Designing the Montessori Coaching Tool Elementary Rubric for Early-Career Professional Development

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Keywords: Montessori; rubric; teacher coaching; elementary education; teacher preparation; rubric development; reflective practice

Abstract: Becoming a competent Montessori Elementary guide is a complex process, so we are developing the Montessori Coaching Tool Elementary (MCT-EL) rubric to describe teaching-practice expectations for self-reflection and formative feedback during the critical early period in a teacher's development. The purpose of this article is to share results from a small-scale, online survey collecting both qualitative and quantitative feedback on the rubric from experienced Montessori Elementary teacher educators. The rubric's content was based on Maria Montessori's writings and well-documented Montessori practices, which we translated to specific teacher behaviors and developmental progressions. We wanted to gauge the MCT-EL rubric's usefulness and appropriateness from the perspective of experts who have significant depth of experience mentoring new teachers. The rubric was not developed to be used for performance evaluation, promotion, or retention but rather for early-career Montessori teachers' self-reflection. It provides a framework for coaching conversations between the early-career Montessori teacher and a Montessori mentor. Results from the study identified overall support for use of the MCT-EL rubric with developing teachers, along with specific recommendations for revisions, additions, and deletions. Using a thorough review of the data, we developed a refined MCT-EL rubric, which is provided in Appendix B and is available for use by interested practitioners in the field.

Becoming a competent Montessori Elementary guide requires the development of specific skills and competencies that represent quality practice. What proficiencies make up this skill set, and how might these develop over time? We are developing the Montessori Coaching Tool Elementary (MCT-EL) rubric to describe teaching-practice expectations for self-reflection and formative feedback during the critical early period in an Elementary teacher's development.

The content of the MCT-EL rubric was based on Maria Montessori's writings and well-documented Montessori practices (see Tables 1 and 2).

Acknowledging the diversity of Montessori training experiences and practices in the field, this rubric provides a valuable framework, rooted in a sound research base, for supporting the development of high-quality Montessori Elementary teachers. We envisioned coaching sessions based on the MCT-EL rubric framework over time that would trace a teacher's growth trajectory and encourage reflection on and refinement of their practice. The rubric maps the progression of teacher growth from an initial lack of awareness of Montessori best practices to a beginning level of proficiency to developing, maturing, and integrating their implementation of these skills over time. The MCT-EL rubric was not developed with the intention for use in performance evaluation, promotion, or retention, and no scores are attached to any section of the rubric. Instead, the rubric was designed to be used by early-career Montessori teachers for self-reflection and as a basis for coaching conversations between early-career Montessori teachers and their mentors. The purpose of this article is to discuss the results of a research study investigating the utility of this rubric using feedback from experienced Montessori Elementary teacher educators.

Literature Review

A discussion of the literature provides important context for the development of the rubric and the design of this study. We start with an introduction to teacher coaching and the development and use of rubrics in educational settings in general. Next, we provide an overview of professional-development efforts using rubrics with Montessori educators and make the case for why a Montessori-specific teacher coaching rubric is necessary.

Coaching Outside of Montessori Settings

The MCT-EL rubric is intended to provide preservice and early-career Montessori teachers a structured opportunity for self-reflection, leading to collaborative conversations with instructional coaches to improve their teaching practice. Therefore, it is valuable to first examine the use of similar rubrics outside the field of Montessori education. When carefully constructed, thoughtfully implemented, and piloted, coaching sessions are opportunities for formative assessment. Specifically, supportive protocols that are inquiry based can serve as valuable resources for these sessions. Multiple researchers have found evidence that coaching experiences

produce positive impacts in both teacher confidence and demonstrated teaching effectiveness (Bartolome, 2017; Elish-Piper & L'Allier, 2011; Kraft & Blazar, 2017; Vernon-Feagans et al., 2013). A recent meta-analysis examined the empirical literature on teacher coaching to gauge the effect of coaching programs on instructional practices and student achievement (Kraft et al., 2018). Across 60 studies with causal research designs, the authors found that the impact of teacher coaching as a tool for professional development is favorable; however, they also identified that scaling up such programs is a significant challenge (Kraft et al., 2018).

Rubric Use Outside of Montessori Settings

Rubrics are commonly used as a tool to facilitate the coaching process (Gulikers et al., 2021; Tchekmedyian et al., 2017; Zugelder et al., 2019). According to Brookhart (2013), "a rubric is a coherent set of criteria for students' work that includes descriptions of levels of performance quality on the criteria" (p. 4). Rubrics are designed to support unbiased observation through providing a structure that shifts the focus from judging performance to simply describing performance, facilitating constructive feedback. Despite empirical evidence that supports the effectiveness of rubrics in enhancing student learning and performance, rubrics have faced criticism for potentially being harmful when poorly designed or implemented. Panadero and Jonsson's (2020) critical review of rubrics argued that this problem largely stems from narrow conceptualizations of rubrics or anecdotal personal experience rather than rigorous research. Instead, they asserted the evidence points to the value of rubrics when implemented effectively for their intended purpose. They further suggested that scientific, empirical research is necessary to optimize the design and use of rubrics.

Assessing Validity in Rubric Development

Any tool used for either formative or summative assessment, including a rubric, requires validity evidence that it is appropriate for its intended application (American Educational Research Association [AERA] et al., 2014). Authors typically engage in a multistep process to make the case for the validity of rubrics they develop (Allen & Knight, 2009; Timmerman et al., 2010). Timmerman et al. (2010) provided evidence of the appropriateness of a rubric's content to assess college students' scientific reasoning skills using four sources:

(a) rubrics in the literature, (b) alignment with criteria used by professional referees for their reviews, (c) input of pedagogical experts, and (d) recursive feedback rounds from stakeholders who were also content experts. Recursive feedback from experts is frequently used to support validity arguments for situations that are not well defined or well researched (Feldon, 2007; Linstone & Turoff, 1975; Miller et al., 2020).

Montessori Elementary Education

Montessori classrooms across age levels require certified Montessori teachers and include 3-year, mixed-age groupings and long blocks of uninterrupted time for children to choose their work from specially designed materials (Culclasure et al., 2019). Dr. Montessori (1971) conceptualized human development in planes, each corresponding to 6 years of growth. She proposed that children experience these phases or planes with each "having its own particular needs" (Montessori, 1971, p. 1). The focus for the present study is Montessori teachers working with children in the 6-to-12-year-old age group. According to the needs Dr. Montessori identified in what Montessorians call the *second plane of development*, or the Elementary years (ages 6 to 12), Montessori Elementary education has several unique characteristics that include reliance on interactive, small-group lessons within a curriculum that is integrated across subject areas, extensive storytelling, significant freedom and responsibility, and activities designed to optimally challenge each student (Culclasure et al., 2019).

Professional Development, Rubrics, and Coaching for Montessori Educators

Interest in a coaching orientation is growing within the Montessori community. The National Center for Montessori in the Public Sector (NCMPS) reports having "trained and supported more than 500 Montessori Coaches" in their coaches' training program, which provides preparation for working with Montessori educators in the field (NCMPS, 2021, "Support for Coaches" section). Public Montessori in Action is another organization that offers professional development for coaches, with a focus on "providing systems for reflective, child-centered practice that supports the growth and development of adults" (Public Montessori in Action, n.d.).

A variety of rubrics, instruments, and inventories have been developed to support high-quality Montessori implementation. For example, NCMPS has published the *Montessori Assessment Playbook* that outlines a Reflective Practice Inventory to allow teachers to rate themselves on 22 items using a 5-point Likert scale (NCMPS, 2019). The *Playbook* also includes a rubric for assessing the attainment of program-level standards and the Teacher Appraisal Instrument, which is a summative assessment of teaching practice (NCMPS, 2019). NCMPS also developed the Developmental Environmental Rating Scale, which is an iPad-based classroom observation rubric for supporting continual improvement by measuring child and adult behaviors as well as environmental attributes associated with executive function, linguistic and cultural fluency, and social fluency and emotional flexibility (NCMPS, 2019). Further, Canzoneri-Golden and King (2020) developed the Culturally Responsive Practice Anti-Bias Anti-Racism Rubric (CRP-ABAR) for Montessori teachers.

Empirical research on professional development for Montessori educators is limited, but two recent studies have examined its impact. Damore and Rieckhoff (2021) created a coaching protocol designed around the development of leadership competencies for Montessori school leaders. The coaching protocol was implemented as a form of professional development, and research on the protocol demonstrated that school leaders believed guided reflection yielded practice improvement both for themselves as school leaders and for the teachers in their schools. Specifically, they found that modeling and encouraging reflective practice should be a priority among leaders' complex administrative roles. The case study conducted by Saylor et al. (2018) examined a program for cocreated professional-development communities for Montessori teachers. Saylor et al. found that a multidimensional professional-development program addressing mindfulness, reflective practice, and teacher-centered mentorship had the potential to improve teachers' perceptions of the effectiveness of their practices.

Need for a Montessori-Specific Coaching Rubric

The preceding paragraphs illustrate that, although Montessori professional development, rubrics, and coaching initiatives exist, no comprehensive rubric is available for formative assessment that includes specific expectations of Montessori teacher practice that includes descriptions of levels of performance. In addition, because classroom practices and expectations

for Montessori teachers are quite different from those for conventional teachers, examining research outside of Montessori education is instructive but insufficient (Lillard & McHugh, 2019a, 2019b). Coaching as an approach to professional development translates to Montessori environments, but the content of that coaching differs because early-career Montessori teachers require guidance on mastering the unique role of teachers in Montessori classrooms (Damore & Rieckhoff, 2021; Saylor et al., 2018). Edwards et al. (2020) faced a similar task with respect to the development of a rubric for reflective practices in preservice and in-service teachers inspired by the Reggio Emilia approach to documentation. They developed a rubric based on Reggio's pedagogical documentation dimensions as an approach to engage preservice and in-service teachers, who tended to be more accustomed to following standardized curricula, in reflective practices that were not adequately addressed within the conventional educational literature.

The MCT-EL rubric was developed to fill the gap that exists between the literature on teacher coaching and rubric use in conventional settings and the currently available resources for supporting preservice and early-career Montessori teachers. The MCT-EL rubric includes a coherent set of criteria needed for Montessori Elementary teachers to be successful in the classroom, along with specific descriptions of levels of performance quality for each of the criteria. The purpose of this study is to gauge the usefulness and appropriateness of the MCT-EL rubric by obtaining input from a diverse group of experienced Montessori teacher educators. Therefore, three research questions guided the present study:

1. Do Montessori Elementary teacher experts view a coaching or mentoring rubric as valuable?
2. What are the strengths and weaknesses of the rubric that was developed?
3. What improvements to specific elements are necessary to optimize the value of the rubric?

Methods

To address our research questions, we designed a mixed-methods research study to obtain input from expert Montessori Elementary teacher educators through an anonymous online survey. As is often the case in mixed-methods research, we employed pragmatism as our philosophical foundation because our focus was on the consequences of our research in a real-world application (Creswell & Plano Clark, 2018). Our survey collected both qualitative and quantitative data using a "questionnaire variant" form of a convergent mixed-methods research design (Creswell & Plano Clark, 2018, p. 73). In this design, qualitative data are considered an add-on to the survey instrument, which enriches the quantitative-survey findings. This use of qualitative data to supplement quantitative-survey findings contrasts with the approach of a fully qualitative survey as defined by Braun et al. (2020), which relies primarily on the survey as a rich source of contextualized qualitative data.

Our approach to gathering feedback from experts in the field as an initial validation process parallels the procedures followed by Alsina et al. (2017), Van Ginkel et al. (2017), and Furze et al. (2015). Although we did not follow a strict Delphi technique (i.e., multiple interactive rounds of feedback until consensus is reached), we did incorporate an iterative process of gathering input on the MCT-EL rubric (Linstone & Turoff, 1975). Details of the development of the MCT-EL rubric are discussed in the next section, followed by a description of the research methods employed.

MCT-EL Rubric Development

An author of the present study initially developed the MCT-EL rubric to facilitate the self-evaluation of practicum students using Montessori and expert writings, research on Montessori implementation, and author experience that included 20 years supervising Montessori preservice teachers and 7 years teaching Upper Elementary. Daoust, one of the authors of this article, conducted a 1-year pilot in an American Montessori Society (AMS, n.d.) teacher education program (TEP) involved student teachers and their supervising teachers to jointly assess progress at the midpoint and end of the student teaching year. Consultants from the TEP used a similar form to evaluate student teachers after a 2-hour observation. Student feedback on the pilot suggested that the form had promise as an effective rubric.

The success of the TEP observation-tool pilot led us to embark on the present study. We reexamined texts with which we were already familiar so we could critically evaluate the content of the observation tool to ascertain its comprehensiveness in terms of key practices that comprise effective Montessori teaching at the Elementary level. Tables 1 and 2 list the specific Montessori and expert writings and other key resources we consulted for

Table 1

Resources Consulted for Rubric Development (Organizational Criteria and Maria Montessori's Writings)

Source	Author or publisher	Year
Organizational criteria		
AMS accreditation standards	AMS	2018
AMI/USA Montessori school standards	AMI/USA	2009
AMI Elementary classes: Detailed description	AMI Canada	n.d.
Montessori National Curriculum	Montessori Australia Foundation Limited	2012
Montessori assessment playbook	NCMPS	2019
The authentic American Montessori school: A guide to the self-study, evaluation, and accreditation of American schools committed to Montessori education	Rambusch & Stoops (AMS & the Commission on Elementary Schools of the Middle States Association)	1992
Maria Montessori's writings		
Education for a new world	M. Montessori	1963
Spontaneous Montessori activity in education: The advanced Montessori method	M. Montessori	1965
The child in the family	M. Montessori	1970
Education and peace	M. Montessori	1949/1972
To educate the human potential	M. Montessori	1973
From childhood to adolescence	M. Montessori	1976
The discovery of the child	M. Montessori	1948/1988
The absorbent mind	M. Montessori	1949/1989
The child, society, and the world: Unpublished speeches and writings	M. Montessori	2008
The Montessori Method	M. Montessori	1912/1964
Basic ideas of Montessori's educational theory: Extracts from Maria Montessori's writings and teachings	M. Montessori	1997a
The California lectures of Maria Montessori	M. Montessori	1997b
Education for human development	M. M. Montessori, Jr.	1976

Note. AMS = American Montessori Society; AMI = American Montessori Internationale; NCMPS = National Center for Montessori in the Public Sector.

Table 2

Resources Consulted for Rubric Development (Leading Authors, Articles and Other Publications)

Source	Author or publisher	Year
Leading Montessori authors		
Annette Haines: Spokesperson for Montessori values, scholarship, and research	AMI/NAMTA	2017–2018
Cosmic education: A collection of talks	Baker et al.	2008
The Montessori controversy	Chattin-McNichols	1992
An observer's notebook: Learning from children with the observation C.O.R.E.	Epstein	2012
What is Montessori Elementary?	Kahn	1995
Montessori: The science behind the genius	A. Lillard	2017
Montessori today	P. Lillard	1996
Elementary classroom management: How to implement cosmic education	Pottish-Lewis	2011
Maria Montessori: Her life and work	Standing	1957/1984
Articles and publications		
Designing a logic model to inform Montessori research	Culclasure et al.	2019
Montessori magnets and charters: Similarities and differences in implementation. [Poster]	Daoust & Suzuki	2013
Public Montessori Elementary: Three models of implementation. [Poster]	Daoust & Suzuki	2014
Authentic Montessori: The Dottoressa's view at the end of her life (Parts 1 & 2)	Lillard & McHugh	2019
Developing instruments to measure Montessori instructional practices	Murray et al.	2019
The role of the disciplines for cosmic education	Grazzini	2010
What we've learned, and what we're learning	Huneke Stone	2019
Becoming a scientific observer	MacDonald	2016
Montessori voices: Guided by nature	NAMTA	2013
What is Montessori? A basic guide to the principles, practices, and benefits of a Montessori education	Pendersen & Pendersen	2008
Montessori in action: Building resilient Montessori schools	Slade	2021
Making some changes in teacher training	Wyld	2019

Note. AMI = American Montessori Internationale; NAMTA = North American Montessori Teachers' Association.

creating and revising the rubric. The in-depth analysis of the resources resulted in iterative drafts of key items to be included in the MCT-EL rubric. In addition, this analysis resulted in a cycle of drafting and revising the descriptions of the various levels of performance on each of the items.

In the next phase of development, we collected informal feedback on a preliminary version of the MCT-EL rubric from participants at gatherings of teacher educators affiliated with the Montessori Accreditation Council for Teacher Education (MACTE) and AMS. Multiple rounds of revisions to the rubric emerged from these informal feedback sessions, resulting in the version of the MCT-EL rubric presented to participants in this study.

Participants

Our goal was to gather input from experienced Montessori Elementary teacher trainers because they had the extensive knowledge of Montessori practices necessary to provide in-depth feedback on the coaching

rubric. The first step in identifying participants was to visit the websites for Association Montessori Internationale (AMI), AMS, and MACTE Elementary TEPs in the United States to examine the qualifications of the Elementary program directors and key Elementary instructors. Required criteria for inclusion in the study included at least five years of Montessori classroom teaching and administrative experience, a history of professional speaking engagements related to Montessori pedagogy, and service in leadership roles within a regional, national, or international Montessori organization. To ensure a wide range of experiences, we also considered potential participants' record of publishing academic articles or professional books, advanced degrees, professional recognition, and experience in public schools. We collected a list of 32 Elementary trainers with appropriate credentials and substantial experience. Next, we collected email addresses from publicly available websites and professional connections to contact these experts, to introduce

Table 3
Profile of Study Participants

Multiple responses allowed for credentials and training	N	%
Credentials held (multiple allowed)		
Early Childhood	12	75
Elementary	16	100
Adolescent	2	13
Administrator	4	25
Elementary training received from		
American Montessori Internationale	4	25
American Montessori Society	9	56
International Montessori Council	1	6
Montessori Educational Programs International	1	6
Pan American Montessori Society	1	6
Independent	1	6
Currently training for (multiple allowed)		
American Montessori Internationale	4	25
American Montessori Society	10	63
International Montessori Council	1	6
Montessori Educational Programs International	1	6
Independent	1	6
Years of classroom teaching		
> 25	3	19
21–25	2	13
16–20	2	13
11–15	6	38
6–10	3	19
Years as trainer		
> 25	9	56
21–25	4	25
16–20	1	6
11–15	1	6
6–10	1	6

the study, and to invite participation. Participants acknowledged an information statement before completing the survey, and our procedures were approved by the institutional review board (IRB) at the University of Kansas.

A total of 18 participants responded to the online survey, an excellent response rate of 56% relative to the range of 20% to 30% reported as typical by Qualtrics (n.d.), which hosted the survey. Table 3 profiles the 16 participants who provided background information in the survey. Although two individuals chose not to provide background information, the reported results indicated that participants held the required credentials and had extensive professional experience. All participants had Montessori Elementary training, with half receiving training from AMS and the next-largest group receiving training from AMI. The majority of participants reported they were serving as Montessori training providers for AMS at the time of the survey. Considering the size of AMS in the United States relative to AMI, this is not a surprising distribution. All participants had spent at least six years as Montessori classroom teachers, and half had been serving as trainers for more than 25 years. We did not ask for gender, race, or ethnicity in the survey because the vast majority of experienced teacher educators are White females, leaving little doubt that our sample reflected that demographic.

Instrument

The 32 identified participants received an email approved in our IRB protocol, which included a link to an anonymous online survey on the Qualtrics platform. The survey began with an information statement as stipulated by the IRB, required about 30 minutes to complete, and included no honorarium or incentive. Participants could withdraw at any time by choosing not to participate in the online study. Because the survey link was anonymous, no unique identifying information or personal data were collected.

The MCT-EL rubric itself is lengthy and detailed, so the survey was programmed so that each participant provided feedback on only a portion of the components. The rubric itself was broken down into three blocks, and the survey software randomly assigned one of these blocks to each participant. Before being shown the randomly selected component of the rubric, participants were presented with an overview image to give them a general understanding of the complete rubric. The stimuli

presented to participants are provided in Appendix A. As a consequence of the random rotation of the stimuli, the number of reviewers for each block was not equal and varied from four to seven.

After each of the four images in the assigned block was presented to a participant, the participant was asked to rate three statements on a 7-point Likert scale, with responses that included *strongly disagree*, *somewhat disagree*, *slightly disagree*, *neither agree nor disagree*, *slightly agree*, *somewhat agree*, and *strongly agree*. The three statements were (a) "Consistent with Montessori pedagogy," (b) "Terminology is clear," and (c) "Reasonable progression of expectations for each practice." After the ratings, participants were prompted with an opportunity to provide open-ended comments: "Please explain your ratings above to help us improve the component of the rubric."

After participants completed the series of questions for each of the four elements they were randomly assigned to review, an image of the overall coaching rubric was provided, along with an opportunity for them to provide feedback on the entire framework. They were asked to use the same Likert scale to rate the degree to which the rubric covered the most important practices and the extent to which it would be useful for developing teachers. Four final, open-ended questions concluded the evaluation of the rubric, related to (a) an explanation of ratings, (b) the biggest strength of the rubric, (c) anything missing from the rubric, and (d) any final suggestions for improvement. Finally, the survey collected information about participants' professional background.

Analysis Procedures

Given the small sample size for this study, quantitative analysis was conducted in Microsoft Excel. The Likert items were analyzed descriptively in terms of the frequency of rating values assigned, which allowed us to gauge the relative strength and weakness of each subsection. This approach was recommended by Sullivan and Artino (2013) as the best way to analyze and interpret Likert-scale data.

Microsoft Excel was also employed in the analysis of the qualitative data, which allowed for the sorting of comments by topic and emerging themes. The qualitative data were examined using the process of thematic analysis as outlined by Braun and Clarke (2012). Specifically, we followed the process they described as "systematically identifying, organizing, and offering insight into patterns

of meaning (themes) across a data set" (p. 57). They further clarified that the valuable patterns of meaning are those that are important relative to the specific research question at hand.

We chose to follow the integration approach for a convergent mixed-methods design described by Creswell and Plano Clark (2018), involving organization of the results by major topic. These topics were related to the study's research questions and allowed quantitative analysis for each topic to be followed by an analysis of qualitative responses for themes and opportunities to improve individual items.

Results

Presentation of results is organized around our three research questions and includes both quantitative and qualitative findings.

Research Question 1: Is the rubric valuable?

When asked to rate their agreement level regarding the rubric being useful for developing teachers, 75% of experts indicated they strongly agreed it would be valuable, 19% responded that they somewhat agreed, and 6% indicated they somewhat disagreed. Many experts were positive in their open-ended comments about the overall value of the rubric:

- "This is an outstanding rubric that will be useful to all Elementary Montessori programs! It provides concrete components of practice for coaching teachers."
- "Overall, I think this is an excellent rubric."
- "This is a tremendous undertaking that is very well done. The suggestions I have made today should in no way be taken to be a criticism of the work done to date! I offer them in the spirit of wanting to address the most common problems I see with new teachers in my work with the TEP. Please accept my thanks and admiration for this work!"

One participant felt the rubric had merit but needed more work: "I think that the overall components have validity, but the rubrics are not ready for implementation yet." Another participant summed up the challenge of creating a valuable rubric: "The truest success of the Elementary Montessori guide is when the children trust them and collaborate with them. How do we measure that?"

Reliability is an important consideration when evaluating the usefulness of a rubric. While we did not have pilot data to calculate interrater reliability of the rubric in use, we were able to ascertain a measure of reliability for participants' ratings of the rubric items. Consistency within these ratings gives us confidence that the reactions to the items reflected common understanding and criteria for assessing their usefulness. We calculated James et al.'s (1984) interrater agreement (IRA) r_{wg} for single items, indicating the proportion of variance caused by agreement according to the formula in Equation 1:

$$r_{wg} = 1 - (S^2_x / \sigma^2_{eu}), \qquad (1)$$

where we used the common practice of employing the uniform distribution to obtain σ^2_{eu}, where A is the number of discrete Likert response alternatives. In this case, it was seven for a σ^2_{eu} value of 4, representing the variance of completely random responses (Mood et al., 1974), as shown in Equation 2:

$$\sigma^2_{eu} = (A^2 - 1)/12 \qquad (2)$$

Across the 70 items, the range of r_{wg} was .52 to 1.00, with an average of .84. In interpreting IRA, values of 1 represent complete agreement and values of 0 indicate completely random responses, so values closer to 1 reflect more substantial agreement. A common rule of thumb for interpreting r_{wg} is based on a practical standard of a cutoff of .70 (O'Neill, 2017). With an average r_{wg} of .84 and only seven of the 70 items evaluated in this small sample falling below this threshold, our results suggest reasonable agreement in ratings among our experts.

Research Question 2: What are the rubric's strengths and weaknesses?

Strengths

When asked what they believed was the biggest strength of this coaching rubric, participants commented on the structure, content, and potential impact of the rubric. Many of them viewed the structure of the rubric as a strength, indicating they appreciated the rubric's organization, simplicity, breadth, and developmental nature. In terms of structure, one commented on the organization: "The specificity of the criteria, as well as the structure of the rubric, where one could see what improvement would look like, is a real strength." Another comment identified a strength: "The thoughtful, professional, well-informed development of this rubric is a strength, and its ease of use and simplicity / objectivity

of its language." Several comments addressed the breadth of the rubric, believing it was "comprehensive" and provided "specifics." Two comments highlighted feelings about the coverage of the rubric:

- "The rubric has clear and concise language and is progressive in the ratings. I feel you have covered the majority of areas that need to be considered in a coaching rubric."
- "The breadth of areas viewed gives ample opportunities for improvement but also for the teacher to see what [they are] doing well."

Other comments demonstrated that the developmental aspects of the structure were also appealing.

- "I like that it can be used to document change over time."
- "Clearly identifies components of the teacher's role and shows progressive steps for improvement with the rubric. It's a rubric for reflection."
- "I think a strength is that mentors can understand the student teaching is a developmental process, and expectations and guidance should recognize that. We need to look at Developing [one of the performance levels described in the rubric presented to participants] for goals in the initial weeks of a placement."
- "The specificity of the criteria, as well as the structure of the rubric, where one could see what improvement would look like, is a real strength."
- "Clarity of expectations and how to grow to next level."
- "The rubric has clear and concise language and is progressive in the ratings."

Participants also valued that the rubric was grounded in Montessori pedagogy and philosophy and was therefore appropriate for use in a Montessori Elementary classroom. Many comments reflected this perspective.

- "It covers the basics of what it means to implement Montessori philosophy and best practices for a novice teacher."
- "I think a strength is having a rubric founded on Montessori pedagogy and philosophy."
- "Components are logical, and this is a very good rubric of reference."

- "The overall components included are valid points and touch important aspects of working with children in a Montessori setting."
- "It is thorough, comprehensive, and grounded in Montessori philosophy. It values what we [Montessori professionals] value."

Finally, the reviewers recognized a key strength in the potential impact of the rubric on early-career teachers:

- "The sections are well divided. The rubric has sub-categories to support growth and development gradually."
- "[It helps] young and experienced teachers take stock and become more conscious."
- "It provides a (somewhat) objective rubric for measuring one's practice. I think that it could provide both the coach and the new teacher a fair experience."

Weaknesses

Although participants identified many strengths of the rubric, we were particularly interested in where they saw weaknesses. We will discuss specific items that participants identified that were missing from the rubric in the next section, but here we outline larger issues that they viewed as lacking. Several participants needed more information about how, specifically, to use the rubric:

- "I don't see information on how the coach and the 'coachee' would be matched for their work. Is it purely a job performance experience, or more of a mentoring / relationship experience? In either case, the match-up and the reason for providing coaching would be critical. I realize that is all outside of this rubric, however."
- "[Need an] explanation of how it should be used, how often, who should be using it, a section for 'goals' to be established based on the rating given, and strategies for reaching the goals."

Questions and suggestions also emerged about next steps in the rubric's development and implementation:

- "I am assuming that there is a 'minimum' that is suggested for field consultants. Will this be a digital rubric that allows [field consultants] to make additional notes to verify their rating?"
- "I hope you are piloting the rubric in a wide range

of classrooms to include public, private, [classrooms that are] inclusive of special education students, and classrooms that are diverse."

- "When [the rubric] is implemented, there might be a suggestion for observers to assess only some areas on a particular visit and other areas on another visit.

- "I also think it might be really interesting to have the person being coached complete the matrix (self-assessment) so that the debrief can focus on those areas where the mentor and the mentee see things quite differently or on areas where both agree there is room for growth. This could be quite powerful!"

- "How do you expect a teacher to reach the expected goals toward perfection?"

Research Question 3: What improvements are necessary for specific elements of the rubric?

Participants evaluated components of the rubric in blocks, as described previously. For each block, they rated consistency with Montessori pedagogy, clarity of terminology, and reasonableness of the expectation progression. They also provided open-ended comments to elaborate on their ratings. The feedback on specific elements of the rubric is broken down between quantitative results and qualitative results.

Ratings

We summarized participants' ratings for various elements of the rubric in Figure 1. In terms of consistency with Montessori pedagogy, participants provided the highest proportion of ratings of 7 on the 7-point scale for the items related to Delivery (86%) and Organization (71%) of presentations, Observation (75%), Redirection (71%), and teacher Demeanor (75%). The element about teacher Conduct received the fewest ratings of 7 on the 7-point scale for consistency with Montessori pedagogy (25%). Terminology elements that received the highest number of ratings of 7 on the 7-point scale were Organization (86%) and Delivery (86%) of lessons with teacher Conduct close behind (75%). Terminology for Choice and Independence received no ratings of 7 on the 7-point scale. The progression elements related to lesson Delivery (71%) received the most 7 ratings on the 7-point scale. No other progression elements came close, and Choice and Independence both received no ratings of 7 on the 7-point scale.

Qualitative Results

Likert ratings, particularly for the Demeanor and Conduct elements, indicated that improvements were needed in progressions, along with clearer terminology. Examining participants' suggestions for refining the existing items provided insights into necessary refinements. The paragraphs that follow explore comments organized into the areas of consistency with Montessori pedagogy, clarity of terminology, and appropriateness of progressions. This section concludes with a discussion of recommended additional items for the rubric.

Consistency With Montessori Pedagogy. Although ratings for consistency with Montessori pedagogy were fairly positive, some participants made comments related to their professional experience and perspectives on Montessori philosophy.
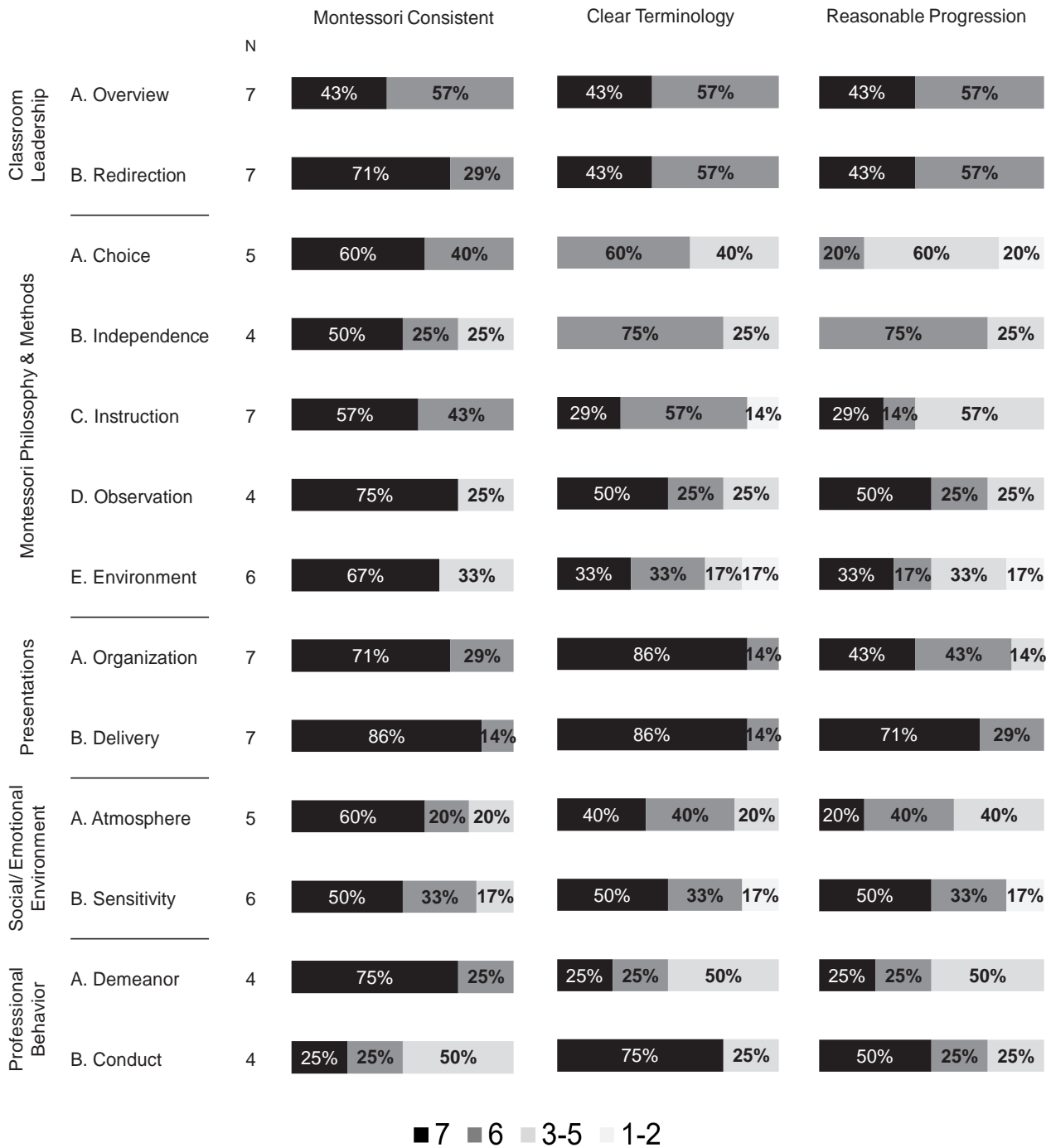
- "New teachers sometimes think that the best lesson is the one that is rolled out verbatim from the album . . . . Rather than memorize lessons and deliver them AT the children like a prerecorded message, we encourage them to tell THEIR story based on the version of the story in the album . . . ."

- "I placed less emphasis on analyzed movements and limited language than did my Primary trainer colleagues . . . . The Elementary Montessori teacher has to appeal to the older child's imagination. Our stories do still need to be limited—we sow the seeds, we present the keys, we're not just entertaining them—but they must not be dry or too brief."

One participant identified a specific point of disagreement:

- "Overall, it works with one striking point of disagreement—Classroom Leadership issue. Teaching with your back to the wall is one extreme, the other being giving your whole self to the child to encourage currents of mental energy with full focus on the child and his lesson. The assistant can keep things calm. Scanning all the time is not modeling concentration."

Clarity of Terminology. A significant amount of feedback revolved around clarifying terminology:

Figure 1

Relative Ratings for Each Rubric Component

		N	Montessori Consistent	Clear Terminology	Reasonable Progression
Classroom Leadership	A. Overview	7	43% / 57%	43% / 57%	43% / 57%
	B. Redirection	7	71% / 29%	43% / 57%	43% / 57%
Montessori Philosophy & Methods	A. Choice	5	60% / 40%	60% / 40%	20% / 60% / 20%
	B. Independence	4	50% / 25% / 25%	75% / 25%	75% / 25%
	C. Instruction	7	57% / 43%	29% / 57% / 14%	29% / 14% / 57%
	D. Observation	4	75% / 25%	50% / 25% / 25%	50% / 25% / 25%
	E. Environment	6	67% / 33%	33% / 33% / 17% / 17%	33% / 17% / 33% / 17%
Presentations	A. Organization	7	71% / 29%	86% / 14%	43% / 43% / 14%
	B. Delivery	7	86% / 14%	86% / 14%	71% / 29%
Social/ Emotional Environment	A. Atmosphere	5	60% / 20% / 20%	40% / 40% / 20%	20% / 40% / 40%
	B. Sensitivity	6	50% / 33% / 17%	50% / 33% / 17%	50% / 33% / 17%
Professional Behavior	A. Demeanor	4	75% / 25%	25% / 25% / 50%	25% / 25% / 50%
	B. Conduct	4	25% / 25% / 50%	75% / 25%	50% / 25% / 25%

Legend: ■ 7   ■ 6   ■ 3-5   □ 1-2

Note. The range of the 7-Point Likert scale was *strongly disagree* (1), *somewhat disagree* (2), *slightly disagree* (3), *neither agree nor disagree* (4), *slightly agree* (5), *somewhat agree* (6), and *strongly agree* (7).

- "Under Classroom Leadership—is there another word that you can use for 'Redirection'? Redirection has a negative connotation. What about using 'Guidance'?"
- "I do not use the terms 'on-task' or 'off-task' in my Montessori work. The work of the children is self-construction. How can they be 'off-task' then? The lessons, activities, materials, experiences are all invitations to inspire and structure and guide that self-construction. But in my experience, what gets deemed 'off-task' is often a child manifesting some other aspect of the self-constructive work."
- "The only thing I 'bumped on' here was the word 'reinforced,' which sounds a bit harsh—I prefer 'upheld' or 'supported' (Integrating / item 1)."
- "'Permits,' 'Allows,' and similar language make the adult the keeper of knowledge; in Montessori, we know the children learn through their own actions."

Appropriateness of Progressions. The largest number of comments related to specific concerns with the rubric's progressions. Many participants identified particular items where progressions did not seem to be continual scales:

- "I think that the scales do not show accurate 'progressions' of skill in implementation . . . . They don't reflect a true progression."
- "Like all rubrics, there are a few places where it would be tricky to use simply because the 5 descriptions within a given element are neither mutually exclusive nor cumulative."
- "These rubrics don't always base their progression on the same points of observation, introducing a variety of goals that are sometimes like comparing apples and oranges."
- "The progression from Developing to Maturing to Integrating does not seem consistent—there appear to be different criteria introduced at each of those levels rather than deepening or expanding the criteria from the previous levels."
- "I feel that some of the explanations for categories above are arbitrarily assigned a space in the linear scale."

Other concerns related to the number of points that the items used:

- "I am feeling that maybe you are trying to get too many categories on the rating scale."
- "A rubric with so many components can be very useful with less of a progression (three instead of five) since you are covering so many areas."

Finally, some participants noted that the language in the progressions had a negative tone as mentioned in these quotes:

- "The first level, 'unaware,' seems very negative."
- "Rework all of the rubrics to be less negative (for the first column)."
- "Consider language that puts children at the center rather than the adult: 'helps children maintain journals; children understand reasons why this is important.'"
- "Phrase positives, e.g., able to be objective rather than inferring in observation: The girl cries rather than the girl is sad."

Suggestions for Additions. Although 94% of participants agreed either strongly (50%) or somewhat (44%) that the MCT-EL rubric covers the most important practices, they also provided valuable suggestions for additions for the rubric. Qualitative feedback mentioned the importance of addressing practices related to diversity, equity, and inclusion in the rubric.

- "One of the biggest challenges for new and experienced Montessori teachers is differentiating instruction for students with learning differences and disabilities and collaborating with special education faculty. Inclusivity is a major focus in education today."
- "I'd suggest inclusion of something referencing the teacher's sensitivity to their school's culture and community—and responsiveness to equity, diversity, and inclusion goals."

Given today's challenges with the COVID-19 pandemic, one participant pointed out the importance of self-care for teachers: "I wonder if there should be an element under Professionalism to address self-care. Montessorians are really bad at self-care in a normal year; the pandemic . . . has exacerbated this issue." Finally, another participant suggested including the relationship with a classroom

assistant through "directing/guiding" as an important leadership skill to be developed. Other suggestions for potential topics to be added to the rubric included curriculum planning, technology, reflective practice, assisting children, assessment, and sections for each subject area.

Discussion

Overall, the results from these experts suggest that the MCT-EL rubric is comprehensive and valuable. They especially appreciated its objectivity and the design that clearly articulates professional progression. Participants rated the rubric as highly consistent with Montessori pedagogy, but opportunities for improvement exist in the clarity of the terminology and some aspects of the progressions in performance-quality level. Specifically, participants rated consistency with Montessori pedagogy more favorably than clarity of terminology and reasonableness of the progressions. Participants were similarly positive about the rubric covering the most important Elementary practices but suggested additions did emerge from the qualitative analysis, particularly in the area of diversity, equity, and inclusion. Qualitative data also supported the quantitative results that found opportunities for improvement in terminology and the progression descriptions of performance-quality level. In fact, the largest number of comments related to the progressions across levels of performance quality; many were related to the possibility that some language was negative in tone or some of the scales did not seem to truly be a continuum. Qualitative results related to terminology largely revolved around concerns with specific words (e.g., "redirect," "off-task," "reinforced," and "permits") that seemed inconsistent with Montessori philosophy.

When we examined the results across dimensions, the most positive ratings were evident in the four elements comprising the Classroom Leadership and Presentations components of the rubric (i.e., Overview, Redirection, Organization, and Delivery). Almost all respondents reviewing these dimensions indicated they either strongly or somewhat agreed that the criteria and indicators provided were consistent with Montessori pedagogy, they used clear terminology, and they listed a reasonable progression. No disagreement or neutrality was expressed for these dimensions. These elements also generated few comments in the qualitative data. The

ratings for Instruction, Observation, and Environment in the Montessori Philosophy and Methods dimension fell in the middle of all elements—with more ratings of slightly agree, disagree, or neither agree nor disagree— although no ratings reflected a level of strong or moderate degree of disagreement. These results were similar to those for Atmosphere and Conduct, although Conduct had the lowest ratings for being aligned with Montessori pedagogy. The elements with the least positive ratings were Choice, Demeanor, Independence, and Sensitivity.

Limitations

While this study generated a great deal of valuable insight into refining the MCT-EL rubric, a number of limitations existed. First, the study included a small sample size, and the number of ratings for each component of the rubric was even smaller, to make the task manageable for participants. We also acknowledge that the sample had very little diversity, which is unfortunately consistent with the population of Montessori teacher trainers. Finally, as this study focused on the content of the rubric components with a very small sample, we did not address reliability issues. To remedy these problems, we intend to conduct future research to examine the MCT-EL rubric through a diversity, equity, and inclusion lens and to pilot the revised rubric with a larger sample of preservice and early-career teachers to allow more-sophisticated quantitative analysis.

Future Directions: Revisions for the MCT-EL Rubric

The results of this study led to revisions of the MCT-EL rubric to enhance its usability in the field. This section outlines how we incorporated the results from this study into a revised version of the rubric. We first organized the data by strength and frequency to better understand consistent themes and the areas in most need of revision. Modifications were made, one element at a time, by systematically addressing each practice individually. After carefully reviewing the extensive feedback from the expert Montessori teacher educators, we revised the rubric. Continuing our iterative process, we asked a small group of experienced Montessori teacher educators to informally review the changes we made, which resulted in additional revisions we incorporated into a new version of the MCT-EL rubric, provided in Appendix B. A number of areas were revised according to specific suggestions for how items could be changed, while others required refinement according to general feedback. Examples

of how these changes were reflected in revisions to the elements and dimensions, specific practices, and indicators are discussed in the paragraphs that follow.

To ensure that no section was overwhelmingly large and unwieldy and to enhance the intuitive logic of the framework, the first modification was a reorganization of the elements. We divided the Montessori Philosophy and Methods dimension into two subsections: Montessori Philosophy (with the Choice, Independence, and Observation elements), and Montessori Methods (with the Instruction and Environment elements). In addition, three element titles were changed. Under Classroom Leadership, we changed Overview to Awareness and Redirection to Guidance. Within Professional Behavior, we changed Conduct to Development and redistributed practices to align better with the change in the title. Additional changes were made in both the practices themselves and the indicators of progression levels.

Practices

The number of practices was expanded from 70 to 81 to incorporate areas that were deemed lacking; additions included:

- Collaborates with the classroom assistant (for lead teachers).
- Integrates technology.
- Provides educational differentiation.
- Supports quiet and active pursuits.
- Fosters home and school partnerships.
- Addresses implicit bias.
- Supports social justice goals.
- Practices self-care.
- Connects with each child.

Additional changes were made for clarity and consistency with Montessori theory:

- Wording added or changed (e.g., "Lessons are well-prepared" became "Prepares lessons in advance").
- Structure altered so each statement begins with a verb (providing consistency across practices); for example, "Materials appropriately placed" becomes "Places materials appropriately."

One item, Implements Routines, was removed because all the indicators for this practice should be exhibited by a beginning teacher.

Indicators

Many of the indicators in the individual progressions were edited for clarity, accuracy, and completeness, as suggested by participants. The most significant changes were made in the progression of indicators from Beginning to Maturing. Our goal was to ensure the Beginning column listed all basic indicators, the Developing column represented somewhat more-complex skills, and the Maturing column included practices that were even more advanced. In addition, indicators originally listed in the Integrating column were combined with the practices they described, and all indicators in the Unaware column were reworded in positive terms.

Although the feedback from participants was extensive, we recognize that the relatively small number of participants is a limitation for any statistical analysis. However, the rich qualitative data provided sufficient insight for development of major improvements to the rubric. Out of respect for participants' time, we asked each person to provide detailed feedback on only about one-third of the complete rubric. We believe this was necessary to ensure that the task was manageable and that participants did not abandon the online survey before completion; however, this segmented presentation of the complete rubric limited participants' ability to envision how the fully implemented rubric might function in practice. We hope to address these limitations by continuing to collect feedback as early-career teachers and their mentors use the rubric in real classrooms in the field.

Conclusion and Future Directions

Extensive background research provided the foundation for the development of the MCT-EL rubric that was presented to Montessori teacher-education experts. These participants provided thorough, thoughtful, and detailed feedback on the value of the rubric and specific opportunities for refinement. We meticulously incorporated this valuable input into a revised version of the rubric, which is provided in Appendix B. A downloadable version of the MCT-EL rubric is available in the Supplementary Materials for this article. In conducting this research study, we learned a great deal, not only about the goals we set out to achieve, but also about how to design a process for rigorously examining the validity of this type of coaching rubric. Our approach and the acknowledgments of its limitations can serve as lessons for

future researchers as interest in designing instruments and rubrics grows in the field of Montessori education.

The revised MCT-EL rubric has the potential to contribute to the field of Montessori education by enhancing the development of early-career educators as they grow in their proficiency with Montessori pedagogy. The rubric provides a solid foundation for additional coaching and mentoring tools to facilitate the development of highly qualified teachers. Our hope is that teacher educators and school administrators will find opportunities to explore this rubric with early-career teachers as they refine their craft. If readers apply the rubric in their work, we encourage them to contact us to describe their experiences.

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Appendix A: Survey Stimuli

First, participants were presented with an overview image to provide a general understanding of the complete rubric. For the questions participants responded to, the survey software randomly chose which of the three alternative blocks was presented to any given participant. Each of the blocks contained four individual images. This appendix includes the overview image as well as the three possible blocks presented. Instructions from the survey read:

> The Montessori Coaching Tool Elementary (MCT-EL) rubric is a detailed rubric that contains specific items representing five components of Montessori Elementary practice. Out of respect for your time, we will not be asking you to provide feedback on the entire rubric. Instead, we are asking different people to review different sections assigned randomly. To provide context, this image illustrates all five components covered in the rubric. On the next series of screens you will be asked to respond to questions related to specific items within a subset of the five components.

Overview Presented to All Participants

Montessori Elementary Teacher Coaching Tool
Teacher Performance Rubric Overview
Components of Practice Considered

Classroom Leadership	Montessori Philosophy/ Methods	Presentations	The Social/ Emotional Environment	Professional Behavior
• Overview • Redirection	• Choice • Independence • Instruction • Observation • Environment	• Organization • Delivery	• Atmosphere • Sensitivity	• Demeanor • Conduct

Alternative Block 1 (four images)

I. Classroom Leadership					
A. Overview	**Unaware**	**Beginning**	**Developing**	**Maturing**	**Integrating**
1. Positions with back to a wall	Does not position with his/ her back to a wall.	Usually avoids facing a wall or shelf during lessons.	Back is toward a wall while observing and during most lessons.	Consistently positions with back to a wall, near room edges.	Positions for maximum overview during lessons and otherwise.
2. Scans the room	Does not look around the classroom.	Occasionally scans the room.	More consistently looks up and around during lessons.	Incorporates room scans into and between lessons.	Scans often to maintain awareness of the classroom.
3. Listens	Does not seem aware of sounds in the environment.	Occasionally turns toward a loud sound.	More consistently turns toward unusual sounds.	Reacts to sounds suggesting off-task behavior.	Listens to monitor activity in the classroom.
4. Balances adults in the room	Does not spatially balance other adults in the classroom.	Is becoming aware when other adults are teaching or have left the room.	Begins to position away from other adults.	Repositions to balance other adults, checks in with them verbally or non-verbally.	Works as a team with other adults to maximize overview.
5. Prioritizes assistance	Does not prioritize when assisting children.	Notices assistance is needed by nearby children and approaches.	Monitors children within 15 feet; moves from one group to the next.	Begins to scan the room before determining where to approach.	Assistance is based on whole class awareness.
6. Manages whole group activities	Does not successfully lead whole group activities.	Maintains the group's attention briefly while reading a story, singing, etc.	Attains attention prior to a group activity and can hold attention for 10 min.	Leads the whole group for 15 min. regaining attention as needed.	Appropriately selected whole group activities are well run, short and enjoyable.

I. Classroom Leadership

B. Redirection	Unaware	Beginning	Developing	Maturing	Integrating
1. Implements rules and procedures	Does not implement rules and procedures.	Begins to convey and reinforce classroom rules and procedures.	More reliably responds to rule and procedure noncompliance.	Consistently addresses rule and procedure noncompliance.	Rules and procedures are clearly communicated and reinforced.
2. Enables self-correction	Does not enable children to self-correct behavior.	States what to do and avoids negative directives e.g. "walk" instead of "don't run".	Begins to redirect nonverbally and with questions while avoiding "you need to".	Does not nag, and points things out in a matter of fact way, e.g. "I notice…".	Avoids power struggles by emphasizing prompts and problem solving.
3. Is non-judgmental	Does not use factual information to draw conclusions.	Begins to avoid snap judgments of behavior.	More consistently avoids assumptions and preconceived notions.	Obtains information before drawing conclusions and responding.	Understands children who misbehave have needs that are not being met.
4. Monitors redirection	Does not monitor redirection.	Is starting to observe a child's response after redirection.	More consistently notices if redirection has been effective.	Usually monitors re-direction encouraging compliance when needed.	Dependably and productively monitors redirection.

III. Presentations

A. Organization	Unaware	Beginning	Developing	Maturing	Integrating
1. Appropriate lessons	Does not choose appropriate lessons for children.	Uses album ages to guide lesson selection.	Introduces lessons based on observed interest.	Uses observation, record keeping and discussions to select interesting lessons.	Lessons are appropriate for children's ages, interest, experience and ability.
2. Lessons are well-prepared	Does not prepare lessons ahead of time.	Albums are consulted and notes taken prior to giving lessons.	Refers to notes briefly and unobtrusively during lessons.	Lessons usually flow and are consistent with album descriptions.	Lessons flow, and are clear, complete and concise.
3. Needed materials available	Does not gather required materials prior to lessons.	Most materials needed are on hand when lessons begin.	Materials remain available to children after lessons.	Appropriate follow up materials are made available.	All materials needed are available during and following lessons.
4. Materials appropriately placed	Does not place materials appropriately during lessons.	Materials are orderly placed during most lessons.	Materials are placed directly in front of children during most lessons.	Material placements are consistent with album descriptions.	Materials are placed accurately and in easy reach of children during each lesson.

III. Presentations

B. Delivery	Unaware	Beginning	Developing	Maturing	Integrating
1. Uses accurate, limited language	Does not use accurate, limited language.	Begins to use accurate language during lessons.	Precise language is used with few embellishments.	Adapts language to children's responses.	Language flows, and is clear, accurate, appropriately adjusted, and limited.
2. **Uses accurate, precise movements**	Does not use accurate, precise movements.	Begins to move materials slowly and accurately during lessons.	Uses clear, exact movements without bouncing the hand.	Carefully and accurately manipulates materials during most lessons.	Materials are precisely and correctly manipulated throughout each lesson.
3. Lessons are interactive	Does not give interactive lessons.	Involves children at some point during lessons.	Involves children early on during lessons.	Engages each child often in each lesson.	Engages children in highly interactive lessons.
4. Lessons stay on topic	Does not give short, focused lessons.	Refocuses lessons that have veered off course.	Remains on topic during most lessons.	The majority of lessons are 15 minutes or less.	Lessons stay on topic and are short in duration.
5. Modifies lesson pacing	Does not modify lesson pacing based on children's responses.	Begins to notice when a lesson's pace is too fast or slow.	Modifies a lessons pace according to children's responses.	Reviews prior learning and gives a prior or subsequent lesson if needed.	Gives well-paced lessons that aren't too hard or too easy.
6. Connects with children	Does not connect with children during lessons.	Begins to use facial expressions to connect with children.	Acknowledges children's reactions during most lessons.	Responds to children with warmth and empathy.	Maintains a connection with each child throughout each lesson.
7. Checks for under-standing	Does not check for understanding during lessons.	Observes children's material use during lessons.	Observes during and after lessons to assess ability to use materials.	Uses 3 period lessons and questions to determine understanding.	Integrates observation, 3 period lessons and questions to assess understanding.
8. Supports struggling children	Does not support struggling children.	Recognizes when children are struggling with an activity.	Notices and begins to assess why children have difficulty with an activity.	Tries different strategies to help children challenged by an activity.	Implements appropriate solutions when children struggle with an activity.
9. Offers follow-up suggestions	Does not offer follow-up suggestions.	Avoids assigning follow-up activities.	Begins to provide suitable ideas for follow-up activities.	Provides follow-up how-to instruction when needed.	Offers appealing follow-up suggestions aligned with children's interests and ability.

Alternative Block 2 (five images)

II. Montessori Philosophy/Methods					
A. Choice	**Unaware**	**Beginning**	**Developing**	**Maturing**	**Integrating**
1. Facilitates choice with lessons	Does not facilitate activity choice by giving lessons.	Invites participation in lessons and avoids telling children what work to do.	Refrains from assigning work discussing work options instead.	Introduces interesting activities to encourage self-selection.	Gives many well-timed lessons facilitating choice and concentrated activity.
2. Promotes co-activity	Does not promote co-activity.	Permits children to work together and instruct one another.	Allows children to choose with whom they work.	Structures activities so children work together successfully.	Facilitates productive coactivity, collaboration and peer instruction.
3. Supports productive work choice	Does not help children choose appropriate activities.	Is becoming aware of children unable to choose activities.	Alternately selects work and offers choice for a child unable to choose.	Avoids inhibiting choice with praise, rewards, deadlines, etc.	Develops the choice making ability of each child.
4. Fosters choice through procedures	Does not enact procedures supporting children's choice making.	Involves children in making classroom rules.	Children decide where to sit, how long to use an activity, and when to have snack.	Facilitates choice with a 3-hr uninterrupted work period.	Enacts procedures that provide decision-making opportunities.
5. Promotes choice with material availability	Does not provide children with a full range of elementary Montessori materials.	Makes age-appropriate manipulative materials available.	Makes timelines and charts available.	Makes experiment and large timeline making materials available.	Supports productive choice with a full range of elementary Montessori materials.

II. Montessori Philosophy/Methods

B. Independence	Unaware	Beginning	Developing	Maturing	Integrating
1. Emphasizes careful handling of materials	Does not emphasize careful handling of materials.	Begins to notice when materials aren't used, carried or returned properly.	Models appropriate handling of materials.	Reviews the proper handling of materials when needed.	Supports careful material retrieval, use and replacement.
2. Respects student work spaces	Does not respect children's work areas.	Avoids touching children's work without permission.	Helps children straighten a dis-organized workspace.	Introduces methods for maintaining an organized workspace.	Respects each child's work space.
3. Supports self-reliance	Does not support children's self-reliance.	Avoids completing children's activities or stating what to do.	Asks problem solving questions when children face difficulties.	Monitors activity discreetly, assists briefly and checks back in as needed.	Recognizes when children need help or can do activities themselves.
4. Facilitates productive use of time	Does not facilitate productive use of time.	Helps children maintain work journals and explains reasons for doing so.	Meets regularly 1-on-1 with children to review journals and plan activities.	Monitors agreed-on goals and mutually creates solutions when plans fall short.	Monitors and supports each child's work goals and effective use of time.
5. Clarifies work expectations	Does not clarify work expectations.	Begins to define freedoms offered and work responsibilities.	Provides children with access to public school requirements.	Establishes and clearly communicates classroom work expectations.	Helps each child balance freedom and responsibility in the classroom.
6. Monitors activity outside of lessons	Does not monitor learning outside of lessons.	Begins to distinguish between useful and unproductive activity.	Begins to find the reasons behind unproductive activity.	Confers with children to refocus unproductive activity.	Implements agreed upon solutions to help prevent unproductive activity.

II. Montessori Philosophy/Methods

D. Observation	Unaware	Beginning	Developing	Maturing	Integrating
1. Records observations	Does not observe and record observations.	Records observations several times a week.	Records observations everyday.	Regularly uses a record keeping system.	Records observations daily and uses an efficient record keeping system.
2. Utilizes recorded observations	Does not refer to recorded observations.	Begins to review notes for lesson planning purposes.	Uses notes to plan lessons and adjust the environment.	Uses recorded observations to create student reports.	Uses observation to plan lessons, modify the classroom, and generate reports.
3. Observes objectively	Does not describe children's behavior objectively.	Begins to describe behavior factually, e.g. *The boy throws the hat.*	Avoids evaluation, e.g. *The girl is rude.*	Avoids attributing cause or inferring, e.g. *The girl cries,* <u>not</u> *The girl is sad.*	Avoids reaction based on past experiences, beliefs, opinion and/or biases.
4. Records objectively	Does not record student's activities objectively.	While note taking avoids labels and absolutes, e.g. never, always, every.	Can record what is said and done in a play-by-play manner.	Begins to recognize behavior patterns in notes.	Records impartially and draws factually based conclusions.

V. Professional Behavior

A. Demeanor	Unaware	Beginning	Developing	Maturing	Integrating
1. Appropriate dress	Does not dress appropriately.	Avoids low necklines, flip flops, displaying the mid-drift, etc.	Clothing is neat and in good repair.	Accessories are limited and appropriate; effort is made to look attractive.	Appearance is appealing and professional.
2. Positive attitude	Does not project a positive attitude.	Limits frowning and negative facial expressions.	Maintains a relaxed posture; seems to be having fun.	Is pleasant to be around, and facial expression and stance are welcoming.	Smiles often, is warm, and maintains a positive, relaxed attitude.
3. Professional commitment	Does not demonstrate professional commitment.	Is eager to give lessons and assist children.	Willingly assumes increased classroom responsibility.	Participates in whole school activities.	Is a committed member of the school community.
4. Wants to improve profession-ally	Does not show openness to improving professionally.	Avoids defensiveness.	Responds favorably to constructive suggestions.	Seeks advice and help when needed.	Wants to improve and do his/her best professionally.

V. Professional Behavior					
B. Conduct	**Unaware**	**Beginning**	**Developing**	**Maturing**	**Integrating**
1. Moves calmly	Does not move calmly through the classroom.	Usually minimizes quick movements in the classroom.	Movement is unhurried and limited.	Approaches children quietly and unperturbed.	Moves calmly with purpose and composure.
2. Listens carefully	Does not listen attentively to children.	Communicates with children at eye level.	Looks at children while listening with interest.	Listens to children with undivided attention.	Talks with children at eye level and listens attentively.
3. Touches respectfully	Does not touch children respectfully.	Refrains from touching children excessively or giving unsolicited hugs.	Avoids pulling children; offers a hand if appropriate.	Touches children only in ways with which each is comfortable.	Respects children's physical boundaries.
4. Provides appropriate feedback	Does not provide children with appropriate feedback.	Uses humor properly while avoiding sarcasm and statements that dampen enthusiasm.	Notes accomplishments with encouragement, e.g. "Wow, you figured it out!"	Avoids taking children's negative statements personally.	Responds to children in a sensitive and conscientious manner.

Alternative Block 3 (four images)

II. Montessori Philosophy/Methods

C. Instruction	Unaware	Beginning	Developing	Maturing	Integrating
1. Lessons given across curriculum	Does not give at least 3 Montessori lessons each week.	3-5 classic Montessori lessons are given each week.	At least 2 lessons in different curriculum areas are given each day.	At least 3 lessons in a variety of curriculum areas are given each day.	On average 3-6 daily lessons across curriculum areas are given each week.
2. Small and flexible lesson grouping	Does not give small group lessons with flexible grouping.	Most lessons given with 2-6 children.	Lessons aren't repeated with multiple groups on the same day.	Initiates flexible grouping and invites an interested child to join.	Uses small, non-static lesson groupings diverse across ages, genders, and abilities.
3. Instructs with enthusiasm	Does not instruct with enthusiasm.	Is curious and eager to learn with children.	Suggests and presents activities with enthusiasm.	Shares children's excitement in discovery and learning.	Instructs with enthusiasm and a sense of wonder.
4. Excites interest	Does not introduce Montessori practices that excite interest.	Uses storytelling and fondness for the extra-ordinary to foster interest.	Facilitates 'big work' and 'going-out'.	Facilitates food preparation and community service.	Arouses interest with practices geared to 2nd plane characteristics.
5. Facilitates research	Does not facilitate independent investigations.	Limits provided information to encourage child inquiry.	Facilitates self-initiated projects with how-to lessons.	Uses questioning to spur further investigation.	Provides time, motivation, and resources essential for in-depth research.
6. Adapts public school requirements	Does not appropriately adapt public school requirements.	Math lessons incorporate public school terminology.	Public school lessons are short, hands-on and collaborative.	Adapts public school curriculum to children's needs, interests and abilities.	Required public school lessons resemble Montessori presentations.
7. Honors self-correction	Does not enable children to correct their own work.	Has a friendly attitude toward mistakes.	Allows children to correct their own work.	Assures that activities have a build-in control of error.	Treats mistakes and self-correction as essential to learning.

II. Montessori Philosophy/Methods					
E. Environment	**Unaware**	**Beginning**	**Developing**	**Maturing**	**Integrating**
1. Maintains the classroom	Does not help maintain the environment.	Models care of the classroom.	Reinforces procedures for classroom maintenance.	Regularly monitors children's care of the environment.	Supports children in ongoing classroom maintenance.
2. **Maintains materials**	Does not adequately maintain classroom materials.	Begins to monitor materials for completeness.	Makes sure materials are in good repair.	Mends and returns broken or incomplete materials in a timely manner.	Assures materials are complete and in good working order.
3. **Prepares the environment**	Does not participate in classroom preparation and modification.	Helps set up the classroom each day.	Notices when a classroom change could meet children's needs.	Regularly adjusts the environment to meet children's needs.	Participates in ongoing classroom preparation and modification.
4. **Promotes safety**	Does not consistently assure a safe environment.	Knows classroom and school safety and emergency procedures.	Models safe handling of matches, dangerous substances, etc.	Addresses potential classroom and 'going out' safety hazards.	Maintains safety in and out of the classroom.
5. **Promotes health**	Does not maintain a healthy environment.	Models cleanliness and safe food handling.	Administers basic first aid and helps children maintain clean animal cages.	Implements health promotion strategies and assists children with personal hygiene.	Appropriately reinforces classroom health and disease prevention procedures.
6. **Implements routines**	Does not implement classroom routines.	Warmly welcomes children and is familiar with classroom routines.	Supervises classroom clean-up, bathroom use and self-serve snack.	Facilitates calm, quiet and orderly transitions.	Appropriately implements classroom routines.
7. **Organizes the classroom**	Does not maintain a well-organized classroom.	Avoids over-crowded shelves and adding extraneous materials.	Maintains logical material groupings and easy access to materials.	De-clutters and rotates cultural materials as appropriate.	Maintains an orderly, uncluttered environment.
8. **Attends to aesthetics**	Does not help sustain an aesthetically pleasing classroom.	Avoids commercial enhancements and over-decorating.	Beautifies the classroom with simple decorations and items from nature.	Regularly exhibits and rotates children's displays and art work.	Maintains an aesthetically pleasing environment.

IV. The Social/Emotional Environment

A. Atmosphere	Unaware	Beginning	Developing	Maturing	Integrating
1. Maintains acceptable noise level	Does not maintain an acceptable noise level.	Begins to use a low voice and allows conversation.	Avoids using "shhh" and reprimanding children who converse loudly.	Avoids whole class quieting, uses targeted problem solving instead.	Addresses noise issues through modeling and problem solving.
2. Supports conflict resolution	Does not support children's conflict resolution.	Helps children negotiate simple disagreements.	Avoids involvement or taking sides in children's conflicts.	Comforts each child in a dispute under- standing both are upset.	Provides time and support for conflict resolution based on best practice.
3. Builds community	Does not build community in the classroom.	Helps children organize and run class meetings.	Supports whole group activities (art exhibits class newsletter, etc.).	Supports special events and productions (plays, musical/dance performances, etc.)	Develops community through well- managed collaborative activities.
4. Nurtures creative expression	Does not nurture creative expression.	Encourages children to decorate their work.	Begins to provide multicultural creative arts instruction.	Infuses academics with opportunities for handwork and creative expression.	Cultivates creativity and an arts-rich classroom.
5. Provides experiences with nature	Does not provide experiences with nature.	Offers real specimen for exploration and discovery.	Facilitates plant and animal care.	Arranges outdoor observation and sample collection for classification.	Offers frequent and varied experiences with nature.
6. Provides a foundation for cosmic education	Does not provide a foundation for cosmic education.	Assures children are given the Creation of the Universe story.	Assures the Great Lessons/ Stories are presented.	Assures fundamental needs and interdependencies are examined.	Emphasizes meaningful contribution and the interconnected- ness of all things.

IV. The Social/Emotional Environment

B. Sensitivity	Unaware	Beginning	Developing	Maturing	Integrating
1. Sensitive to feelings	Does not consistently show sensitivity to children's feeling.	Notices when feelings have been hurt or a child is out of sorts.	Shows concern toward an upset child and acknowledges his/her feelings.	Remains calm when strong emotions are expressed.	Helps each child feel safe and supported especially during emotionally intense situations.
2. Avoids embarrass-ing children	Does not avoid embarrassing children.	Avoids talking about a child near the child or others.	Approaches a child prior to having a conversation.	Discusses issues with a child calmly and away from others.	Is discreet and unagitated when talking with and about children.
3. Adapts activities of interest	Does not adapt activities of interest to a child's ability level.	Avoids telling a child he/she isn't ready for an activity of interest.	Suggests alternatives for work a child is interested in but not yet ready for.	Able to adapt an activity of interest to a child's level.	Recognizes and capitalizes on teachable moments.

Final Overall Image (all participants)

Montessori Elementary Teacher Coaching Tool
Components of Practice Considered

Classroom Leadership		Professional Behavior	
Overview	**Redirection**	**Demeanor**	**Conduct**
• Positions with back to a wall • Scans the room • Listens • Balances adults in the room • Prioritizes assistance • Manages whole group activities	• Implements rules and procedures • Enables self-correction • Is nonjudgmental • Monitors redirection	• Appropriate dress • Positive attitude • Professional commitment • Wants to improve professionally	• Moves calmly • Listens carefully • Touches respectfully • Provides appropriate feedback

Montessori Philosophy/ Methods				
Choice	**Independence**	**Instruction**	**Observation**	**Environment**
• Facilitates choice with lessons • Promotes co-activity • Supports productive work choice • Fosters choice through procedures • Promotes choice with material availability	• Handles materials carefully • Respects student work spaces • Supports self-reliance • Supports productive use of time • Clarifies work expectations • Monitors activity outside of lessons	• Lessons given across curriculum • Small and flexible lesson grouping • Instructs with enthusiasm • Excites interest • Facilitates research • Adapts public school requirements • Honors self-correction	• Records observations • Utilizes recorded observations • Observes objectively • Records objectively	• Maintains the classroom • Maintains materials • Prepares the environment • Promotes safety • Promotes health • Implements routines • Organizes the classroom • Attends to aesthetics

Presentations		The Social/Emotional Environment	
Organization	**Delivery**	**Atmosphere**	**Sensitivity**
• Appropriate lessons • Lessons are well-prepared • Needed materials available • Materials appropriately placed	• Uses accurate, limited language • Uses accurate, precise movements • Lessons are interactive • Lessons stay on topic • Modifies lesson pacing • Connects with children • Checks for understanding • Supports struggling children • Offers follow-up suggestions	• Maintains acceptable noise level • Supports conflict resolution • Builds community • Nurtures creative expression • Provides experiences with nature • Provides a foundation for cosmic education	• Sensitive to feelings • Avoids embarrassing children • Adapts activities of interest

Montessori Coaching Tool Elementary Rubric

Successful Montessori teaching requires the development of specific skills and competencies that reflect quality practice. Designed as a self-reflection tool for early-career teachers, the Montessori Coaching Tool Elementary (MCT-EL) rubric describes the proficiencies that potentially make up this skill set at the Elementary level and outlines how these abilities may develop over time. Although the rubric was initially based on Montessori and expert writings, developer research and experience, and well-documented practices, input from a highly experienced group of Montessori teacher educators was used to substantially improve the tool. The expert feedback made it possible to identify areas of consensus and to develop the rubric into a comprehensive framework of Montessori Elementary teaching expectations. While further research is planned to validate the tool in practice, the MCT-EL rubric is made available here to support teacher self-reflection, formative feedback, and the mentoring conversations that occur between early-career Montessori Elementary teachers and Montessori coaches.

Components of Practice

Classroom Leadership

Awareness
- Positions for overview
- Scans the room
- Listens to monitor activity
- Balances other adults
- Prioritizes assistance
- Manages whole group activities

Guidance
- Promotes freedom with responsibility
- Upholds rules and procedures
- Facilitates self-correction
- Is nonjudgmental
- Monitors redirection for effectiveness
- Collaborates with classroom assistant

Presentations

Organization
- Selects suitable lessons
- Prepares lessons in advance
- Makes needed materials available
- Places materials appropriately
- Engages in curriculum planning
- Supports quiet and active pursuits

Delivery
- Uses accurate, limited language
- Uses accurate movements
- Lessons are interactive
- Lessons stay on topic
- Modifies lesson pacing
- Connects with children
- Checks for understanding
- Supports children who are challenged
- Encourages follow-up activity

Montessori Philosophy

Choice
- Fosters choice with lessons
- Supports productive work choice
- Facilitates choice through procedures
- Promotes choice with material availability

Independence
- Supports self-reliance
- Promotes accountability
- Maintains high work expectations
- Facilitates productive activity
- Emphasizes careful material handling

Observation
- Records observations
- Uses recorded observations
- Observes objectively
- Records and analyzes objectively

Social/Emotional Environment

Atmosphere
- Presents the Great Stories
- Encourages coactivity
- Supports group work
- Supports conflict resolution
- Builds community
- Nurtures creative expression
- Provides experiences with nature
- Maintains an acceptable noise level

Sensitivity
- Is responsive to feelings
- Handles embarrassment constructively
- Adapts activities of interest
- Values children's work spaces
- Addresses implicit bias
- Supports social justice goals

Montessori Methods

Instruction
- Gives lessons across the curriculum
- Uses small & flexible groupings
- Instructs with enthusiasm
- Excites interest
- Facilitates research
- Honors self-correction
- Adapts public school requirements
- Integrates technology

Environment
- Maintains the classroom
- Maintains materials
- Prepares the environment
- Organizes the classroom
- Attends to aesthetics
- Promotes safety
- Promotes health
- Provides educational differentiation

Professional Behavior

Demeanor
- Listens carefully
- Dresses professionally
- Maintains a positive attitude
- Respects children's personal space
- Provides appropriate feedback
- Connects with each child
- Fosters home and school partnerships

Development
- Shows professional commitment
- Wants to improve professionally
- Practices self-care
- Engages in professional development

Montessori Coaching Tool—Elementary Rubric

I. Classroom Leadership

A. Awareness	Unaware	Beginning	Developing	Maturing
1. **Positions for overview** Facilitates overview by positioning with the back toward a wall.	At times positioning enables overview of half the classroom or less.	Usually avoids facing a wall or shelf during lessons.	Back is toward a wall while observing and during most lessons.	Consistently positions with the back to a wall, near room edges.
2. **Scans the room** Scans as needed to maintain classroom awareness.	Only occasionally looks up or around the classroom.	Begins to scan the room between lessons.	More consistently looks up and around during lessons.	Incorporates room scans into and between lessons as needed for overview.
3. **Listens to monitor activity** Listens to discreetly monitor children's activity.	Remains occupied after loud or unusual sounds are made.	Turns toward loud sounds.	Turns toward unusual sounds.	Notices and responds to sounds suggesting unsafe or disruptive behavior.
4. **Balances other adults** Works together with other adults to safeguard the classroom.	Has limited overview when other adults teach/leave the room.	Is becoming aware when other adults are teaching or have left the room.	Begins to position away from other adults and for 'one up, one down.'	Repositions to balance other adults, and checks in with them verbally or non-verbally.
5. **Prioritizes assistance** Bases assistance on whole class awareness.	Approaches to assist before observing or looking around.	Notices assistance is needed by nearby children and approaches.	Monitors children within 15 feet; moves from one group to the next.	Usually scans the room before determining where to assist.
6. **Manages whole group activities** Carefully selected whole group activities are well run, short, and enjoyable.	Continues a whole group activity despite children's diverted attention.	Maintains the group's attention while reading a story, singing, etc.	Attains attention before a group activity and holds attention for at least 10 minutes.	Can lead the whole group for at least 15 minutes regaining attention as needed.

B. Guidance	Unaware	Beginning	Developing	Maturing
1. **Promotes freedom with responsibility** Helps each child balance freedom with responsibility.	At times is overly permissive or more restrictive than necessary.	With children, clearly defines freedoms, and responsibilities.	Expands freedoms offered with demonstrated responsibility.	Assesses if expectations for each child are too restrictive or permissive.
2. **Upholds rules and procedures** Rules and procedures are effectively and impartially communicated and supported.	Inconsistently supports rule and procedure compliance.	Gives grace and courtesy lessons and begins to uphold rules and procedures.	Refers to established limits when addressing unfavorable actions.	Responds to unfavorable actions promptly, fairly, and consistently.
3. **Facilitates self-correction** Enables self-correction with prompts and problem solving while avoiding power struggles.	Occasionally nags or motivates nonconstruc-tively, e.g., "No…," "That's wrong," "Shhh," "You need to…".	States what to do rather than negative directives, e.g., "walk" instead of "don't run."	Questions and points things out in a matter of fact way, e.g., "Is that your pencil?" "I notice…"	Redirects non-verbally with facial expressions and gestures.
4. **Is nonjudgmental** Draws non-judgmental conclusions based on factual information.	Some conclusions about behavior are made as snap judgments or assumptions.	Uses observation to help ground conclusions in fact.	Uses open-ended questions to draw factual conclusions, e.g., "Tell me about…"	Checks in and problem solves with children to jointly form accurate conclusions.
5. **Monitors redirection for effectiveness** Dependably and productively monitors redirection.	Provides redirection then focuses attention elsewhere.	Begins to observe a child's response after redirection.	More consistently assesses if redirection has been effective.	Impartially monitors redirection encouraging compliance when needed.
6. **Collaborates with classroom assistant** Builds a trusting, collaborative relationship with the classroom assistant.	Is inconsistent in support or direction provided to the assistant.	Clarifies the assistant's responsibilities and reasons behind classroom practices.	Begins to provide the assistant with ongoing communication and constructive guidance.	Consults with the assistant to share, plan, and address issues.

II. Montessori Philosophy

A. Choice

		Unaware	Beginning	Developing	Maturing
1.	**Fosters choice with lessons** Offers many optional, small group lessons to facilitate choice.	Lessons tend to be required or given to individuals.	Invites children to participate in lessons.	Gives many small group lessons that pique children's interests.	Helps children develop work plans with lessons inspiring productive work.
2.	**Supports productive work choice** Establishes systems to help children select suitable activities.	Occasionally motivates activity choice with an incentive or disincentive.	Alternately selects work and offers choice for a child unable to choose.	Models weighing pros and cons of choices; increases options as ability to choose develops.	Strategically groups and pairs children to help stimulate activity selection.
3.	**Facilitates choice through procedures** Enacts procedures supporting every-day decision-making opportunities.	Decisions are sometimes made that children could have made themselves.	Children choose their seating, work partners, snack time, etc.	Children organize their time during a 3-hr uninterrupted work period.	Children engage in community decision-making and problem solving.
4.	**Promotes choice with material availability** Supports productive choice with a full range of Montessori Elementary materials.	Montessori materials are limited or misaligned with children's ability and needs.	Makes age-appropriate manipulative and timeline/chart materials available.	Makes experiment, follow-up, and large timeline making materials available.	Regularly rotates materials, books, and resources to meet children's interests and needs.

B. Independence

		Unaware	Beginning	Developing	Maturing
1.	**Supports self-reliance** Recognizes when children need help or can do activities themselves.	Occasionally completes work, helps, or tells what to do when not needed.	Observes before offering assistance.	Asks problem solving questions when children face difficulties.	Monitors activity discreetly, assists briefly, and checks back in as needed.
2.	**Promotes accountability** Supports each child's activity-goals with work journals and conferences.	Has yet to use work journals and conferences to support accountability.	Helps children maintain work journals and understand why doing so is important.	Meets regularly 1-on-1 with children to review journals and plan activities.	Monitors agreed-on goals and mutually creates solutions when plans fall short.
3.	**Maintains high work expectations** Holds the expectation that meaningful work will be done by all.	At times praises and recognizes children for simple tasks.	Conveys the expectation that productive work must be done.	Uses challenging but achievable activities to uphold high expectations.	Uses self-reflection to assess if expectations are held without bias or prejudice.
4.	**Facilitates productive activity** Establishes systems to help assure productive use of time.	Tends to allow unproductive activity to continue.	Begins to recognize when time is not being used constructively.	Observes, identifies, and begins to address reasons behind unproductive activity.	Confers with children and strategizes together to address unproductive use of time.
5.	**Emphasizes careful material handling** Supports careful material retrieval, use, and replacement.	Misses when 2 materials are carried or are used in an unsafe or damaging way.	Models appropriate handling of materials.	Reviews how to carry materials when needed.	Consistently addresses when materials aren't used, carried, or returned properly.

C. Observation

		Unaware	Beginning	Developing	Maturing
1.	**Records observations** Records observations daily using an efficient record keeping system.	Primarily keeps a mental record of lessons given and children's activities.	Records observations at least several times a week.	Records observations everyday and begins to use a record keeping system.	Records lessons right after they're given using an efficient record-keeping system.
2.	**Uses recorded observations** Utilizes observations to plan, set goals, modify the classroom, and create reports.	Uses recollection to plan lessons and modify the classroom.	Begins to review notes for lesson planning purposes.	Uses recorded observations to plan lessons and adjust the environment.	Uses notes for student goal setting and to generate reports.
3.	**Observes objectively** Observes and describes behavior objectively without evaluation or attribute.	Perceives some behavior subjectively by evaluating or attributing cause.	Begins to describe behavior factually, e.g., *The boy throws the hat quickly*.	Describes behavior with-out evaluation, e.g., *The girl talks loudly*, rather than *The girl is rude*.	Describes behavior without attributing cause, e.g., *The girl cries*, rather than *The girl is sad*.
4.	**Records and analyzes objectively** Records impartially and draws factually based conclusions grounded in theory.	Periodically draws behavioral conclusions based on past experiences.	While note taking avoids labels and absolutes, e.g., needy, gifted; never, always, every.	Can record what is said and done in a play-by-play manner.	Begins to use developmental theory to interpret recorded behavior patterns.

III. Montessori Methods				
A. Instruction	**Unaware**	**Beginning**	**Developing**	**Maturing**
1. **Gives lessons across the curriculum** Each week, 5-8 daily lessons are given across curriculum areas.	1 or 2 lessons are given each day.	At least 12 Montessori lessons are given each week.	At least 3 lessons in different curriculum areas are given each day.	At least 5 lessons in a variety of curriculum areas are given each day.
2. **Uses small and flexible groupings** Uses small, non-static lesson groupings diverse across ages, genders, and abilities.	Regularly gives lessons to 7 or more children.	Most lessons given with 2 to 6 children.	Lessons aren't repeated with multiple groups on the same day.	Initiates flexible grouping and invites an interested child to join.
3. **Instructs with enthusiasm** Teaches with enthusiasm, enjoyment, and a sense of wonder.	Sometimes appears indifferent or uncomfortable during lessons.	Is curious and eager to learn with children.	Suggests and presents activities with enthusiasm.	Shares children's excitement in discovery and learning.
4. **Excites interest** Arouses interest with practices geared to 2nd plane characteristics.	Lessons consist primarily of material use instruction or directional statements.	Uses storytelling and fondness for heroes and the extraordinary to foster interest.	Facilitates 'big work,' and the study of etymology and calligraphy.	Facilitates 'going out' and service learning.
5. **Facilitates research** Provides time, motivation, instruction, and resources essential for in-depth research.	Classroom activity focuses on materials and basic follow-up exercises.	Limits the amount of information given to encourage child inquiry.	Facilitates self-initiated projects with sufficient time and how-to lessons.	Uses questioning and resource availability to spur further investigation.
6. **Honors self-correction** Uses control of error and reflection to foster learning from mistakes.	Inspects or corrects each child's finished work.	Assures activities have a control of error; has a respectful attitude toward mistakes.	Guides children in seeing, reflecting on, and correcting errors themselves.	Helps children provide one another with constructive feedback.
7. **Adapts public school requirements** Adapts auxiliary public school content to children's needs, interests, and abilities.	Presents public school content in a public school manner.	Posts the public school curriculum, and lessons incorporate public school terminology.	Public school lessons are short, hands-on, and collaborative.	Required additional public school lessons resemble Montessori presentations.
8. **Integrates technology** Integrates technologies that complement the curriculum and develop digital fluency.	Is reluctant or has yet to incorporate technologies in the classroom.	Sets technology use guidelines, and teaches basic skills, e.g., key-boarding.	Introduces productivity tools for completing projects, e.g., word processing, graphs.	Introduces digital tools to foster exploration, discovery, collaboration, and creativity.
B. Environment	**Unaware**	**Beginning**	**Developing**	**Maturing**
1. **Maintains the classroom** Supports children's ownership of classroom maintenance.	Establishes room care procedures with little or no input from children.	Helps children devise and implement a room care system.	Models and monitors care of the environment.	Helps children maintain order during large, messy projects.
2. **Maintains materials** Assures materials are clean, complete, and in good working order.	Some classroom materials are poorly functioning, incomplete, damaged, or dirty.	Begins to monitor materials for cleanliness and completeness.	Makes sure materials are in good repair.	Mends and returns damaged or incomplete materials in a timely manner.
3. **Prepares the environment** Prepares and modifies the classroom based on children's needs.	Maintains the classroom as it is, rarely making a change.	Assures the classroom is appropriately set up each day.	Begins to implement classroom changes to meet children's needs.	Regularly adds/removes materials or resources to support children's progress.
4. **Organizes the classroom** Maintains an orderly, uncluttered environment.	Some materials have been placed haphazardly on shelves.	Avoids overcrowded shelves and adding extraneous materials.	Maintains easy access to materials and logical material groupings.	Accommodates evolving activities and projects; declutters as needed.
5. **Attends to aesthetics** Maintains an aesthetically pleasing environment.	Some areas are heavily decorated, or commercial décor is prominent.	Beautifies the classroom with simple decorations and items from nature.	Regularly exhibits and rotates children's displays and artwork.	Consciously uses color, textures, plants, etc. to invoke warmth and beautify.
6. **Promotes safety** Encourages safety in and out of the classroom.	One or more safety issue is evident, e.g., trip hazard, unlocked chemicals.	Introduces classroom and school safety and emergency procedures.	Models and supports children in the safe use of matches, dangerous substances, etc.	Preemptively addresses potential classroom, school and 'going out' safety hazards.
7. **Promotes health** Consistently reinforces classroom health and disease prevention procedures.	One or more health issue is evident, e.g., no first-aid kit, lax hand washing.	Models and teaches cleanliness and safe food handling.	Administers basic first aid and helps children maintain clean animal enclosures.	Implements health promotion strategies and assists children with personal hygiene.
8. **Provides educational differentiation** Differentiates education to support children of all abilities.	Classroom practices are geared toward typically developing children.	Partners with parents and SPED faculty to provide needed services.	Adjusts the environment and lessons to support children who learn/think differently.	Uses strengths to target areas of need; provides useful technologies.

IV. Presentations

A. Organization

	Unaware	Beginning	Developing	Maturing
1. **Selects suitable lessons** Lessons are appropriate for each child's interest, experience, and ability.	Lesson selection is based on grade level or age.	Uses albums and work plans to guide lesson selection.	Planned and spontaneous lessons are based on observed interest and prior activity.	Uses notes, discussions, and curriculum planning to select interesting lessons.
2. **Prepares lessons in advance** Lessons flow, and are clear, complete, and concise.	Gives spontaneous lessons with minimal prior preparation.	Albums are consulted and notes taken before giving lessons.	Refers to notes briefly and unobtrusively during lessons.	Lessons usually flow and are consistent with album descriptions.
3. **Makes needed materials available** All materials needed are available during and after lessons.	Materials are periodically retrieved as needed during lessons.	Materials needed are on hand when lessons begin.	Materials remain available to children after lessons.	Appropriate follow-up materials are made available.
4. **Places materials appropriately** Materials are accurately placed and in easy reach of children during and after lessons.	At times places materials haphazardly or in front of themselves rather than the children.	Materials are placed in an orderly layout during most lessons.	Materials are placed directly in front of children during most lessons.	Material placements enable successful use during and once the presentation is over.
5. **Engages in curriculum planning** Engages in short and long term curriculum planning for each child.	Lesson planning ideas have yet to be written out.	Prepares daily lesson plans with room for spontaneous presentations.	Prepares weekly lesson plans with flexibility.	Engages in monthly/semester planning for each child.
6. **Supports quiet and active pursuits** Supports quiet/lively activity preferences with workspace options and resources.	Supports either quiet or lively activities, but not both at the same time.	Provides classroom space for both quiet and more spirited activities.	Offers equipment to facilitate quiet, focused activity, e.g., head-phones.	Creates and implements procedures for work in areas adjacent to the classroom, e.g., hallway.

B. Delivery

	Unaware	Beginning	Developing	Maturing
1. **Uses accurate, limited language** Language flows, and is clear, accurate, and limited.	On occasion embellishes or uses imprecise or incorrect language.	Speaks clearly during lessons.	Precise, accurate language is used with few embellishments.	Language flows and is succinctly adapted to children's responses.
2. **Uses accurate movements** Materials are precisely and correctly manipulated throughout each lesson.	Some movements are rushed or inaccurate.	Begins to move materials slowly and accurately during lessons.	Uses clear, exact movements without bouncing the hand.	Carefully and accurately manipulates materials during lessons.
3. **Lessons are interactive** Engages children in highly interactive lessons.	Children primarily listen and observe during lessons.	Involves children at some point during lessons.	Involves children early on during lessons.	Engages each child often in each lesson.
4. **Lessons stay on topic** Lessons stay on topic and are short in duration.	Sometimes lessons are overly long or unfocused.	Refocuses lessons that have veered off course.	Remains on topic during most lessons.	The majority of lessons are 15 minutes or less.
5. **Modifies lesson pacing** Gives well-paced lessons that aren't too hard or too easy.	Continues with a lesson despite indications it is too basic or difficult.	Begins to notice when a lesson's pace is too fast or slow.	Modifies a lesson's pace according to children's responses.	Reviews prior learning and gives a prior or subsequent lesson if needed.
6. **Connects with children** Maintains a connection with each child throughout each lesson.	Focuses on the lesson rather than the participating children.	Begins to use facial expressions to connect with children.	Acknowledges children's reactions during most lessons.	Responds to children with warmth and empathy.
7. **Checks for understanding** Observes and questions to assess understanding during and after lessons.	Periodically gives a lesson without observing, questioning, or discussing.	Asks simple questions and observes material use during lessons.	Observes during and after lessons to assess ability to use materials.	Checks for understanding with clarifying questions and discussion.
8. **Supports children who are challenged** Differentiates instruction when children struggle with an activity.	At times is unaware or only repeats a lesson when a child exhibits difficultly.	Recognizes when children are struggling to understand an activity.	Begins to assess why children are having difficulty with an activity.	Helps children challenged by an activity by isolating the difficulty.
9. **Encourages follow-up activity** Encourages child-designed follow-up aligned with their interests and ability.	Tends to assign follow-up activities or limits what can be done.	Offers follow-up options based on album suggestions.	Provides clear follow-up instruction modeling what is expected.	With children, develops follow-up options based on their ideas and preferences.

V. Social/Emotional Environment

A. Atmosphere

		Unaware	Beginning	Developing	Maturing
1.	**Presents the Great Stories** Uses the Great Stories to unify instruction, inspire awe, and motivate child led research.	Gives key lessons before presenting the Creation Story.	Presents the Universe Creation story; begins to tell other Great Stories.	Assures children are told all the Great Stories.	Aligns key lessons with the Great Stories and emphasizes inter-connections.
2.	**Encourages coactivity** Facilitates productive coactivity, collaboration, and peer instruction.	Instruction and procedures encourage individual activity.	Table/floor arrangements accommodate pairs and different sized groups.	Teaches coactivity skills so children collaborate productively.	Fosters a spirit of cooperation where children willingly help or instruct one another.
3.	**Supports group work** Establishes productive, harmonious group activity as the classroom norm.	Recognizes sitting together but working separately as group work.	Provides instruction favorable to collaborative work.	Helps children organize and share group work responsibilities.	Helps children refocus unproductive group activity.
4.	**Supports conflict resolution** Teaches and entrusts children to resolve their own disputes.	Misses escalating conflict, takes sides, resolves the conflict, etc.	Assists children in negotiating simple disagreements.	Teaches age-appropriate conflict resolution skills.	Provides time, neutrality, and procedures for child lead conflict resolution.
5.	**Builds community** Develops community through well-managed collaborative activities.	Classroom activity focuses exclusively on small group and individual exercises.	Supports whole group activities, e.g., class newsletter, art exhibits.	Helps children organize and run class meetings.	Supports special events and productions, e.g., plays, dance performances.
6.	**Nurtures creative expression** Cultivates creativity and an arts-rich classroom.	Prioritizes academics with minimal emphasis on arts education.	Encourages children to decorate their work.	Begins to provide multicultural creative-arts instruction.	Infuses academics with opportunities for handwork and creative expression.
7.	**Provides experiences with nature** Offers frequent and varied experiences with nature.	Emphasizes instruction about nature rather than hands-on experiences.	Facilitates plant and animal care.	Offers real specimen for exploration and discovery.	Arranges outdoor adventuring and sample collection/ observation for classification.
8.	**Maintains an acceptable noise level** Addresses noise issues through modeling and problem solving.	Quiets the class with a raised voice, limiting talk, reprimanding or using "shhh."	Uses a low voice and allows conversation and a hum of activity.	Uses targeted problem solving when the classroom is too loud.	Develops solutions with children for maintaining an acceptable noise level.

B. Sensitivity

		Unaware	Beginning	Developing	Maturing
1.	**Is responsive to feelings** Helps children feel heard and supported when emotionally distressed.	At times misses when feelings are hurt, a child is out of sorts, etc.	Acknowledges and helps an upset child identify and verbalize their feelings.	Handles strong emotions calmly, not taking what is said or done personally.	Teaches children how to cope with uncomfortable feelings.
2.	**Handles embarrassment constructively** Helps each child feel safe from judgment and embarrassment.	On occasion teases, dwells on mistakes, praises in front of others, downplays an embarrassment, etc.	Approaches children quietly and unperturbed; discusses issues privately.	Models handling embarrassment productively.	Helps an embarrassed child reflect and gain perspective without minimizing his/her/their feelings.
3.	**Adapts activities of interest** Recognizes and capitalizes on teachable moments.	Occasionally tells a child they aren't ready for an activity of interest.	Responds to children's expressed interest in a topic, activity, or material.	Suggests alternatives for work a child is interested in but not yet ready for.	Adapts an activity of interest to a child's ability level.
4.	**Values children's work spaces** Respects and cultivates respect for each child's workspace.	Moves children's work to a new location without obtaining agreement first.	Asks permission before touching or writing on children's work.	Helps children respect one another's workspace.	Introduces methods for organizing and maintaining an orderly work area.
5.	**Addresses implicit bias** Counters implicit bias to provide every child with an equitable experience.	Believes he/she/they doesn't have implicit bias without examining one's internal stereotypes.	Learns about and begins to examine one's own implicit bias.	Identifies blind spots that hinder perceiving and responding to children fairly.	Uses data to assess if lessons are given equitably.
6.	**Supports social justice goals** Supports social justice with cultural sensitivity and culturally responsive teaching.	Focuses solely on cultural materials to address social justice goals.	Reflects a variety of cultures, races, family makeup, etc., in materials, and the classroom.	Represents the culture of each child when possible in lessons, materials, and the environment.	Teaches about social justice issues and engages children in related activities.

VI. Professional Behavior				
A. Demeanor	Unaware	Beginning	Developing	Maturing
1. **Listens carefully** Talks with children at eye level and listens attentively.	Periodically focuses somewhere else while conversing with a child.	Communicates with children at eye level.	Looks at children while listening with interest.	Listens to children with undivided attention in and outside of lessons.
2. **Dresses professionally** Appearance is appealing and professional.	Some clothing is best worn elsewhere, e.g., flip-flops, low necklines, showing the midriff.	Clothing is neat, clean, and in good repair.	Accessories are limited, non-encumbering, and culturally appropriate.	Effort is made to look attractive and professional.
3. **Maintains a positive attitude** Smiles often, is warm, and maintains a positive, relaxed attitude.	At times conveys irritation, impatience, dislike, etc., toward a child.	Smiles frequently, and uses a constructive, upbeat tone of voice.	Maintains a relaxed posture; seems to be having fun.	Movements convey patience, respect, warmth, and sensitivity.
4. **Respects children's personal space** Assures respect for each child's contact and proximity preferences.	Sometimes pulls, touches, or hugs a child without prior consent.	Talks at a distance that appears comfortable to children (they don't lean away).	Helps children maintain one another's personal space.	Learns and respects the personal space preferences of each child.
5. **Provides appropriate feedback** Responds to children in a sensitive and conscientious manner.	Sometimes uses sarcasm, off color jokes, statements that dampen enthusiasm, etc.	Uses encouragement and appropriate humor, e.g., funny stories, puns, wordplay.	Provides feedback that is specific, descriptive, and constructive, e.g., "Wow, you counted then you…"	Feedback is given equitably and reflects children's cultural norms.
6. **Connects with each child** Builds a trusting, collaborative relationship with each child.	Occasionally views some children as slow, difficult, annoying, etc.	Begins to establish a rapport with each child.	Works to help each child feel safe, important, and cared for.	Uses reflection to understand and support children who rub us the wrong way.
7. **Fosters home and school partnerships** Fosters ongoing, constructive home/school partnerships for each child.	Interactions with families mostly occur during conferences.	Gets to know families; promptly and respectfully addresses questions and concerns.	Emphasizes children's strengths; notifies families of issues in a timely manner.	Promotes family involvement, helping each to feel connected and supported.
B. Development	Unaware	Beginning	Developing	Maturing
1. **Shows professional commitment** Is an active, committed member of the class and school community.	Sometimes seems hesitant to assume basic classroom responsibilities.	Is eager to give lessons and assist children.	Willingly assumes increased classroom responsibility, e.g., gives more complex lessons.	Readily participates in conferences, staff activities, and school events.
2. **Wants to improve professionally** Indicates desire to improve and do his/her/their best professionally.	Tends to receive feedback reluctantly or resists initiating change.	Responds favorably to constructive suggestions.	Makes and implements a plan of action to address identified problems or issues.	Recognizes when help is needed, and seeks advice, and support.
3. **Practices self-care** Engages in ongoing self-care and rejuvenation.	At times puts the needs of others before one's own needs.	Makes time for sleep, exercise, eating well, and socializing.	Maintains outside interests, and prioritizes tasks when stressed.	Sets realistic goals, delegates and organizes to help maintain work/life balance.
4. **Engages in professional development** Engages in ongoing professional development.	Chooses not to participate in professional development activities.	Actively engages in school provided continuing education.	Participates in workshops, action research, etc., to develop professionally.	Attends conferences, seminars, etc., to support life long learning.