

The Penny Pot: Counting Money – Math Lesson Reflection

	Gets it		Has some good ideas, but...		Does not get it	
	Student A - Isaac	Student B - Austin	Student C - Peyton	Student D - Caden	Student E - Halie	Student F – Oakley

<p>a. Understands...</p>	<p>The value of a penny, nickel, dime, and a quarter, and how to make specified amounts of change under a dollar using multiple variations of coins. He solved the word problem at the end correctly, first adding all of the penny pot money together to get 12¢, and then adding the 12¢ to the 39¢ to get 51¢</p>	<p>He was able to represent specified amounts of money using coins, and he counted in his head mentally while drawing out representations. Instead of drawing representations of actual coins, his pictures show his counting process. You can figure out the coins he used if you look at the way in which he is counting. For example, in order to show 39¢, he first drew a dime with 10¢, but instead of drawing another circle with 10¢, he drew a circle that says 20¢. This is how he illustrated how he represented all of the values he was given.</p>	<p>For the most part, she is able to make specified amounts using coins in one particular way.</p> <p>She is making specified amounts using the least amount of coins possible.</p>	<p>For the most part, he can make specified amounts using multiple variations of coins.</p> <p>Can solve basic word problems involving money.</p>	<p>For the most part, she is able to make specified amounts using coins in one particular way.</p> <p>She is making specified amounts using the least amount of coins possible.</p>	<p>For the most part, she is able to make specified amounts using coins in one particular way.</p> <p>She is making specified amounts using the least amount of coins possible.</p>
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<p>b. Confused about...</p>	<p>N/A.</p>	<p>Maybe he represented his counting process rather than the actual value of the coins because my directions were not clear. He didn't realize that I wanted him to represent each value he was adding on each time, rather than counting on from his last value.</p>	<p>She tends to use the same coins to make different values. When making 53¢, 52¢, and 54¢, she used two quarters and pennies each time, and did not show any indication of knowing how to make these values using different coins. She also mixes up her coins sometimes. She has a hard time especially distinguishing between nickels and dimes because dimes are smaller than nickels, but are worth more. Instead of drawing two quarters to make up 53¢, she drew two half-dollars.</p>	<p>Caden has a few mistakes in his counting. For example, when he made 52¢, he used 12 nickels and 2 dimes. He had two extra nickels. Then when he attempted to make 29¢, he used 5 nickels and 4 pennies. He may have had 4 dimes when he actually made the value, but he drew 4 nickels, which leads me to wonder, is he getting these two coins mixed up? Is he going back to make sure he counted correctly the first time? When asked to make it using a second method, he used 3 dimes, 3 nickels, and 3 pennies. He was short 1 penny. He makes counting errors often.</p>	<p>When asked if Jessie had enough money to get her face painted after factoring in the extra money from the penny pot, Halie solved the problem incorrectly. She added the money that was in the penny pot together and came up with 12¢. Instead of then adding the 12¢ to the money Jessie already had (39¢), Halie said that Jessie did not have enough money to get her face painted because she only had 12¢. Once we went over the problem together as a class, Halie wrote the equation $39+12=$ and did not finish solving. She also never circled the option that said that Jessie had enough money to get her face painted, so I'm not sure she ever had a clear understanding of this problem and how to solve it.</p>	<p>She made all of the amounts she was asked correctly, however, she used very similar coins for each problem.</p> <p>I wonder how much she would have been able to complete had we not been working together as a class. Her worksheet does not really show that she was able to think about the amounts in her own unique ways, however, she made the amounts in ways that were the same or similar to what we talked about together as a class.</p> <p>She said that Jessie did not have enough money to get her face painted. She did not add the 12¢ in the penny pot to the 39¢ that Jessie already had.</p>
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<p>c. Questions to ask to clarify what I know</p>	<p>How did you know that Jessie would have enough money to get her face painted?</p>	<p>Can you show me which coins you used to make 39¢? So why does your picture have different numbers than the values of the coins you made? Your thinking is correct, but please explain to me your thought process.</p>	<p>Can you show me how to make 57¢? Is there another way you can make it?</p> <p>How much is a half dollar worth? If you had two half-dollars, how much would you have?</p> <p>Show me a penny. Show me a nickel. Show me a dime. Show me a quarter.</p> <p>How much are all of these worth?</p>	<p>Can you show me how you made 54¢? Tell me—which coins did you use? Will you draw these coins and their value for me?</p>	<p>Can you show me 57¢? Can you make 57¢ in a different way, using different coins?</p> <p>After reading <i>The Penny Pot</i>, ask, does Jessie have enough money to get her face painted? How would you figure this out?</p>	<p>Can you show me 57¢? Can you make 57¢ in a different way, using different coins?</p> <p>After reading <i>The Penny Pot</i>, ask, does Jessie have enough money to get her face painted? How would you figure this out?</p>
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d. Ideas to work on next	Making larger values in coins and solving more challenging word problems related to money.	<p>Representing the coins he is using correctly, rather than his counting process.</p> <p>Making larger values in coins and solving more challenging word problems related to money.</p>	<p>Reviewing what each coin looks like, and what each coin is worth.</p> <p>Focusing on making one specified amount in multiplied ways.</p> <p>Solving more challenging word problems involving money.</p>	<p>Reviewing what each coin looks like, and what each coin is worth.</p> <p>Making larger specified amounts in multiple and complex ways, but going back to check his work and re-counting.</p> <p>Correcting his own errors when he finds that his numbers do not add up correctly.</p> <p>Solving more challenging word problems involving money.</p>	<p>We would work on making specified amounts of money in multiple ways because she did not show much diversity in the coin combinations that she used.</p> <p>We would also practice some simple word problems involving money.</p>	<p>Use of a ruler and understanding the concept of a ruler as a measurement tool.</p> <p>Recognizing that the markings on the ruler tell how long the object measured is.</p> <p>Following directions on worksheet. He did not measure the two objects separately and then add their lengths, he measured them as one object.</p>
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1) *How did your actual teaching of the lesson differ from your plans? Describe the changes and explain why you made them. Be thorough and specific in your description.*

I had planned on allowing students who needed some extra help during the lesson to work on a remedial worksheet that I created that reviewed each coin as well as the values that make them up. There were definitely students who could have used this review, however, I never got to give them this worksheet. I didn't really work out that there was a time for these students to work on this worksheet because they had to follow along with the rest of the class and the story, or else they would be really behind and would have no way to catch up. I did not really think this through before the lesson.

Similarly, I wish that the students who got to work on the challenge problem would have had more time. They did not have as much time as I had planned on them having to work. It got to a point where all students had begun to finish, and most students were requesting to work on the challenge problems, so I gave them a worksheet, however, I got a lot of blank challenge worksheet papers back. I should have planned more time to give students to work on these challenge problems once I gave them out.

I did not end up having a lot of time left after we finished reading through *The Penny Pot*, so I only got to give students one of the challenges that I came up with. I did not get to ask them to make \$1.25 using 11 coins and show them that there are actually two different ways to make this amount using 11 coins. Instead, I only challenged them with making 81¢ with 5 coins, and then I allowed one student to challenge the rest of the class. I wish we would have had more time to play this game.

In general, the lesson actually went a lot smoother than I expected, and students were very attentive and participative.

2) *Based on this experience, what changes would you make if you were to present this activity again? Why? Cite at least one way you could incorporate developmentally appropriate practice in a better or more thorough way.*

If I did taught this lesson again, I would make a lot of little changes. First of all, I would not have gone through each amount and asked kids to demonstrate for the class how they made it. I think so many kids may have felt that they had to make the specified amounts the same way as their peers, and therefore, I got a lot of papers that looked very similar. This took away from me being able to see students real thinking processes or what they actually know about counting coins. While kids were explaining how they made their amounts, I spent this time up at the webcam, recreating the coins they used. This took away from time that I could have spent walking around the room helping students who may have been struggling, or just observing in general. If I did this again, I would let students share their answers for the first two, but after that I wouldn't have students share. During the time that we spent sharing, I would walk around the room and look at what individual students were doing more closely. I think this would give students more of a chance to think for themselves and be creative in the ways in which they made the amounts they were asked to make.

A second change that I would make to this lesson is to have students complete the worksheet that I created as a remedial worksheet at the beginning of the lesson. There were definitely students who would have benefitted from completing this worksheet, and then there were students who would have found it to be extremely easy. The problem is that there was really no time during the lesson that I was able to give any students who needed additional assistance the remedial worksheet. Because we were all working together to make it through the book, it would have been

difficult for students to be working on another worksheet at the same time. The best solution would be to just have all of the students complete the remedial worksheet at the beginning so that those who needed it could have it and others could have extra practice.

My lesson took a lot longer than I planned and I think that's because I walked students through the worksheet so in depth. If I could teach this again, I would allow students more freedom in completing the worksheet on their own. I think they could have handled it, had I modeled how to answer the first couple of questions. Then I would have focused more on reading the book and making sure students were modeling the correct amounts. I was so focused on getting through each question that it took so long to make it through the book and I think it made it a little too simple for the students. In addition, if we would have had more time at the end, we could have played the game that we played longer. The students seemed to really like this game, and it was a great game because it gave students a chance to make many different amounts, while the book made very similar amounts of money (around 50¢).

3) What did you learn from this experience about children, teaching, and yourself?

Children:

I learned that children really need explicit instructions and practice in explaining their thinking and showing their work. Each student was supposed to figure out whether or not Jessie had enough money to get her face painted at the end of the book, and they could use whatever strategies they wanted to. They were supposed to show their work and explain how they got their answer. Some students wrote an equation, adding 39¢ to the money in the penny pot. Many other students did not show any work. And some students wrote some explanations that told me absolutely nothing about how they solved the problem. For example, one student had the correct answer but had no work and simply wrote, "I looked back". I have no way of knowing whether this student actually knew what he was doing or if he just copied another student's paper. I learned that students do not necessarily even understand the way in which they are thinking about problems, therefore explaining their own work can be a very difficult task and not something that comes naturally. Students need a lot of practice in showing their work and explaining their thinking.

Teaching:

I learned that it is extremely important to give students a chance to work out problems for themselves. Yes, it is important to scaffold them and to make sure they know what they are being asked. However, in order to see the way in which they are thinking, teachers need to give them the opportunity to think on their own. If lessons are too controlled and teacher-centered, students can lose their creativity and ability to think on their own. It is the teacher's responsibility to set students up to think in the right direction and give them the freedom to make mistakes. The teacher should act as a guide, and should be able to facilitate learning that is happening by paying close attention to what students are doing and asking them questions that will point them in the right direction, without just giving them the answers.

Myself:

I learned how tempting it can be for me to simply give students an answer when they are trying to think about something and are frustrated. However, I know that it is so important to ask students questions that will guide them to answering the question and discovering an answer on their own. In order to refrain from giving students the answer, I have learned that I, personally, have to constantly remind myself to be careful in how I am responding to student's questions.