# Kindergarten Designated English Language Development with Math: Using Sequential Connectives to Explain How to Solve Word Problems

## Introductory Slides (0:00–2:34)

**Narrator:** Welcome to the California Department of Education Integrated and Designated English Language Development Transitional Kindergarten through Grade Twelve Video Series.

**Narrator:** Designated English Language Development: Building Into and From Mathematics in Kindergarten. In this lesson, the students are learning, reviewing, and practicing how to exchange information and ideas about grade level mathematics content. They intentionally listen, speak, read, and write in order to build language and linguistic structures. The students will use these language resources to accurately demonstrate their understanding of the mathematics content in writing now and when they return to their mathematics class.

**Narrator:** The focal California English Language Development Standards Driving This Lesson: The English Language Development Standards at the bridging level are Kindergarten, Part 1, Standard 1: Exchanging Information and Ideas, where students contribute to class, group, and partner discussions by listening attentively, following turn-taking rules, and asking and answering questions. And Kindergarten, Part 2, Standard 2: Understanding Cohesion, where students apply understanding of how ideas, events, or reasons are linked throughout a text using a variety of connecting words or phrases to comprehending text and composing texts in shared language activities guided by the teacher, with peers, and independently. Watch how students move from early levels of proficiency toward the Bridging levels of these English language development standards throughout the lesson.

**Narrator:** The supporting California Common Core State Standards for Mathematics Used in Tandem with the Focal English Language Development Standards: The mathematics standard is Kindergarten, Operations and Algebraic Thinking, Standard 2, where students who demonstrate understanding can solve addition and subtraction word problems and add and subtract within ten.

**Narrator:** Watch how the teacher leads the students in a series of activities that allow them to explain how a sample math problem was solved using the sequential connectives *first, then, next,* and *finally*. This helps prepare them to explain how they solved word problems back in the math lesson with the whole class. First, the teacher leads the students in reading and analyzing the word problem to identify the math question.

## Teacher Introduces the Lesson (2:35–3:58)

**Teacher:** Today we are going to look back at a word problem that we've already solved. Let's read.

**Students:** Oliver, Miss Potter's dog, was going on a spring egg hunt in the backyard.

**Teacher:** Do you remember this problem?

**Students:** Yeah!

**Teacher:** This is Oliver. This is who our word problem was about. Now, let's see what happened. He found four eggs that Miss Potter hid for him to find. Who's “he”?

**Students:** Oliver!

**Teacher:** That's Right. This word problem is about Oliver. He kept looking and found four more. Four more what?

**Students:** Eggs.

Teacher: That's right. He was going on an egg hunt. He found four eggs, and then four more eggs. Did you find the question?

**Students:** Yes!

**Teacher:** Let's read it.

**Students:** “How many eggs did Oliver find altogether?”

## Students Discuss in Pairs (3:59–5:34)

**Narrator:** Watch how the teacher leads the students to speak with their peers using learned language and sequential connectives to explain how to reorder scrambled sentence strips of another student's explanation of the word problem.

**Teacher:** You and your partner can put the mathematical explanation in order. If I hand you the bag would you take them out?

**Student 1:** Umm... I don't know...

**Teacher:** Maltise and Muhammed, I like the way you were looking to see that when he was mixed up, you showed disagree. Muhammed, why didn't you agree? What sequential connective did she use?

**Student 2:** “First” and “then.”

**Teacher:** What would come next?

**Student 2:** Umm... “next.”

**Teacher:** And what did Amilliano do next, Maltise?

**Student 1:** She put it all together.

**Teacher:** Why did he put it all together?

**Student 1:** Because she want to show it all together.

**Teacher:** So, if we have one group of eggs and another group of eggs, and we put them together that shows …

**Student 1 and Student 2:** Addition.

**Teacher:** And here, that's where Amilliano shows that he added.

## Looking Deeply at Classroom Instruction (5:35–7:30)

**Narrator:** Finally, watch how the teacher leads the students in an activity that allows them to use learned language and sequential connectives to write about how to solve the word problem.

**Teacher:** Reread to see our next word. “First, she drew… four.” Yes, four. Write “four.” Re-read.

**Student 3:** “Four circles.”

**Teacher:** “First she drew four circles.”

**Teacher:** C

**Students:** C

**Teacher:** I

**Students:** I.

**Teacher:** R

**Students:** R

**Teacher:** C

**Students:** C

**Teacher:** L

**Students:** L

**Teacher:** E

**Students:** E

**Teacher:** S

**Students:** S

**Teacher:** Circles.

**Students:** Circles.

**Teacher:** Let's read the first step.

**Students:** “First she drew four circles.”

**Teacher:** What do we need to write? Think to yourself. Put your pencil down. And whisper what we need to write to show what Marhaba did then. Microphone out…. What sequential connective are you gonna use?

**Students:** Then!

**Teacher:** Then. “Then she drew two more circles.” Put your microphone away. Turn and tell your partner what you think we should do?

**Student 4:** More circles... She drew two more circles.

**Student 5:** He?

**Student 4:** She. Yeah, she.

## Whole Class Debrief (7:31–9:38)

**Narrator:** The Designated English Language Development Lesson: Building Into and From Content Instruction. By engaging in a designated English language development lesson such as this one, the students are better prepared and more confident to express their growing math content knowledge in speaking, reading, and writing during collaborative activities with peers in small groups, as a whole class, and individually with diminishing supports.

**Teacher:** Today we're going to read our new word problem and you know how to solve word problems. “Mr. Madden loves to play with and eat animal crackers.” Who is the situation about?

**Students:** Mr. Madden.

**Teacher:** And there he is, Mr. Madden. “He ate six animal crackers.” Wait, who's “he”?

**Students:** Mr. Madden.

**Teacher:** Yes, that is who the word problem is about. “He had so much fun that he ate three more.” Three more what?

**Students:** Animal crackers.

**Teacher:** Oh, that's right. That's what the word problem is about. “How many animal crackers did Mr. Madden eat in all?” Quickly turn to your partner and tell your partner the question.

**Student 6:** I think... “How many animal crackers did Mr. Madden eat?”

**Student 7:** Umm... six.

**Teacher:** Do you agree or disagree that that is the question?

**Student 7:** Agree.

**Teacher:** I agree too. That's what the word problem is asking us to solve. Thank you for sharing with me.

**Student 8:** “How many animal crackers did Mr. Madden eat in all?”

## Reflection and Closure (9:39–10:23)

**Narrator:** Reflection and Discussion. Reflect on the following questions: First, how did you observe the focal English language development standards and supporting content standards being implemented in this kindergarten designated English language development lesson? English language development Part 1, Standard 1: Exchanging Information and Ideas. Part 2, Standard 2: Understanding Cohesion. And Operations and Algebraic Thinking, Standard 2. Second, what features of designated English language development did you observe in the lesson? Now pause the video and engage in a discussion with colleagues.

## Closing Slides (10:27–10:45)

**Narrator:** The California Department of Education would like to thank the administrators, teachers, and students who participated in the making of this video. This video was made possible by the California Department of Education in collaboration with WestEd and Timbre films.

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