Academic Conversation:
Building Foundations for Critical Thinking and Content Understandings

Handouts

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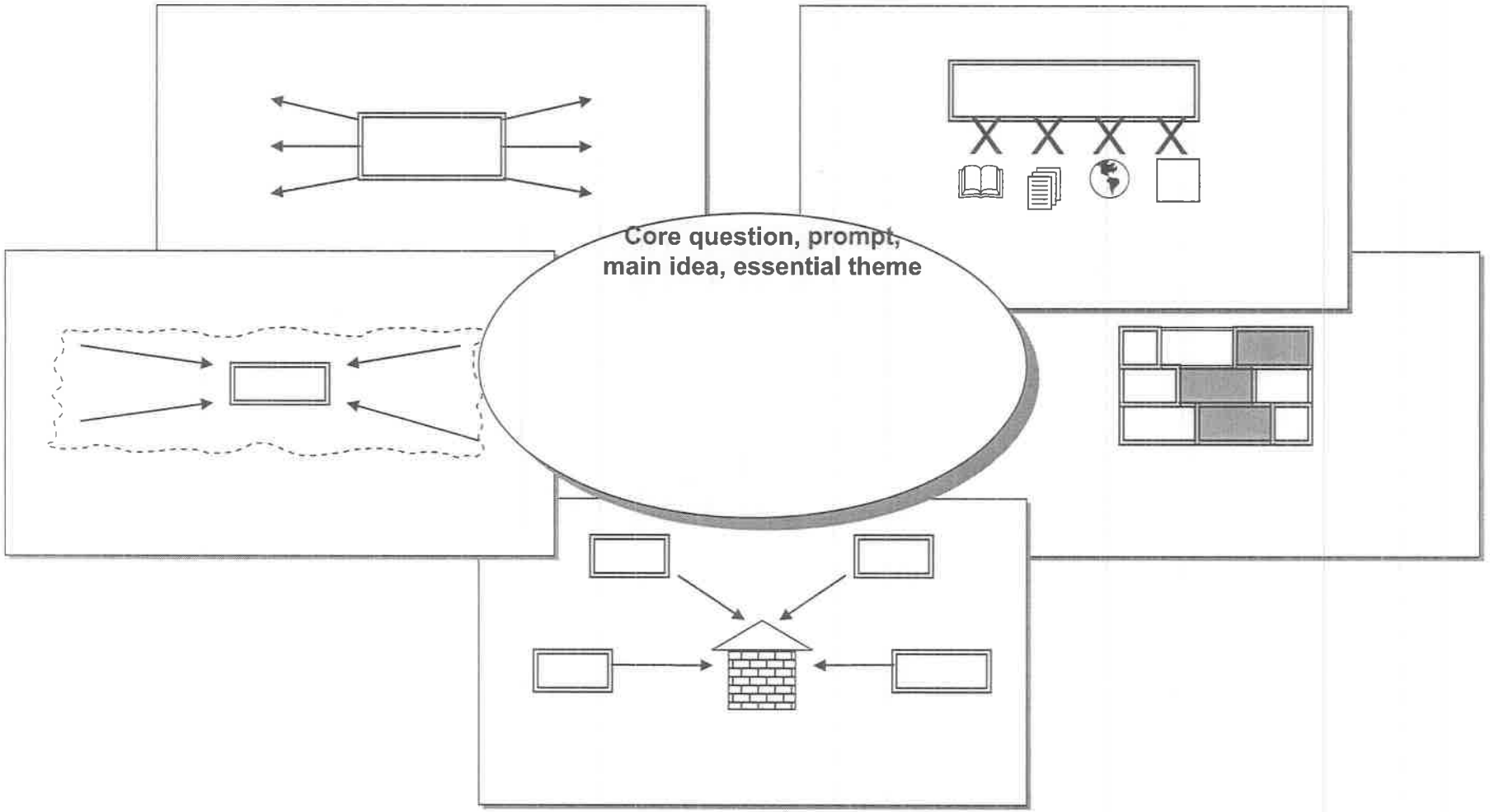
ACADEMIC CONVERSATION

Placemat



Prompts & Responses

Can you elaborate?
What does that mean? What do you mean by....?
Can you clarify the part about...?
Tell me more about...
Can you elaborate on how that example supports the theme?
I understand the part about..., but I want to know...
Can you be more specific?

I think it means...
In other words,
More specifically, it is important because...
Let's see, an analogy might be...

Prompts & Responses

Can you give an example from the text?
Where does it say that?
What are examples from other texts?
What is a real world example? Are there any cases of that in real life?
Can you give an example from your life?

For example,
In the text it said that...
Remember in the other story we read that...
An example from my life is
One case that illustrates this is...

Prompts & Responses

Is that clear?
Can I hear what you heard?
Does that make sense?

Let me see if I heard you right...
To paraphrase what you just said, you...
In other words, you are saying that...
What I understood was...
It sounds like you think that...
I'm hearing that...

Prompts & Responses

How can we add to this idea of...
What other ideas or examples relate to this idea?
What else could support this idea?
Do you agree?
What contradicts this? What are other points of view?

I would add that...
Building on your idea that..., I think...
That idea connects to...
I see it a different way, ... On the other hand, ...
Let's stay focused on the idea of.... Let's get back to the idea of...
That makes me think of... That reminds me of...

Prompts & Responses

How can we summarize what we discussed?
What have we discussed?
How can we bring these ideas together?
What is the main point we want to communicate after discussing this?
What is our conclusion?

We can say that...
It boils down to...
We can agree that...
Even though some might think that..., we conclude that

Practice Academic Conversations

Have a paired academic conversation with a partner about the text. Use the initiators or generate your own. Use the symbols on the handout and try to use the sentence frames. You can use the given prompts or come up with your own.

Language Arts

Identity

Excerpt of poem by Julio Noboa Polanco

Let them be as flowers,
always watered, fed, guarded, admired,
but harnessed to a pot of dirt.

I'd rather be a tall, ugly weed,
clinging on cliffs, like an eagle
wind-wavering above high, jagged rocks.

I'd rather be unseen, and if
then shunned by everyone,
than to be a pleasant-smelling flower,
growing in clusters in the fertile valley,
where they're praised, handled, and plucked
by greedy, human hands.

I'd rather smell of musty, green stench
than of sweet, fragrant lilac.
If I could stand alone, strong and free,
I'd rather be a tall, ugly weed.

Possible conversation initiators:

- Why did the author write this?
- What does this poem try to teach us?

History

Fischer showed that Revere was not such a solitary hero. Instead, he was part of an intricate web of patriots who rode horses, rang bells, and shot guns to sound the warning. Fischer's book was so popular that textbook writers had to deal with this new information: Revere was not alone, they now admit — William Dawes (and sometimes Samuel Prescott) rode as well. They water down the legend, but they do not embrace the real impact of Fischer's findings: the mobilization of April 18-19, 1775, was a truly collaborative effort involving an entire population.

Maier uncovered ninety state and local "declarations of independence" that preceded the congressional document. The consequence of this historical tidbit is profound: Jefferson was not a lonely genius conjuring his notions from the ether; he was part of a nation-wide conversation. Again, textbook writers have watered down the legend while missing the main point. While many textbooks now state that Jefferson was part of a five-man congressional committee, but do not mention a word of those ninety documents produced in less famous chambers.

Possible conversation initiators:

- Why do these myths persist?
- Some say these myths are harmless — what damage can they do?

Math

The manager at the bank lost track of the total original investments that five people deposited into the bank. Figure out the original deposit for each of these customers (John, Noah, Jordan, Nicole, and Daniel). All of the accounts are paid simple annual interest.

1. Noah and Nicole deposited a total of $33,500 into two accounts. One account is paying 7.92% and the other is paying 5.72% simple interest. In one year, the annual simple interest will be $2,323.20 for both accounts.

2. Jordan will earn $691.05 less simple annual interest than Daniel. Jordan's annual interest rate is 5.61%.

3. Daniel's account, which pays 6.21%, will earn $624.50 more in simple interest than the simple interest earned in one year by John's account. John has an account that pays 6.16% annual interest. Daniel and John originally deposited $24,000 altogether.

Possible conversation initiators:

- How many ways can we solve this?
- What is the easiest/best way to solve this?
- How can we clearly explain to others how to solve this?

Science

Doctors first noticed antibiotic resistance more than a decade ago when children with middle ear infections stopped responding to them. Penicillin as a treatment for strep has also become increasingly less effective. And a recently discovered strain of staph bacteria does not respond to antibiotic treatments at all, leading medical analysts to worry that certain "super bugs" could emerge that are resistant to even the most potent drugs, rendering some infections incurable.

One large part of the problem, according to the CDC, is the tendency for people to take antibiotics to fight viruses, which they cannot do. Antibiotics fight bacteria, not viruses, and will not fight colds, flu, bronchitis, runny noses, or sore throats that are not due to strep. Nonetheless, says CDC, "more than 10 million courses of antibiotics are prescribed each year for viral conditions that do not benefit from antibiotics."

Possible conversation initiators:

- Does this issue matter? If so, what do we do?
- Why does resistance happen?

Academic Conversation Samples

LANGUAGE ARTS

A: What do you think the author's message is?
B: Well I don't think it was fair that the principal changed the rules about the jacket, you know, to pay for it.
A: Me too, but what was the lesson from the story?
B: Maybe it was to stand up for what is right.
A: Can you elaborate on that?
B: Well, she was sad at first and then talked to her grandpa who told her he could pay, but wouldn't. Maybe this helped her see that it would be, like, wrong to just give in and pay. What do you think?
A: Yes, I agree. I think Martha changed cuz maybe at first, if she had the money, she would've paid. But, however, her grandfather made her think and show the school people that they were wrong.
B: So how can we apply this to our life?
A: Maybe we can make sure bullies at school don't get away with bullying.
B: And maybe it has to do with racism, like we talked about in class, how people bully people based on their skin color, like we saw in history class.
A: How do we stop racism, though?
B: Maybe study really hard to be lawyers.
A: OK, how can we sum this up?
B: We can say that the author wanted to teach us to stick up for what is right, even when more powerful people change the rules; and we should study more.

HISTORY

A: Why did the author write this?
B: To tell us about the Boston Massacre. But what I don't get was why it was called a massacre if only 7 people were killed.
A: Can you elaborate?
B: Well, the people weren't so famous, and a massacre usually means lots of people die.
A: Maybe the people reporting it wanted to make it sound really bad.
B: Maybe they wanted to get people all mad in order to rebel, like, to start the Revolution. At that time, not everyone wanted to rebel.
A: Oh like the teacher said, a lot of times the newspapers—I don't think they had radio or T.V. back then—would make up stuff…
B: You mean *exaggerate*?
A: Yeah, they would exaggerate things or focus on things or not print things to influence people.
B: So calling it a massacre made the English look really evil?
A: Maybe. How about today? How can we apply these ideas to today?
B: Like, in commercials they only talk about good parts. And reporting on the war in Iraq might be biased, depending on the source.
A: But why?
B: Maybe to influence voters to vote to get troops out.
A: So we need to remember that words can be biased?
B: Yeah, how history is reported can make a big difference.

SCIENCE

A: What did you observe?
B: Well, the higher the ramp was, the further the car went.
A: Why do you think that happened?
B: I don't know. We just read about potential energy in the book. So, maybe the higher the ramp, the starting point, the more energy it had and it made it go further.
A: Yeah, I think the cars that went further had more energy because we had to lift the cars higher. We used more energy for them, even though we didn't feel it.
B: But what if we had to push real cars up a hill? Then we would feel it.
A: Yeah. I did that once and used up a lot of energy. I guess I gave it to the car. And every time I go up the stairs, I give myself potential energy, I think.
B: And what about the graph we made? Here we can connect the points and it makes a line, more or less.
A: So what?
B: Well, as the teacher showed last week, we can extra…polite, extrapolate the data. That means we can predict by using the line. So if the ramp is 500 inches tall,..
A: We could predict how far the car would go?
B: But we would have to make up a formula or something, since we experiment with a ramp that high. So, if the height, h, is something, we want to know the distance, d?
A: Well, each time the height is multiplied by around 4, so d could equal 4 times h, more or less.
B: OK, but so what? Why is it important? How is it useful to us?
A: We can learn how to predict when things are linear.

MATH

A: What do we need to find?
B: We ultimately need to know if we have enough money. But first we need to find the length of the fence.
A: How do you know that?
B: Because it asks if we have enough money. But we need to know how much fence to buy, which goes around the field. Then we need to calculate how much that fence costs and compare it to our $290.
A: Can we estimate a rough answer?
B: Maybe the length will be around 100 meters. What do you think?
A: I think it will be around 90 meters.
B: Why do you think that?
A: Because I think the circle part is 10 meters and I add up the rest.
B: What do we need to do? How can we use a drawing? Can we use a formula or algorithm?
A: We can add the sides that we see but then the circle piece?
B: We can use the formula for a circle perimeter. It's pi times diameter. Then we find the perimeter and divide by four. How does that sound? Can we try any other ideas?
B: That sounds OK. What information do we need? And why?
A: We need the diameter to multiply it by pi. We can find the radius and … … We get 94.8 meters. Times 3 dollars per meter gets us 284.52; so we have enough money.
B: How does the perimeter compare to our estimations?
A: How is this like something that might happen in our lives?

Accelerating Oral Language with Academic Conversations

"Why did the author write this?"
"To teach us about courage."
"Yeah, the guy was brave."
"OK. What do we do now?"

We worked with teachers who noticed that their students lacked skills to focus, deepen, and extend conversations about academic topics. The school was in a low-income setting in Northern California. Seventy-three percent of the school's students were English learners, and 88% of the students qualified for free and reduced lunch. All students were academic English learners.

In the years leading up to this project, we taught and observed many lessons at various grade levels. We found that English language learners (ELLs) had very limited opportunities to engage in extended, meaningful talk in school, a conclusion that other research supports as well (Nystrand, 1997; Staarman, Krol, & vander Meijden, 2005). English learners need to produce meaningful linguistic output to help them develop oral proficiency (Swain, 1985), but most whole-class discussions limit the amount of time each student gets to talk, and responding in front of many others often intimidates English learners.

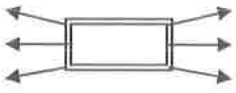
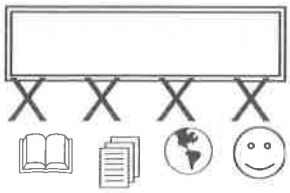
Many classroom activities elicit short bursts of student output, such as think-pair-shares or vocabulary games. But we wanted a way to give students the training they needed to engage in extended discussions that involved constructing academic ideas with others (Cazden, 2001).

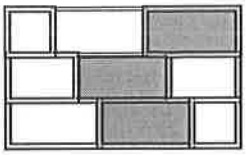
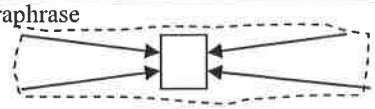
We calculated that paired conversations would enable the most talk per minute among our students: half of the class could talk concurrently. Yet most of the think-pair-shares that we observed were short and shallow. They offered students little chance to negotiate meaning or make decisions about the direction or depth of a conversation. Even when teachers gave students extra time in pairs, students didn't automatically do the things proficient speakers and experts do to have powerful conversations (Zwiers, 2008). We predicted that equipping students with conversational skills would make meaningful academic conversations less of a rarity over time.

What Makes a Conversation Academic?

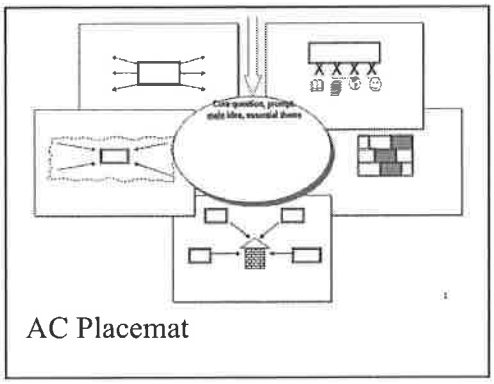
We set out to analyze the features of an academic conversation. We analyzed both the ineffective conversations we had observed in schools and in our own lives, as well as the great discussions we'd had about books and movies. Then we looked at features of good academic conversations among 4th graders. Using Goldenberg's features of effective whole-class discussions (1992) as a starting point, we took time to analyze what was happening in students' paired conversations. We observed 12 student pairs and participated in 25 short one-on-one conversations with students about fiction and nonfiction texts, recorded these conversations, and analyzed the transcripts for features, prompts, and discourse moves that students used to extend and deepen their mutual thinking. Six of the most useful and teachable features—initiating a worthwhile topic, elaborating and clarifying, supporting one's ideas, building on or challenging another's ideas, paraphrasing, and summarizing—became our target conversational skills. As we taught these skills, we crafted prompts that students could use to prompt and respond in conversation, as well as visual symbols and hand gestures for each feature (see fig. 1). The visual symbols reflected a comparison between constructing a good conversation and building a house of meaning together.

FIGURE 1. Academic Conversation Skills and Prompts

Features/moves/skills of Conversations *(with symbols & hand motions)*	**Stems for prompting the feature**	**Stems for responding**
Elaborate and clarify  *(Pull hands apart)*	Can you elaborate? What do you mean by....? Can you tell me more about...? What makes you think that? Can you justify that? Can you be more specific?	I think it means that... In other words,...
Support ideas with examples from this text, other texts, the world, & one's own life  *(Index finger on pinky of other hand, palm up)*	Can you give an example from the text? Can you show me where it says that? What are examples from other texts? What is a real world example? What is an example from your life? Are there any cases of that?	For example,... In the text it said that... One case showed that... An example from my life is

Build on or challenge another's idea  (Layer hands on each other and build up)	What do you think about my point that ...? Can you add to this idea? Do you agree? What might be other points of view?	I would add that... I want to expand on your point about... Then again, I think that... I see it another way... Yet I wonder also if...
Paraphrase  (Put thumb and index finger together)	Is that clear? Do you see what I'm saying?	So, what you are saying is that Let me see if I understand you...is that right?
Synthesize whole conversation  (Cup both hands into a ball)	What have we discussed so far? How should we synthesize what we talked about? How can we bring this all together?	We can say that... The main theme/point of the text seems to be... As a result of talking, we think that we should...

Scaffolding Conversation Skills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Our students required major scaffolding to use these skills effectively to construct more meaningful exchanges. When we showed students a poster of Figure 1 and asked them to practice using these skills to prompt a better conversation, they zipped straight through it as if it were a worksheet. Students needed to understand the recursive nature of conversations: ideas often keep emerging, needing fresh elaboration, support, and application.

To scaffold this cycle of ideas, we had students make visual reminder placemats. On one side of each box, they drew the symbol we had created to represent each conversational feature. We required students to memorize at least one prompt to start using the feature that each symbol represented. For example, they might memorize the phrase, "Can you elaborate on that point?" for the symbol of elaboration. On the back of each box, students wrote possible prompts for *responding* to the skill/move in question (e.g., "It means that...").

Teachers modeled how to use the placemats recursively during a conversation, returning to one of the moves when the conversation lagged or veered to a nonacademic tangent. To reduce the dependence on the placemats, we taught students hand motions that they could use as they prompted each feature. For example, they pulled their hands apart while saying, "Can you elaborate?" For prompting for examples, we emphasized the order in the icon: text, other texts, world, and lastly, self. We wanted to train students to start in the text, then other texts, then think globally, and go to self examples last. Self examples were usually the easiest to generate and, if students started with them, they didn't have time for the other types.

We also created a rubric with the features (Figure 3) that students used to self-assess after their conversations. Teachers also used the rubric at the end of the year to assess paired conversations. The rubric gave students a target for their talk.

FIGURE 3. Rubric for Academic Conversation Skills

Level Skill	1: Below standard	2: Approaches standard	3: Meets or exceeds standard
Maintain coherence of topic	Ideas are disconnected and random; many tangents	Mostly on topic with a few tangents; some building off an idea	Generate logical theme(s); stay on topic; build on one another's comments; paraphrase to focus
Support ideas with explanations and examples	Little or no support of ideas and themes; lack of appropriate prompting; examples not from the text	Some support of ideas with examples & clarifications; some use of prompts to encourage support	Appropriately prompt for and offer explanations, elaborations, and examples from the text, other texts, world, and own life
Think and talk like experts in the discipline	Remain at retell level; give few or no interpretations; don't extend conversation; use social language	Some interpretations and applications to life; some use of discipline's language and thinking	Appropriately interpret and apply ideas; use academic expressions and vocabulary; use other thinking skills
Use appropriate communication behaviors	Lack of focus on partner: interruptions; dominating conversation style	Some appropriate listening and turn-taking behaviors	Head nodding, eye contact, take turns, value and paraphrase partner comments

A Typical Lesson with Conversations

With our guidance, the teachers explicitly taught each conversation feature. Here's a typical lesson. One of the teachers, Karen, points out on the poster the highlighted feature students will work on as they converse this day: elaboration. Students look at their cards and practice the hand motion and prompts for elaboration. Karen then reads a story about Columbus arriving in the Caribbean, stopping at times to elicit students' comments and questions. As students offer ideas and interpretations, she encourages them to elaborate.

At one point Karen asks, "Why was the boy afraid?" When Elia responds, "Because the guy just touched their gold," Karen asks, "Can you elaborate?" Elia answers, "I think the boy got all worried because that guy, Columbus, only wanted gold they were wearing. In the picture he looked mean." Karen uses Elia's response to create a pair-share prompt for the upcoming discussion, asking students to tell their partners whether they agree or disagree with Elia and why. She models using the sentence starter, "I agree with Elia's interpretation because…"

Karen leads a short whole-class discussion to brainstorm themes that came up in the story. This provides students with ideas for their conversations. Students write their top choices for themes and jot down any examples from the text that might support each theme. She reminds students that this quick writing will help them have better conversations.

Karen gives a mini-lesson in which she acts as one conversant and the whole class acts as the other. Students ask her in unison, "Why do you think the author wrote this story?" Karen answers, "Perhaps she wrote it to teach readers that it is important to listen to children." She waits a few seconds and then asks, "Now what might you ask me? Did I say enough?" Several students respond, "Can you elaborate?" Karen replies, "Well, it means that the adults don't listen to the boy's warnings about the visitors and their greedy actions. Later on it turned out that the boy was right, but it was too late."

Students first take out their placemats and review them, testing each other on the prompts associated with each symbol. Karen reminds students of the prompt that Elia offered, and then pairs students up to begin academic conversations. Karen moves around the room listening, interjecting at key moments, but letting students facilitate their conversations. She notices Juan and Ana using the starter phrases, placemats, and gestures to extend their conversation and encourages them to connect ideas to their lives and to try new vocabulary.

JUAN: I think it was about greed.
ANA: Can you elaborate that?
JUAN: Like, Columbus only touched the gold that they were wearing and not their skin. That maybe means the people don't matter, just the gold.
ANA: *[looking at the symbol for building on an idea]* I add that idea that Columbus's people took over the islands and made the boy's people into slaves. They probably wanted to steal all the gold and kill people, like pirates. What do you think?
JUAN: Yeah, but pirates mostly attack other ships.
ANA: *[thumbing through her cards]* How can we apply this to our lives?
JUAN: *[laughing]* I don't know. Maybe we shouldn't be pirates.
ANA: Or maybe we shouldn't be greedy.
JUAN: Yeah, we shouldn't think that because we have more guns and ships, or that we are bigger, that we have the…uhhh…
ANA: The right?
JUAN: Yeah, the right to take over other people and take their land.
KAREN: Can you elaborate with some modern examples?
JUAN: Like at school there are bullies and they shouldn't beat up others and take their money.
ANA: And what about when armies go in to take a country…for oil or land? I hear that still happens. But I wonder, should they fight back?
JUAN: We get in trouble when we fight back at school. Sometimes the fights get worse….*[finding the "summarize" card]* How can we summarize our conversation?
ANA: We can say we thought the story teaches us that people are more important than money, that greed is bad and bullying isn't right,
KAREN: Another term for not right is *unjust*.

After conversing, all the pairs share their academic synthesis statements with the class and each pair writes an "exit ticket" synopsis of their conversation. Karen points out that Juan and Ana's conversation uncovered a question that comes up throughout history. She encourages students to write down any big questions that remain. Finally, Karen has students reflect on the process and self-assess with a kid-friendly checklist based on the rubric shown in Figure 3.

These language learners' conversation focused on a meaningful theme—greed and its effects on others. They connected this theme to real-world situations, found examples in the text to support the theme, constructed interpretations, generated a shared synthesis, and posed a question for future discussion. After four months of practice sessions like these, students began to use the conversation features more automatically.

Promising Results

In June, we analyzed transcripts of student conversations and noticed several changes:

- Students improved at extending and deepening conversations. In each row of the rubric in Figure 3, students' average scores increased. By June, these 4th graders were discussing meaningful themes in texts and applying them to their lives, rather than retelling parts of the story.
- Students began using new vocabulary to communicate big ideas, not just create disconnected sentences or fill in the blanks for points on tests.
- Students became more independent thinkers and talkers, shaping their conversations on their own.
- Whole-class discussions improved as students used many of the prompts from their cards during group discussions. Instead of depending on the teacher to mediate comments, students built their responses on others' ideas without "popcorning out" unrelated thoughts.

We hypothesized that academic conversations also contributed to other positive changes. Students showed improvement in writing (giving more evidence to support ideas), critical thinking, and using academic vocabulary to answer questions. Teachers noticed more student participation. In June, students engaged in more minutes per hour of on-task talk than they did in February. One student commented, "It sounds weird, but I feel like we've done something important after a good conversation." The quality of discussions during history and science lessons also improved. The following academic year, many students asked their 5th grade teacher when they were going to start having academic conversations.

We are currently working on using academic conversations to build students' academic grammar and vocabulary. Through mini-lessons and student models, teachers are seeing how to use paired conversations to build sentence complexity in oral contexts, conversing about topics that are of interest to them.

English language learners need accelerated language development. This acceleration is fostered by experiences that allow them to share their ideas, support them with evidence, and construct new knowledge with other students. This action research suggests that paired academic conversations can provide such experiences, equipping students with communication and thinking skills needed in school and beyond.

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