# Helping Little Kids Say Big Sentences

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## Helping Little Kids Say Big Sentences

#### Introduction

- What makes complex syntax complicated?
- Complex syntax IS not just for big kids

#### Because/So sentences

- Science Instruction
- Upcoming Study
- Verb + to + Verb and Verb + (that) + Sentence sentences
  - Vocabulary Lessons
- Some Take Home Messages

#### COMPLEX SENTENCES



phrase. It contains a noun clause used as a direct object and an adjective (relative) clause modifying *terrorist*. The x represents the unexpressed relative pronoun *whom* or *that*.

#### http://www.german-latin-english.com/diagrams.htm



Steffani 2007

## Big sentences aren't just for big kids



#### Henry and Mudge Beginning Readers

Henry and Henry's big dog, Mudge, were playing outside one day, when Henry's mom got a phone call.



Next to crackers, popcorn was Mudge's favorite food. He <u>liked to</u> <u>catch</u> it in the air.



Carlos <u>knows</u> that <u>wearing</u> his bike helmet <u>is</u> a law.



Big leaves <u>are needed</u> to <u>collect</u> enough light in a shady forest.

#### Civic Life as an Adult

"Resident <u>agrees</u> not <u>to cause</u> or <u>allow</u> any noise or activity <u>that might disturb</u> the peace and quiet of another resident"

LEASE



"You <u>have</u> the right <u>to consult</u> an attorney before <u>speaking</u> to the police and <u>to have</u> an attorney present during <u>questioning</u> now or in the future."

# Embedding adverbial clauses in science instruction! Cause & Effect Because & So

	Three Dimensions of Science	
	NRC: "combine to form each NGSS"	
Dimension	Categories/Classifications	
8 Practices	Asking Questions and Defining Problems Developing and Using Models Planning and Carrying Out Investigations Analyzing and Interpreting Data Using Mathematics, Information and Computer Technology, and Computational Thinking Constructing Explanations and Designing Solutions Engaging in Argument From Evidence Obtaining, Evaluating, and Communicating Information	"what students do"
7 Cross-Cutting Concepts	Concepts relating to Patterns, Similarity, and Diversity Concepts relating to Cause and Effect Concepts relating to Scale, Proportion and Quantity Concepts relating to Systems and System Models Concepts relating to Energy and Matter Concepts relating to Structure and Function Concepts relating to Stability and Change	CROSSCUTTING "how students think" Quoted text from Peter A'Hearn
4 Disciplinary Core Ideas "Content"	Physical Sciences Domain Life Sciences Domain Earth and Space Sciences Domain Engineering, Technology, & Applications of Science Domain	



Adverbial Clauses for Cause & Effect

## The kite flew <u>because</u> the wind pushed it The wind blew <u>so</u> the kite went up



## Approaches to teaching 2 clause sentences

Sentence Combining

Graphic Organizer

#### SO and BECAUSE







## Multiple Probe Design



## Participants



	Age/Grade	Gender	In SLP Tx?	SPELT-3 Standard Score	CELFP-2 Sentence Structure	EVT-2 Standard Score	K-BIT2 Standard Score	Control Structure
Cohort 1								
Tier 1: Adam	4/Preschool	Male	Yes	93	6	113	95	Passives
Tier 2: Breanna	5/Kindergarten	Female	No	94	10	107	107	Passives
Tier 3: Connor	6/Kindergarten	Male	Yes	92	6	81	92	Relative Clauses
Cohort 2								
Tier 1: David	4/Preschool	Male	No	70	2	90	88	Passives
Tier 2: Edward	5/Preschool	Male	Yes	66	1	99	97	Passives
Tier 2: Eli	4/Preschool	Male	Yes	77	10	90	101	Relative Clauses
Tier 3: Francesca	6/Kindergarten	Female	Yes	59	8	85	86	Passives

## Cohort 1 – Expressive Only Cohort 2 – Mixed





## Strategy 1: Recasts work for Complex Sentences, too

1. Prompt kids w/ a Why question to get a platform utterance

Prompt	E: Why do kites fly up?
Platform	C: Wind blows.
Recast	E: The kite flew up BECAUSE the wind blew

2. Try for **1 recast/minute**, established therapeutic dose

3. Start with a conjunction the child already uses in simple sentences (because before so).

5. Use content from the child's grade level curriculum - the child does <u>**not**</u> need to have established content knowledge to learn the syntactic form & they will likely learn academic content simultaneously.



**Recast Therapy** 

## Science Instruction + Language Intervention NSF Funded Study

#### • Academic Year 2017-2018 – Pilot materials

- Dual language learners, not yet proficient in English complex sentences
- Typical learners in their first language
- 4-6 year olds (not yet in 1<sup>st</sup> grade)
- Pre test + 10 days science instruction + Post test
- Science Summer Camp Summers 2018, 2019, 2020
  - 60 kids w/ Expressive/Receptive Communication Disorder as Primary Impairment
  - No Hearing Impairment, Autism, Intellectual Disability or other significant concerns
  - 4-6 year olds (not yet in 1<sup>st</sup> grade) who speak English as their primary language
  - Refer for Screenings NOW
  - Pre test + 5 week 1/2 day science summer camp + Post test
  - All groups get treatment: Complex Syntax, Tier 2 Vocabulary, Phonological Awareness

#### http://udel.edu/tell-lab

## Using Vocabulary Words to Make Complex Syntax Instruction Easier!

Verbs of Cognition, Perception, Communication, & Desire

## The main verb influences how you finish the sentence

Action Verbs – Simple Active Bias

"Record" most frequently occurs in simple active sentences.

87%

I recorded her voice.

Mom <u>recorded</u> the recital.

13%

*The clerk <u>recorded</u> that I <u>paid</u> \$50 for the tickets.* 

Cognitive Verbs – Complex Bias

"Pretend" most frequently occurs in complex sentences.

86% Tommy <u>pretended to be</u> a lion.

The kids pretend that they can fly.

14%

Sally pretends a lot.

# Vocabulary Instruction instead of Syntax Change?

Can a focus on **vocabulary words**, selected to co-occur with complex sentences, **increase the amount of complex syntax in teacher talk to children**?

#### Participants 6 Head Start classrooms/18 teachers/66 kids

	Actio	n/Simple		Cognitive/Complex		
	Ν	Teacher Ed		Ν	Teacher Ed	
Class 1	15	13.7		10	16	
Class 2	11	14		12	16	
Class 3	10	16		8	13.3	

## Verb Selection

#### Action Verbs Simple Bias

Verb	Log Freq		
Identify	0.6		
Observe	1		
Forgive	1.04		
Describe	1.11		
Compare	1.34		
Measure	1.71		
Practice	1.82		
Record	2.7		
Feel	3.02		
Write	3.13		

#### **Cognitive Verbs**

#### **Complex Bias**

Verb	Log Freq		
Predict	0		
Attempt	0.6		
Intend	1.04		
Assume	1.15		
Allow	2.16		
Decide	2.27		
Wish	2.33		
Pretend	2.47		
Wonder	2.65		
Try	3.4		



# Sample Lessons

## **Action - Identify**

## **Cognitive – Try**

- Definition To know and say who someone is or what something is
- Book Mouse Shapes by Ellen Stoll Walsh
- Large Group <u>Which letter?</u> Kids see letters in different fonts and **identify** the letter.
- Small Group <u>Mouse shapes craft</u> Kids glue precut shapes to make a mouse and **identify** the shape before pasting.
- Independent <u>What's that smell?</u> Kids smell familiar things w/ strong scents and **identify** the smell.

- Definition To work hard at something even if you aren't able to do something
- Book Excuse me, I'm **Trying** to Read, by Mary Jo Amani
- Large Group <u>Try to do this!</u> Kids try to perform gross motor actions without falling off a line on the floor.
- Small Group <u>Cotton ball Tong Craft</u>– Craft where children try to pick up cotton balls with tongs to place on glue
- Independent <u>Memory game</u> Try to find a match

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## Strategy 2: Word of the Week (Mental Verbs)

Cognition	Perception	Desire	Communication
Think	See	Want	Say
Remember	Hear	Wish	Tell
Forget	Smell	Норе	Ask
Know	Taste	Need	Explain
Pretend	Sense	Prefer	Describe
Imagine	Discover	Suggest	Persuade
Wonder	Notice		Announce
Understand			

## Helping Little Kids Say Big Sentences

- Typical kids start using complex syntax at 2;6 & proficient by kindergarten
- Two clause sentences are a key part of everyday and academic communication Our kids are at a disadvantage of we don't focus on these sentences too!
- Recasts work
- Curricular embedding is okay
- Mental verbs can help

See us about upcoming studies if you work with 4-9 year olds

http://udel.edu/tell-lab