

Object Counting

DOMAIN: Cognitive Development

CLAIM: Students can use content-independent abilities and strategies as well as content-specific skills, processes, and approaches to solve problems and acquire information.

RATIONALE

Children need to develop foundational concepts, such as knowledge of numbers, in order to build future math and reading skills. The ability to understand number names, the counting sequence, and that counting tells the number of objects, are essential understandings needed in the early developmental years. Understanding counting is more than being able to count to 100. Counting is a complex concept. Children move through progressive mathematical stages in order to understand that quantities remain the same when they are rearranged; they learn to be consistent and accurate and to see relationships between numbers. Research shows that general math achievement measured around kindergarten entry has been found to be highly predictive of subsequent mathematics achievement, measured around third grade (Duncan et al., 2007; Claessens, Duncan, & Engel, 2009; Claessens & Engel, 2013). Key advocacy groups, such as the National Association for the Education of Young Children (NAEYC) and the National Council of Teachers of Mathematics (NCTM), have issued position statements on the importance of early mathematics, arguing that mathematics education for 3- to 6-year olds is essential to promoting future mathematics achievement (NAEYC & NCTM, 2002). Children's ability in mathematics has also been found to affect reading ability. "Most surprising is that it also predicts later reading achievement even better than early reading skills. In fact, research shows that doing more mathematics increases oral language abilities, even when measured during the following school year. These include vocabulary, inference, independence, and grammatical complexity" (Clements & Sarama, 2013).

ALIGNMENT TO NC STANDARDS

NC Foundations for Early Learning and Development

CD-10 Children show understanding of numbers and quantities during play and other activities.

NC Standard Course of Study (Common Core State Standards & Essential Standards)

K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.

K.CC.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.

OBJECT COUNTING

UNDERSTANDING: Recognizes that counting tells the number of objects*.

SKILLS	A. Says or indicates counting words out of sequence while pointing to objects.	B. Says or indicates counting words in the correct sequence without keeping track of objects counted (counts with one-to-one correspondence and one-to-one tagging).	C. Says or indicates counting words in the correct sequence while keeping track of objects counted (counts with one-to-one correspondence and one-to-one tagging).	D. States or indicates that the last number counted is the total quantity. (Cardinality)
PERFORMANCE DESCRIPTORS	<p>Liam is counting his five crayons before he begins his art project. He touches two crayons as he says the counting words out loud, "one, three, six".</p> <p>During snack time, the teacher notices that Zahir has lined up four crackers. The teacher asks Zahir, "How many crackers do you have?" Zahir moves the first cracker over and says "one." He moves the second cracker over and says, "two." He then moves the third AND fourth crackers over and says, "five."</p>	<p>There are seven chrysalises hanging from branches placed in the butterfly pavilion. Isabella is looking at the butterfly pavilion and the teacher asks, "How many chrysalises are in the branches?" As Isabella points to some chrysalises, she says, "One, two, three, four." The teacher asks, "Did you count all of the chrysalises?" Isabella says, "Yes."</p> <p>Davis has 10 animal crackers on a napkin. He touches each animal cracker while saying the counting words in the correct sequence. Davis counts three of the crackers a second time, finishing his counting with, "11, 12, 13."</p>	<p>Mr. Martinez says, "Olivia, please count the number of beanbags for your team." Olivia moves one beanbag at a time and says, "One, two, three, four, five, six, seven, eight," without counting any of them twice or missing any.</p> <p>In the hall outside the cafeteria, Ms. Bandini pointed out the new poster showing six fruits. MacKensie said, "Wow, one, two, three, four, five, six! I love fruit!"</p> <p>NOTE: The child could visually track the objects without pointing. If the child correctly counts all of the objects presented, his/her ability to keep track may be inferred.</p>	<p>Mr. Martinez says, "Olivia, please count the number of beanbags for your team." Olivia counts the beanbags saying, "One, two, three, four, five, six, seven, eight" without counting any individual beanbag twice or missing any. Mr. Martinez then asks Olivia, "How many beanbags do you have for your team?" Olivia says, "Eight," without having to recount the beanbags.</p>

* The **amount** and **arrangement** of objects vary according to the student's needs. Therefore, it is possible that a student may demonstrate different skills based on the amounts and/or arrangements used. It is important to record these two factors with the documentation. (i.e. Carlos can count ten objects and keep track of them without missing any or counting any twice (one-to-one correspondence), he has a current learning status of skill "C" up to ten. When Carlos is working with a set of five objects, he can state that the last number counted is the total quantity, he can state that he has the same total quantity when asked, if none have been removed or added and he can even indicate that he still has five after the objects have been rearranged. Carlos has a current learning status of skill "F" for a quantity of five objects at the same time as he has a current learning status of "C" for a quantity of ten.)

OBJECT COUNTING

UNDERSTANDING: Recognizes that counting tells the number of objects*.

E. States or indicates that the same total quantity of previously counted objects does not change unless objects are added or removed.	F. States or indicates that the same total quantity of previously counted objects does not change when the objects are rearranged (conservation).	G. Continues the counting sequence automatically when ONE object is added to the set.	H. Continues the counting sequence automatically when MORE THAN ONE object is added to the set.	SKILLS
<p>At the Art Center, Patrick gets and counts seven markers. Mrs. Sims asks Patrick, "How many markers did you count?" Patrick says "Seven. See. One, two, three, four, five, six, seven, eight." because he counts one of the markers twice. "That's not right! I should have seven!" Patrick recounts, "One, two, three, four, five, six, seven. That's right, seven."</p>	<p>During snack time, Chandler counts out some animal crackers and places them on his plate. Miguel asks, "How many crackers are on your plate?" Chandler answers, "Eight." Chandler then accidentally turns over his plate and the animal crackers are arranged differently on the table. Miguel says, "That looks like a lot more crackers! How many do you have now?" Chandler says, "I still have eight."</p> <p>Ben and Davion are playing a card game. Ben ask Davion, "How many cards do you have?" Davion responds by counting, "One, two, three, four, five, six. I have six cards." Davion drops the six cards. When Ben asks, "How many cards do you have now?" Davion replies, "I still have six cards."</p>	<p>Brittany and Mario have jobs as cashiers in their class market. Brittany accurately counts the pennies in the cash register and tells Mario, "We have 12 pennies." Mario sees an extra penny on the floor, picks it up, hands it to Brittany, who says, "Now we have 13 pennies!"</p> <p>The teacher holds up the Compliment Jar filled with cubes, one cube for every compliment the class receives. She reminds the class, "Yesterday we counted eight cubes in the jar". She asks Chloe, "If I get one more cube for the compliment we just received and put that cube in the jar, how many cubes will there be?" Chloe pretends that her hand is the Compliment Jar and mimics putting another cube in, saying, "Eiiiggghhhttt and now nine."</p>	<p>Sarah and Zola are playing a Partner Plus Counting Game. Sarah rolls a six with her die; counts out six counting bears; and places them on the game board. Sarah states, "We have six bears." Zola rolls a four; picks up four counting bears; and adds them to the game board and says, "Now there are ten bears."</p> <p><i>* Zola might roll a four and say, "Seven, eight, nine, ten," as she places each bear on the game board. "Now we have ten bears!"</i></p>	<p>PERFORMANCE DESCRIPTORS</p>

* The **amount** and **arrangement** of objects vary according to the student's needs. Therefore, it is possible that a student may demonstrate different skills based on the amounts and/or arrangements used. It is important to record these two factors with the documentation. (i.e. Carlos can count ten objects and keep track of them without missing any or counting any twice (one-to-one correspondence), he has a current learning status of skill "C" up to ten. When Carlos is working with a set of five objects, he can state that the last number counted is the total quantity, he can state that he has the same total quantity when asked, if none have been removed or added and he can even indicate that he still has five after the objects have been rearranged. Carlos has a current learning status of skill "F" for a quantity of five objects at the same time as he has a current learning status of "C" for a quantity of ten.)

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SITUATION: *Counting Throughout the Day*

Understanding: Recognizes that counting tells the number of objects*.						
Selecting Learning Target(s)	A. Says or indicates counting words out of sequence while pointing to objects.	B. Says or indicates counting words in the correct sequence without keeping track of objects counted (counts with one-to-one correspondence and one-to-one tagging).	C. Says or indicates counting words in the correct sequence while keeping track of objects counted (counts with one-to-one correspondence and one-to-one tagging).	D. States or indicates that the last number counted is the total quantity. (Cardinality)	E. States or indicates that the same total quantity of previously counted objects does not change unless objects are added or removed.	F. States or indicates that the same total quantity of previously counted objects does not change when the objects are rearranged (conservation).
	<p>* The amount and arrangement of objects vary according to the student’s needs. Therefore, it is possible that a student may demonstrate different skills based on the amounts and/or arrangements used. It is important to record these two factors with the documentation. (i.e. Carlos can count ten objects and keep track of them without missing any or counting any twice (one-to-one correspondence), he has a current learning status of skill “C” up to ten. When Carlos is working with a set of five objects, he can state that the last number counted is the total quantity, he can state that he has the same total quantity when asked, if none have been removed or added and he can even indicate that he still has five after the objects have been rearranged. Carlos has a current learning status of skill “F” for a quantity of five objects at the same time as he has a current learning status of “C” for a quantity of ten.)</p>					
Identifying Opportunities for Eliciting Evidence of Learning	<p>When given the opportunity to interact with a variety of objects throughout the day, children often count. For instance, children may count to see how many classmates are present, how many letters are in a name, how many children lined up, how many names are next to a menu choice for lunch, how many crackers for snack, how many pips are on a die, or how many objects are in a container. This counting sometimes requires action on the teacher’s part to intentionally initiate a counting experience (e.g., “I wonder how many letters are in your name?”). As children count to determine “how many,” the teacher uses probes in an effort to learn about the students’ understanding of counting.</p>					
Eliciting Evidence of Learning	<p>As children explore various math manipulatives, the teacher moves among the children, observing them working with the objects. The teacher pays particular attention to children who are counting the objects or invites children to count various objects (e.g., “How many blue ones do you have?”), and poses various questions and makes comments about the collections the children are counting (e.g., “How many buttons do you have?” or “If we moved your cubes around, I wonder how many you would have?”).</p> <p>Suggested Probes:</p> <ul style="list-style-type: none"> • “Count out loud for me so I can hear your thinking.” • “This time, point as you count.” • “How many (name of object) do you have?” • “If you counted them again, how many would you have?” • “Are you sure?” <p>Probes to Avoid:</p> <ul style="list-style-type: none"> • “When you count, be very careful not to miss any.” • “Line them up like this to count.” Or “When you count, move them one by one so you don’t count something twice.” • Stating, “You have four, right?” after a child counts a set of four, “one...two... three... four.” • “You counted eleven cubes. So, if I counted them again, it would still be eleven. Right?” 					
Interpreting the Evidence	<p>Observation: Jonah accurately counts several collections of six objects or fewer while counting in the correct sequence, keeping track of the objects, and knowing that the last number stated represents the quantity counted. When there are seven or more, he loses track each time, counting objects multiple times.</p> <ul style="list-style-type: none"> • Identify Learning Status on Construct Progression: D. States or indicates that the last number counted is the total quantity. (Cardinality) NOTE: Teacher should make a note to indicate things such as, “Child consistently counted 6 or fewer objects.” <p>Observation: The teacher uses a verbal probe with Samira, asking, “Do you think there would still be eleven objects if I counted them?” Without hesitation, Samira responds, “Yes! Because that’s how many there are.”</p> <ul style="list-style-type: none"> • Identify Learning Status on Construct Progression: E. States or indicates the same total quantity of previously counted objects does not change unless objects are added or removed. 					
Adapting/ Responding to Learning Needs	<p>Once the evidence is interpreted and the learning status is identified on the construct progression, continue to adapt and respond to the learning needs of the student, addressing the same learning target if the student hasn’t met it. If the student has met the learning target, work with the student to select a new learning target for teaching and learning.</p>					

SITUATION: *How Many are Here Today?*

Selecting Learning Target(s)	Understanding: Recognizes that counting tells the number of objects*.				
	<p>A. Says or indicates counting words out of sequence while pointing to objects.</p>	<p>B. Says or indicates counting words in the correct sequence without keeping track of objects counted (counts with one-to-one correspondence and one-to-one tagging).</p>	<p>C. Says or indicates counting words in the correct sequence while keeping track of objects counted (counts with one-to-one correspondence and one-to-one tagging).</p>	<p>D. States or indicates that the last number counted is the total quantity. (Cardinality)</p>	<p>E. States or indicates that the same total quantity of previously counted objects does not change unless objects are added or removed.</p>
<p>* The amount and arrangement of objects vary according to the student’s needs. Therefore, it is possible that a student may demonstrate different skills based on the amounts and/or arrangements used. It is important to record these two factors with the documentation. (i.e. Carlos can count ten objects and keep track of them without missing any or counting any twice (one-to-one correspondence), he has a current learning status of skill “C” up to ten. When Carlos is working with a set of five objects, he can state that the last number counted is the total quantity, he can state that he has the same total quantity when asked, if none have been removed or added and he can even indicate that he still has five after the objects have been rearranged. Carlos has a current learning status of skill “F” for a quantity of five objects at the same time as he has a current learning status of “C” for a quantity of ten.)</p>					
General Description	<p>In a small or large group setting, children are invited to count the number of children, boys, girls, and other types of categories (e.g., color of shirt, type of shoes, type of lunch choice). As children count the various groups, the teacher carefully observes and makes notes about the children’s counting abilities, paying attention to counting words, the sequence of counting words, one-to-one correspondence, and cardinality.</p>				
Eliciting Evidence of Learning	<p>The teacher gathers the children together and asks for a volunteer to count the number of children at school today. After the volunteer counts the children, the teacher then asks for all of the girls to stand up and for a volunteer to count the number of girls at school today. The teacher continues to call on volunteers to count different groups of students, making sure to pick categories that provide different quantities of children to count, including larger and smaller groups.</p> <p>In an effort to find the child’s edge of understanding, when the teacher is selecting a volunteer to count a particular group of children, the teacher intentionally selects a student who may likely count the number of children in the specified group without frustration. Thus, for children who – based on previous observations – may be able to count larger quantities, the teacher selects those volunteers to count larger groups of students, such as the entire class. For children who may find larger groups of students too frustrating to count, the teacher selects those children to count the smaller groups of children, such as the number of children with braids in their hair.</p> <p><u>Vignette:</u> During Morning Meeting Time, the teacher asks the children, “I wonder how many children are here today. How can we find out?” Several children say, “We can count!” The teacher agrees and asks for a volunteer to count all of the children. As hands are raised, the teacher selects Megan. The teacher has observed Megan counting larger quantities of objects at the Math Station and anticipates that this opportunity may challenge her but not frustrate her. Megan begins to count the children, gently touching each child’s head. She counts the children with one-to-one correspondence and does not skip any children or count them twice. The teacher asks, “How many children are here today?” Without having to recount the children, Megan responds correctly, “25. Everybody is here!” The teacher probes, “What if Benjamin counted all of the children? Would there still be 25?” Megan pauses, shrugs her shoulders, and says, “I don’t know.” The teacher invites Benjamin to count all of the children. Benjamin counts them accurately and reports, “Yup. There are 25 children.” Megan says, “WOW! We got the same.” The teacher probes, “You seem surprised. Tell me what you’re thinking.” Megan replies, “I thought they would be different.” The teacher notes that Megan was surprised that recounting the same group ended up with the same number.</p> <p><u>Suggested Probes:</u></p> <ul style="list-style-type: none"> • “How many (name of object) did you count?” • “If (name of child) counted them again, how many would (s/he) have?” • “Tell me what you’re thinking.” <p><u>Probes to Avoid:</u></p> <ul style="list-style-type: none"> • “If you counted them again, you would have the same amount; right?” • “That’s right. It will be the same because we didn’t add any or take any away, did we?” 				
Interpreting the Evidence	<p>Observation: As Megan counted the children in the class, she counted each child, using the correct counting sequence and one-to-one correspondence without losing track of the children she counted. Megan also accurately stated “25,” identifying the total amount. When probed about re-counting the same children, Megan stated, “I thought they would be different.”</p> <ul style="list-style-type: none"> • Identify Learning Status on Construct Progression: D. States or indicates that the last number counted is the total quantity. (Cardinality) 				
Adapting/ Responding to Learning Needs	<p>Once the evidence is interpreted and the learning status is identified on the construct progression, continue to adapt and respond to the learning needs of the student, addressing the same learning target if the student hasn’t met it. If the student has met the learning target, work with the student to select a new learning target for teaching and learning.</p>				

SITUATION: *Grab a Handful*

Selecting Learning Target(s)	Understanding: Recognizes that counting tells the number of objects*.				
	A. Says or indicates counting words out of sequence while pointing to objects.	B. Says or indicates counting words in the correct sequence without keeping track of objects counted (counts with one-to-one correspondence and one-to-one tagging).	C. Says or indicates counting words in the correct sequence while keeping track of objects counted (counts with one-to-one correspondence and one-to-one tagging).	D. States or indicates that the last number counted is the total quantity. (Cardinality)	E. States or indicates that the same total quantity of previously counted objects does not change unless objects are added or removed.
	<p>* The amount and arrangement of objects vary according to the student's needs. Therefore, it is possible that a student may demonstrate different skills based on the amounts and/or arrangements used. It is important to record these two factors with the documentation. (i.e. Carlos can count ten objects and keep track of them without missing any or counting any twice (one-to-one correspondence), he has a current learning status of skill "C" up to ten. When Carlos is working with a set of five objects, he can state that the last number counted is the total quantity, he can state that he has the same total quantity when asked, if none have been removed or added and he can even indicate that he still has five after the objects have been rearranged. Carlos has a current learning status of skill "F" for a quantity of five objects at the same time as he has a current learning status of "C" for a quantity of ten.)</p>				
Preparation	<ul style="list-style-type: none"> Counting book (e.g., <i>Count!</i> by Denise Fleming; <i>Feast for 10</i> by Cathryn Fallwell; <i>Let's Count</i> by Tana Hoban) Collections of various-sized counting objects (e.g., cotton balls, cubes, jacks) in tubs or paper bags 				
General Description	<p>After reading a counting book and counting collections of objects in the book together, children are asked to grab a handful of counting objects out of one of the containers, count to determine how many they have in their hand, and say out loud the number of objects counted. Students repeat this task several times, using a variety of materials. This occurs in a whole group, small group, or a center or station.</p>				
Eliciting Evidence of Learning	<p>The teacher reads aloud a counting book, inviting the children to point and count together different groups of objects in the book. Then, the teacher introduces various collections of objects for the students to count. The students are asked to use one hand to reach into the container, grab a handful of objects, count the number of objects grabbed, and say out loud the number of objects counted.</p> <p>The teacher observes the students counting the different objects, and increases or decreases the difficulty by asking students to count specific collections. Thus, a child who is unable to count a large quantity of smaller-sized objects accurately is asked to count the collections of larger-sized objects, therefore decreasing the quantity of objects likely to fit in a handful. If a child accurately counts a few objects, then the teacher asks the child to count the collections of smaller-sized objects, thus increasing the quantity likely to be grabbed in a handful. The teacher also uses probes or asks open-ended questions in an attempt to uncover what the children know and are able to do.</p> <p><u>Vignette:</u> During Math Stations, Jonah and Samira are counting objects. Jonah reaches in and grabs a handful of cubes. He counts them, touching each one as he says the numbers in the correct sequence, "One, two, three, four, five, six, seven, eight, nine, ten, eleven"; however, he counts several cubes twice. He then turns to Samira and says, "Eleven! I grabbed eleven."</p> <p>As the teacher observes, she notices that Jonah does not consistently keep track of objects when the collection has eight or more. She asks Jonah to count objects from the two containers that contain larger objects. As the teacher observes, she notices that Jonah is able to accurately count collections of six or fewer objects while counting in the correct sequence, keeping track of the objects, and knowing that the last number stated represents the quantity counted.</p> <p>She also notices that Samira quickly and accurately counts collections of ten or more objects. As Samira counts a collection of objects and reports, "Eleven," the teacher probes. "Samira, I heard you say that you counted eleven objects. What would happen if you counted them again? How many would you have?" Samira responds without hesitation, "Eleven." The teacher probes further, "Are you sure?" Samira turns and counts the objects quickly and accurately. "Eleven. See. I knew there would be eleven." The teacher probes, "How did you know that there would be eleven?" Samira responds, "Because that's how many there are."</p> <p><u>Suggested Probes:</u></p> <ul style="list-style-type: none"> "How many (name of object) do you have?" "If you counted them again, how many would you have?" "Are you sure?" "How do you know?" <p><u>Probes to Avoid:</u></p> <ul style="list-style-type: none"> "If you counted them again, you would have the same amount; right?" "That's right. It will be the same because we didn't add any or take any away, did we?" 				

Interpreting the Evidence	<p>Observation: After the teacher changed the type of objects Jonah counted, Jonah accurately counted collections of six or fewer objects while counting in the correct sequence, keeping track of the objects, and knowing that the last number stated represented the quantity counted.</p> <ul style="list-style-type: none"> • Identify Learning Status on Construct Progression: D. States or indicates that the last number counted is the total quantity. (The teacher made a note that Jonah was consistently successful with collections of six or fewer objects.) <p>Observation: Samira consistently counted collections of ten or more objects. When probed further, Samira indicated without hesitation that the quantity of a particular collection of 11 objects she has counted will remain 11, even if recounted.</p> <ul style="list-style-type: none"> • Identify Learning Status on Construct Progression: E. States or indicates the same total quantity of previously counted objects does not change unless objects are added or removed. (The teacher made a note that Samira was consistently successful with collections of eleven or fewer objects.) <p>NOTE: Since the observation ended at this point in time, the teacher makes a note to probe further next time to determine what Samira would think if the objects counted were rearranged and then recounted.</p>
Adapting/ Responding to Learning Needs	<p>Once the evidence is interpreted and the learning status is identified on the construct progression, continue to adapt and respond to the learning needs of the student, addressing the same learning target if the student hasn't met it. If the student has met the learning target, work with the student to select a new learning target for teaching and learning.</p>

SITUATION: *Just One More*

Selecting Learning Target(s)	Understanding: Recognizes that counting tells the number of objects*.	
	G. Continues the counting sequence automatically when ONE object is added to the set.	H. Continues the counting sequence automatically when MORE THAN ONE object is added to the set.
	<p>* The amount and arrangement of objects vary according to the student’s needs. Therefore, it is possible that a student may demonstrate different skills based on the amounts and/or arrangements used. It is important to record these two factors with the documentation. (i.e. Carlos can count ten objects and keep track of them without missing any or counting any twice (one-to-one correspondence), he has a current learning status of skill “C” up to ten. When Carlos is working with a set of five objects, he can state that the last number counted is the total quantity, he can state that he has the same total quantity when asked, if none have been removed or added and he can even indicate that he still has five after the objects have been rearranged. Carlos has a current learning status of skill “F” for a quantity of five objects at the same time as he has a current learning status of “C” for a quantity of ten.)</p>	
Preparation	<ul style="list-style-type: none"> • 15 connecting cubes of the same color per student • The quantity of cubes can be adjusted as needed. 	
General Description	<p>The teacher introduces the game “Just <i>One More</i>” to the students, walking through the steps of the game while modeling with connecting cubes. Students are then provided a bag of connecting cubes to play the game alongside the teacher as the teacher walks through the steps with the children as they play. Last, the children play the game independently. As the children play the game, the teacher carefully observes the strategies used by the children to determine the quantity in each tower created. Based on these observations, the teacher adjusts the game for some children by changing the number of cubes in the tower or asking children to play “Just <i>Two More</i>.”</p>	
Eliciting Evidence of Learning	<p>The teacher introduces the game “Just <i>One More</i>” to the students, modeling each step in front of the children:</p> <ol style="list-style-type: none"> 1. Snap 10 connecting cubes of the same color together to make a tower. 2. Place the tower behind your back, and snap the tower into two parts. 3. Choose one of the two snapped-off parts to count. 4. Count the number of cubes in the selected part, and say out loud how many cubes are in the part you chose. 5. Then say, “Just <i>One More</i>” and snap on one more cube to the tower. 6. Last, say out loud how many cubes are in the new tower. <p>The teacher then gives each student a bag with 15 connecting cubes and asks the children to play the game along with the teacher as the teacher repeats the directions, modeling the action, while watching the children throughout the steps. Once the children have had an opportunity to play the game with the teacher, the children then play the game independently. As the children play the game both with and without the teacher, the teacher carefully watches to see how the children determine the new quantity after the ‘one more’ cube is added. The teacher makes note if a child counts all of the cubes again each time the game is played, if the child quickly states the quantity without counting all of the cubes, or if the child sometimes recounts all of the cubes (perhaps when the beginning quantity is larger), while other times states the quantity quickly without counting (perhaps when the beginning quantity is smaller).</p> <p>While observing the children, the teacher may differentiate the game by asking children to make a tower using more than 10 cubes (perhaps 15 or 20) or fewer than 10 cubes (perhaps 6 or 8), providing additional cubes as needed. The teacher may also decide to adjust the difficulty of the game by introducing the version “Just <i>Two More</i>,” asking the student to snap on 2 more cubes to the selected part of the tower.</p> <p><u>Vignette:</u> As the children play the game, the teacher watches Anthony place his tower of 10 blue cubes behind his back and snap them into two pieces. He chooses the piece in his right hand, places the other piece on the floor, and begins counting the selected piece. The teacher listens carefully as he counts, noting that he counted the cubes accurately as he says out loud, “Six!” He then reaches down to pick up one cube, and dramatically says, “Just one more!” as he snaps one cube to the tower of 6. Without recounting the cubes, he quickly says “Seven!” and shows them to another student near him. Anthony then makes a new tower of 10 cubes and plays the game again. The teacher watches him for several moments, noticing that each time he adds one more cube, he instantly knows one more than the previous count. The teacher then probes, “Anthony, this time play ‘Just <i>Two More</i>,’ and see what you find out.” Anthony selects the part of the snapped tower that has 6 cubes. He then adds 2 more cubes to his tower. He pauses, looks at the teacher, and then counts each cube: “1, 2, 3, 4, 5, 6, 7, 8. Eight! I have eight cubes now.” As Anthony continues to play “Just <i>Two More</i>,” the teacher notes that he counts all of the cubes each time to determine the new quantity.</p> <p><u>Possible Probes:</u></p> <ul style="list-style-type: none"> • “What would happen if you snapped on 2 more?” • “Do you know how many you have without counting?” • “This time, make a tower of [15; more than 10; etc.] and play ‘Just <i>One More</i>.’ ” <p><u>Probes to Avoid:</u></p> <ul style="list-style-type: none"> • “You’re right. It is seven because seven comes after six.” • “It’s just the next number, isn’t it?” 	
Interpreting the Evidence	<p>Observation: As Anthony played “Just <i>One More</i>” with a tower of 10 cubes, he accurately stated the correct quantity without recounting. When Anthony played “Just <i>Two More</i>” with a tower of 10 cubes, he recounted each time to determine the new amount.</p> <p>• <u>Identify Learning Status on Construct Progression:</u> G. Continues the counting sequence automatically when ONE object is added to the set, without counting all of them again.</p>	
Adapting/ Responding to Learning Needs	<p>Once the evidence is interpreted and the learning status is identified on the construct progression, continue to adapt and respond to the learning needs of the student, addressing the same learning target if the student hasn’t met it. If the student has met the learning target, work with the student to select a new learning target for teaching and learning.</p>	