

An Alternative to “No Excuses”: Considering Montessori as Culturally Responsive Pedagogy

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**Abstract**

To address inequality, philanthropists support “no excuses” schools in majority-Black low income communities. While the model has raised achievement, its practices are problematic from a social justice lens. Montessori is a highly contrasting model, and over 25% of public Montessori students are Black. Here we examine whether Montessori is a viable alternative school model for Black children. After showing the theoretical alignment between Montessori and culturally responsive pedagogy, we review studies of Montessori outcomes, then we present a new mixed-methods study of 12 adults who attended a primarily Black Montessori preschool. Their descriptions reflect that Montessori’s lived experience is as a culturally responsive pedagogy. The evidence suggests Montessori avoids the concerns raised by no excuses schools while delivering positive outcomes.

*Keywords:* Montessori, Black children, no excuses, culturally responsive pedagogy

### **An Alternative to “No Excuses”: Considering Montessori as Culturally Responsive Pedagogy**

*I do on a regular basis feel like so much of what I’m capable of, or even just the basic idea that I am capable, comes from a very young age...of people expecting me to be capable and allowing me to practice that.*

[Black Montessori alumna]

Racial inequality is a persistent problem that schools might address (Brown-Jeffy & Cooper, 2011). One school model garnering American philanthropy is commonly called “no excuses” (Peysner, 2011; Thernstrom & Thernstrom, 2004), in that there is no excuse for unequal achievement. The no excuses model puts a strong emphasis on testing and college attendance, using three main strategies: (1) rigid behavior requirements, like never taking one’s eyes off the teacher and adhering to strict dress codes; (2) tight discipline, including suspension for even minor violations of those requirements; and (3) token economies, to incentivize engaging in some behaviors and not others. Many schools using this model have raised test scores, college enrollment, and college persistence (Cheng et al., 2017; Coen et al., 2019; Davis & Heller, 2019). However, the model is problematic from the perspectives of social justice and healthy child development (Bailey et al., 2019; Dishon & Goodman, 2017; Golann et al., 2019; Goodman, 2013; Marsh, 2016; Nelson & Williams, 2019; Peysner, 2011; Sondel, 2016; Sondel et al., 2019; Zhao, 2017).

Culturally responsive (or relevant) pedagogy (CRP) is a set of developmentally-sound teaching principles aimed at socially just education. The principles align poorly with no excuses education (Sondel, 2016), but correspond well with a school model that has existed for over 100 years and is the world’s most prominent form of alternative education: Montessori. Yet, even though Montessori has a long history in Black communities (Debs, 2019; Murray et al., in press; Sabater, 2019), and 27% of students in public Montessori are Black (Debs & Brown, 2017), some argue that Montessori is not a good fit for Black children (French, 2017; Murray, 2012). Here we explore whether Montessori is a viable alternative to no excuses schools from that standpoints of its outputs and its lived experience. We first discuss CRP and show how the no excuses model is incompatible with CRP. Next we introduce Montessori and explain its alignment with CRP. Then we review quantitative literature on the outcomes of Black children (or children of color, when not examined separately) in Montessori. Finally, we present a new mixed-methods study of 12 adult alumni of a predominantly Black Montessori school in a marginal Washington, D.C. neighborhood, examining how their current lives and recollections of Montessori align with CRP.

### **Culturally Responsive Pedagogy (CRP)**

Based on intensive study of successful teaching of African American children and critical race theory, a group of scholars have developed a framework known as CRP (e.g., Gay, 2002; Gay, 2018; Hammond, 2014; Howard & Rodriguez-Scheel, 2017; Ladson-Billings, 1995, 2014). Different theorists organize CRP principles in different ways; Brown-Jeffy and

Cooper (2011) surveyed the literature and found 35 characteristics of CRP that they synthesized into five key principles, which we use here: (1) equity and excellence, or high expectations of all children while ensuring instruction suits every child, (2) teaching and empowering the whole child, (3) developmental appropriateness, or adopting a constructivist framework to meet each child where they are, (4) teacher-child relationships, including creating a climate with positive child-child relationships, and (5) identity and achievement, meaning respect for each child's cultural heritage.

### ***No Excuses Schooling and its Misalignment with CRP***

CRP and no excuses schooling have both arisen over the last two decades as different approaches to addressing the achievement gap. The overarching goal of no excuses schools is that every child complete college (Lamboy & Lu, 2017), and in this sense, no excuses are consistent with the excellence aspect of CRP principle 1. But the approach no excuses schools take to this rests on rigid and standardized (Castillo, 2020) behaviorist methods derived in an individualistic Euro-American cultural framework, and in this way no excuses schools are anathema to the other aspect of CRP principle 1: differentiated instruction to create equity (Royal & Gibson, 2017). Principle 2, empowering the whole child, is also problematic. Token economies are "token," not real, and thus do not empower children; and a teacher who dispenses rewards and punishments clearly reigns, creating separation and fundamental inequality (Goodman, 2013). Part of empowerment is self-determination and independent thinking; these are not cultivated by the no excuses model, where one must track the teacher constantly and give set answers on standardized tests (Golann, 2015; Golann & Torres, 2020). Principle 3, constructivism, is also unlikely in no excuses schools, where teachers follow scripted lesson plans and calendars. This does not allow for flexible adaptation, meeting children where they are (Sondel, 2016). Regarding principle 4, caring relationships, no excuses schools' strict disciplinary practices are instantiated in ways that are at odds with CRP (Golann & Torres, 2020; Lamboy & Lu, 2017). Suspending a child for having the wrong color of socks, as no excuses schools are known to do, is not relationship-building. In fact, by definition, suspension is not relationship building, since building relationships requires contact. Regarding principle 5, different no excuses schools or teachers vary in terms of respect for cultural heritage in the curriculum; but even if they do bring culturally relevant materials to the classroom (Royal & Gibson, 2017), the techniques used for teaching are themselves racialized (Golann & Torres, 2020; Lamboy & Lu, 2017). In sum, no excuses schools are deeply problematic from the CRP perspective (Howard & Rodriguez-Scheel, 2017). Given this, it is important to find alternatives.

### **Montessori Education**

Montessori is the most common and enduring alternative education system in the world, but because it is radically different and sometimes poorly implemented (Daoust & Murray, 2018, April), it is often misunderstood. Montessori was developed by an Italian physician in the 1900s with neurologically impaired and then with lower income children, and later extended to all children (Montessori, 1967). Having observed that children learning to talk naturally direct their attention to

stimuli that scaffold such learning, Dr. Montessori created distinct environments for children in specific age ranges, like 3 to 6 years, with highly structured materials intended to meet cascading developmental needs, and children are free to choose which materials they work with every moment of every day (Lillard, 2017). Although often thought of as a private preschool model, Montessori education actually extends from birth through high school, and is currently in over 500 public US schools where over half the students are children of color (Debs, 2019; Debs & Brown, 2017). Montessori schools exist in well over 100 countries on every inhabited continent, attesting to its cultural adaptability (Brunold-Conesa, 2019).

### ***Montessori Education's Alignment with CRP***

Next we consider Montessori's alignment with the five principles rendered by Brown-Jeffy and Cooper (2011).

**1. Equity and Excellence.** Teaching geared to the individual, and with high expectations, are essential elements of CRP. There are no "tracks"; every child has equal access to learning. With just a few exceptions, Montessori always uses individual and small group lessons to differentiate instruction, and there are no bounds on how far a child can go; there is no set of tested material after which one stops. Teachers expect every child to learn to behave well, focus and concentrate, and use the materials. Because children learn at their own pace, rather than needing to wait while the class catches up, and because the materials facilitate learning, children in Montessori often achieve at earlier ages than in conventional schools. For example, Montessori children typically learn to write at age 4, and do mathematical operations with 4-digit numbers by 6.

**2. Teaching and Empowering the Whole Child.** Montessori teachers are explicitly concerned with the whole child. Self-determination is also a hallmark of Montessori, resulting in empowerment. Children in Montessori are in charge of their own educations. The teacher is an engaged observer, who makes sure children make constructive choices in their learning. If teachers have to intervene, they try to do so in a way that keeps the child feeling in charge. In addition, Montessori repeatedly gives children the experience of taking on a challenge and (through repetition) successfully executing it. For example, a 3-year-old is shown how to roll a work rug perfectly, so it is tight and the edges are aligned. This is difficult at first, and may require many attempts. The teacher does not interfere as the young child struggles, and eventually the child succeeds, resulting in increased independence, agency, and confidence.

**3. Constructivism.** Montessori is essentially a constructivist education (Brooks & Brooks, 1999): It assumes children construct knowledge from where they already are. Student questions drive learning, work is frequently collaborative, and the curriculum is presented holistically—all features of constructivism. Learning occurs mainly through manipulatives and original texts, rather than textbooks, and students are seen as thinkers and processors. Interactive teachers curate the environment so it becomes a "second teacher" (Hammond, 2014), and assessment is on-going and formative.

**4. Strong and Positive Relationships.** Montessori keeps groups of children with the same teacher for three years--ample time to develop strong relationships. The teacher training is specific to the developmental needs of children in that age

range, and scientific observation is a cornerstone practice. The teacher spends a third to half the time simply watching, in order to better understand and develop lesson plans for each child. Relationships are fostered by individualized instruction for the majority of young children's lessons, and small group lessons for children older than 6. Third, there are no tests or grades; teachers (or older peers) show students how to use materials, and learning is conferred through repeated use of those materials, which make errors obvious to children. In this way the teacher is not a judge, but rather is a guide and learning partner. Collaborative learning with peers is also a mainstay of Montessori, and children are free to interact all day long, fostering deep peer relationships. The absence of grades also reduces competition and increases group cohesion.

**5. Respect for Culture.** Montessori inherently respects culture; for example, geography folders for children ages 3 to 6 introduce similarities and differences among people the world over; children ages 6 to 12 study, write reports, and give presentations that address how diverse peoples meet their fundamental physical (e.g., food, shelter, clothing, transportation) and spiritual needs (e.g., art, religion, music). This same attitude, along with the recognition that all living beings and the earth are an interconnected whole, pervades all of Montessori education (Brunold-Conesa, 2019). Another way in which respect for culture is highlighted is in curating the classroom. Teachers are trained to create culturally responsive learning environments by, for example, placing, at child's eye-level, beautiful pictures of people and artifacts, often representing the children's culture. In addition, one domain of classroom activities (practical life) reflects work that children see adults do in their culture, be it threshing rice or making mandalas. Different Montessori teachers might do this cultural education better than others, but the system allows for it because the "curriculum" is open and expansive.

In sum, Montessori education corresponds theoretically with major principles of CRP (see also Debs & Brown, 2017), which is recommended practice for achieving a more socially just education for all. Most of the aligned Montessori practices are non-negotiable (e.g., a true Montessori classroom always has a high degree of self-determination within well-defined limits) whereas others are subject to individual variation (e.g., a teacher's choice of classroom décor). We next turn attention to research on Montessori outcomes, focusing particularly on outcomes of Black children. These studies concern principle 1: excellence in outcomes and equity in discipline.

### ***Existing Research on Montessori and Black Children***

Given the theoretical alignment between Montessori and CRP, we next ask whether it achieves excellent outcomes, with special attention to how Black children fare in Montessori. We are limited by the fact that only a few studies include or disaggregate Black children. To expand the database, we also review studies that had substantial groups of Black children and children of color and reported aggregated results. Although Black children and other children of color differ in important ways, all are subject to racism and often also to economic harm.

Two important considerations with Montessori studies are implementation fidelity and study design. Regarding

fidelity, “Montessori” is not trademarked, so anyone can use the name. Consequently, schools vary in their implementation of the Montessori method. Because implementation influences outcomes (Lillard, 2012; Lillard & Heise, 2016), study results must be viewed with implementation in mind. Schools affiliated with the Association Montessori Internationale (AMI, the organization Maria Montessori founded to carry on her work) are strictest in implementation and most rigorous in their teacher training; the USA branch of that organization also has a tightly-monitored school certification process. Many studies do not provide sufficient information to evaluate implementation, and others provide information that clearly suggests problematic implementation. Regarding study design, to determine outcomes of any program, the highest standard of evidence is a random control design; however, randomly assigning children to Montessori programs is rare, and when it has occurred fidelity has been problematic (Courtier, 2020; Karnes et al., 1983; Miller & Bizzell, 1984). The next best approach is a natural experiment, and we review two studies that used this standard (random-control lotteries). Other studies matched children, or simply tried to use children at schools that served similar demographics or were of similar types (like magnet schools). We begin with three studies that used high fidelity implementation, as indicated by AMI affiliation; the first two of these also used the most rigorous study design (lottery control). All study findings are summarized in Table 1.

**Studies at AMI Public Schools.** In two natural experiments, parents entered their children in a lottery to attend urban public AMI Montessori schools, and many children were waitlisted due to limited space. Neither study disaggregated data by race (in one study school personnel said collecting it would breach trust, and in the other a large number of parents identified as multi-racial), but the Montessori schools served diverse populations (80% students of color in the first study, and over 50% in the second study). In the first study, children in Montessori did better on a wide range of academic and social development measures at age 5, and at age 12 wrote more creative essays with more complex sentence structures, responded in ways that indicated better social skills, and rated their school climate more positively than waitlisted children who attended other schools (Lillard & Else-Quest, 2006). On no measure did the Montessori children, at either age, perform worse. In the second study, a larger sample of children was followed longitudinally through preschool (Lillard et al., 2017). Although Montessori and control children scored equally in their first semester of preschool, by the end of kindergarten, public Montessori children performed better on a host of measures of academic and socio-emotional development. Findings for the lower income half of the sample were particularly impressive: By the end of kindergarten, the Montessori subsample was on a statistical par with both the control and the Montessori higher income subsamples. Thus, in the two studies with the best available design (random lottery among applicants) at high-fidelity Montessori schools, both of which were majority non-White public schools, children fared better on many academic and social measures and worse on none.

Only one study has examined longer term academic outcomes of AMI Montessori, using high school GPA and standardized test performance many years after Montessori attendance (Dohrmann et al., 2007). The experimental children

attended public Montessori schools from ages 3 to 11, and later attended district high schools. The sample was about 60% students of color, and children were matched for high school attended, race, gender, and free/reduced-lunch status.

Controlling for the matched variables, the Montessori group scored significantly higher on a math/science composite, and equally well on English/social studies. These three are the only studies we found using high-fidelity Montessori with substantial samples of Black children or (more generally) children of color. Montessori children all obtained significantly better or the same outcomes for all variables tested.

**Studies at Non-AMI Montessori Schools.** Fidelity of implementation is less certain or problematic in the remaining studies, and findings are generally but not exclusively positive to neutral. Four studies looked at public elementary school test scores. These can be problematic for alternative schools since their curricula are not aimed at the tests. Focusing specifically on Black 3<sup>rd</sup> graders, Brown and Lewis (2017) compared eight years of scores from three urban North Carolina Montessori magnet schools with scores at other demographically matched district magnet schools. The Montessori children's reading scores were higher, and their math scores were similar (and over a half standard deviation higher than state averages). Two fidelity concerns are that some teachers had not finished Montessori training, and that North Carolina does not fund schooling before kindergarten so the early part of the Montessori curriculum sequence may have been missed.

A similar but larger study examined test scores for thousands of children in South Carolina public Montessori schools (Culclasure et al., 2018). Among Black students, Montessori significantly predicted English language arts (ELA) and social studies scores. However, only half the programs were considered high fidelity by the study's own metrics. A third study examined 1<sup>st</sup> through 5<sup>th</sup> grade scores of over 1000 children, 28% Black and 42% Hispanic, at Montessori or traditional Dallas public schools (Mallett & Schroeder, 2015). Controlling for gender, race, prior academic achievement, and free/reduced lunch status, in 4<sup>th</sup> and 5<sup>th</sup> grade, Montessori children performed better than children at traditional schools; at earlier grades performance was similar, but over 50% of the children started Montessori in 1<sup>st</sup> grade. Because the Montessori 6- to 9-year-old curriculum expects children learned to read and write at 4 and 5, starting late compromises program fidelity. In addition, some teachers were still in training. The fourth study, from Buffalo, NY, compared a Montessori magnet school with other magnets and a traditional school (Lopata et al., 2005); 53% of the sample was non-White. In 4<sup>th</sup> grade, the Montessori students scored lower than traditional students in ELA but were equal in math; in 8<sup>th</sup> grade they showed the opposite pattern. However, at the time the Buffalo public Montessori website revealed many non-Montessori features, like homework, grades, atypical age divisions, and lack of 3-hour work periods, indicating low fidelity.

One study looked at school readiness measures (early language and cognitive skills, fine motor skills, and behavior problems) in 4-year-olds enrolled in Montessori or High/Scope programs (Ansari & Winsler, 2014). While all students showed strong gains in school readiness across the school year, Latinx children in Montessori (who began the year at the

most risk) benefitted the most, ending the year above national averages, whereas Black students' gains in Montessori did not differ significantly from their gains in High/Scope. Montessori fidelity was compromised in this study since the programs enrolled only 4-year-olds, missing the key ingredient of 3-year age spans. In addition, Miami neighborhoods are racially segregated, so it is also possible that program implementation quality differed for Latinx and Black students.

A final study of note examined racial disparity in disciplinary events (Brown & Steele, 2015). Although a gap still existed within public Montessori schools, the disproportionality was a small fraction of that in the traditional schools. This might stem from Montessori's positive discipline, augmented by the CRP culture of Montessori classrooms. Although Montessori is not a panacea for race-based differences in treatment, the significant improvement is important.

**Summary.** In sum, most quantitative research on Montessori with majority non-White samples shows positive or neutral academic and nonacademic outcomes, suggesting the system is aligned with principle 1 (excellence and equity); results are most compelling when Montessori is implemented with high fidelity. In addition, Montessori is theoretically aligned with the other four CRP principles as well. This suggests that Montessori could be suitable for Black children, and might even be more helpful than business-as-usual approaches. But lived experience is different. We conducted a mixed-methods study to assess Montessori as CRP by focusing on adult outcomes and recollections of the lived experience of Montessori education.

### Method

We have shown how Montessori is theoretically aligned with CPR, and that outcomes from Montessori programs with varying levels of fidelity usually range, for children of color, from very positive to neutral. Yet little is known about the experiences or longer-term adult outcomes of attending Montessori. How we experience and make meaning of our lives is of paramount importance (Bruner, 1990); to wit, subjective socio-economic status has stronger effects on health outcomes than objective social status (Tang et al., 2016). We address this gap through a mixed-methods case study of a small group of adults who attended a predominately Black Montessori preschool we call Crestview, in the 1980s-90s; half went on to attend both public and private Montessori elementary schools. We describe their current adult lives both to give a sense of who they are and to show that such outcomes are possible with this education (even though we cannot determine causality), and then, using CRP as a framework, we discuss their perceptions of their childhood Montessori experiences.

### Participants

Participants were 12 adults who had attended Crestview Montessori (school and recruitment are described below); at the time of the interview, they ranged in age from 25 to 40 years old ( $M = 32.25$  years,  $SD = 5.33$  years; 8 female). Half were 25-30, and half were 32-40. Ten were Black, one was Hispanic, and one was White. Eight identified as middle class, three as upper-middle, and one as upper. (These are higher than their childhood SES estimates, reported below.) Eight currently lived

in the Washington, D.C. area (two had moved away and returned), two lived outside the U.S., and two lived in other parts of the U.S. Three (who were among the five oldest in the sample) were married, and four had children. Participants had spent on average 2.58 years ( $SD = 0.67$ ) at Crestview Montessori. One attended for just one year, three attended for two years, and the other eight attended for all three years. Six later attended other Montessori schools, both private and public, for a range of 1 to 9 years total in Montessori schools ( $M = 4.83$ ,  $SD = 3.01$ ). We attempted to recruit a comparison group from a non-Montessori preschool in the area with the help of a parent whose child attended there, but only a few alumni were located, and none followed up on our request for an interview.

### ***Crestview Montessori***

Crestview Montessori opened in a church basement on a major avenue in Washington, D.C.'s Ward 6 in the early 1980s. To one side of the school was a declining warehouse district, and to the other were government office buildings and three-story brownstones. The following year it moved to a nearby public school administration building where it remained for 13 years. The U.S. Census showed that in 1990, at roughly the midpoint of the school's existence, Ward 6 was 65% Black and 32% White, 15% of families and 18% of individuals were living in poverty, the median income was \$32,606, 60% of adults were employed, and 38% of adults were college graduates. Throughout its 15 years of operation as a nonprofit school, Crestview had one classroom serving 24 students between the ages of 2.5 to 6. Approximately 120 children attended the school during its 15 years. The founder, who is still living, estimates that 90% of children were Black (as is she) and had parents who lived or worked in the neighborhood. In the year 1994-5 (the year for which the fourth author, a former parent, had a school roster), parent addresses indicated that half came from the neighborhood and half from surrounding areas; the latter typically worked in the area and the school was their daycare.

Crestview was a high-fidelity Montessori school, recognized by AMI and used as an observation school for teacher-trainees. Because the first Montessori training center in the United States, Washington Montessori Institute, was located in D.C., it has always had many Montessori schools, including about a dozen public Montessori programs today, serving thousands of children. These programs vary in quality, but Crestview clearly adhered closely to Montessori standards (Lillard & McHugh, 2019a, 2019b). Unlike the schools in the two lottery studies mentioned earlier, Crestview children were not randomly assigned to the school; parents chose the school and paid modest tuition; every working parent in Washington, D.C. at the time who was not on federal assistance had to, as universal preschool education only came to Washington, D.C. in 2008. This feature, or other features of parents who choose Montessori in particular, could influence children's experiences and outcomes. However, two studies that used a large variety of questionnaires to determine how Montessori parents differ from other parents at demographically similar schools found no differences (Denervaud et al., 2020; Dreyer & Rigler, 1969).

### ***Recruitment***

Several methods were used to recruit a purposeful sample of as many of the approximately 120 former students as could be located to participate in a brief survey and interview between September 2018 and May 2019. Given that the school was a small preschool that closed over 20 years previously, the task was formidable. An unrestricted class roster with 24 child and parent names, addresses, and phone numbers that had been distributed to all class parents was one source. In addition, the head of school, the other teacher, and former parents who could be contacted remembered names of all the children they could. These efforts resulted in a list of 45 people who had attended Crestview (estimated to be 38% of alumni). For some, contact information was available. For others, LinkedIn, Facebook, and Google searches were conducted; sometimes these led directly or indirectly to contact information. These methods resulted in 30 people (25% of estimated alumni) to whom invitation letters were sent via Internet to solicit their participation in the study. A signed letter from the head of school stating her approval for the study was included as an attachment to these invitations.

Of the 30 Crestview alumni contacted, 12 did not respond; in some cases, their Facebook accounts appeared untended; in others the email was perhaps no longer used. One responded but declined to be interviewed; no reason was given. Seventeen agreed to be interviewed, and 12 actually were interviewed; 5 others failed to schedule an interview. Whenever possible, we examined online profiles of nonrespondents for information about education, employment, and other indicators of well-being. Remuneration was a \$50 Amazon gift card.

### **Research Team and Procedure**

The research team was culturally diverse, including a Black male cognitive science graduate, a Black female Montessori teacher trainer, a White female psychology graduate student, and a White female psychology professor. Two authors recruited the sample, and three developed the interview questions. Interviews were conducted by the third author, who knew little about Montessori. He conducted a structured interview with each participant over the phone; interviews lasted 16-40 min ( $M = 24.98$ ;  $SD = 8.69$ ). Participants were then directed to a Qualtrics survey.

### ***Interview***

The interview was divided into three parts. The first part documented aspects of participants' lives at the time of the interview (e.g., marital status, occupation, etc.). The second and most extensive part examined participants' experiences with Montessori education and its impact on their lives. They were asked how old they were when they attended Montessori, about their experiences with transitioning from Montessori to non-Montessori schools, and what they thought about Montessori. Specifically, they were asked whether and how Montessori had prepared them academically, whether it was conducive to their learning, what they remembered most, and whether they thought it had influenced any aspects of their life or had given them any advantages compared to their conventionally-schooled peers. The third part concerned demographics (e.g., participant age, race, and perceived social class).

Interviews were audio-recorded, transcribed, checked for accuracy, and analyzed using well-established qualitative content analysis strategies (Miles & Huberman, 1994). The professor and the graduate student, the former with deep knowledge of Montessori and the latter with little knowledge of it, independently carried out the content analyses; they both read all the transcripts, and then individually coded line-by-line using codes both deductively and inductively derived. Related codes were grouped into categories and themes were deduced. When coding was compared, the themes that had emerged independently were very similar. The final themes were discussed and agreed upon by all authors, and then were arranged to align with principles of CRP. To enhance trustworthiness and validity (Lincoln & Guba, 1985), detailed records of the coding process were kept (i.e., an audit trail), and all authors reviewed the coding. Finally, participants as well as the five who not schedule interviews were given the opportunity to provide feedback (i.e., member checking); none did so.

### ***Qualtrics Survey***

The Qualtrics survey had seven commonly used well-being scales. Because there was no comparison group, surveys are named and results are given where relevant.

## **Results and Discussion**

### **Theoretical Framework and Presentation Plan**

We interpret our findings with reference to CRP, which in the formulation we use here centers around (1) equity and excellence, or high expectations of all children, (2) teaching and empowering the whole child, (3) adopting a constructivist framework that meets each child where they are, (4) teacher-student relationships, and (5) respect for each child's cultural heritage (Brown-Jeffy & Cooper, 2011). First we examine adult outcomes as consistent with Montessori supporting excellence (principle 1); although our design does not indicate if Montessori created excellent outcomes, they do show that Montessori did not *prevent* such outcomes. The adult outcomes also express positive relationships with their communities (principle 4) and an interest in other cultures (principle 5). Next we look at participants' recollections of Montessori. We first show that they experienced Montessori as a place where instruction was differentiated and self-determined, and where academic preparation was excellent, reflecting principle 1. We then explore recollections consistent with principle 2, their sense of empowerment. We go on to show how, consistent with principle 3 (constructivism), they learned more by doing than being told, and experienced multiple routes to each concept. They also recalled Montessori as a very positive social-emotional environment, consistent with principle 4. Speaking also to principle 5, they related how the school's racial make-up gave them strength. To finish, because it addresses a common concern people have about alternative programs, we describe what former Montessori students said about their transitions to conventional school; some of their answers reveal again how Montessori, but not conventional school, aligns with CRP. We note that none of the alumni recollections about Montessori indicated that it had elements that were contrary to CRP.

**Adult Lives**

We describe alumni's adult lives both because they reflect elements of CRP, and to show that Montessori was at least compatible with good outcomes, even if we cannot know if it caused them. In interviews with Black and Latinx parents whose children attended public Montessori schools, Debs (2019) came across concerns that Montessori would prevent their child from having good outcomes. Here we show that alumni's careers, educational attainment, and perceived social class reflect attaining excellence (principle 1). Their travel, foreign languages, community involvement, and well-being reflect an interest in diversity and social connection (principles 4 and 5). We end this section by describing the attainments of people we located but could not contact or interview, to determine if the 12 we could interview were uniquely high achieving.

**Careers**

The 12 alumni were all employed at the time of the interview. One was a lawyer, working at a large firm on commercial real estate contracts. One worked for the U.S. government as a health policy program analyst and resided in Scandinavia. Two women worked in science/math, one as a neuroscience graduate student and the other as a statistician leading a project team. Revealing themes of entrepreneurship and creativity, among the alumni were a web designer, a digital marketer, a professional stage manager (the youngest interviewed, at 25, who had majored in theater arts and graduated just 4 years previously), and a professional dancer (who also taught dance and choreographed—the oldest interviewed, at 40, who was among the earliest attendees of the school). Three were food services entrepreneurs. One had opened five restaurants in the last 10 years, another had started a chain of restaurants “from the ground up...survived so far,” and the third was just starting an Instagram private chef business on the side while working as a chef for the United Arab Emirates. One who owned restaurants also owned real estate in Norway, where he currently lived. Another graduate worked in quality assurance, supporting disabled people in their employment; she aspired to open a roller-skating rink.

**Educational Attainment**

The highest degrees attained were a JD ( $n = 1$ ), Masters ( $n = 3$ ), Bachelors ( $n = 7$ ), and Associates ( $n = 1$ ). One had two Masters, and was currently in a PhD program. Two others mentioned they were currently obtaining professional certifications. Seven indicated that they planned to continue their education, and an eighth said they might. The participant with an Associates degree was taking college courses, intending to complete the BA the following year. In his interview, he stated he had decided at 13 years old that he wanted to obtain certain skills and travel before college, and this is what he had done. As a sous-chef and then a chef, as well as an English teacher, he had lived and traveled internationally, taking courses online. He was currently focusing on French coursework because he planned to open a restaurant in a French-speaking country, and also on design so he could improve his business's social media presence. Although he had not yet finished college at 29, he appeared to be flourishing as a chef and entrepreneur.

***Perceived Change in Social Class***

Participants identified their childhood social class as lower working to lower middle ( $n = 5$ ), middle ( $n = 6$ ), or upper middle ( $n = 1$ ). As adults, one self-identified as lower working, seven saw themselves as middle, three as upper middle, and one as upper class. Each advance in social class was scored 1, and each decrement -1. Participants perceived that from childhood to now they had advanced on average 0.75 ( $SD = 1.06$ ) levels in social class, whereas Black Americans' socioeconomic status generally was stagnant across that period. The alumni's careers, educational attainment, and rise in social class all are consistent with the excellence principle of CRP.

***Travel and Languages***

Every participant had traveled internationally. The number of countries visited ranged from 5 to 18, with an average of 8. Countries visited ranged from Senegal to Argentina, Thailand to Egypt, and South Africa to Turkey. All but one participant spoke at least one other language, including Spanish, French, Arabic, Italian, Swedish, Norwegian, and Ebonics. In terms of CRP, this suggests an interest in exploring diverse cultures.

***Community and Cultural Engagement***

The alumni expressed a variety of ways in which they were or had been engaged with their communities. They were volunteering for the National Park Service and the unhoused; helping the elderly at church; tutoring; teaching art, yoga, dance, advanced placement classes, or English in impoverished communities abroad; serving in Girl Scouts and other organizations empowering young girls; and serving in local government. Three of the alumni had recently moved and were not currently involved in their communities, and one claimed to be involved in the community but did not elaborate. Only nine participants were asked about leadership because the question was added later. Of the nine, eight reported holding significant leadership roles. They had been or were currently: their union representative, class president and/or vice-president, head of debate team, on the board of Black citizens affairs groups, president of a campus-wide Greek oversight organization, and captains of various sports teams in college and high school. All of this suggests that Montessori left them aligned with the relational engagement values of CRP.

***Satisfaction and Well-being***

Participants rated their life overall on a scale from 0 (*worst possible life overall*) to 10 (*best possible life overall*) an average of 8.54 ( $SD = 0.78$ , range = 7-10), and explained why. Participants uniformly expressed satisfaction and contentment: "Life is where I wanted it to be," and "I live my life really from a perspective of gratitude...I'm very happy with where I am." More specific reasons emerged as well. Participants made remarks such as, "I know I'm healthy. I have a healthy family, my wife and daughter..." and "Everyone's healthy and happy, so that's how I rate my level of happiness." This corresponded to their scores on the Satisfaction with Life Scale (Diener et al., 1985); they reported relatively high life

satisfaction with a mean of 26.83 of 35 ( $SD = 4.39$ ). They also reported high levels of Flourishing ( $M = 49.75$  of 56,  $SD = 3.86$ ), Positive Affect ( $M = 3.79$  of 5,  $SD = 0.49$ ), and Subjective Vitality ( $M = 5.18$  of 7,  $SD = 1.06$ ). Finally, their reported psychological needs for Autonomy ( $M = 39.50$  of 49,  $SD = 3.92$ ), Competence ( $M = 36.67$  of 42,  $SD = 3.47$ ), and Relatedness ( $M = 50.00$  of 56,  $SD = 4.16$ ) were also high.

Participants often referred to their goal accomplishments, both educationally and professionally, as a source of satisfaction. One participant said, “I’ve set out to go to college, did that. Set out and took a year off, did that. Went to grad school, did that,” and another said, “And so, I look back on my accomplishments, my bachelor’s degree and continuing my education with this post-graduate certificate, and I’m excited about the future.” The participants also had many goals that they hoped to achieve. Notably, when they spoke of these goals and the future, they did so with confidence and self-efficacy: “There’s some planning that needs to be done, but I think that I have the tools and the network to help me accomplish my goals,” “If I wanted to, I don’t see anything stopping me from getting a Ph.D.,” and “I feel confident in my ability to [accomplish my goal of learning other languages].” These comments suggest that not only were participants’ basic psychological needs being met; they were flourishing. The overall goal of CRP is to help people flourish.

### ***Uninterviewed Alumni***

As mentioned above, we had the names of several other alumni whom we could not reach or who did not schedule an interview. To check whether the 12 who were interviewed were unusual in their accomplishments, web searches provided information about another 25 of the 45 alumni on our list, mainly on Facebook and LinkedIn. Fifteen had posted information indicating they finished college (including one who graduated *cum laude* from Northwestern, and another with a 4-year merit scholarship at Carnegie Mellon). Among them were an array of interesting double majors: Political science and creative writing; philosophy and business; French and business; biology and psychology. Eight had finished or were currently in graduate school, five to practice law; two of these went to Yale, one to Georgetown, and one to Howard (the fifth person’s institution was not named). One was doing a residency in Neurology after completing Howard Medical School; another worked as a nurse. Two college graduates were artists, one musical (with several albums, and side interests in farming and social justice) and the other a hairstylist (the photographs of her hair designs on Pinterest justify calling her an artist). Four were entrepreneurs with their own businesses, two working in software, and two in wealth management. No graduate we found was doing poorly according to information we could find on the Internet, although for eight we found no definitive information because they had common names and we had no indicators to determine that they were a graduate. One cannot know if Montessori had anything to do with these positive outcomes, but it is clear that Montessori did not lead to poor outcomes in this group.

### ***Adult Lives Summary***

Alumni of this Montessori school appear to be living fulfilling and satisfying lives. They have careers they are passionate about, and they are attaining their goals educationally. They perceive themselves to have risen in social class and have enjoyed opportunities for travel. They speak multiple languages and are connected to their communities through engagement and leadership. Although self-selected, they do not appear to be unusual in their accomplishments relative to other alumni whose names we had but about whom we could only learn through web searches.

### **Recollections of Montessori Experiences**

We next explore the alumni's recollections of their Montessori preschool experiences and what they found most influential, revealing the alignment of CRP with the lived experience of Montessori.

#### ***Recollections Revealing Equity and Excellence***

The alumni recalled that they could determine their own path, reflecting differentiated instruction and equity per principle 1. The standard of excellence in Montessori became clear when they entered traditional schools.

**Equity: Differentiation and Self-Determination.** The majority of respondents talked about the importance of self-determination in Montessori, contrasting it with conventional school's "rigid rules and, you know, sitting at your desk and having to behave and focus." Montessori gave them "the freedom to explore."

I think definitely the Montessori environment let me know that I could identify what it is that I'm interested in, capitalize on those things, learn those materials, perfect those materials at my own pace, and then move forward on to the next project because that's where Montessori always was. There was never a massive deadline on learning the pink tower, or sandpaper letters; you work on a certain thing until you were proficient at it, and then when you decided that you wanted to work on something else, then you did.

Another echoed this, but also spoke to the culturally relevant role of the teacher (principle 4):

Not only did it give me autonomy over what I was learning about, and the pace at which I learned, but it also in turn allowed me to feel mastery of it... We were self-led. We had to figure it out for ourselves. I mean, we were given a lesson, but then we were sent off to get to work and I think that is just... that is so important. I mean, it's important in my life right now, as a dancer. You have to just figure it out. You can't—if something's not working, if you're not turning properly, you have to figure out why, there's not going to always be someone to fix it for you, and Mrs. Crestview was always available for help and we were encouraged to ask questions and get help, but at the end of the day it was on us, we were the ones who were taking charge of our own learning and we had to engage with whatever it was in the classroom that was at our level at that time.

She went on to describe this as "showing up as a partner in your own education. You know, I just feel like some

schools miss the mark on some of these things, the little things that tend to go a long way.” These statements converged with alumni’s high average scores on the Self-Determination Scale (Sheldon & Deci, 1996) both in terms of Self-Awareness ( $M = 21.42$  of 25,  $SD = 3.68$ ) and Perceived Choice ( $M = 19.00$  of 25,  $SD = 5.43$ ).

The relation of self-determination to equity via personally-right pacing was brought up by another as well:

They worked to kind of foster independence...you’re able to work, kind of at your own pace instead of like in a public-school classroom where everyone kind of has to do the same thing—to a certain extent—which, if you’re more advanced, can be boring. And if you’re not there, they can be challenging. So, I think the Montessori thing was more on pace.

The teachers trusted children to follow their own beat. Interestingly, Debs (2019) found that self-pacing in Montessori was something that concerned many parents; they feared their children were not learning. This is not how these alumni framed it years later.

Another alumna emphasized self-determination in terms of the freedom to pursue her interests:

Being in Montessori allowed me to [follow my feelings and whims] while learning and kind of clasp my own learning way. Or decide kind of through what lens I was going to learn what to do with things. I remember having a real interest in geography and teachers using that to teach me other things, saying, “Oh, you’re interested in this. Cool, well, we’ll use these things to talk about” —you know, what you’re going to work on, I don’t know, handwriting, math, a variety of things using my interests as opposed to saying, “You have to learn about this thing,” completely separate from what you’re interested in.

Another also addressed how personal interest instigated learning in Montessori: “You could have just come in and sat around all day, but you’re either going to be approached by one of your classmates or by one of the teachers to pursue something that they could see you’re interested in.” In addition to high expectations, this quote also speaks to constructivism: teachers flexibly meeting students where their interests lie, and building from there.

One integral aspect of Montessori is the belief that children intrinsically desire knowledge and new experiences (Montessori, 1956). When put into a thoughtfully prepared environment, with materials designed to facilitate exploration, children will choose to learn. The no excuses philosophy seems to hold an opposing viewpoint, namely that without rigid structure, children will not be as likely to succeed because of myriad possible distractions. There is also an underlying notion in conventional schooling that all children are all alike in the ways that they learn, and if they require support, all require the same type of support in the same manner (Callahan, 1962; Dintersmith, 2018). Montessori alumni seemed to appreciate Montessori’s freedom and individualized learning, which is consistent with equity principle of CRP.

**Excellent Academic Preparation.** All alumni reported that they felt well-prepared academically by their

Montessori schooling; some pointed to specific advantages like facility with abstraction (the focus of many Montessori materials) and reading comprehension. One said that when she transitioned from Montessori to a conventional school, “I do remember that I knew more than most people did. So, it was great.” Or another: “I was kind of in the more advanced group [in conventional school], as far as like math and reading, things like that, and even, I would say, probably like behavior. And I think part of that is due to parental involvement and things like that, but part of it is also I think due to the exposure I was given at Crestview.” One said Montessori had prepared her for further academics and “for life, it definitely did both. ...if anything, I was usually more prepared than other kids my age when it came to school and definitely outside in life.” Another spoke of how, while at Montessori, he was

trying to get in depth as much as I could, and get a really three-dimensional perspective on whatever it was I was learning. So definitely it helped me academically even to this day... I’m always that student, for sure, where the professors know that they can come in and if no one is paying attention, he can ask me, or she can ask me, and get my perspective on something to get the classroom involved in the conversation...it’s definitely given me an advantage because participation, I guess, in the working world and also in an academic world, is something you’re also graded on. So just that ability to participate has definitely helped me out...academically and professionally.

Others noted that Montessori preschool had given them “a leg up”: “I learned cursive before the first grade...how to read before I went to first grade...some math before I went to first grade...they gave me a good leg up.” Another used that same term to claim that due to just two years of Montessori pre-K, “I think I had a bit of a leg up in terms of reading, some social skills as well. Just seeing as I was kind of ingrained in a bit more of that.” Another said, “I was ahead of a lot of my peers in certain things; you know, math, the way that we learn how to multiply...writing and reading. All that stuff.” These quotes speak to the high standard to which the students were held, reflecting the teachers’ confidence in their capability.

Several pulled out math in particular, like “the way we learned to multiply,” to explain how the Montessori program had, they felt, put them ahead of their conventionally schooled peers. One who had gone to another Montessori for several years after Crestview talked of

moments in middle and high school, problem solving things or having a very clear, concrete understanding of math and how math is related and integrated in the world as opposed to being just numbers on paper. Yeah, being able to—the way I learned math enabled me to do math in my head very easily, getting to be able to do numbers and figures and things more so than other people, sometimes they were really reliant on pencil and paper. At times, I found myself able to pick out other Montessori kids in a room, in conversations at times when we’re having a discussion about something, just the specific ways in which

connections are made between things.

The differences between Montessori and non-Montessori classrooms are significant enough that academic rigor is a point of concern for many parents (Debs, 2019). Yet when prompted to discuss the degree to which they felt prepared for academics when leaving Montessori, all interviewees felt that they were adequately prepared. Moreover, 10 of the 12 recalled that they perceived themselves to be advantaged over their non-Montessori counterparts after transitioning from Montessori.

### ***Recollections Concerning Empowerment***

Self-determination is clearly related to principle 2 as well: When one gets to determine one's own activities, one is empowered. Other recollections reflect empowerment in terms of the confidence Montessori rendered; it enabled them to be independent.

One simply said Montessori “gave me the confidence”; another expanded on this, saying,

Again and again it gave me the confidence to keep going and being in a competitive academic environment. It gave me that confidence to succeed and go on and further my education...I'm not in a field where you see many women, and I'm leading a practice area.

The alumni expressed a sense of agency—of having the tools, determination, and will necessary to affect their own circumstances. This confidence, or sense of capability, they said, originated in Montessori.

Respondents felt enabled by the “very hands-on and experiential learning” they got in Montessori. For one, it was the extension of materials into play and back:

Seeing play at that time or what most kids simply think of as play is work gave a different importance to almost all of your actions. And so, being creative...finding things in the space and new ways to use the brown stairs or the red rods and how that connected to whatever you learned about those things—you know as you're learning about size and increments of size, ... you're also learning about making—I remember making some sort of battleship out of the brown stairs. It was more about creating problems or creating new and different situations and being able to relate those back to how things are supposed to be and how they're supposed to be used.

The independence and empowerment engendered in Montessori also carried over to their adult lives. One spoke of how “I'm not on anyone else's scale, on anyone else's, you know, standards. I mean I live up to that, but that really doesn't matter because I've already seen the world.” They expressed that Montessori instilled self-awareness as well: “I think making me aware of my own needs and setting that expectation of having a balance in your life of activities and things, to be a whole person has had an impact in my personal life,” “I think the things that were taught to me had made me believe in myself” and Montessori “definitely set the standard for how I wanted to be or who I wanted to be around.”

***Recollections Revealing Constructivism***

CRP conceives of knowledge as constructed and as being about doing more so than about listening (Ladson-Billings, 1995). In addition, there is not one way to teach or learn; multiple routes are provided to help different children construct concepts. The descriptions reflect how Montessori adheres to these principles.

**Learning as Doing.** A Montessori classroom has well over a hundred hands-on materials. Several alumni remembered specific hands-on materials, like the pink tower. The materials serve to render the abstract concrete. One alumna explained that, “Working with materials with your hands, where that’s just a part of what you’re learning, without even knowing that you’re learning it.” Another mentioned that they learn particularly well with hands-on materials that allow them to visualize, so the Montessori math materials really helped them.

The hands-on nature of Montessori learning is also reflected in its practical life curriculum. Several participants talked of how Montessori uniquely conferred practical skills: “I learned how to sew at Crestview, and I have to sew the ribbons on my pointe shoes, and it takes a lot of time, and I have students now, and I have to teach them how to sew...” Another recalled,

I learned how to tie my shoes because they had a little square where they had untied string and laces, and your job was to take that...and tie them up yourself. And then you’re supposed to apply that to your actual tennis shoes, so I learned that way.

A third said,

It may seem simple, but balance...people think all middle-schoolers are clumsy or something. And I always took pride in being able to do simple things, like pour... I just feel like some schools miss the mark on some of these things, the little things that tend to go a long way.

**Multiple and Playful Means to a Concept.** Another way that constructivism manifests in CRP is flexibility; there is not just one way to teach, or get a concept across. The pedagogy is adapted to the child, respectful of their unique selves and cultural backgrounds (also relevant to principle 5), and meeting them where they are. Several respondents mentioned the importance of having various routes to a concept in Montessori. For example, one said that a significant aspect of Montessori was “being able to learn and pick up things in different ways, in the way that I wanted to learn, versus like—so you know you’re forced to learn one way when you’re, I guess, in public school, whereas what I believe I remember from Montessori was that you kind of got to choose and do it your way.” Another contrasted her math understanding with that of “students that had been taught only one way, maybe at the expense of conceptual understanding, of kind of why things were that way, or how things look, and spatial relations.” Montessori materials gave deeper understanding. Or another:

I think Montessori allows you, allows any child, to explore things not just at their own pace, but there’s

multiple ways to approach the concepts. ...you're absorbing it along the way and then the kind of the clicking into place might happen in a different method for different students. So, I do think that that gave me a lot of different tools that have helped...I think that being able to see patterns in Montessori sets children up to do that over the course of the rest of their education.

Another used the word "flexible" to describe how Montessori had helped him learn both in school and in life, and another said, "No two days had to be exactly the same and I loved that. That's brilliant."

Another described how she was allowed to set her own pace and learn by watching in Montessori:

I apparently would go to the math table or the math section and I wouldn't participate. I just kind of stood there and watched...at a certain point I went there, and I was able to answer the questions. I hadn't been practicing...I was able to absorb this information.

Standing there and watching could probably not pass in conventional school; in Montessori, she was able to take in learning in her own way and on her own time, and finally one day, she showed that she had learned. This reflects flexible teaching, recognizing that every child is on his or her own path, learning at their own pace and in their own way.

Another who had severe myopia spoke of how the materials allowed him to overcome his disability:

I learned to read and everything in Montessori, but the focus in Montessori wasn't all it was...it was a lot easier when you do like sandpaper letters and stuff like that. It's a much larger image to be honest, than when you're practicing reading and writing from a textbook. Those are much smaller, so reading things that are really small like that was difficult for me [in non-Montessori schools later]. Just because the focus was on text, but in Montessori you're still learning, but you're working with physical materials which is, you know, it's a lot easier on your eyes...Anything that I'm using my hands for, I'm a lot better at than things that require a ton of like visual, you know, accuracy.

Thus, the lived experience of Montessori was as a constructivist education, in which one learned by doing more so than by listening, and where each child was treated as an individual, able to learn at their own pace and in their own way.

### ***Recollections Revealing Positive Relationships and Climate.***

Principle 4 of CRP is relationships, including a supportive socio-emotional environment.

**Social-Emotional Learning.** Alumni talked of how much they learned socially from the Montessori classroom and methods, and the lasting social connections that they made. "Montessori taught me a very good social skillset, which allowed me to transition easily [to conventional school in first grade]...I learned about interacting with kids, how to deal with conflict, how to share, sitting in circles, and listening to instruments." They were taught to respect everyone: "You know, being kind to other people, treating people like you want to be treated, just basic manners, human decency." This mutual

respect stemmed in part from the sense that one was being taken care of. “It was just a very nurturing environment...that nurturing and love is something that...when you’re a small child or a young child, that’s really all you need.” At Crestview, the classmates and teachers gave “a very high level of comfort. Never felt that really bad about not knowing something, they really produced a certain air of support and wanted each kid to really succeed properly and grow.”

Several alumni recalled that the Montessori curriculum explicitly teaches mutual respect. For example:

We learned about etiquette at table time, where we had the choice of getting a snack at any time we liked during the day. But if we wanted to do that, we’d have to find a partner or sit by yourself, and pull out a chair, and have minor chitchat and be polite, and ask, ‘Would you like a cookie?’ to your partner, ‘Yes, please,’ and you’d sit and drink your juice and eat your cookie, and when you were done you were dismissed. So, you curtsied or bowed, depending on the gender, and you would go about your way.

Similarly, “And even now when someone is passing out *hors d’oeuvres* at a party or something, I hear that in my head: ‘Take the one closest to you.’” One recalled being “taught how to shake our teacher’s hands on the way in and out the door, ‘Good morning, Mrs. Crestview. Good afternoon, Mrs. Crestview’ when we were leaving. It was just the respect.”

Lasting social connections were made in Montessori; even many years later, alumni expressed that, “I remember some of my classmates. I can call out their names” and “...my best friend...we’re still friends to this day.” Experiencing positive relationships at school impacted alumni’s other relationships: “...because of my experience at [the school], I always became really close to my teacher. Or I mean, even in my work life, I always become really close to my managers...” One alumnus as an adult began a business with a childhood friend from Montessori. Another specified that the multi-age classroom affected her social relations: “Just the fact that we were all in one classroom. We weren’t divided up by age. I think that allowed me to interact more comfortably with the students that were older than me when I got to higher grades.”

**Peer Teaching.** The positive social relations extend to peers, which allow for younger peers to learn from older ones. Two alumni explicitly recalled the value of peer teaching in Montessori. One mentioned it developing leadership skills:

Learning from other students in the class and having the opportunity to teach other students in the class I think honed my leadership abilities from a very young age. Because it...allowed me to feel mastery of it and once I mastered it...if you can teach something, obviously that means you know it very well.

The other mentioned peer teaching in the context of continuity between the Montessori classroom and working life:

Montessori is “like a microcosm of the general work environment where you have your technical supervisors and then you have your peers or your co-workers...you have the opportunity to teach your peers or learn from your peers or your co-workers.” Thus, social-emotional skills were clearly fostered, reflecting the kind of support that CRP prescribes.

**The Environment as Teacher.** Another way that Montessori provides social-emotional support is through a

predictable routine and a beautiful classroom environment (Stevens, 2010). This corresponds to a CRP point emphasized by Hammond (2014): The environment not only has beautiful culturally-relevant artifacts, but its social-emotional tone is stable and responsive as well. Several commented that the Montessori environment had these supportive features.

I just remember, like, it was just a really good environment. Honestly, it was just really like that environment gave me an idea of what I wanted. That routine, that schedule, socially, everything. That environment is kind of like something that I've been trying to recreate ever since then...socially, and academically, and mentally fulfilling, and tolerant...it gave me an idea of what a well-organized environment that was fulfilling for everyone could be like.

They also mentioned the physical environment as being beautiful, a “colorful, interactive type of environment,” and that “the environment was just so nice...like that space and that place was just...It was a very nice place to be.” A well-tended classroom conveys respect and caring, congruent with CRP.

**Leadership.** For many, the Head of School was their strongest memory, reflecting the positive social support she provided.

I remember Mrs. Crestview, really. She's who I remember most. She was the teacher, the head of the school, ...the boss lady. And I just remember how gracious she was, always...and now I definitely draw back on that, feel like I owe her, just, you know, forever indebted to her for providing that space for us to grow.

Consistent with how Dr. Montessori advised teachers behave (Lillard, 2017, Chapter 9), “[Mrs. Crestview] was very warm but firm, and she was definitely invested.” Another said, “I feel very strongly about the foundation that she laid for my life and for my brother's life.”

### ***Recollections Revealing Identity and Achievement.***

Although we know from Mrs. Crestview that the environment featured photographs of leading Black figures set at child's eye height, the alumni only explicitly recalled two aspects referring to principle 5: a Black teacher and a diverse group of classmates. Racial alignment with one's teacher helps to create an identity-safe environment (Wright et al., 2017), and several alumni commented on importance of the ethnic composition of the school and its impact; for example, “Mrs. Crestview, by being a Black woman and being a Black female leader definitely had a positive, indelible imprint on my life and my personhood ...later I would always kind of yearn for a teacher who looked like me.” For others, the fact that the environment was diverse, coupled with the respectful attitudes the class engendered, was meaningful: “We had a diverse class—mostly people from all different ethnicities.” The one White respondent said, “I appreciate...the fact that it was normal to be in such a diverse community and that it took me a long time [to see] that that wasn't normal for every White kid to have that. And I think that has shaped a lot of how I see the world.”

### **Further Matters**

Two additional elements from the interviews deserve mention. First, many people are concerned about children transitioning from environments characterized by self-determination to structured conventional schools; some parents of public Montessori children of color worry that Montessori is “too comfortable” (Debs, 2019, p. 116). We asked alumni about their transition to conventional school, and whether they expected to send their own children to Montessori. Their statements are interesting in light of CRP and the contrasts drawn between Montessori and conventional school environments.

### ***The Transition to Conventional School***

The alumni transitioned to conventional school in kindergarten (17%), elementary school (58%), or middle school (25%). Alumni rated the difficulty of the transition, both in the first two weeks and across the first year as a whole. We also asked whether the difficulty made them wish they had never gone to Montessori. One said she really did not remember, so skipped the questions. For the other 11, with 1 meaning *not at all difficult* and 10 *very difficult*; the modal response to this question was a 1; the average response was 2.55, and the range was 1-8. One said, “I don’t think that I ever felt unprepared for being in another academic environment. It was different...but I never felt like I didn’t know enough, or that I hadn’t been taught the things that I needed to know...” As to what made it difficult, one mentioned going from no homework to a lot of homework, three mentioned the large number of rules and the rigidity of their conventional school environments, and two said having to sit at a desk all day. Another said, “Being told what to do at every given point and not having any choice” was hard, as was the lack of social interaction: “I was used to working in a group, or individually but at a table with 3-4 other kids.” The loss of autonomy in conventional schools stood out most clearly to several alumni when they made the transition from Montessori to conventional school. One said, “It was extremely different, I feel like there’s no comparison” and referred to the lack of flexibility and the requirement that one sit and listen. One stated that the transition was difficult because of “being a young Black male that didn’t have a ton of money going to a [conventional] private school like that.” It was fine initially, but led to some discomfort later. Another cited the “lack of support or environment of learning” at the new school. A common thread is that although they were easily able to adapt to the new environment of conventional classrooms, they were cognizant of the shift, and the conventional environment was not aligned with CRP.

Asked whether the difficulty of the transition led them to wish they had never gone to Montessori, all 11 who were asked the question said no, and of these, 4—all of whom had given a “difficulty” score of 3 or higher—said no quite emphatically: “He-No!” “Oh, not at all,” “Oh no, not at all, I would have preferred to stay in Montessori,” and “Oh, no, no. It made me wish that I had *just* gone to a Montessori school!”

### ***Plans for their Own Children***

Those who were or hoped to become parents spontaneously explained how their own experiences shaped what they seek for their own children: “It was a good experience, and if I do ever have any kids, I mean, I would look into providing

that experience, something comparable,” and “Having a small child myself now, I start to think back on my experiences and what I want for her and the importance of having a strong foundation. And I wouldn’t want her to be in anywhere other than a place that really provides that foundation.”

### **Summary**

The 12 alumni were leading productive lives and flourishing in their careers. Their recollections of Montessori reinforce the theoretical claim that it is CRP. They pointed out how the environment allowed for self-determination, allowed them to excel academically, and grew their confidence. They spoke to the constructivist elements, including multiple approaches to problems and hands-on learning. Finally, they noted what a positive social-emotional environment it was, with explicit social lessons, peer teaching, and strong supportive leaders. Finally, in discussing the transition to conventional schools, they made clear how those later environments did not correspond to CRP. Their statements revealed that the lived experience of this predominantly Black Montessori preschool reflected CRP.

### **Limitations and Future Directions**

Our study is limited in several ways. First, we were only able to get 12 of an estimated 120 former students from this school to interview. Most could not be found, and others were unresponsive; 5 said they would interview but did not follow through. The 12 we spoke with are a self-selected sample. We think they are representative because 25 others whose names led us to websites appeared commensurate with them in terms of educational and professional achievements, but there may be others who do not have websites and are doing less well. Second, our findings are limited to one school which was implementing Montessori to a very high standard (as indicated by its AMI recognition) and also had a Black founder and teacher, which is known to positively impact Black students. Although the students believed the Montessori program was also very influential, it is possible that the ethnicity of their teacher was most important. Third, the alumni’s parents chose this school; although the respondents thought the school was responsible for many positive outcomes, perhaps the parents actually were. Other studies have not found differences in values or parenting styles between parents who choose Montessori and other parents, but perhaps the right questions were not asked. Further research might interview students who are currently or were very recently in public Montessori schools that admit by lottery, and compare them with students whose parents entered the lottery but failed to win a spot. They can also look systematically at how having a Black teacher affected the experience, and how implementation mattered to outcomes. Still, we note that the positive findings align with those from other AMI Montessori schools reviewed earlier.

### **Implications and Conclusions**

No excuses schools are intended to promote equality by bringing more Black children to and through college, but they are problematic from a social justice lens. We have shown that Montessori education is not only well aligned with the

principles of CRP, but also that Black children thrive in Montessori based on metrics like academic achievement and discipline disproportionality. Our primary contribution is the new mixed-methods study: Adults who attended a primarily Black Montessori preschool reflected on their experiences in ways that demonstrated it to be a CRP in lived experience. In fact, Montessori, like CRP, is not merely an education system; both are a way of life that recognizes and embraces diversity and the interconnection of all things (Howard & Rodriguez-Scheel, 2017; Montessori, 1972). For these reasons, Montessori should be more closely considered and more fully implemented as an alternative approach for the education of all children.

**Table 1**

*Outcomes of Quantitative Studies*

Fidelity	Study	Sample	Child Age	Montessori Better	Montessori Same	Montessori Worse
AMI Schools: High Fidelity	Lillard & Else-Quest (2006)	80% SoC	5	Math, reading, executive function, social knowledge, social skills, social behavior	Vocabulary, concept formation, following directions	
			12	Social skills, school as community, writing creativity and complex sentences	Math, reading, vocabulary, concept formation, following directions	
	Lillard et al. (2017)	50% SoC	4-5	Academic achievement, executive function (4), social knowledge, mastery orientation, school liking	Executive function (5), social skills, creativity	
	Dohrman et al. (2007)	60% SoC	15-18	Math/science	English/social studies	
Fidelity Uncertain or Low	Brown & Lewis (2017)	Black	8-9	Reading	Math	
	Culclasure et al (2017)	Black	8-9	English language arts, social studies	Math, science, writing	
	Mallett & Schroeder (2015)	70% SoC	6-9		Math, English language arts	
			9-11	Math, English language arts		
	Lopata et al. (2005)	53% SoC	10-11		English language arts	Math
			14-15		Math	English language arts
	Ansari & Winsler (2014)	Black	4		Social-emotional Behavior concerns, Cognitive, motor, language	
	Brown & Steele (2015)	32% Black	5-12	Fewer disciplinary events		

Note: Age ranges are approximate based on grades. SoC = Students of Color.

### References

- Ansari, A., & Winsler, A. (2014). Montessori public school pre-k programs and the school readiness of low-income black and latino children. *Journal of Educational Psychology, 106*(4), 1066-1079. <https://doi.org/10.1037/a0036799>
- Bailey, R., Meland, E. A., Brion-Meisels, G., & Jones, S. M. (2019). Getting developmental science back into schools: Can what we know about self-regulation help change how we think about “no excuses”? *Frontiers in Psychology, 10*, 1885. <https://doi.org/10.3389/fpsyg.2019.01885>
- Brooks, J. G., & Brooks, M. G. (1999). *In search of understanding: The case for constructivist classrooms*. Merrill Prentice.
- Brown, K. E., & Lewis, C. W. (2017). A comparison of reading and math achievement for African American third grade students in Montessori and other magnet schools. *The Journal of Negro Education, 86*(4), 439-448. <https://doi.org/10.7709/jnegroeducation.86.4.0439>
- Brown, K. E., & Steele, A. S. (2015). Racial discipline disproportionality in Montessori and traditional public schools: A comparative study using the relative rate index. *Journal of Montessori Research, 1*(1), 14-27. ISBN 2378-3923
- Brown-Jeffy, S., & Cooper, J. E. (2011). Toward a conceptual framework of culturally relevant pedagogy: An overview of the conceptual and theoretical literature. *Teacher Education Quarterly, 38*(1), 65-84. <https://www.jstor.org/stable/23479642>
- Bruner, J. (1990). *Acts of meaning*. Harvard University Press. [https://doi.org/https://doi.org/10.1207/s15327752jpa4803\\_13](https://doi.org/https://doi.org/10.1207/s15327752jpa4803_13)
- Brunold-Conesa, C. (2019). Culturally responsive pedagogy: An intersection with Montessori education. *Independent Teacher*. <https://www.nais.org/magazine/independent-teacher/spring-2019/culturally-responsive-pedagogy-an-intersection-with-montessori-education/>
- Callahan, R. E. (1962). *Education and the cult of efficiency*. University of Chicago Press.
- Castillo, E. (2020). A neoliberal grammar of schooling? How a progressive charter school moved toward market values. *American Journal of Education, 126*(4), on line first.
- Cheng, A., Hitt, C., Kisida, B., & Mills, J. N. (2017). “No excuses” charter schools: A meta-analysis of the experimental evidence on student achievement. *Journal of School Choice, 11*(2), 209-238. <https://doi.org/10.1080/15582159.2017.1286210>
- Coen, T., Nichols-Barrer, I., & Gleason, P. (2019). *Long-Term Impacts of KIPP Middle Schools on College Enrollment and Early College Persistence*. Mathematica.
- Courtier, P. (2020). *L’impact de la pédagogie Montessori sur le développement cognitif, social et académique des enfants en maternelle* [PhD, l’Université Claude Bernard Lyon 1]. Lyon, France.

- Daoust, C. J., & Murray, A. (2018, April). *A Comparison of Elementary Classroom Practices Based on Montessori Certification* [PhD]. American Montessori Society,
- Davis, M., & Heller, B. (2019). No Excuses charter schools and college enrollment: New evidence from a high school network in Chicago. *Education Finance and Policy*, 14(3), 414-440.
- Debs, M. C. (2019). *Diverse Parents, Desirable Schools: Public Montessori in an Era of School Choice*. Harvard Education.
- Debs, M. C., & Brown, K. E. (2017). Students of color and public Montessori Schools: A review of the literature. *Journal of Montessori Research*, 3(1), 1-15.
- Denervaud, S., Rornari, E., Yang, X. F., Immordino-Yang, M. H., & Sander, D. (2020). An fMRI study of error monitoring in Montessori and traditionally-schooled children. *NPJ Science of Learning*, 5(11). <https://doi.org/10.1038/s41539-020-0069-6>
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75. [https://doi.org/10.1207/s15327752jpa4901\\_13](https://doi.org/10.1207/s15327752jpa4901_13)
- Dintersmith, T. (2018). *What school could be: Insights and inspiration from teachers across America*. Princeton.
- Dishon, G., & Goodman, J. F. (2017). No-excuses for character: A critique of character education in no-excuses charter schools. *Theory and Research in Education*, 15(2), 182-201. <https://doi.org/10.1177/1477878517720162>
- Dohrmann, K. R., Nishida, T. K., Gartner, A., Lipsky, D. K., & Grimm, K. J. (2007). High school outcomes for students in a public Montessori program. *Journal of Research in Childhood Education*, 22(2), 205-217.
- Dreyer, A. S., & Rigler, D. (1969). Cognitive performance in Montessori and nursery school children. *Journal of Educational Research*, 62(9), 411-416.
- French, E. (2017). Have You Heard In #9: *Montessori schools: They're not just for rich white kids anymore*. <https://soundcloud.com/haveyouheardpodcast/9-montessori-schools>
- Gay, G. (2002). Preparing for culturally responsive teaching. *Journal of Teacher Education*, 53(2), 106-116.
- Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice*. Teachers College Press.
- Golann, J. W. (2015). The paradox of success at a no-excuses school. *Sociology of Education*, 88(2), 103-119.
- Golann, J. W., Debs, M., & Weiss, A. L. (2019). "To Be Strict on Your Own": Black and Latinx Parents Evaluate Discipline in Urban Choice Schools. *American Educational Research Journal*, 56(5), 1896-1929. <https://doi.org/10.3102/0002831219831972>
- Golann, J. W., & Torres, A. C. (2020). Do no-excuses disciplinary practices promote success? *Journal of Urban Affairs*, 42(4), 617-633. <https://doi.org/10.1080/07352166.2018.1427506>

- Goodman, J. F. (2013). Charter management organizations and the regulated environment: Is it worth the price? *Educational Researcher*, 42(2), 89-96. <https://doi.org/10.3102/0013189X12470856>
- Hammond, Z. (2014). *Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students*. Corwin Press.
- Howard, T. C., & Rodriguez-Scheel, A. (2017). Culturally relevant pedagogy 20 years later: Progress or pontificating? What have we learned, and where do we go? *Teachers College Record*, 119(1), 1-32.
- Karnes, M., Shewedel, A., & Williams, M. (1983). A comparison of five approaches for educating young children from low-income homes. In C. f. L. Studies (Ed.), *As the twig is bent: lasting effects of preschool programs* (pp. 133-171). Lawrence Elbaum.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32(3), 465-491.
- Ladson-Billings, G. (2014). Culturally relevant pedagogy 2.0: aka the remix. *Harvard Educational Review*, 84(1), 74-84.
- Lamboy, L., & Lu, A. (2017). The pursuit of college for all: Ends and means in 'no excuses' charter schools. *Theory and Research in Education*, 15(2), 202-229. <https://journals.sagepub.com/doi/10.1177/1477878517716443>
- Lillard, A. S. (2012). Preschool children's development in classic Montessori, supplemented Montessori, and conventional programs. *Journal of School Psychology*, 50(3), 379-401. <https://doi.org/10.1016/j.jsp.2012.01.001>
- Lillard, A. S. (2017). *Montessori: The science behind the genius* (3rd ed.). Oxford.
- Lillard, A. S., & Else-Quest, N. (2006). Evaluating Montessori education. *Science*, 313, 1893-1894. <https://doi.org/10.1126/science.1132362>
- Lillard, A. S., & Heise, M. J. (2016). Removing supplementary materials from Montessori classrooms changed child outcomes. *Journal of Montessori Research*, 2(1), 17-27.
- Lillard, A. S., Heise, M. J., Richey, E. M., Tong, X., Hart, A., & Bray, P. M. (2017). Montessori preschool elevates and equalizes child outcomes: A longitudinal study. *Frontiers in Psychology*, 8(1783), 1783. <https://doi.org/10.3389/fpsyg.2017.01783>
- Lillard, A. S., & McHugh, V. (2019a). Authentic Montessori: The Dottoressa's View at the End of Her Life Part I: The Environment. *Journal of Montessori Research*, 5(1), 1-18. <https://doi.org/10.17161/jomr.v5i1.7716>
- Lillard, A. S., & McHugh, V. (2019b). Authentic Montessori: The Dottoressa's View at the End of Her Life Part II: The Teacher and the Child. *Journal of Montessori Research*, 5(1), 19-34. <https://doi.org/10.17161/jomr.v5i1.9753>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.

- Lopata, C., Wallace, N. V., & Finn, K. V. (2005). Comparison of academic achievement between Montessori and traditional education programs. *Journal of Research in Childhood Education, 20*(1), 5-13.  
<https://doi.org/10.1080/02568540509594546>
- Mallett, J. D., & Schroeder, J. L. (2015). Academic achievement outcomes: A comparison of Montessori and non-Montessori public elementary school students. *Journal of Elementary Education, 25*(1), 39-53.
- Marsh, L. T. (2016). "No excuses" schools, irrelevant discipline, and culturally responsive mediation. *Education Week: Rick Hess Straight Up*. [http://blogs.edweek.org/edweek/rick\\_hess\\_straight\\_up/2016/12/](http://blogs.edweek.org/edweek/rick_hess_straight_up/2016/12/).
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.
- Miller, L. B., & Bizzell, R. P. (1984). Long-term effects of four preschool programs: Ninth- and tenth-grade results. *Child Development, 55*(4), 1570-1587.
- Montessori, M. (1956). *The child in the family* (N. R. Cirillo, Trans.). Avon.
- Montessori, M. (1967). *The discovery of the child* (M. J. Costello, Trans.). Ballantine.
- Montessori, M. (1972). *Education and peace* (H. R. Lane, Trans.). Henry Regnery.
- Murray, A. K. (2012). *Public knowledge of Montessori education* [University of Kansas].
- Murray, A. K., Johnson, L. C., Sabater, A., & Clark, K. (in press). Hidden Black voices in the history of Montessori education. *American Educational History Journal*.
- Nelson, S. L., & Williams, R. O. (2019). From slave codes to educational racism: Urban education policy in the United States as the dispossession, containment, dehumanization, and disenfranchisement of Black peoples. *Journal of Law in Society, 19*, 82-120.
- Peyser, J. A. (2011). Unlocking the secrets of high-performing charters: tight management and "no excuses". *Education Next, 11*(4), 36-44.
- Royal, C., & Gibson, S. (2017). They schools: Culturally relevant pedagogy under siege. *Teachers College Record, 119*(1), 010306.
- Sabater, A. (2019). No hidden figures: Black Montessori history. *MontessoriPublic, 4*, 1-3.
- Sheldon, K., & Deci, E. (1996). The self-determination scale. *Unpublished manuscript, University of Rochester, 754*.
- Sondel, B. (2016). "No excuses" in New Orleans: The silent passivity of neoliberal schooling. *The Educational Forum, 80*(2), 171-188. 10.1080/00131725.2016.1135376
- Sondel, B., Kretchmar, K., & Hadley Dunn, A. (2019). "Who Do These People Want Teaching Their Children?" White Saviorism, Colorblind Racism, and Anti-Blackness in "No Excuses" Charter Schools. *Urban Education*(Online First). <https://doi.org/10.1177/0042085919842618>

- Stevens, P. (2010). Embedment in the environment: A new paradigm for well-being? *Perspectives in Public Health*, 130(6), 265-269.
- Tang, K. L., Rashid, R., Godley, J., & Ghali, W. A. (2016). Association between subjective social status and cardiovascular disease and cardiovascular risk factors: a systematic review and meta-analysis. *BMJ Open*, 6(3), e010137.  
<https://doi.org/10.1136/bmjopen-2015-010137>
- Thernstrom, A., & Thernstrom, S. (2004). *No excuses: Closing the racial gap in learning*. Simon and Schuster.
- Wright, A., Gottfried, M. A., & Le, V.-N. (2017). A kindergarten teacher like me: The role of student-teacher race in social-emotional development. *American Educational Research Journal*, 54(1\_suppl), 78S-101S.  
<https://doi.org/10.3102/0002831216635733>
- Zhao, Y. (2017). What works may hurt: Side effects in education. *Journal of Educational Change*, 18(1), 1-19.  
<https://doi.org/10.1007/s10833-016-9294-4>