in total during the intervention which allowed her to make a greater improvement in two of the three. Ball et al also saw that in their revisions of the program they were working

with in Michigan. They saw with their curriculum for math teachers that master teachers need to have “detailed plans to scaffold new instructors, to promote common instruction, and to support observation and debriefing” (2009). This also provided further support that a longer intervention time would be more adequate for helping a novice teacher become more fluid in her classroom management skills. By breaking it down into manageable chunks that include “weekly co-planning session between university faculty, weekly in-person checks with mentor teachers, monthly liaison committee meetings, and regular program updates” (Maheady et al, 2019), master teachers and instructors will be able to effectively ensure that novice teachers have practiced certain skills prior to entering the classroom as lead teachers.

### **Recommendations**

After working on this research study, it became clear that this would be beneficial for Montessori teachers all over the world. The use of master teachers to model and mentor for novice teachers has always been a part of some Montessori teacher training centers. It is not the norm, though, and it would behoove the greater Montessori population to implement this practice into their training of Montessori teachers. I would suggest that novice teachers be connected to master teachers upon beginning their training. This would give novice teachers a chance to go through the training process with a master teacher by their side. Since it is such a rich curriculum and the training process is intense, this relationship can begin with phone calls or meetings to “check-in.” This allows the master teacher and novice teacher to begin to form a trusting relationship and for the novice teacher to begin to look at the master teacher for assistance without fear of judgement or condemnation. Ideally, the master teacher would be another teacher at the school where the novice teacher will be teaching or even be the person co-teaching with the novice teacher in order to ensure daily contact throughout the school year.

I also implore schools to begin to use this technique when hiring new teachers. Montessori schools have an inherent culture and they differ from school to school. Having master teachers work with novice teachers, especially those that are new to that school, would allow novice teachers to begin to understand the culture of the school from the very first day. It also creates an atmosphere of collaboration rather than judgment and provides both master and novice teachers the opportunity to learn from one another. I also believe that this would benefit Montessori public schools most of all. Many teachers that come to teach in these schools have either taught in traditional education settings or taught Montessori in an independent school, and because of that are considered novice teachers in a Montessori public-school setting. Since there are so many facets to teaching in a public Montessori setting, such as various assessments, IEP meetings, and larger class sizes, it would be helpful for those newer teachers to have a master teacher from that school assigned to work with them. Establishing this kind of relationship will allow both master and novice teachers to create an atmosphere that is less stressful and more productive for the students.

Montessori schools around the world are always in need of new teachers that will bring new ideas and a new vibrancy to their school environments. By offering novice teachers a chance to work with master teachers from the moment they enter, schools can ensure that teachers are being given the skills they need to succeed. It also shows the school's emphasis on the importance of well-trained teachers and how much support it is willing to give, even when not required. With this kind of support in place, I could see Montessori teachers staying in their classrooms longer and filling the gap that is so desperately needed as the older teachers begin to retire.

### References

- Aguilar, E. (2018, February 28). Mind the gap: The key to working with adult learners. Edweek Teacher.  
[http://blogs.edweek.org/teachers/coaching\\_teachers/2018/02/the\\_key\\_to\\_working\\_with\\_a\\_dult\\_.html](http://blogs.edweek.org/teachers/coaching_teachers/2018/02/the_key_to_working_with_a_dult_.html)
- Ball, D. & Forzani, F. (2009). The Work of Teaching and the Challenge for Teacher Education. *Journal of Teacher Education*, 60(5), pp. 497-511.
- Ball, D., Sleep, L., Boerst, T.A., & Bass, H. (2009). Combining the development of practice and the practice of development in teacher education. *The Elementary School Journal*, 109(5), pp. 458-474.
- Bhatia, P. (2014). Mind over matter: Contributing factors to self-efficacy in Montessori teachers. *National Teacher Education Journal*, 7(3), pp.45-52.
- Forzani, F. (2014). Understanding “core practices” and “practice-based” teacher education: Learning from the past. *Journal of Teacher Education*, 65(4), pp. 357-368.
- Grusec, J.E. (1992). Social learning theory and developmental psychology: The legacies of Robert Sears and Albert Bandura. *Developmental Psychology*, 28(5), pp. 776-786.
- Hlas, A.C. & Hlas, C.S. (2012). A review of high-leverage teacher practices: Making connections between mathematics and foreign languages. *Foreign Language Annals*, 45(S1), pp. S76-S97.
- Knight, S.L., Lloyd, G.M., Arbaugh, F., Gamson, D., McDonlad, S.P., & Nolan Jr., J. (2014). Professional development and practices of teacher educators. *Journal of Teacher Education*, 65(4), pp. 268-270.
- L, David. (2019, February 7). Social learning theories (Bandura). Learning theories.  
<https://www.learning-theories.com/social-learning-theory-bandura.html#contributors>
- Maheady, L., Patti, A.L., Rafferty, L.A., & del Prado Hill, P. School-university partnerships: One institution’s efforts to integrate and support teacher use of high-leverage practices. *Remedial and Special Education*, 40(6), pp. 356-364.
- McLeod, S. (2016, February 5). Bandura-social learning theory. Simply psychology.  
<https://www.simplypsychology.org/bandura.html>
- McLeskey, J. (2018). Using high-leverage practices in teacher preparation to reduce the research-to-practice gap in inclusive settings. *Australasian Journal of Special and Inclusive Education*, 42(1), pp. 3-16.

Saylor, L.L., McKenzie, G.K., & Sacco, C.C. (2018). Teacher-centered mentorship as meaningful professional Montessori development. *Journal of Montessori Research*, 4(2), pp. 10-32.

Schunk, D. (2012). *Learning theories: An educational perspective*. Pearson.

Vartuli, S., Snider, K., & Holley, M. (2016). Making it real: A practice-based early childhood teacher education program. *Early Childhood Education Journal*, 44, pp. 503-514.

Zeichner, K. (2012). The turn once again toward practice-based teacher education. *Journal of Teacher Education*, 63(5), pp. 376-382

**Appendix A**

Name of Teacher: \_\_\_\_\_

Date of Assessment: \_\_\_\_\_

<b>TEACHER SELF-ASSESSMENT</b>					
<b>Do you feel that...</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Undecided</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
I maintain a clear overview of the room.	<input type="checkbox"/>				
My voice and tone are appropriate.	<input type="checkbox"/>				
Students are engaged in work when I give lessons to others.	<input type="checkbox"/>				
I use successful redirection techniques.	<input type="checkbox"/>				
I effectively redirect unfocused students.	<input type="checkbox"/>				
I give consequences that are appropriate and consistent.	<input type="checkbox"/>				
I have a consistent and effective way of getting student attention.	<input type="checkbox"/>				
I have time to give small group lessons.	<input type="checkbox"/>				
I can determine when a child needs assistance.	<input type="checkbox"/>				
I do not interrupt children unnecessarily.	<input type="checkbox"/>				
I have a chance to sit and observe the classroom.	<input type="checkbox"/>				
I am prepared to give a review lesson spontaneously.	<input type="checkbox"/>				
I am prepared to give a new lesson spontaneously.	<input type="checkbox"/>				
I provide frequent prompts for appropriate behavior.	<input type="checkbox"/>				
Students are aware of the classroom expectations.	<input type="checkbox"/>				
Other personal observations to share:					

**Appendix B**

Name of Teacher:

Name of Observer:

Date:

**FIELD NOTES: CLASSROOM MANAGEMENT**

**Things that are going well:**

**Things to work on:**

**Observer Questions:**

Appendix C

**TEACHER BEHAVIOR TALLIES**

<p style="text-align: center;"><b>VITAL STATS</b></p> <p><input type="checkbox"/> <b>Date &amp; Time:</b>  <input type="checkbox"/> <b>Class observing: Ainu /Yoruba</b>  <input type="checkbox"/> <b># of students present:</b></p>	<p style="text-align: center;"><b>PREPARED FOR LESSON</b></p>
<p style="text-align: center;"><b>REDIRECTS INDIVIDUAL LESSONS</b></p>	<p style="text-align: center;"><b>REDIRECTS PARTNERS/GROUPS</b></p>
<p style="text-align: center;"><b>STOPS TO OBSERVE</b></p>	<p style="text-align: center;"><b>MAKES NOTES/RECORD KEEPS</b></p>
<p style="text-align: center;"><b>LEAVES ROOM</b></p>	<p style="text-align: center;"><b>ASSISTS CHILD AT WORK</b></p>
<p style="text-align: center;"><b>GIVES INDIVIDUAL LESSON</b></p>	<p style="text-align: center;"><b>GIVES GROUP LESSON</b></p>

