Innovating through high-quality, language-rich, learning environments

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Early Childhood Innovation Summit

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HARVARD

GRADUATE SCHOOL
OF EDUCATION

Lockdowns hurt child speech and language skills - report

By Branwen Jeffreys
Education Editor

9 hours ago

Coronavirus pandemic

Pandemic babies are behind after years of stress, isolation affected brain development

Kids born in the COVID-19 era lag in certain skills and are more prone to challenging behaviors. Experts say their parents need more support.

Alia Wong USA TODAY

EducationWeek.

EARLY CHILDHOOD   WHAT THE RESEARCH SAYS

Babies Are Saying Less Since the Pandemic: Why That's Concerning

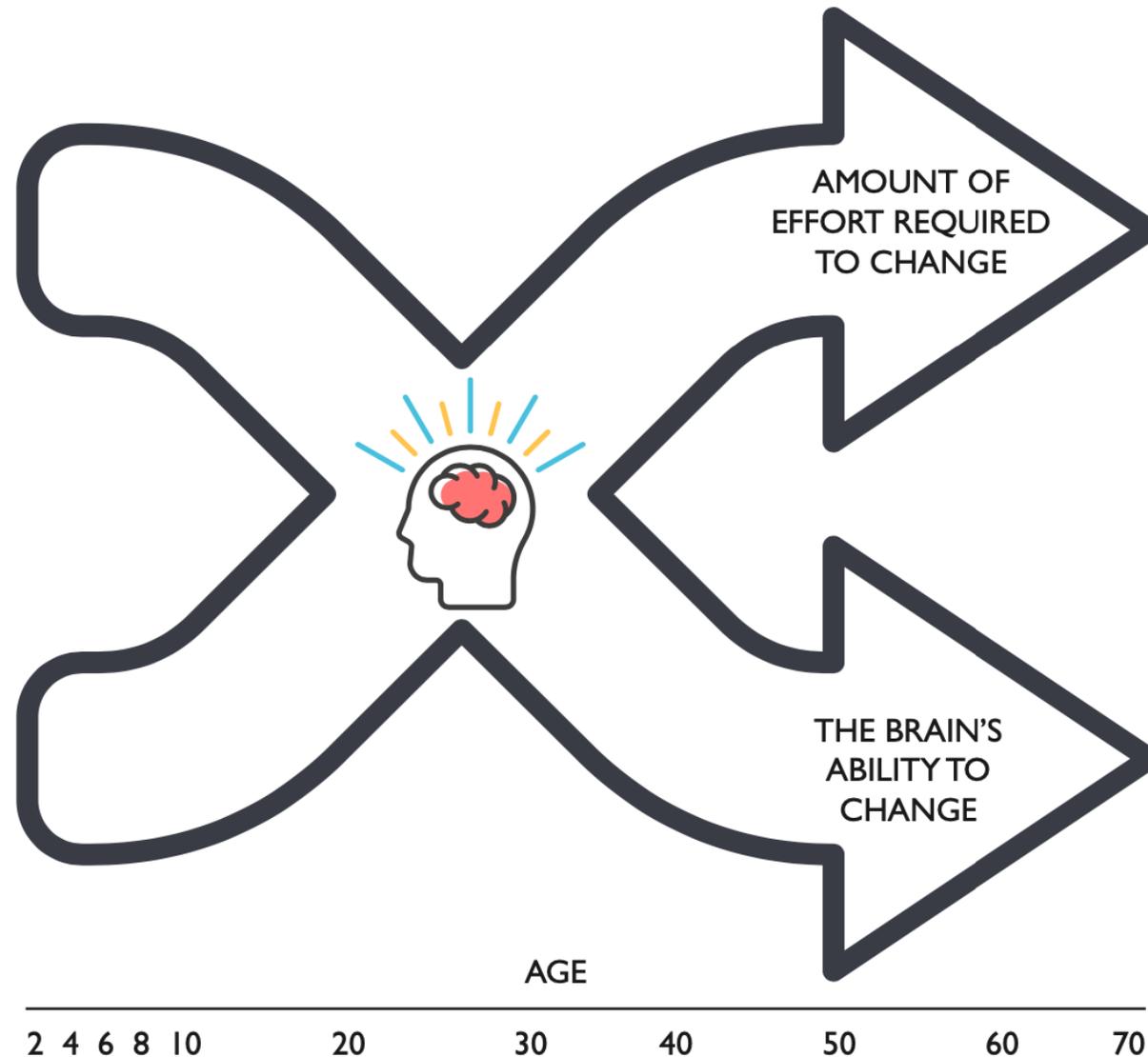By Sarah D. Sparks — April 07, 2022   5 min read

The New York Times

The Pandemic Erased Two Decades of Progress in Math and Reading

The results of a national test showed just how devastating the last two years have been for 9-year-old schoolchildren, especially the most vulnerable.

Why focus on early learning environments?

Neuroplasticity

Young children's brains are more malleable (changeable), so their day-to-day experiences or lack there-of play a large role in shaping their development.

AMOUNT OF EFFORT REQUIRED TO CHANGE

THE BRAIN'S ABILITY TO CHANGE

AGE

2 4 6 8 10   20   30   40   50   60   70

3

Why focus on early learning environments?

3rd-4th Grade Reading Comprehension

Kindergarten Vocabulary/
Knowledge
Phonological awareness
Academic language skills

brave
Science
because Asteroid
camouflage feelings
alphabet

Early language environments

Features of language rich environments

Responsiveness, contingent talk, fluent and connected communication ⟶
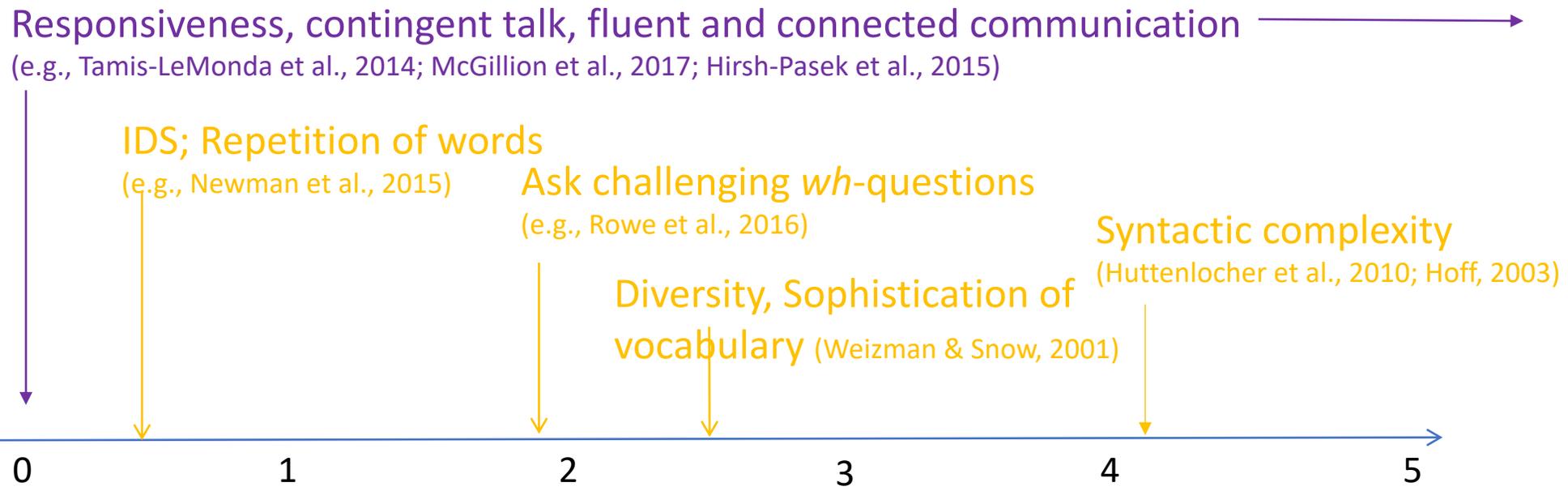(e.g., Tamis-LeMonda et al., 2014; McGillion et al., 2017; Hirsh-Pasek et al., 2015)

Child Age

0   1   2   3   4   5

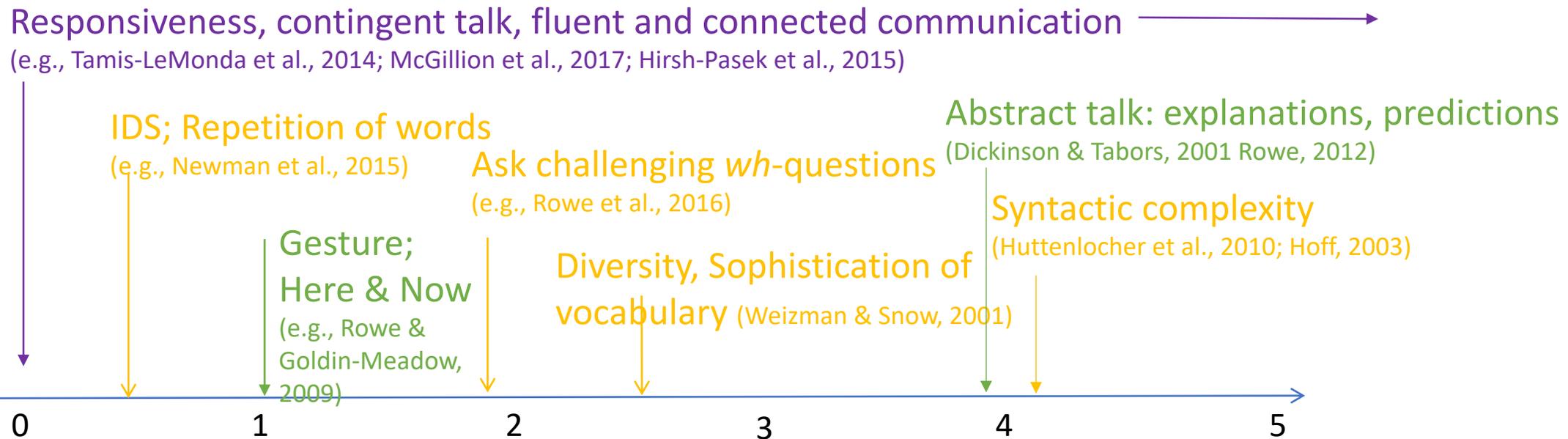**Connection**

Features of language rich environments

Responsiveness, contingent talk, fluent and connected communication
(e.g., Tamis-LeMonda et al., 2014; McGillion et al., 2017; Hirsh-Pasek et al., 2015)

IDS; Repetition of words
(e.g., Newman et al., 2015)

Ask challenging *wh*-questions
(e.g., Rowe et al., 2016)

Syntactic complexity
(Huttenlocher et al., 2010; Hoff, 2003)

Diversity, Sophistication of vocabulary (Weizman & Snow, 2001)

0   1   2   3   4   5

Child Age

Connection

Complexity

Features of language rich environments

Responsiveness, contingent talk, fluent and connected communication
(e.g., Tamis-LeMonda et al., 2014; McGillion et al., 2017; Hirsh-Pasek et al., 2015)

Abstract talk: explanations, predictions
(Dickinson & Tabors, 2001 Rowe, 2012)

IDS; Repetition of words
(e.g., Newman et al., 2015)

Ask challenging *wh*-questions
(e.g., Rowe et al., 2016)

Syntactic complexity
(Huttenlocher et al., 2010; Hoff, 2003)

Gesture;
Here & Now
(e.g., Rowe &
Goldin-Meadow,
2009)

Diversity, Sophistication of
vocabulary (Weizman & Snow, 2001)

0   1   2   3   4   5

Child Age

Connection
Complexity
Context

Creating a high-quality, language rich classroom environment means thinking about these 3 Dimensions:

1. **Connection (responsive, engaging, back-and-forth)**

2. **Complexity (sophisticated vocabulary, syntax, etc.)**
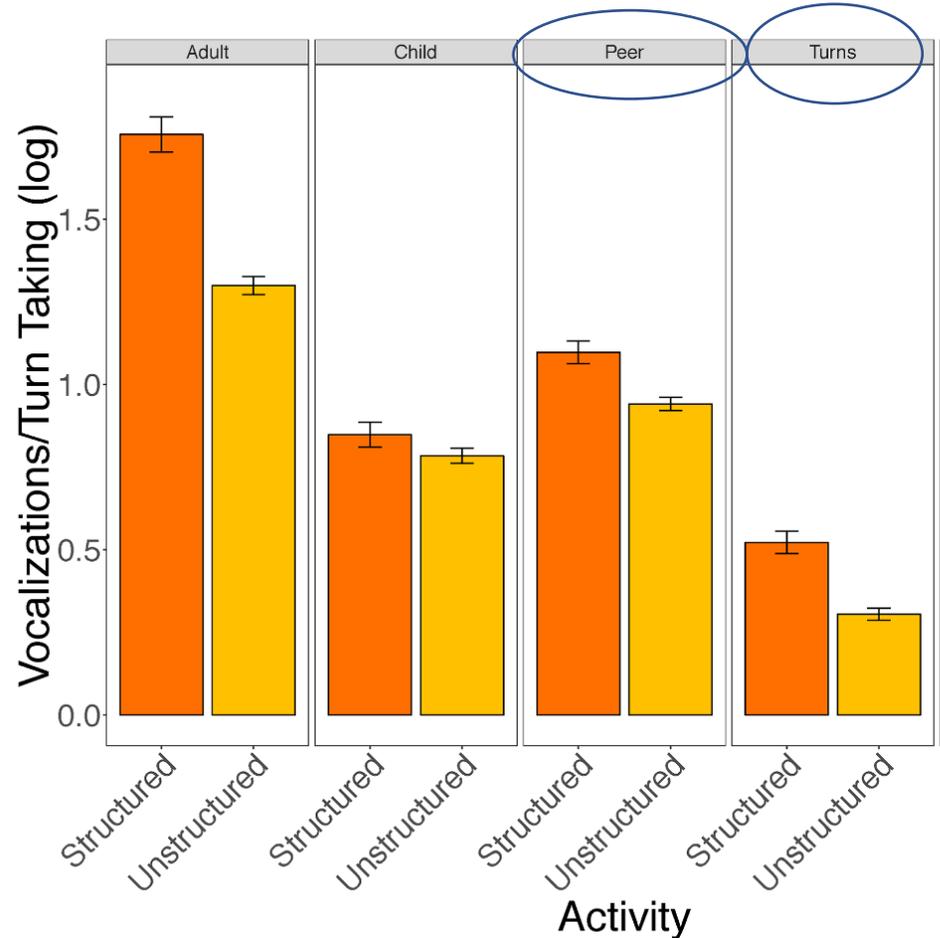
3. **Context (grounded vs abstract)**

Example Video

(Rowe & Snow, 2020)

3 Dimensions of Classroom Language Environment

1. **Connection (responsive, engaging, back-and-forth)**

(Rowe & Snow, 2020)

Connection: Classroom Conversations

What percent of teacher talk in
the preschool classroom results in
a back-and-forth conversation
with a child/children?

CONNECTION: Classroom Conversations

Perry et al., 2018

The best predictors of vocabulary growth for toddlers in this classroom were:

- Conversational turns between teacher-child
- (also peer talk)

What are the opportunities to practice speaking and listening skills and engage in relevant, back and forth conversations in school/classroom settings?

Connection: Classroom Conversations

Traditional classroom:

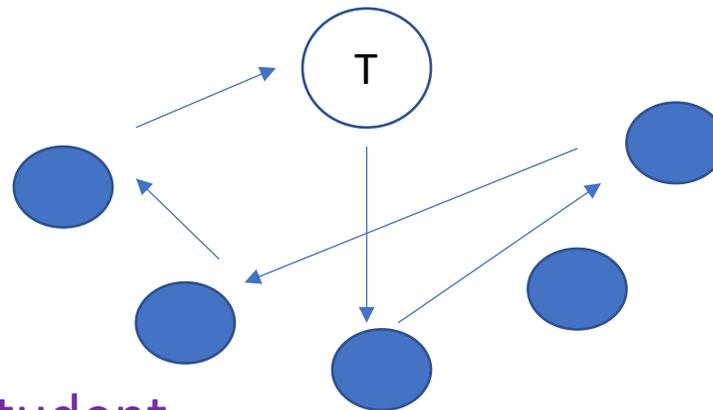- Teacher-centered discussion
- Initiate-Respond-Evaluate
- Test questions
- Teacher-led

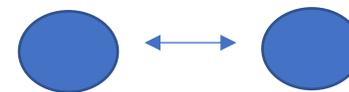# CONNECTION: Classroom Conversations

Traditional classroom:

Student-centered discussion:
(accountable talk)

- Students more engaged
- Better processing/learning
- Promotes perspective taking
- Easier for teacher to assess student knowledge
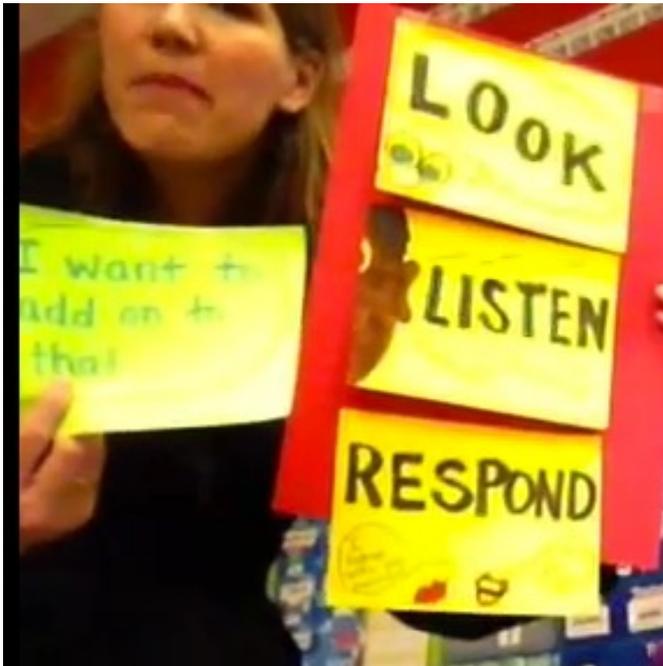
Turn and Talk

Student-centered discussion

1. Ground rules for participating:

   "Look, listen, respond"

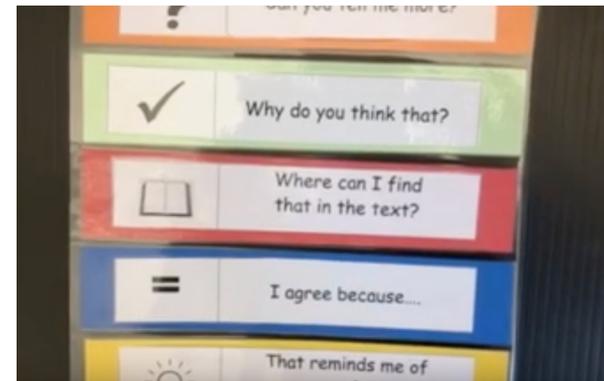Can use a Stem Poster/anchor Chart:

Teach talk prompts:

"I think that, because"
"I agree with you, because"
"I disagree with you, because"
"why do you think that?"

Use pictures:

Or gestures:

Student-centered discussion

2. Have a relevant learning goal (comprehension)

- The types of discussions that work best at promoting comprehension are those that focus on the information gained from the text, the evidence, the ideas presented, conclusions to be gained.

Student-centered discussion

2. Know your book and have good questions prepared ahead of time to go along with goal

- Have questions ready for the group (open ended questions not "test" questions). Questions should be relevant to the learning goal (comprehension, etc).

3. Have Talk Moves ready:
(strategies for keeping the conversation going)

Talk Science
in the Inquiry Project

Goals for Productive Discussions and Nine Talk Moves

Goal One — Help Individual Students Share, Expand and Clarify Their Own Thinking

☐ **1. Time to Think**
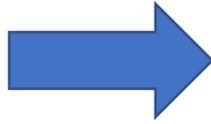- Partner Talk
- Writing as Think Time
- Wait Time

☐ **2. Say More:**
"Can you say more about that?" "What do you mean by that?"
"Can you give an example?"

☐ **3. So, Are You Saying…?:**
"So, let me see if I've got what you're saying. Are you saying…?"
(always leaving space for the original student to agree or disagree and say more)

Goal Two — Help Students Listen Carefully to One Another

☐ **4. Who Can Rephrase or Repeat?**
"Who can repeat what Javon just said or put it into their own words?"
(After a partner talk) "What did your partner say?"

18

3. Have Talk Moves ready:
(strategies for keeping the conversation going)

Goal Three Help Students Deepen Their Reasoning

☐ **5. Asking for Evidence or Reasoning**
"Why do you think that?" "What's your evidence?"
"How did you arrive at that conclusion?"

☐ **6. Challenge or Counterexample**
"Does it always work that way?" "How does that idea square with
Sonia's example?" "What if it had been a copper cube instead?

Goal Four Help Students Think With Others

☐ **7. Agree/Disagree and Why?**
"Do you agree/disagree? (And why?)" "What do people think about
what Ian said?" "Does anyone want to respond to that idea?"

☐ **8. Add On:**
"Who can add onto the idea that Jamal is building?"
"Can anyone take that suggestion and push it a little further?"

☐ **9. Explaining What Someone Else Means**
"Who can explain what Aisha means when she says that?"
"Who thinks they could explain why Simon came up with that
answer?" "Why do you think he said that?"

Student-centered discussion:

1. Set behavior ground rules and teach "talk prompts"
2. Have a relevant learning goal & know your book, have questions ready
3. Be prepared with your talk moves
   - Give it a try!
   - Practice, practice, practice
   - Be patient

Student-centered discussion:

At the school level:

- Can start in younger classrooms and build on prompts and get more complex up through all years of schooling.
- Have all teachers use same prompts, hang in hallways, use in other contexts
- Imagine what good communicators children would be if all the teachers in the school used the same prompts/moves/strategies!!!

Student-centered discussion:

What might this look like?

Good way to start: Turn & Talk:
https://www.youtube.com/watch?v=kngk8ZQyHGU

More advanced group: Charlottes Web:
https://www.youtube.com/watch?v=fnBInnGBHwA&t=38s

Student-centered discussion

<u>Why</u> are student-centered conversations important:
- Supports language development
- Supports literacy skills (comprehension)
- Supports ways of speaking and writing that are valued in school and society
- Supports learning: reasoning with evidence
- Supports social skills/perspective taking
- Provides a window into children's thinking
- Supports learning in other domains (e.g., math)

3 Dimensions of Classroom Language Environment

1. **Connection (responsive, engaging, back-and-forth)**

2. **Complexity (sophisticated vocabulary, syntax, etc.)**

(Rowe & Snow, 2020)

What words to *teach*? Sophisticated, academic vocabulary from the books you are reading!

- Preschoolers can handle sophisticated, academic vocabulary
- "Academic" words are words that appear often in school/text environments, yet are less frequent in young children's daily lives
- Academic vocabulary is essential for school success!

orange

chair

provide

ball

book

previous

required

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What words to teach? Sophisticated, academic vocabulary from the books you are reading!

- Preschoolers can handle sophisticated, academic vocabulary
- Find the words in your books!

WILLIAM STEIG
Doctor De Soto

" Doctor. De Soto was especially popular with the big animals"

"He didn't know what he was saying, said Mrs. De Soto. Why should he harm us? We're helping him."

"But we must do something to protect ourselves, said his wife. They talked and talked until they formed a plan. I think it will work, said Doctor De Soto. A minute later he was snoring."

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How to teach? Sophisticated, academic vocabulary

Popular

1. **Introduce the word**. Clap out syllables. Children say the word

2. **Provide child friendly definition.** "something is popular if it is liked by many people"

3. **Examples**. Discuss how the word is used in the book. Provide other examples of sentences/uses of work. Ask children to think of some examples

   →What are somethings that you think are popular and why?

4. **Test for comprehension**. Provide some example sentences and have children judge correct/incorrect.

How to teach? Sophisticated, academic vocabulary

Video Example:

https://www.youtube.com/watch?v=w-6fbMoYk-Y

How to teach? Sophisticated, academic vocabulary

Startled

1. **Introduce the word**. Clap out syllables. Children say the word

2. **Provide child friendly definition.** "surprised or shocked"

3. **Examples**. Discuss how the word is used in the book. Provide other examples of sentences/uses of work. Ask children to think of some examples

   → Think of a time when you were startled or startled someone?

4. **Test for comprehension**. Provide some example sentences and have children judge correct/incorrect.

Complexity: Summary

- Preschool children can handle sophisticated, academic vocabulary

- Children are most likely to learn academic words if they are:
    - explicitly taught in a child-friendly way
    - embedded in a learning context (ex: book reading)
    - *encouraged to produce the word, analyze it's meaning and use it in sentences.*

- Keep track of the words, make a list, use widely in the classroom and school/playground as the year goes on (and subsequent years)
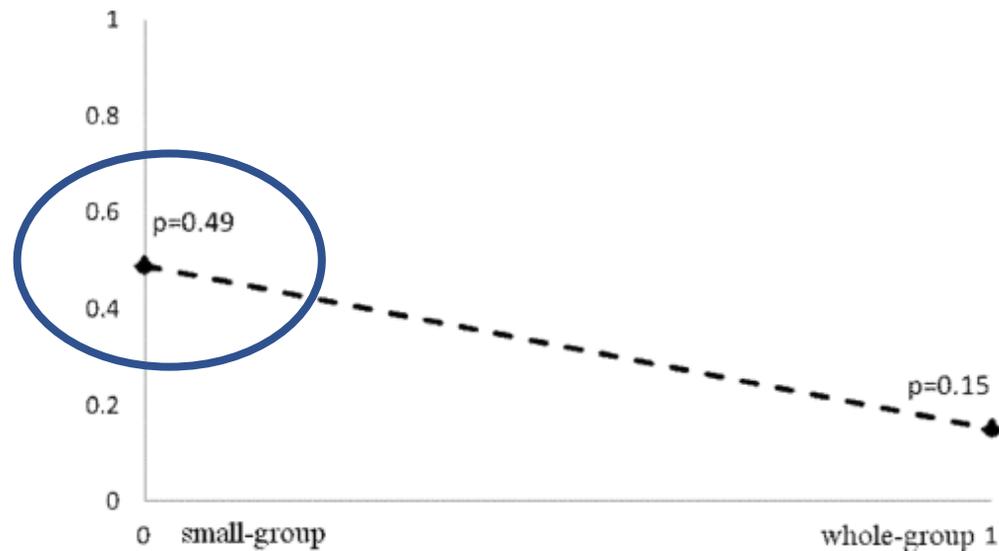
3 Dimensions of Classroom Language Environment

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2. **Complexity (sophisticated vocabulary, syntax, etc.)**

3. **Context (abstract, beyond here and now)**

(Rowe & Snow, 2020)

What are the opportunities/contexts where you see children engaging in abstract conversations in classroom settings?

Abstract language in classrooms

Rare in preschool classrooms
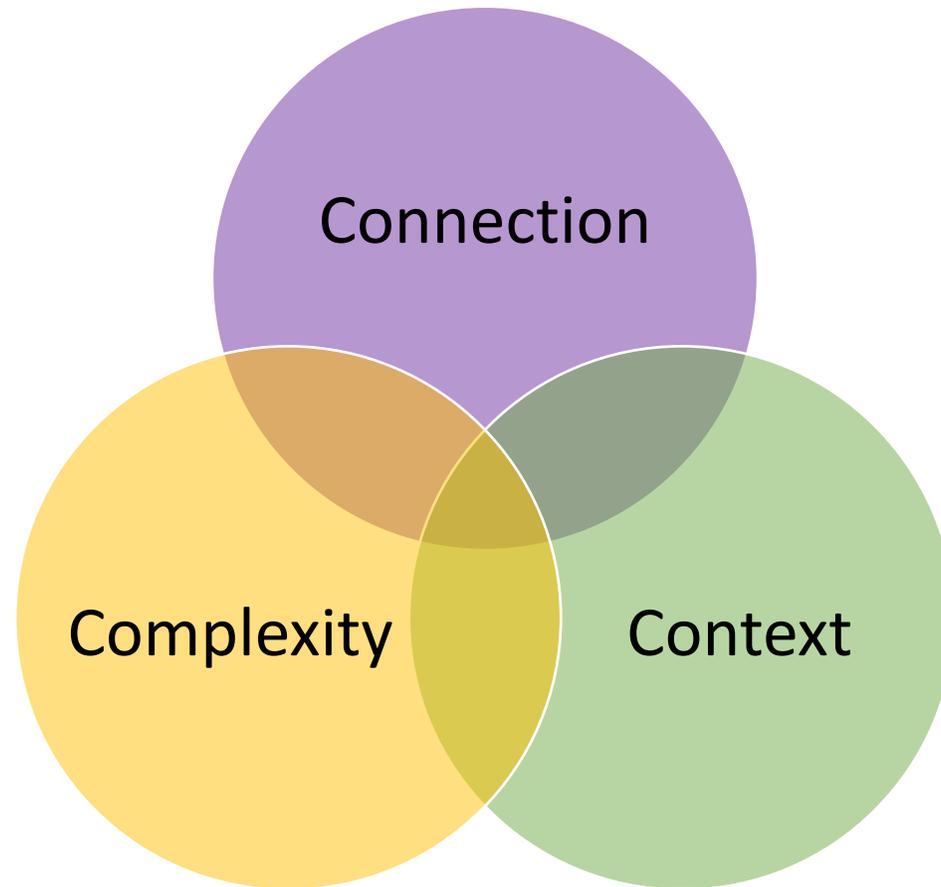
But more likely in teacher-led small groups

Easier for teachers to extend the conversation when in small groups (50%)

Jacoby & Lesaux, 2014

Small groups/centers: Strategies for promoting abstract talk (beyond the here and now)

- Predictions/hypotheses during science
    - What do you think will happen?
    - Why?

- Dramatic Play!
    - Opportunities to use language in creative ways
    - Go beyond the here-and-now into pretend worlds with peers/adult support

Conclusion: The 3 dimensions overlap. More of one often leads to more of another ☺

Implementation pointers:

1. Teachers need the time and support to prepare for the large group sessions (preview books, decide on questions, identify academic vocabulary, make supplies like anchor charts and talk prompts, etc).

2. Providing time for teachers to do work in teams, with PD, can be helpful.

3. Can also adopt these strategies school-wide/ across classrooms, use common language (prompts), etc.

Conclusion

- Children's language skills are malleable and influenced by their environments.

- "high-quality, language-rich" preschool classrooms include opportunities for student-centered discussions and exposure to sophisticated vocabulary and abstract talk.

- Children in these types of classrooms will develop the foundational skills necessary to succeed in school.

Take-home message

When I think about innovation, I think the most powerful thing we can do for children right now in this post-pandemic period is focus on providing opportunities for children to:

- connect and communicate with others

- to find their voices

- to explore their worlds and discuss what they are learning

THANK YOU!