

RTOP (Reform Teaching Observation Protocol) (adapted)

Sawada, Piburn, Falconer, Turley, Benford and Bloom (2000)

Teacher Name: _____ District: _____ Date: _____

Description of Activity: _____

Only rate what is seen. Do not infer what might have happened prior to class. Ratings are 0-4 with 0=never occurred and 4=very descriptive; NA is for not applicable but please describe why it is not applicable.

Lesson Design and Implementation

<p>1. The instructional strategies and activities respect students' prior knowledge and the preconceptions inherent therein.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Was the lesson set up to build on prior knowledge? ○ Does the teacher actively solicit student ideas and build the lesson from their starting point? ○ Does this lesson require that students show what they think about the concept prior to the explanation of it?
<p>2. The lesson was designed to engage students as members of a learning community (if in small group or whole class settings).</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Does the student have opportunities to respond (either verbally or using a communication system) to one another as well as the instructor? ○ Were questions used to encourage equal participation by all students?
<p>3. In this lesson student exploration preceded formal teacher presentation.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Did the students engage in exploration (not knowing what answer will be and it is not stated) through discussion, questioning, or activity prior to the formal presentation?

<p>4. This lesson encouraged students to seek and value alternative modes of investigation or of problem solving. (There is more than one way to view a problem.)</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Does the instruction emphasize that there is more than one way to look at a problem? ○ Does the teacher actively solicit a variety of approaches to the problem and allow students to share ideas?
<p>5. The focus and direction of the lesson was often determined by ideas or connections originating with students.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Does the teacher encourage connections to the real world and other math topics?

Content – Propositional Knowledge (TEACHER)

<p>6. The lesson involved fundamental (and significant) concepts of mathematics.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Are the CCSSO standards or NCTM curricular focal points incorporated?
<p>7. The lesson promoted strongly coherent conceptual understanding.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Do concepts stand on their own or are they connected and related to other concepts?

<p>8. The teacher had a solid grasp of the subject matter content inherent in the lesson.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Did the teacher understand mathematics content so well that they were able to help the student better share their knowledge of the question or concept or see where the student was going with their response? ○ Was the teacher able to identify misconceptions related to the content and take advantage of opportunities to expand in greater depth?
<p>9. Elements of abstraction (i.e., symbolic representations) were encouraged when it was important to do so.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Did the teacher show multiple examples in concrete, semi-concrete ways and then move to see patterns and relationships in symbolic or abstract ways?
<p>10. Connections with other content disciplines and/or real world phenomena were explored and valued.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Did the teacher use applications, circumstances, and examples from everyday life?

Content – Procedural Knowledge (STUDENTS)

<p>11. Students used a variety of means (models, drawings, graphs, concrete materials, manipulatives, etc.) to represent mathematical ideas.</p> <p>Score: ____ Evidence:</p>	<ul style="list-style-type: none"> ○ Did the teacher have students use at least 2 different means to have students share their ideas? (models, pictures, numbers, drawings and/or words)
<p>12. Students made predictions, estimations and/or conjectures and devised means for testing them.</p> <p>Score: ____ Evidence:</p>	<ul style="list-style-type: none"> ○ Do students communicate what they think will happen before collecting data, measurements, computing or problem solving?
<p>13. Students were actively engaged in thought-provoking activities that involved in giving meaning to concepts and procedures.</p> <p>Score: ____ Evidence:</p>	<ul style="list-style-type: none"> ○ Are students asking questions that show that they are trying to connect and make meaning of what is being taught? ○ Do students know what they are doing and why they are doing it? (i.e., asking questions related to concept, clarifying next steps in activity)
<p>14. Students were reflective about their learning.</p> <p>Score: ____ Evidence:</p>	<ul style="list-style-type: none"> ○ Are students thinking about their thinking (asking questions or justifying their answers)? ○ Does the teacher ask students to re examine or reassess their understanding? (why questions, or ask “how did you get this answer?”)

<p>15. Intellectual rigor, constructive criticism and the challenging of ideas were valued.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Are a variety of ways presented by the students to solve problem or think about a concept? ○ Does the teacher encourage or prompt students to challenge and compare answers with their peers? ○ Does the teacher ask for evidence as to why a student thinks an answer is correct?
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Classroom Culture

<p>16. Students were involved in the communication of their ideas to the teacher or others using a variety of means and media (contributing in more than one way).</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Do students actively communicate through such things as brainstorming, presentations, critiquing, listening or group work, etc.?
<p>17. The teacher's questions triggered divergent modes of thinking.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Does the teacher ask questions in which there could be more than one correct answer or more than one interpretation?
<p>18. There was a high proportion of student communication and a significant amount of it occurred between the teacher and/or among students.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Do the students communicate? Do they communicate with each other? ○ Does the teacher believe that you should never say anything a kid can say?

<p>19. Student questions, communication and comments often determine the focus and direction of classroom discourse.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Does the teacher make statements such as “We don’t have time for that right now?”
<p>20. There was a climate of respect for what others had to say.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Is there evidence that students and the teacher have heard and considered what one another has said?

Student/Teacher Relationships

<p>21. Active participation of students was encouraged and valued.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Does the teacher describe the concept or idea or define the term before giving students an opportunity to explain or define the concepts or vocabulary?
<p>22. Students were encouraged to generate conjectures, alternative solution strategies and/or different ways of interpreting evidence/data.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none"> ○ Teacher encourages students to think of other ways to solve problems and use multiple strategies. ○ Does the responsibility for doing the thinking about the concept rest with the student?

<p>23. The teacher acted as a resource person, working to support and enhance student investigations.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none">○ Teacher does not give specific procedures for how to solve problems and does not force them to take only one approach.○ The teacher does not direct the inquiry or state answers.
<p>24. The metaphor “teacher as listener” was very characteristic of this classroom.</p> <p>Score: _____ Evidence:</p>	<ul style="list-style-type: none">○ The teacher listens to students and uses what he or she hears to build deeper conceptual understanding.