1. Analyzing Student Learning
   a. Identify the specific standards/objectives measured by the assessment you chose for analysis.

   [CCSS.Math.Content.K.CC.B.5] Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

   CCSS.Math.Content.K.CC.6 – Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.

   b. Provide the evaluation criteria you used to analyze student learning.

   [In this assessment, students' learning was evaluated on their ability to count a number of objects and assign the correct number to the total number objects. They were also evaluated on their ability to determine the greater than/less than value of two numbers. These are skills that have been worked on throughout the course of the week and will be continuously worked on throughout the year. If students wrote their numbers backwards or in reverse order (81 instead of 18), I asked them to verbally give me the answer to verify that they indeed meant 18. If they wrote their number backward or in reverse order, they were not counted off. Furthermore, the greater than/less than portion of the assessment requires them to answer the counting section correctly (or relatively so) in order to be able to get the correct answer. If students wrote the wrong number initially (e.g. saying there are 15 items when there are 16) and it caused a problem with the greater than/less than questions, I graded that section without regard to what the answer should have been. For example, the answer to question 2a should have been 18 and the answer to question 2b should have been 17. For 2c (which is less), the student should have circled. 17. However, if they miscounted 2b and put that it was 19, then they would have circled the wrong number. In this case, regardless as to which number should have been circled, if they circled the number that is less of the two they have written, I counted it as correct.]

   c. Provide a graphic (table or chart) or narrative that summarizes student learning for your whole class. Be sure to summarize student learning for all evaluation criteria described above.

   [The number of students who got each question correct or incorrect is displayed in the chart below. On the whole, most students missed two or fewer questions. The class average was approximately 80%, which is considered mastery under the math curriculum followed. Students had the least amount of trouble with questions 1 and 4, which dealt with counting the number of objects and writing the number/filling in the correct bubble. Only two students missed question 1, while only one missed question number 2. I believe students had an easier time with these two questions because there were no follow-up parts or extra steps. We have spent a lot of time working on "greater than" without focusing a lot of the effort on "less than". This showed, as the ratio of students who answered the less-than question correctly on the assessment versus those who answered it incorrectly was 11:8—which means this question had the highest number of incorrect answers on the assessment. Many students did write their numbers backward or in reverse and I did have them dictate their]
answers to me in those situations. Of the three students who missed questions 2a and 2b or
the students who missed 3a and 3b, if their incorrect answer changed the greater than/less
than value for 2c or 3c, I had them answer orally which was greater or which was less and
based that portion of their score off of their oral answer. I felt there was no way to discern
from their written work whether or not they were choosing the lesser or greater number
based on the numbers that they had written or if they had recounted and realized their error
for part c and neglected to change their answer for parts a and b.

Assessment for Section 8.3

<table>
<thead>
<tr>
<th>Q 1</th>
<th>Q 2a.</th>
<th>Q 2b.</th>
<th>Q 2c.</th>
<th>Q 3a.</th>
<th>Q 3b.</th>
<th>Q 3c.</th>
<th>Q 4</th>
</tr>
</thead>
<tbody>
<tr>
<td># correct</td>
<td># incorrect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Bar chart showing correct and incorrect answers for questions 1 to 4.]

Use evidence found in the 3 student work samples and the whole class summary to
analyze the patterns of learning for the whole class and differences for groups or
individual learners relative to

- conceptual understanding
- procedural fluency
- mathematical reasoning or problem solving skills

Consider what students understand and do well, and where they continue to struggle (e.g.,
common errors, confusions, need for greater challenge).

[The question that most of my students struggled with the most was question 2c which asked
them to circle the number that was the least. We have not talked a great deal about less than
(most of our work involving greater than/less than has involved mostly greater than) and I
believe that for at least half of the students who missed that question did so because of a lack of
conceptual understanding. There are a few, though, who missed this question even though they
frequently and fluently answer similar questions correctly. Having 8 out of 19 students miss that
problem is a major cause for concern and that particular subject of “less than” has been
reevaluated and lessons created to re-teach that material and explore it in a different way. Of
my three student work samples, none of them missed this problem. My middle student (Student
2) was one of the students whose wrong answer to 2a caused the greater than/less than answer
to be skewed. I had this student dictate to me which of the numbers she had written was
greater, and I asked which of the correct answers was greater. She chose the correct answer each time and so I gave her credit for that answer on her assessment. Many of my students showed excellent problem solving skills such as marking off the items they’ve already counted, or “marking as you go”. My advanced student (Student 1) has a small line drawn through each item that was to be counted; illustrating that he marked each item off as he counted them. This is a problem solving skill we have discussed on a few separate occasions in class. Nearly all of my students answered questions 1 and 4 correctly. I believe this can be attributed to the fact that neither question 1 nor question 4 had additional parts such as questions 2 and 3. Questions 2 and 3 had multiple steps (three each); therefore, they were a bit more complicated, which may have caused a few needless errors to pop up, whereas had they have been their own individual questions, many students might not have missed them. My lower level student (Student 3) who also happens to be an ELL student was the one student who missed question 4. I believe this was due to a failure to mark off the objects as he counted them. I feel like it is more accurate to attribute this to a procedural error than an error in conceptual understanding because he was able to answer all of the other questions correctly.

2. Feedback to Guide Further Learning

Refer to specific evidence of submitted feedback to support your explanations.

a. In what form did you submit your evidence of feedback for the 3 focus students? (Delete choices that do not apply.)
   - Written directly on work samples or in a separate document

b. Explain how feedback provided to the 3 focus students addresses their individual strengths and needs relative to the learning targets measured.

[Generally speaking, for every written assessment, I try to provide at least one form of feedback for every two questions (or for larger assessments), or about four responses per page. I also try to make sure at least half are academic-based and not simply “good job!” or “you’re so smart”, etc. I call all of my students my “smart cookies” and they love it, so I try to write some form of that on their assessments to make them feel special, regardless of how they performed. For this assessment, I went with the 4 per page rule, making sure two of which were academically based.]

Focus student 1: There are four points of feedback on student 1’s assessment. They are as follows, “100% Way to go!”. “Great job on checking your numbers! (This comment is accompanied by an arrow pointing to an erased and revised number)”. “Excellent job on marking as you count! You really have this skill down! :D”. “You are such a smart cookie”. Student 1 answered all of the questions accurately, so there were no comments suggesting that he remember certain skills, etc. like there would have been had he gotten an answer wrong. So for this student, I made sure to comment on his use of the “marking off” strategy which we have been working diligently on. The use of this strategy helped him to be able to count the objects and assign the correct number to those objects, so his strategy helped him meet the goal of the standard. I also noticed that he took the time to go back and erase a correct answer in order to write it better. Although it is obviously not addressed in the math standards we were focusing on for this lesson, forming your letters and numbers correctly is a big deal in kindergarten, so I made sure to comment about how great it was that he went back to check his numbers. Student 1 frequently finishes work ahead of the class, so this attentiveness to detail shows me that he went back to check his work instead of answering and moving on/getting off task. This comment was simply to show my appreciation and encouragement of that.
Focus student 2: There are four points of feedback on student 2’s assessment. They are as follows, “Great job! I’m so proud of how hard you worked!” “Make sure you mark as you count! 😊” (this comment is in reference to the only question the student missed—counting the objects and filling in the correct bubble). “I love how you touched the skyline and the grass line”. “Super smart cookie!”. Student 2 missed one question out of 8 on this assessment. My second comment addressed this, reminding her to mark the objects off as she counts them. Undoubtedly, the only reason this problem was missed is because she skipped over some objects as she was counting. She managed to get all of the other counting questions correct, which leads me to believe that my assumption is accurate. I feel as if this gentle reminder is sufficient to remind her to use the marking strategy without making her feel bad for missing the question, especially since she worked extremely hard and has come a long way to be able to get the other 7 correct. I said that I loved how she touched the skyline and grass line because those are what we call the top and bottom lines, respectively, which you write on when you print. Even though handwriting isn’t a part of math, it is something we practice every day, so when a student makes an improvement in that area (as she has!), I feel it is important to let them know that then and there.

Focus student 3: There are four points of feedback on student 3’s assessment. They are as follows, “Muy bueno, [student name]! Very good, [student name]!” “I love your handwriting! Very neat.” “Make sure you mark off as you count 😊” (this comment is in reference to the only question this student missed—question 4 which required the students to count the objects and fill in the correct bubble). “My smart cookie! (this comment is accompanied by a Pac-Man drawing with the number of answers correct circled as Pac-Man eats them).] My student 3 is one of my ELL students and his family does not speak English, so I try to include a bit of Spanish so they can see how well he did and also to meet him part of the way on the language issue. I feel like this has aided in my building such a strong rapport with my ELL students, in particularly this student. He takes great pains to write neatly and legibly so I offered him recognition for that effort. Above where he made a number backwards, I wrote the number the correct way above it so he could see that he got the correct answer, just had his 5 facing the wrong way. For the one question he missed, I simply reminded him to mark the objects off as he counts them. I even marked a few of them off for him so he could see again how to use the marking strategy. For this student, I have started trying to have a visual representation of his score instead of just 7/8. This time, I opted for a Pac-Man eating the number of dots that he got correct (all circled) with the one question he missed outside the circle. This was a VERY good score for this student, and Pac-Man is his favorite thing (a topic we discuss daily), so I thought letting his favorite thing in the world show him how well he did was a great way to help him feel great about his score.

Because they are kindergarteners and can’t quite read some of the comments I made for them, I try to go around throughout the day and read my comments to them and let them ask me any question they might have.

c. How will you support students to apply the feedback to guide improvement, either within the learning segment or at a later time?

[My comments to these three particular students suggesting areas of improvement all were on the basis of making sure they remember to use the “mark as you count” strategy. This is a skill that we work on every day that we are required to count objects either on paper or manipulatives. I have a lesson planned for the following week that will give them extensive practice in marking objects off as you count them. Furthermore, I plan to incorporate the vocabulary more into our role playing math games so they are saying it as well as doing it. Hopefully this will help those students who just aren’t getting the strategy to be able to pick it up and utilize it effectively. For many of my other students, I offered feedback such as “Make sure you recount” and “Check to make sure every object has been counted!” I feel as if these are
essentially the same thing, just worded differently. Many of my students had either counted over by one or counted under by one. This leads me to believe that they simply missed an object or counted an object twice. A few who missed an object did utilize the strategy of marking the objects off as they count them; however, they will have skipped over an object, leaving it uncounted and without a mark. This shows that strategy is still effective as long as you double check your work. For all of my students, they will have the opportunity to practice these skills in future lessons. In regular math time, they will be able to count objects and mark them off on paper, count manipulatives and pull them into place, which is the 3-D version of marking them off, and count their friends by doing the same. I will encourage them to recount, create circumstances where they have to recount or double check their work, etc.]

3. Evidence of Language Understanding and Use

You may provide evidence of students’ language use from ONE, TWO OR ALL THREE of the following sources:

1. Use video clips from Task 2 and provide time-stamp references for language use.
2. Submit an additional video file named “Language Use” of no more than 5 minutes in length and provide time-stamp references for student language use (this can be footage of one or more students’ language use). Submit the clip in Task 3 Part B.
3. Use the student work samples analyzed in Task 3 and cite language use.

When responding to the prompt below, use concrete examples from the video clips (using time-stamp references) and/or student work samples as evidence. Evidence from the clips may focus on one or more students.

- Explain and provide evidence for the extent to which your students were able to use or struggled to use language (selected function, vocabulary, and additional identified language demands from Task 1) to develop content understandings.

[My students were able to use the appropriate and desired vocabulary to express their answers. In lesson 2 at 00:10, I asked students to tell me how they knew to point to the number 20 rather than 10 when I asked which number was greater. One of my students raised her hand and said, “I knew twenty was greater because I counted to ten before twenty.” Her response shows me that she understood my question as she rephrased it back to me in her answer, that she understands the vocabulary of “greater than”, and also that she knows how to find the answer even when it isn’t immediately obvious. In the same clip, lesson 2 at 2:08, I ask a student to give his reasoning for pointing to 99 as opposed to 98 when I asked which number is greater. He hesitates, and then says “Because I looked at it [pointing to the number chart on the wall] and 98 is less than 99”. Since I asked for which number is greater, I can see that his logic was to find the one that is less and rule it out. Even though the vocabulary I was looking for was “greater than”, his reasoning led him to “less than”, which was excellent and showed an understanding of both greater than and less than. Although the students were physically acting out the vocabulary “greater than, less than, equal to, and model”, they didn’t use the vocabulary verbally much. In other lessons, I had them be more vocal in using the vocabulary terms, and having already been modeling symbols with their arms in this lesson and numbers in other lessons, they were able to pick the term up easily. This was just the initial exposure to “model” and so I didn’t feel the importance was on using it verbally so much as being able to actually do it. I feel this is especially true of my ELL students.]
4. Using Assessment to Inform Instruction
   a. Based on your analysis of student learning presented in prompts 1c–d, describe next steps for instruction
      - for the whole class
      - for the 3 focus students and other individuals/groups with specific needs

Consider the variety of learners in your class who may require different strategies/support (e.g., students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students needing greater support or challenge).

Because so many of my students did very well on this assessment, I don’t feel as if spending another week teaching it would be best for the whole class. Instead, I plan on breaking the class up into groups in the following weeks and either reviewing the material with them or teaching it in a new way or letting them move on to another activity or topic. Out of 19 students, there were 6 who got a score of 8/8. Additionally, there were another 6 who only missed one problem. My goals for these students are as follows:

**Students who scored 8/8:** These students will move on to addition. They will still be able to practice counting and greater than/less than; however, it won’t be the primary focus of their lesson. Student 1 will be in this group. I will also be introducing these students to counting larger numbers. To this point, we have only counted to 20, so I feel like the next step for them (perhaps on a day where I re-teach these skills for those students who are still struggling) would be to advance to counting up to 30 or greater. If 30 proves too simple for them, I plan on introducing coin value and allow them to count with coins, adding pennies and exchanging them for nickels, dimes, and quarters as appropriate. This will give them a head start on a future segment I will teach on place value and coin value.

**Students who scored 7/8:** These students will spend another day either on greater than/less than or counting a number of objects, depending on which question they missed. I don’t feel like them having missed one question warrants a re-teach session, so largely they will get this practice in small groups. Student 2 will be in one of these small groups. After I feel like they are ready to move on, they will move on to addition as well. During my re-teach session with those students who are still struggling, these students will do a small review section and then move on to counting higher numbers. I will plan for them to be able to move on to counting with coins as I mentioned for my students who got 100%, but if they do not reach that point, it will be alright.

**Students who scored 4/8-6/8:** I have 7 students who scored a 50%-75%. Because these students have yet to reach a mastery level, I will give them additional practice outside of regular math time (transition times, our 10 minutes classroom bathroom breaks, math centers, etc) where we will work on greater or less than as well as counting numbers. When they finish activities in writing or during our theme (nonfiction literature/science time) I will have them count objects or letters on their paper to get in that extra practice. Furthermore, I will make sure that the math lessons for the following week involve counting objects and greater than/less than and I will make that their primary objective during the next week. I have focused a lot up until this point on using manipulatives to count with instead of using a printed set of numbers. We’ve worked with counting objects on paper, but perhaps not enough. So I will make sure that these students see more questions exactly like the ones that were on the assessment.

**ELL students:** the bulk of my ELL students scored below mastery level. For some of them, I feel it was simply a counting issue that can be resolved by marking their objects off as they count. For one of them, I feel as if perhaps his issue was one of anxiety (feeling like he had to rush to get the answer down without actually considering the problem). For another, I think he simply filled in some numbers (81, 31, 15, etc.) and circled something when I said to circle...
something without listening to the prompts. I will retest both of these students to verify my conclusions and then go from there. If I find that they do not know the answers, then I will rule out a language barrier by giving them the same question in Spanish, or allowing them to count it back to me in Spanish. I find that when I do this, they get it right about 10% more than if I only let them do it in English. If upon retesting and allowing them to work in Spanish, I find that they still do not know the material, I will place them with my students who scored 4/8-6/8. Perhaps my previous lessons weren’t as engaging for my ELL students, so I will try to make them more culturally relevant to them to increase the appeal. This will include counting days to Hispanic culture holidays (counting), using Hispanic foods like churro chips instead of M&M’s for manipulatives, or simply allowing them to count in Spanish and English. I will also speak with their ELL teacher for suggestions on how to be more inclusive with my ELL students and ask her to work with them on this skill so they are getting the additional practice there as well.

**Student 3:** Student 3 falls into a unique category of being one of my lowest students, yet having one of the highest grades. Typically he struggles with greater or less than, as well as with counting to 20 some days. I was amazed and proud to see that he had been making so much improvement. I will place him with his peers who also scored a 7/8 and have him follow those same goals. However, moving him to addition will be difficult because he will require a lot of assistance for this skill (we’ve been adding off and on all year) which I will not be able to give him when I am working with my struggling students to master the skills we tested on. So for him, I will allow him to work with smaller numbers (adding within 5) as my other students move on to greater numbers (within 10 and within 20 when they’re ready). This is a more manageable skill and one I am hopeful he will be able to practice without excess guidance. As this will be a new focus but not a new skill, since the class had looked at addition before I was their teacher candidate, I suspect many of my students will be able to advance from adding within 5 to adding within 10 very quickly. I would like to partner Student 3 with Student 1 perhaps, or another student who scored very high so he is able to get help immediately as he needs it and the higher student gets the benefit of being able to teach it, resulting in higher level thinking for that student.]

b. Explain how these next steps follow from your analysis of student learning. Support your explanation with principles from research and/or theory.

[In planning my next steps, I tried to plan with the Zone of Proximal Development (ZPD) or psychologist and social constructivist Lev Vygotsky in mind. Most (approximately 67% of my class is at an independent level with this stage of counting and determining greater than/less than value. Those students should be free to move on or advance to more difficult skills. All of my other students are at least at the middle stage, where they can determine greater than/less than values and count objects with guidance and support from peers or their teacher. Instead of allowing these students to move on and simply remain at this level for these skills, I plan on spending more time pushing them toward a higher goal so they can master these skills on an independent level. I don’t feel as if any of my students are at the beginning level, although I won’t know that for certain until I have retested my other two students who I believe missed their questions due to testing anxiety and failure to listen to the prompts given. If I find, upon retesting those two students, that they do not understand the concepts at all and are easily reaching their frustration point, then I will re-teach the concepts for those students. If this is the case, then I will be sure to monitor what they can do independently, what they can do with help from a teacher or peer, and what they struggle or fail to do both independently and with assistance.]
**Mid-Chapter Checkpoint**

**Concepts and Skills**

**Student #1**

1. Great job on checking your numbers!

2. Excellent job on marking as you count!

3. You really have this skill down!

**Test Prep**

**DIRECTIONS**

1. Count and tell how many. Write the number. (CC.K.CC.3)
2. Write how many pieces of fruit are in each picture. Circle the number that is less. (CC.K.CC.6)
3. Write how many pieces of fruit are in each picture. Circle the number that is greater. (CC.K.CC.6)
4. Mark under the number that shows how many pieces of fruit are at the beginning of the row. (CC.K.CC.3)

```
    17  18  19  20

three hundred twenty-four
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You are such a Smart Cookie!