

Reflection Paper

Subject:

Math

Grade:

2

Module 4: Assessment for Active Learning : Teacher implements instruction in order to engage students in rigorous and relevant learning and to promote their curiosity about the world at large by:

Selected Indicator: Providing students with assessment criteria and individualized, descriptive feedback to help them improve their performance and assume responsibility for their learning.

Goal:

I will learn how to provide students with assessment criteria and individualized feedback through the use of student friendly rubrics in their math centers in order to improve performance and release responsibility onto the student.

Initial Summary:

My goal for this module is to help students assess their own work during math centers. The students in my classroom rely heavily on my assistance and help during almost every assignment. The work that is given is at their independent level, but they get overwhelmed easily and have difficulty completing a task without asking numerous questions. When I started running my math centers each group continually needed redirection and instructions to be given while I was meeting with my own group, so I decided to create student friendly rubrics for my students to use during math centers. I am hoping that having these rubrics will help the students complete their work independently.

Reflection:

I began this module by looking at the structure and organization of my Math block. My students were participating in math centers, but were relying heavily on my assistance even though they were provided with all the necessary directions. I wanted to be able to assess the student's ability to complete a product during their math centers but did not want them to have to rely so much on my assistance when I was meeting with another small group of students. I had a difficult time assessing my students' progress and the work they were producing in each of the three math centers they were assigned to. I wanted to teach the students that they could assess their own progress and work in each of the designated centers. I spoke with my mentor about the trouble I was having with keeping track of the work the students were completing. The work that I was receiving from the students was not meeting my expectations either and I knew that the students were capable of producing more. This showed me that the students were confused as to what the expectations for each center were and I needed to better demonstrate to them what I expected them to accomplish at the end of each center. I decided that it would be helpful to have short rubrics at each of the centers that required the students to produce a

product.

Based on my prior knowledge of my students understanding of place value, coupled with the work they completed during independent practice, and the pre assessment for the place value unit, I wanted to create differentiated centers for the students with rubrics to assist them in the work completion process. In order to design their centers appropriately I talked to the building Math coach and read an article from Teaching Children Mathematics entitled “ A Menu for Every Young Mathematician’s Appetite”. I realized that the work in each center could be on the same concept but would need to be differentiated for each group and their level. I also came to understand how important it was to analyze the student’s pre assessments and look carefully at which problems they were struggling the most with. With the help of the building math coach, we decided which standard we would create centers for first in order to build a good foundation of place value for the students.

In the article the author discussed how important it is to come up with the appropriate “menu” so that the students are being given the opportunity to practice the skills in which they are struggling and at the same being challenged with problems that require higher order thinking. The author stated that the math workshop model would work the same way as the Reader’s Workshop Model; “In the way that Reader’s Workshop and Writer’s Workshop build literacy, a mathematicians workshop will build numeracy.” This model allows students to work on meaningful mathematics and understand the BIG ideas behind the lessons and tasks. Legnard and Austin, the authors, both employees at elementary schools in Connecticut, stated that the math workshops “foster and nurture students’ quests for wonder and exploration in a safe risk-taking environment, where the teacher and fellow students collaborate to find deeper meaning behind the mathematics.” This statement helped me realize that the tasks the students are engaged in should be meaningful to them and differentiated toward their learning style and background.

Legnard and Austin discussed the basic parts of the math workshop concept; each lesson should involve four key components: 1. A focused mini-lesson 2. Guided instruction 3. Collaborative practice, and 4. Independent practice. The goal of all four components is for students to gain a profound understanding of the different math concepts by working in flexible groupings according to the student’s developmental understanding, strengths, weaknesses, readiness and interest. Allowing students to explore mathematical concepts on their own terms will provide them with opportunities to better understand what it is they are learning. The article stated that during the mini-lesson the teacher should give the students a “taste” of what they will be doing independently or in small groups. This also provides the teacher with the opportunity to model the mathematical concept and their thinking.

The guided instruction permits the teacher and the students to work parallel to one another; during this phase of the workshop the responsibility begins to slowly shift onto the students. For my students this part of the lesson became fairly difficult because it was the first time they had to practice a mathematical skill on their own or with a partner. They would struggle with the directions and then in the end with the task itself. This was partly caused by the fact that they had difficulty paying attention during our math block because it occurred right after recess. After realizing that their inability to focus was hindering the learning process and making the math workshop model fall apart, I spoke with my grade level teammates and decided to move the mini lesson and guided practice to the morning. This way, students were more alert and the mini lesson became more productive.

Since I had to divide the math lesson into two different parts throughout the day, I realized that during the guided groups and math centers the students would need extra directions and reminders of what they were expected to do. "During the guided math group, the teacher uses cueing, prompting, scaffolding and questioning (Fisher and Frey 2008). This critical juncture in Math Workshop allows the teacher to see what a student knows or does not know." While I was meeting with my guided math groups the rest of the students were engaged in activities that challenged their mathematical thinking and demonstrated their abilities. The students are grouped based on their performance on the pre assessments given and the work they completely daily during math.

The students that were working in small groups while I was meeting with my guided groups needed more instruction. I learned quickly that even though I taught the mini lesson and gave the students an opportunity to practice while I was modeling my thinking, they did not necessarily fully comprehend the concept or the task. I needed to provide my students with materials that would give them the chance to practice independently and show me what they are capable of doing and not rely so much on me. In the beginning of our place value unit the students that were not meeting with me relied heavily on asking me questions and not taking their learning into their own hands. Having a break in the math lesson had its positives and negatives. One of the negatives was that students needed a bit more redirection and reminders on what the concept being taught entailed.

I saw that the students in my lower groups were either just solving the problems any way they knew how and were guessing or just did not complete the work. They still needed more guidance when it came to understanding the mathematical concepts being taught. They would guess at the answer and not apply what was taught during the mini lesson. The higher groups had the opposite problem; they would finish the work early because they were not being challenged by the task in each center. I decided that the higher groups would benefit from having mini projects for each of their tasks that were based around the concept of place value.

I decided that the best way to have the students show me what they were capable of doing would be to prepare student friendly rubrics for each center. The rubrics were designed so that they applied specifically to each center. Before I could use the rubrics in the centers the students were given instruction on how to properly use the rubrics and how they applied to each task they were completing. The rubrics were written in checklist form so that students could check off each item after it was completed. The rubrics for the mini projects were more detailed than those for the regular tasks.

I spent about a week going over each of the tasks and their rubrics so that students were able to complete their tasks independently and were aware of what was expected of them. I wanted the students to be comfortable and to be able to take their learning into their own hands. I modeled how to properly use the rubrics by reading off the numbered items on the rubric and checking them off as I completed each part of the assignment. After modeling how to use the rubrics I had the whole class complete the same task using the same rubric and guided them through the process of reading each item off the rubric and completing it. I noticed that some students were jumping from bullet point 1 to bullet point 3 and not going in order. I pulled those students aside and worked on the task with them with minimal guidance. This helped them with understanding the task better and how to use the rubric in order to complete their work.

After modeling and guiding the students through the process of using rubrics I noticed that the work the students were handing in was being completed with more effort and that the students were more confident with the concept of place value. Also, when it came to meeting with my guided math groups I saw that I had more time to dedicate to teaching a small group lesson and did not have to spend as much on answering questions about what the students had to do in their other centers. The rubrics taught the students how to take responsibility for their own learning by gradually taking them through the process of completing an assignment. The students were able to complete the assignments at their own speed and were receiving additional redirection and help when needed through the bullet points on the rubrics.

Another benefit I noticed that the rubrics also helped the lower groups gain more knowledge with the concept of place value. When they were given the place value post assessment the scores had increased drastically. One of my students, who was in my lowest group and scored 0/17 on the pre assessment, scored 11/17 on the post assessment. He was able to apply the strategies that were taught throughout the unit in a more comprehensive way because he received the additional instruction in the small-guided math group and in the guided tasks. Another student, who also struggles in Math, made tremendous growth from the pre to the post assessment; her score went up from 2/17 to 14/17. She struggled a lot in the beginning with completing the tasks correctly and would just guess at the answers. Once she was given more guidance with completing the work and taking each problem step by step her knowledge of place value increased significantly.

I learned that even if I have a great whole group math lesson it does not mean that each of my students is being targeted and learning. Students needed to be targeted as individual learners. I also learned that even though I create a rubric, model and guide how to properly use them, the students would not necessarily follow the process to a T and complete the work appropriately. Sometimes they need more time to complete a guided task; the extra time and guidance will help them become more independent and responsible for their work. Teaching the students how to be responsible for their own learning is a long process and needs to be done in small increments, but in the end the extra time spent is well worth it. I have learned that even the low performing students are capable of taking their learning into their own hands if given the right materials, leveled work and guidance. In the future I will definitely continue to teach most of my math lessons using the Math Workshop model and will demonstrate to my students how to take learning into their own hands by gradually transferring the responsibility onto them.