Observation for Elementary and Beyond

Why, how, what and when?

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Anya S. Bartlett
The Center for Guided Montessori Studies
anya.s.bartlett@gmail.com
Role of the Montessori Teacher

The Montessori Teacher’s Tasks
- Giving lessons
- Assisting students
- Classroom management
- Supervising students
- Planning
- Preparation
- Observation
- Record keeping
- Paperwork
- Dealing with parents
- Working with faculty/administration

How much time do we spend on each task?

How do we prioritize each task?

What we find: usually a mis-match.

What is (usually) found is that a very small percentage of time is spent on observation, even though it is one of the highest priorities.

We are NOT actually prioritizing observation in our day to day practice.
When dealing with children there is greater need for observing than of probing

— Maria Montessori —
An Observer's Notebook
Learning from Children with the Observation C.O.R.E.

Paul Epstein, Ph.D.
Observation Course, The Center for Guided Montessori Studies.
Why?

A Scientific Method of Pedagogy as Applied to Child Education in the Children’s Houses
“Although this method bears my name, it is not the result of the efforts of a great thinker who has developed his own ideas. . .I was describing a method of scientific pedagogy. Every science has a method and this was the method applied to pedagogy” (Maria Montessori, 1946 London Lectures, p.7)

“Our study has it’s origins in the child. The method has been achieved by following the child and his psychology. It is objective, not subjective as all the others are. It is always based on our ability to interpret our observations of those phenomena which originate in the child himself. A soundly objective method is based on observation . . .” (Maria Montessori, 1946 London Lectures, p.7)

“I must repeat that is not that I first proposed these principles and then shaped my educational method around them. To the contrary, only the immediate observation of children revealed some of the laws of their inner being . . .” (Maria Montessori, The child in the family, p. 89)
Montessori pedagogy, traditional version

Where's the method?  
the prepared environment  
the guide/guides  
the child/children
Our job as Educational Scientists

- **Formulate Hypothesis** - what we think our students need
- **Test** - Create a Prepared Environment - Environment, Lessons, Interactions
- **Observe** - How do they interact with the environment? What do they “reveal” to us?
- **Analyze** - What do we think that means?
- **REPEAT**
“As she applied her method, she discovered some of the “secrets of childhood. . . Now it is our turn to engage as Montessori did and learn from the children” (Paul Epstein, *An Observer’s Notebook*, p.2).

- Dr. Montessori was unquestionably brilliant and her many insights are invaluable. However, the world has continued to change and is very different than it was 90 years ago- a world Montessori could hardly have imagined.

- We must continue to observe the children in OUR world, to discover the secrets yet revealed.

- The scientific community continues to research child development- we need to add to that research from observations based in the Montessori method.

- Observation at the Elementary level- stay true to our method.
Why observe?

- Understand the child.
- Identify or describe a student’s learning style, strengths, personality, interests.
- Assess student growth and academic progress.
- Guide the child's developing spirit.
- Make better instructional decisions.
- Modify the classroom learning environment.
- Evaluate your own practice.
- Gain insights and understandings about ourselves and our Montessori practice.

- Engage in inquiry and discovery.
- Share and communicate discoveries.
- Further grow our Montessori professional learning community.
- Discover new “secrets” of childhood.
Observation is not record-keeping
“[The teacher] must learn that it is not easy to help, nor even, perhaps, to stand still and watch. Even when helping and serving the children, she must not cease to observe them . . .” (Maria Montessori, *The Absorbent Mind*, p.248).

Merriam-Webster defines ‘observe’ as “to watch carefully especially with attention to details or behavior for the purpose of arriving at a judgment.”

- We are always observing... and judging!
- There is no such thing as “objective” observation... and that is o.k.
The Three Experiences of Observation

Perceptual
- Comparison
- Knowledge of the external world-space, time, and objects. Quantities
- Known by the senses.
- Verified by measurement.

Rational

Contemplative

“Each eye has its own objects of knowledge ... that a higher eye cannot be reduced or explained in terms of a lower eye; that each eye is valid and useful in its own field” (Ken Wilbur, Eye to Eye, p.6).
The Three Experiences of Observation

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- Comparison
- Knowledge of the external world-space, time, and objects. Quantities
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Rational
- Interpretation
- Knowledge of culture, philosophy, ideas, qualities and meaning.
- Known by imagination, logic, reason, concepts.
- Verified by deductive and inductive reasoning, and analysis.

Contemplative

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"Believing is seeing"

- Optical Illusions highlight the power of rational observation over perception.
- What we observe changes with the questions we ask and the environment we are placed in.
- Sources of interpretation:
  - Personal Knowledge and experience
  - Culture
  - Religion
  - Language
  - Generation
  - Gender
  - Mood
The Three Experiences of Observation

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- Knowledge of culture, philosophy, ideas, qualities and meaning.
- Known by imagination, logic, reason, concepts.
- Verified by deductive and inductive reasoning, and analysis.

Contemplative
- Acceptance
- Knowledge of self, psychical, transcendence- the soul.
- Known by meditation, prayer, intimacy, Zen.
- Verified by spiritual teachers and guides.

"Each eye has its own objects of knowledge ... that a higher eye cannot be reduced or explained in terms of a lower eye; that each eye is valid and useful in its own field" (Ken Wilbur, Eye to Eye, p.6).
Preparing oneself to observe

In the realm of scientific observation, luck is granted only to those who are prepared.

~ Louis Pasteur
The real preparation for education is a study of one's self. The training of the teacher...is something far more than a learning of ideas. It includes the training of character; it is a preparation of the spirit.

— Maria Montessori —
“We insist on the fact that a teacher must prepare himself interiorly by systematically studying himself so that he can tear out his most deeply rooted defects, those in fact which impede his relations with children. In order to discover these subconscious failings, we have need of a special kind of instruction. We must see ourselves as another sees us. One who would become a teacher according to our system must examine himself ....

He must rid his heart of pride and anger. He must learn how to humble himself and be clothed with charity. These are the virtues he must acquire, and this inner preparation will give him the balance and poise which he will need” (Maria Montessori, *The secret of childhood*, p. 149).
How?

Observation using C.O.R.E.
Observation Test
Connect: What am I observing FOR?

What do I want to ask and learn about?

- **A child** – interests, learning style, personality, preferences, habits...
- **The class** – behavioral patterns and routines, friendships, use of the prepared environment, transitions...
- **Myself** – my understanding, knowledge, practices, effectiveness, spiritual growth, renewal practices...
- **Montessori** – the philosophy, other ideologies...
The first step an intending Montessori teacher must take is to prepare herself. For one thing, she must keep her imagination alive; for while, in the traditional schools, the teacher sees the immediate behavior of her pupils, knowing she must look after them and what she has to teach, the Montessori teacher is constantly looking for a child who is not yet there. . . The teacher must have a kind of faith that the child will reveal himself through work” (Maria Montessori, The Absorbent Mind, p.252).
What to look for...

- Characteristics of the 2nd Plane child:
  - Imagination
  - Reasoning Mind
  - Social Justice/Moral Judgement
  - Group Work and Conversations
  - Tendency for Work - capacity for large work

- How are they interacting with the material? -- assessment and planning

- Patterns of Work
- Patterns of Behavior
- Signs of concentration
- Discover new “secrets of childhood”
- When to intervene and when NOT to
## Examples of Connecting Questions

<table>
<thead>
<tr>
<th>Child</th>
<th>Class</th>
<th>Teacher</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>What choices does this child make?</td>
<td>How do children interact during transitions?</td>
<td>How do you indicate you are listening?</td>
<td>What features of the environment are heavily used? Which are overlooked?</td>
</tr>
<tr>
<td>What are the child’s needs? How does she express them?</td>
<td>How do the children express their ideas and interests to one another?</td>
<td>How do you encourage discussion?</td>
<td>What criteria do you use to know it is time to make changes to the environment?</td>
</tr>
<tr>
<td>Does this child learn in the same ways when working alone, in a small group, or with the whole class?</td>
<td>Which children are normalized and what are their behaviors?</td>
<td>To whom do you direct your questions?</td>
<td>How well is each area of the environment prepared— the classroom, bathrooms, hallways, outdoor areas?</td>
</tr>
<tr>
<td>What qualities in the materials/lesson capture the child’s attention?</td>
<td>What are some differences between what girls talk about compared to boys? Older children compared to younger?</td>
<td>How do you respond to correct answers? Incorrect answers?</td>
<td>How well is the environment prepared for the children’s current sensitive periods?</td>
</tr>
<tr>
<td>How do home factors enter into the school day?</td>
<td>In which sensitive periods are children engaged?</td>
<td>How do you engage children in decision making?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>How do you respond to questions?</td>
<td></td>
</tr>
</tbody>
</table>
Obtain: How will you record?

Methods used to obtain information

- **Journals** – A private record. A workbook for recording feelings, needs, victories, reflection, hunches, interpretations...
- **Anecdotal Records** – record events right after occurrence - written narrative about a particular event - details
- **Running Records** – record events as they occur, sequentially - 1. what was said/done 2. Interpretations 3. notes/questions
- **Checklists** – information about a particular situation or behavior
- **Physical Maps** – location of behavior or activities at specific times
- **Rating Scales** – quantitative measure of activity observed
- **Time Samples** – predefined behavior/activity over time
- **Interviewing** – child/adult perspective
## Running Records: a format

<table>
<thead>
<tr>
<th>Name: ____________________________</th>
<th>Date: ____________________________</th>
<th>Time: ____________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>descriptions/observations</strong></td>
<td><strong>interpretations</strong></td>
<td><strong>questions/notes/ideas</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Running Records: an example

<table>
<thead>
<tr>
<th>descriptions/observations</th>
<th>interpretations</th>
<th>questions/notes/ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tommy puts the 1000 cube under the 100 card and the 10 bars under the 5 card. He begins to count when Dave says, “Uh oh”, and puts the beads in the right categories.</td>
<td>I wonder if he is distracted? I’ve never seen him do that before.</td>
<td>How do children overcome distractions?</td>
</tr>
</tbody>
</table>
Checklists are:

- Based on previously recorded observational information.
- Designed with specific behaviors or types of activities that pertain to one topic.
- Defined using a key that describes the meanings of the different kinds of checks.
- Dated.

### Math Checklist. 1/14

<table>
<thead>
<tr>
<th></th>
<th>add s sums s &lt;10</th>
<th>static addition, Bank game</th>
<th>dynamic addition, bank game</th>
<th>subtract s differen cs &lt; 20</th>
<th>static subtractio n with bank game</th>
<th>dynamic subtractio n with bank game</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jon</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kyle</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Max</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fran</td>
<td>+</td>
<td>+</td>
<td></td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Rating Scales

Rating scales:

- Focus on one specific topic.
- Rate a set of defined items.
- Rate each item with a set of defined values.
- Use a consistent defined scale for the values.
- Use a defined set of levels or degrees for that scale.

Commonly used five-point scales:

<table>
<thead>
<tr>
<th>Item</th>
<th>Never</th>
<th>Seldom</th>
<th>Occasionally</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Works independently</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Uses materials with order</td>
<td></td>
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<tr>
<td>3. Engages in repetition</td>
<td></td>
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<tr>
<td>4. Is distracted while working</td>
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<td></td>
</tr>
</tbody>
</table>
Time samples

**Directions:** Observe the children for twenty minutes. Mark the behaviors that occurred during this time interval.

<table>
<thead>
<tr>
<th>Time samples:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Record the occurrences of specific behaviors or events during a pre-determined interval of time.</td>
</tr>
<tr>
<td>• Show how often something occurred and how long it occurred.</td>
</tr>
<tr>
<td>• Indicate a general pattern of behavior.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Work Time Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date/starting time/ending time</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Received presentation</th>
<th>Chose work</th>
<th>Engaged in repetition</th>
<th>Involved in variations &amp; extensions</th>
<th>Worked with another child</th>
<th>Did not use materials</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tina</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>Triangle box</td>
</tr>
<tr>
<td>Frank</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>Works with Bill; brown prisms</td>
</tr>
<tr>
<td>Tommy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>Waits for turn and is at the snack table</td>
</tr>
<tr>
<td>Beth</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>Yellow knobless cylinders</td>
</tr>
</tbody>
</table>

**Work Time Sample**

- Tina: Received presentation, Chose work, Engaged in repetition, Involved in variations & extensions
- Frank: Involved in variations & extensions, Worked with another child
- Tommy: Did not use materials
- Beth: Received presentation, Chose work
### Time sample 2: Concentration/Conversation Time Sample

**Date/starting time/ending time**

**Directions:** Observe for a period of two minutes. Then, mark the behaviors you observed during the two-minute interval.

<table>
<thead>
<tr>
<th>child</th>
<th>behaviors</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sue</td>
<td>concentrates</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>I’m amazed how well she works with Audy; Sue keeps working while talking</td>
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<td>talks with others</td>
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<td>asks questions</td>
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<td>replies to questions</td>
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<td>listens to others</td>
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<tr>
<td>Audy</td>
<td>concentrates</td>
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<td>asks questions</td>
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<td>replies to questions</td>
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<td>listens to others</td>
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</table>
General Guidelines

• Personalize your writing materials - post-its, notebooks, paper on clipboards, address or other types of sticky labels, and word-processing files.

• Record the date and a starting time; record the ending time.

• Separate observations from interpretations.

• Follow an observer’s “rule of thumb” - record recollections within twenty-four hours.

• Maintain confidentiality.
Reflect: How will I understand what I have obtained?

- Read, re-read, organize obtained information.
- Involves:
  - Comparing
  - Looking for patterns
  - Constructing categories
  - Developing summary themes
- Be aware of influences. Reflect on your reflections.
- Return to aspects of what you are looking for (planes of development, normalized child, child’s spiritual growth).
Enable: What will I do with new understandings?

- Attend to your personal growth.
- Enable children’s spiritual growth.
- Plan purposefully.
  - Set limits
  - Re-present
  - Develop new materials
  - Change the schedule
- Implement and observe the plan.
C.O.R.E
When?

There is never enough time.
Prioritization

There is always time for what matters most.

- Somehow, we find time for the things that matter most.
- Have to make observation something that matters most - the centerpiece of what we do as Montessori teachers.
- Let observation be the organizational focus of everything else we need to do.
- “The children are now working as if I did not exist.” What can be done to enable independence?

“The teacher must prepare herself, not by means of the content, but by means of the method... the fundamental quality is the capacity for ‘observation’; a quality so important that the positive sciences were also called ‘sciences of observation’. ... Now it is obvious that the possession of senses and of knowledge is not sufficient to enable a person to observe; it is a habit which must be developed by practice” (Maria Montessori, The Advanced Montessori Method- 1, p.102).
Schedule

Observation can be added on three levels

- Regularly- a part of everything you do in the classroom--stop and observe for a minute and record.
- Routinely- a set time for “formal” observation.
- Scheduled as needed.
“This book of methods compiled by one person alone must be followed by many others. It is my hope that, starting from the individual study of the child educated with our method, other educators will set forth the results of their experiments. These are the pedagogical books which await us in the future” (Maria Montessori, *The Montessori Method*, p. 373).