

Cultivating Academic Discourse in ALL Classrooms



Jeff Zwiers

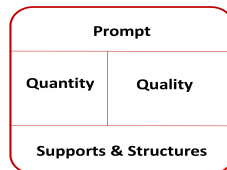
CALLI Opt-In Session

November 29, 2016


jeffzwiers.org/november29

Overview


- I. Warming up with a Structured Discourse Activity
- II. Framework for Improving Conversations
 - School & Classroom Level Analysis and Improvement
 - Conversation Level Analysis and Improvement



V. 8 Dimensions of PD



Speaking & Listening in Conversations



Conversations

are back-and-forth interactions in which participants use conversation skills to *build on* one another's ideas in order to *build up* ideas that weren't in their minds before talking.

Speaking

is one-way, one-time, clear & strong communication of ideas & thinking.
(Think-pair-shares, Answering teacher questions, Jigsaws, Gallery walks, Oral presentations)

Listening

is making meaning from spoken language.

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Warming up speaking and listening with structured discourse:

TRANSITION IMPROV

Activities




Transition Improv Activity: **Pro-Con**

Topics: Camping, Shopping, TV, Uniforms, Computers, Superheroes, Cars, Conferences, Testing, Internet, Cell phones, Video games, Social Media

Transitions: **However,**
On the other hand,
Then again,

~~but~~

PC Frames: One advantage is ... For example, ...
 Another positive of ... is... because...
 A negative aspect of ___ is ...
 In spite of the positives of _____,

A & B, Lean?

Transition Improv: **For-Against**

Topics: Fracking, adding lime to soil to lower pH, genetic engineering, nuclear energy, stem cell research, human-caused climate change, wolf reintroduction, de-extinction, zoos, preserving wetlands, corn as fuel, extraterrestrial life, desalination, ...

Transitions: **However,**
On the other hand,
Then again,

~~but~~

PC Frames: One reason for ... is ... For example, ...
 Evidence that supports ... is... because...
 A reason against ... is ... For example, ...
 Evidence that does not support ... is ... because ...

*A & B,
 Lean?*

Transition Improv: Similar-Different

Animal cells

Lysosomes
(digest food and break down waste)

Centrioles
(pull chromosomes from nucleus during mitosis)

No cell wall

Plant Cells

Cell wall
(gives plant its shape)

Large vacuole (store nutrients and waste)

Chloroplasts
(produce carbohydrates using photosynthesis)

Ribosomes
(make protein)

Mitochondria
(turns nutrients into energy)

Cytoplasm

One turn with; next turn without


However,
On the other hand,
Then again,

Unlike animal cells, plant cells have ____, which ...
 Plant & animal cells both have ____, which serve to...
 ... are similar to ____ in that they both ____
 Animal cells differ from plant cells in that ____

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Transition Improv: Two Views

Views: Patriots
Loyalists



Transitions: **However,**
On the other hand,
Then again, ~~but~~

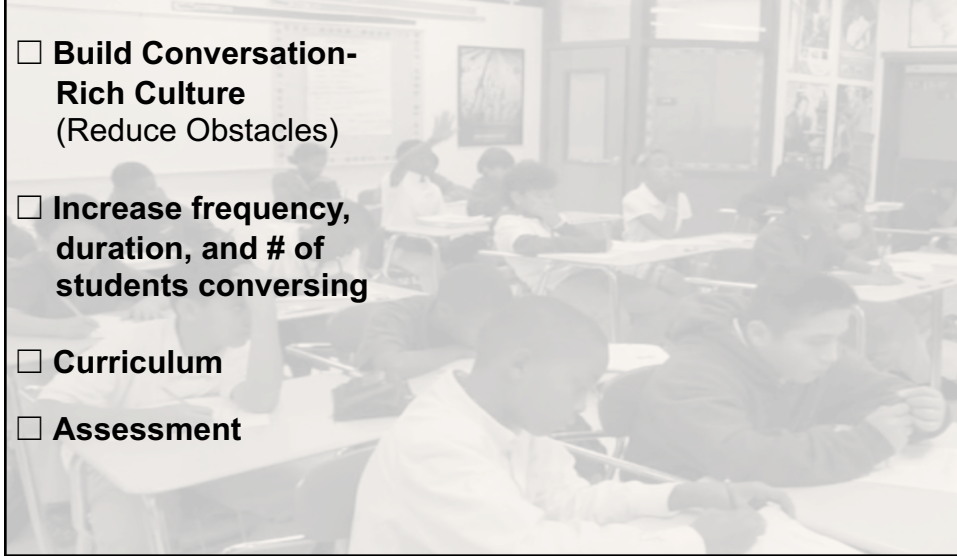
Frames: The ____ thought that ...
 Many ____ believed that...
 A different perspective held by ____ was that...
 In the eyes of ____...

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Framework for Improving Conversations

School-Classroom Level

- Build Conversation-Rich Culture**
(Reduce Obstacles)
- Increase frequency, duration, and # of students conversing**
- Curriculum**
- Assessment**

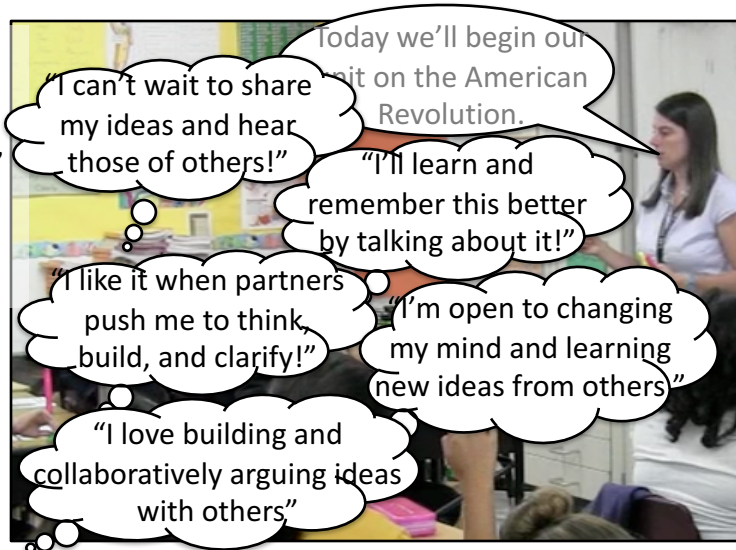


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CULTURE: Cultivating Conversation Mindsets

Each time a topic is introduced, every student thinks,



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SCHOOL-CLASSROOM LEVEL

Build Conversation-Rich Culture by Reducing these Obstacles

1. "Coverage," "Memorization-Regurgitation," and "More Right Answers = More Learning" mindsets
2. *In*authentic & shallow communication that pervades curricula and pedagogy of language, literacy, & content
3. Desire for "control" over construction of knowledge
4. Lack of seeing long-term & learning value of classroom conversation
5. Lack of constructive conversation models
6. Lack of conversation practice time (scrimmages)
7. Over-structured "discourse" activities and over-use of sentence frames

How do we reduce these?

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SCHOOL-CLASSROOM LEVEL

Increase frequency, duration, and # of students conversing

Frequency of conversations (each day, lesson, etc.)

Duration of student conversations

Number of students conversing

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SCHOOL-CLASSROOM LEVEL
Curriculum

If the curriculum and the pedagogy driving it are not grounded in engaging disciplinary questions, critical thinking, deeper understandings of content concepts, and student agency, conversations will not thrive or be effective for learning.

e.g., Problem-Based & Project-Based Learning

Students grapple with, investigate, explain, and solve meaningful problems & questions through continuous collaboration with peers (Barron, Schwartz, Vye, Moore, Petrosino & Bransford, 2011; Evensen & Hmelo-Silver, 2000).

“Conversation is not an add-on —it’s a cornerstone.”

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SCHOOL-CLASSROOM LEVEL
Assessment

Formative
(Teacher, Peer, Self, Related)

Summative
(End of unit/semester/year)

Conversations can show us:

- Conversation skills
- Language
- Content knowledge
- Content skills
- Thinking skills
- Engagement

Response to Prompt

Focus/Purpose Engaged Bridged gaps Agency

Quantity	Quality
<input type="checkbox"/> # of turns	<input type="checkbox"/> <u>Use</u> conversation skills to co-construct & argue ideas — Turns held in previous turns
<input type="checkbox"/> Length of turns	— Responds to, or draws a relevant content (claim) that is focused on learning (e.g., why?) — Builds clearly on the other's participation, building, elaborating, asking questions, expanding, etc. — Students support their claims, evidence, examples, explanations
<input type="checkbox"/> Equity of voice	— If there are not or are not capturing other participants, students do not extend the dialogue (e.g., if the evidence of their own) — <u>Use</u> compare the strengths/weakness and choose the “strongest/best” one — <u>Use</u> explain and/or negotiate their decisions & conclusions
	<input type="checkbox"/> <u>Class</u> speaking
	<input type="checkbox"/> Effective listening
Used Supports & Structures to scaffold:	
<input type="checkbox"/> Language	<input type="checkbox"/> Thinking
<input type="checkbox"/> CL Skills	<input type="checkbox"/> Discourse
<input type="checkbox"/> Turns	<input type="checkbox"/> Content

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Framework for Improving Conversations

School-Classroom Level

- Build Conversation-Rich Culture (Reduce Obstacles)
- Increase frequency, duration, and focus on students' conversational curriculum
- Assessment

Conversation Level

Prompt

Clear Purpose
 Engaging

Info Gaps
 Agency

Quantity	Quality
<input type="checkbox"/> # of turns	<input type="checkbox"/> Use conversation skills to co-construct & argue ideas
<input type="checkbox"/> Length of turns	<input type="checkbox"/> Clear speaking
<input type="checkbox"/> Equity	<input type="checkbox"/> Effective listening

Use of Supports & Structures
(formative assessment + modeling + scaffolding + activities) to improve:

Language
 CC Skills
 Thinking

Turns
 Nonverbals
 Content

Conversation Level

Improving Conversation Prompts

- There is an engaging purpose** for conversing that connects to lesson objectives

Decide which theme in the story is most relevant for 7th graders today.
- Requires thinking & doing something with ideas:** create, clarify, argue (=>consensus), decide, rank, solve, evaluate, combine, compare, choose, fortify, build, & transform

Rank the most significant effects of the Industrial Revolution


Come to an agreement on how you would measure the speed of sound.
- Student interdependence** (info gaps; unique ideas)

Co-create a clear way to describe to students in Mr. R's class how geography influences culture.

Conversation Level
Quantity

Prompt	
Quantity	Quality
Supports & Structures	

- Total number of turns in the conversation
- Length of turns
- Equity (equal time)
- Other:



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Building Ideas in Conversations

Prompt	
Quantity	Quality
Supports & Structures	

Laura: I think air has weight. Remember the balloon?

Eli: I disagree.

Laura: Why?

Eli: Cuz I can't feel it. Can you?


Lisa: I think the dog was his best friend in the story.


Edgar: I would like to add to your idea. My dog ran away last year and we found him in the park.

Lisa: Which park?

Edgar: The one by the train station.

Lisa: I took a train to San Jose last week.





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Building Ideas in Conversations

Prompt	
Quantity	Quality
Supports & Structures	

Alex: What caused the fall?
 Carlos: The book said disease and war.
 Alex: It also said crops and politics.
 Carlos: All of them, I guess.



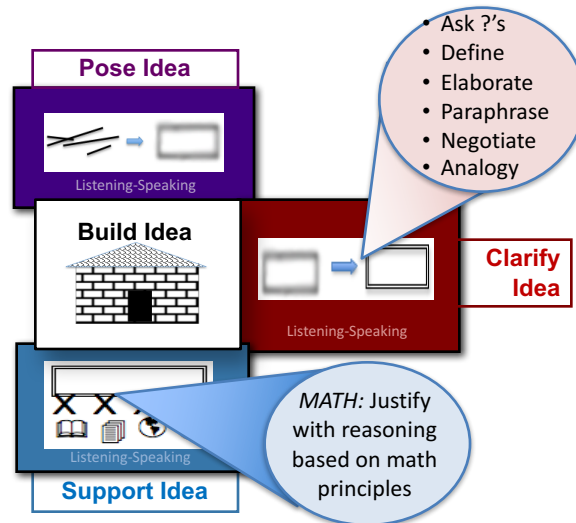
Mansur: I think there are different ways to solve it.
 Lynn: So? Just do what the teacher did.
 Mansur: But why did she turn the fraction over?
 Lynn: Who cares? Just turn it over.
 Mansur: OK.

$$\frac{3a}{3c-6} \div \frac{9ab}{c^2-4} =$$

Constructive Conversation Skills for "Build Up 1 Idea" Mode

Prompt	
Quantity	Quality
Supports & Structures	

Goal: Students collaboratively (but w/o teacher) build an idea (e.g., claim, answer, solution, interpretation), **using the following skills:**



Conversation Analysis Tool (v3)

Prompt	
Quantity	Quality
Supports & Structures	

Response to Prompt

Focus/Purpose
 Engaged
 Bridged gaps
 Agency

Quantity	Quality						
<input type="checkbox"/> # of turns <input type="checkbox"/> Length of turns <input type="checkbox"/> Equity of voice	<p><input checked="" type="checkbox"/> Use conversation skills to co-construct & argue ideas</p> <ul style="list-style-type: none"> ___ Turns build on previous turns ___ Students pose or choose a relevant initial idea(s) that is focused on learning objective(s) ___ Students clarify idea(s) (by paraphrasing, defining, elaborating, asking questions, negotiating, etc.) ___ Students support ideas (using evidence, examples, explanations) ___ <i>If there are two or more competing ideas (argue/decide), students (a) evaluate the strength/weight of the evidence of each idea</i> ___ (b) compare the strengths/weights and choose the "strongest/heaviest" idea ___ (c) explain and/or negotiate final decisions & conclusions <p><input checked="" type="checkbox"/> Clear speaking</p> <p><input type="checkbox"/> Effective listening</p>						
<p>Use Supports & Structures to scaffold:</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> Language</td> <td><input type="checkbox"/> Thinking</td> </tr> <tr> <td><input type="checkbox"/> CC Skills</td> <td><input type="checkbox"/> Nonverbals</td> </tr> <tr> <td><input type="checkbox"/> Turns</td> <td><input type="checkbox"/> Content</td> </tr> </table>		<input type="checkbox"/> Language	<input type="checkbox"/> Thinking	<input type="checkbox"/> CC Skills	<input type="checkbox"/> Nonverbals	<input type="checkbox"/> Turns	<input type="checkbox"/> Content
<input type="checkbox"/> Language	<input type="checkbox"/> Thinking						
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Constructive Conversations in 9th ELA

Prompt	
Quantity	Quality
Supports & Structures	

Context

- Sheltered 9th grade English class
- Intermediate and early advanced speakers.
- Have read *To Kill a Mockingbird* and *Of Mice and Men*
- Focal conversation skill: supporting your ideas with examples from a text.
- Some prompts are on the board



This Clip

- Prompt: "What do you think an important theme in this book is?"
- How do they clarify and support ideas? ("*What does courage mean?*" "*Can you elaborate on that?*" "*Can you give an example from another book?*" "*How does this apply to our life?*")

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Conversation Support Cards (Triads)



*Which cards could I have given to the students in the video?
Are there others you might have used?*

Ask for an (another) example to support the idea	Paraphrase what your partner said	Ask your partner to clarify (Why...How...)
Show that you are listening with your eyes, nods, posture	Pose a competing idea and start to build it up	Stay focused on the conversation prompt
Encourage your partner to talk more	Summarize the conversation up until now	Ask for criteria used to evaluate evidence

Assess a Conversation – (ELA)



- A: I think she not share it (bread)
- B: Why?
- A: Cuz the other animals not work; just lazy.
- B: Yeah. I don't think to share, too.
- A: Why?
- B: Like my dad. He work for money. Not work, no money.
- A: Yeah, no es justo.
- B: Not fair. But teacher said is good to share.
- A: I share when they help. Maybe I paint the school. It's my money, you know?
- B: No. Maybe if ...no pueden...trabajar (work), like they're sick, maybe. But this story animals are lazy.
- A: Is good to share, but not all the time, not with lazies.



Constructive Conversation Skills for "Argue-Decide" Mode

Prompt
Quantity
Quality
Supports & Structures

Goal: Students collaboratively (but w/o teacher) build claims & ideas and then choose one of them, using the following skills:

The flowchart illustrates the process of building and clarifying ideas. It starts with a purple box labeled 'Pose 1st Idea' containing a drawing of a pencil and a box, with 'Listening-Speaking' written below. This leads to a white box labeled 'Build 1st Idea' with a drawing of a brick wall and a doorway, also with 'Listening-Speaking' below. To the right of this is a red box labeled 'Clarify Idea' with a drawing of a box and an arrow, with 'Listening-Speaking' below. Below the 'Build 1st Idea' box is a blue box labeled 'Support Idea' with a drawing of a box and four 'X' marks, with 'Listening-Speaking' below.

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Constructive Conversation Skills for "Argue-Decide" Mode

Prompt
Quantity
Quality
Supports & Structures

Goal: Students collaboratively (but w/o teacher) build claims & ideas and then choose one of them, using the following skills:

The flowchart illustrates the process of building and evaluating ideas. It starts with a purple box labeled 'Pose 2nd Idea' containing a drawing of a pencil and a box, with 'Listening-Speaking' written below. This leads to a white box labeled 'Build Ideas & Choose Best' with a drawing of two brick walls and doorways, also with 'Listening-Speaking' below. To the right of this is a red box labeled 'Clarify Idea' with a drawing of a box and an arrow, with 'Listening-Speaking' below. Below the 'Build Ideas & Choose Best' box is a blue box labeled 'Support Idea' with a drawing of a box and four 'X' marks, with 'Listening-Speaking' below. To the left of the 'Build Ideas & Choose Best' box is a green box labeled 'Evaluate & Compare (Argue)' with a drawing of a balance scale, with 'Listening-Speaking' below.

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Conversation – 2nd gr. SS (Use the CAT→)

Prompt	
Quantity	Quality
Supports & Structures	

A: What do firefighters need most? (*prompt*)

B: Air.

A: Can you give an example?

B: Like a tank of air like the picture.

A: Why do they need it most?

B: So they won't die.

A: Why?

B: When they go in burned buildings. Smoke kills so they need air. Air is most important.

A: I think they need water most.

B: Why?

A: They need it to put out the fire. That's what they do.

B: But they can't use the water if they die from smoke.

A: OK, yeah. Air is most important.



5th Gr. Language Arts/ELD (Use the CAT→)

Prompt	
Quantity	Quality
Supports & Structures	



Context

- 5th grade Language Arts/ELD class in San Francisco
- Advanced and early intermediate partners.

This Clip

- After reading an allegory for the Holocaust, students discuss what could have happened if the animals had stood together.
- They practice stating opinions, paraphrasing, and clarifying

8th History – Using the Argument Scale

Prompt	
Quantity	Quality
Supports & Structures	

Mayra: One side is that industrialization was bad.

Ben: What do you mean by bad?

Mayra: For example, there was crime and it was dangerous. You saw the pictures. right?

Ben: Yeah, and they showed some sick people. And the article said people got hurt a lot, and died.

Mayra: I think a lot of people got sick and some did crime cuz machines took their jobs.

Ben: And there was lots of pollution.

Mayra: Say more about that. Like how did industrialization make pollution more bad?

Ben: The factories just dumped it into rivers.

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8th History – Using the Argument Scale

Prompt	
Quantity	Quality
Supports & Structures	

Mayra: And lots of smoke in the air, too.

Ben: Yeah, so what about the good side of it?

Mayra: On this card it says it helped people buy cheaper things.

Ben: How?

Mayra: The factories made lots of things in a day, so they could cost less. For example, cars.

Ben: And people got jobs in factories so they got work and got paid.

Mayra: And they maybe had better lives at home with inventions they made in factories.

Ben: OK, so which side is stronger or heavier?

Mayra: I dunno. Like the job thing is on both sides/

8th History – Using the Argument Scale

Prompt	
Quantity	Quality
Supports & Structures	

Mayra: /Some people lost jobs and some people got jobs. I don't know what was better. And they are the same size card.

Ben: Yeah, so maybe they are even. But the pollution got way worse, and it's a big card.

Mayra: Yeah. But does pollution weigh more than some of the inventions that made life better? We got cars and airplanes and they pollute.

Ben: I think pollution is way more bad. Pollution kills animals and makes people sick. And it lasts forever.

Mayra: I agree, but factories also make medicines.

Ben: They make bombs, too.

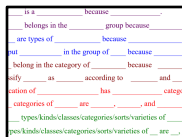
Mayra: OK, so let's say it is more on the bad side.

Ben: OK.

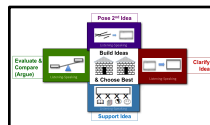
Supporting & Structuring Conversations

When we "structure" a conversation, what are we structuring--and why?

Prompt	
Quantity	Quality
Supports & Structures	



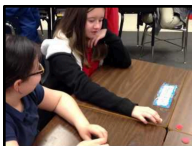
Language
(sentence frames)



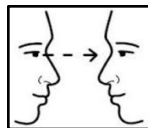
Conversation skills
(Build, pose, clarify, support, evaluate & choose)



Thinking skills
(AR, CO, EV, IN, AP...)



Turns
(#, equal time, length)



Nonverbal communication



Content
skills, knowledge, evidence

WARNING: Watch out for an inverse relationship between structure and engagement in student conversations.

Structuring Collaborative Argument Conversations: Argument Scale

Prompt	
Quantity	Quality
Supports & Structures	

Claim

vs.

**Opposite or
Different Claim**

Which claim's reasons, evidence, and explanations weigh the most?

Claim/Position	Are humans good or evil?	Claim/Position
Good		Evil

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Argument Scale

Prompt	
Quantity	Quality
Supports & Structures	

Prevent dropouts & jail costs

Gets them to read

Kids need to eat

Stay after school

Pizza tastes good

Reason/Evidnc/Exp	Should pizza be a reward for reading?	Claim/Position
Kids need to eat		No
Reason/Evidnc/Exp		
Prevents dropouts, crime, jail costs		
Reason/Evidnc/Exp		
Gets kids to read		
Claim/Position		
Yes		

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Argument Scale

Prompt	
Quantity	Quality
Supports & Structures	

Choose a side and argue why it "weighs more"

Reason/Evidnc/Exp
Kids need to eat


Reason/Evidnc/Exp
Prevents dropouts, crime, jail costs

Reason/Evidnc/Exp
Gets kids to read

Claim/Position
Yes

Should pizza be a reward for reading?

2D-Scale

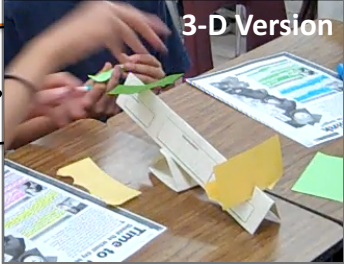


Reason/Evidnc/Exp
Expensive

Reason/Evidnc/Exp
Not healthy food

Reason/Evidnc/Exp
Not good motivation

3-D Version



How might this activity support language, conversation skills, thinking skills, turn-taking, nonverbals, & content?


Video Example

Prompt	
Quantity	Quality
Supports & Structures	

CONTEXT

5th grade
Language
Arts/ELD class
Advanced and early advanced partners.

After reading an article on a program that gives pizza as reward for reading, students discuss their opinions on the issue.



THIS CLIP

- Watch for supporting opinions, building on ideas, and clarifying
- Notice if and how the balance scale helps students to extend talk
- Consider next steps based on this conversation

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Activities that Support Conversations: Two Views

Prompt	
Quantity	Quality
Supports & Structures	

Views: Patriots
Loyalists



Now you'll have a conversation about the topic.
The prompt is:

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Structuring Skills & Language: If-When Chart

Prompt	
Quantity	Quality
Supports & Structures	

If... or When...	You can
The conversation doesn't start well or at all,	<ul style="list-style-type: none"> Say, "Let's understand (clarify, define) this... What we need to do is ..." Ask, "What does... mean in this case/context/situation?" Say, "Let's scan through the text again and look for..." Say, "Let's take two different sides; which one do you want?"
Your partner offers a short response,	<ul style="list-style-type: none"> Ask for specific clarification or elaboration Ask a question (I wonder why/how...) Ask what a word or expression means Ask for example that supports it Give an example and ask if your partner agrees
Your partner offers a long and confusing response,	<ul style="list-style-type: none"> Paraphrase it and relate it to the conversation purpose Ask to clarify the most relevant part of the response Ask for additional evidence or examples

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Math Paired Conversation Protocol

Suppose it takes the Almond River 3 years to fill a reservoir, Balfair Creek 6 years to fill it, and Campbell Creek 10 years to fill it. If all are flowing into the reservoir, how long will it take to fill it?

PROBLEM:

Paraphrase and clarify problem for one another (in pairs)
(Talk about what is asked; what is given; what happens; what the units are, etc.)

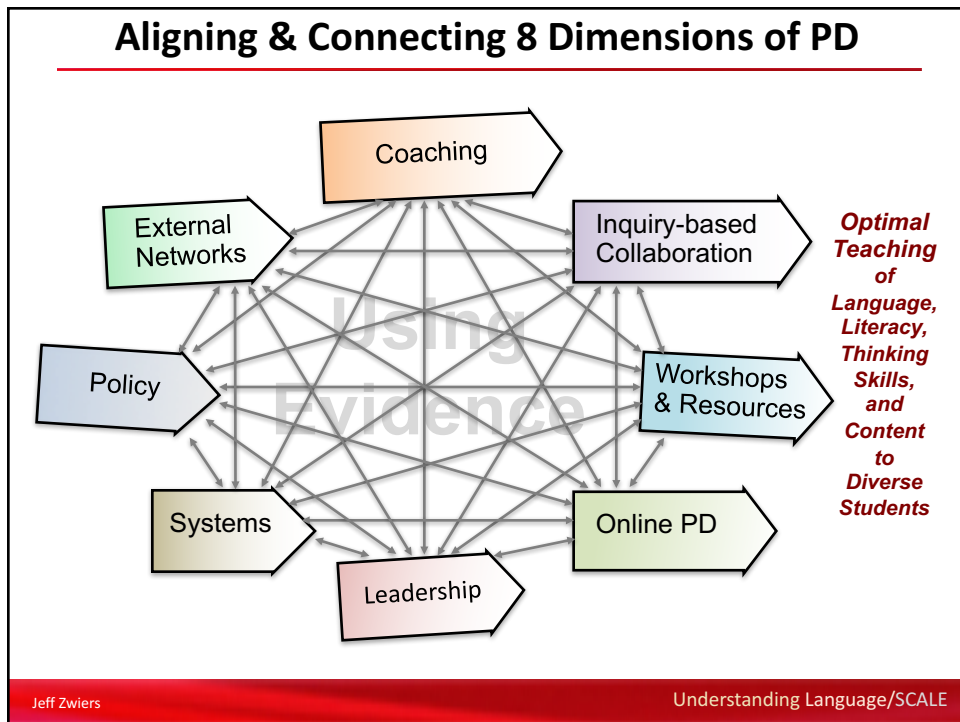
TALK

Estimate the answer
(Each partner generate and justify your own estimate; then compare them)

TALK

METHOD A (name it)	METHOD B (name it)
Justify method <input type="checkbox"/> TALK	Justify method <input type="checkbox"/> TALK
Visuals, Drawings, Charts, Symbols, Calculations, Solution	Visuals, Drawings, Charts, Symbols, Calculations, Solution
Justify what you do <input type="checkbox"/> TALK	Justify what you do <input type="checkbox"/> TALK

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Framework for Improving Conversations

School-Classroom Level

- Build Conversation-Rich Culture**
(Reduce Obstacles)
- Increase frequency, duration, and # of students conversing**
- Curriculum**
- Assessment**

Conversation Level

Prompt

- Clear Purpose
- Info Gaps

- Engaging
- Agency

Quantity	Quality
<ul style="list-style-type: none"> <input type="checkbox"/> # of turns <input type="checkbox"/> Length of turns <input type="checkbox"/> Equity 	<ul style="list-style-type: none"> <input type="checkbox"/> Use conversation skills to co-construct & argue ideas <input type="checkbox"/> Clear speaking <input type="checkbox"/> Effective listening

Use of Supports & Structures
(formative assessment + modeling + scaffolding + activities) to improve:

- Language
- Turns

- CC Skills
- Nonverbals

- Thinking
- Content

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