

Teaching Meaning-Focused Grammar Improves Grade 1 Sentence Complexity And Written Expression

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Faculty Research Seminar Series

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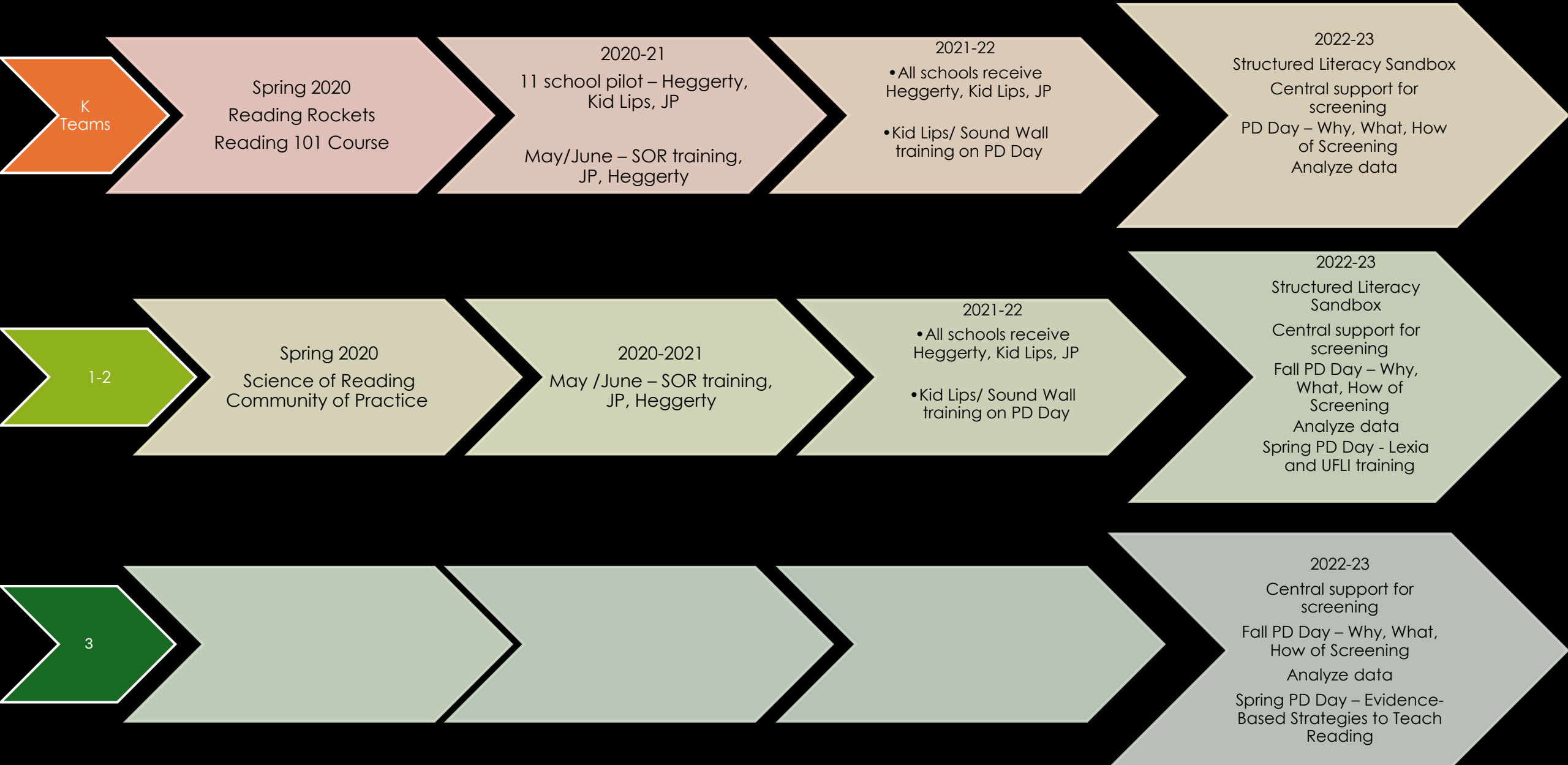
Introduction

Research program: *Early Intervention in Writing*

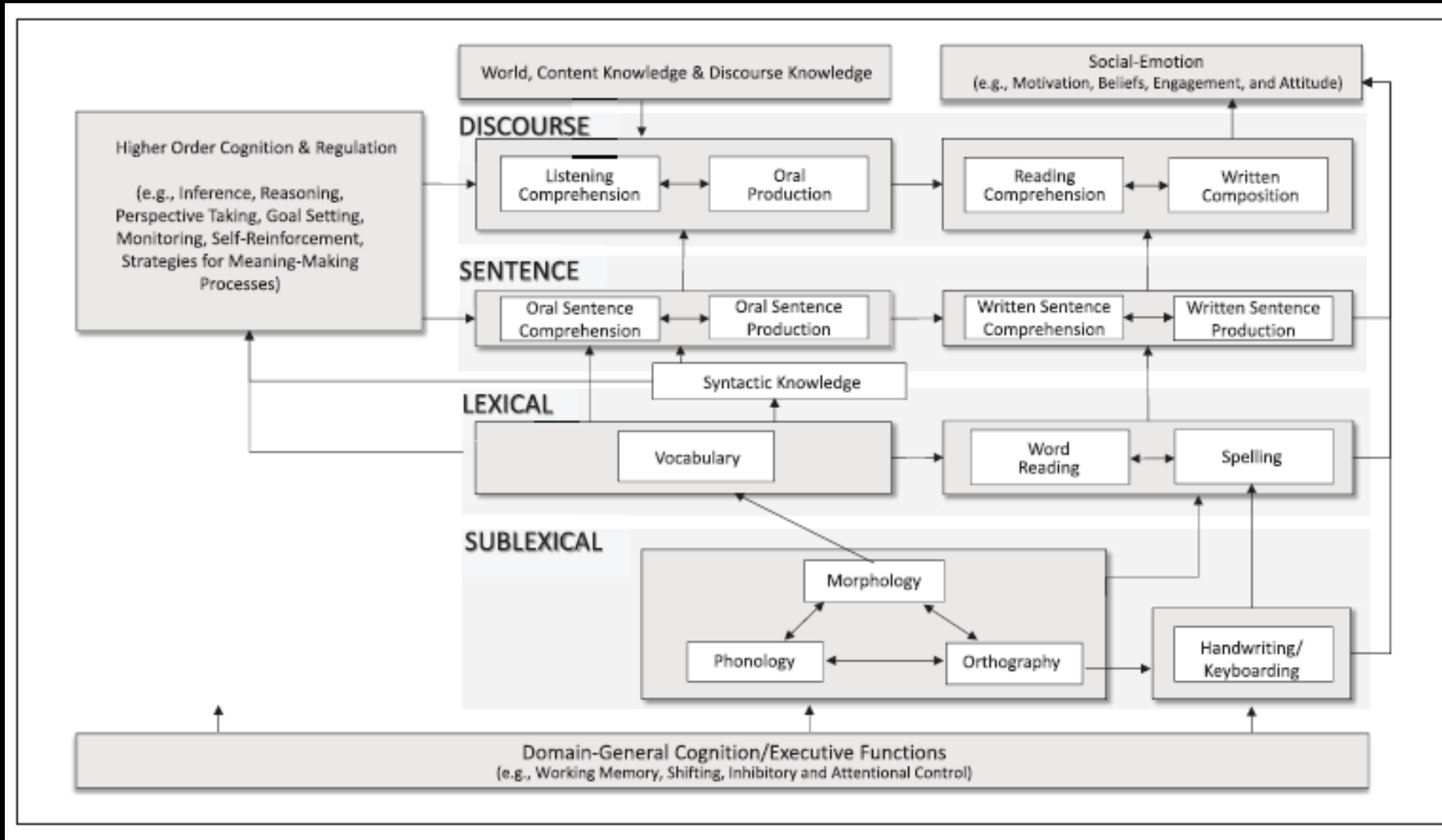
Goal: A successful start for all Grade 1 writers

2019-2020	Strategy instruction for Grade 1 writers
2020-2021	COVID, Tier 1 & Tier 2 strategy instruction in virtual classrooms
Summer, 2022	Online tutoring
2022-2023	Effects of Tier 1 and 2 instruction and initial skills on handwriting, spelling, and composition
2023-2024	The Syntax Project

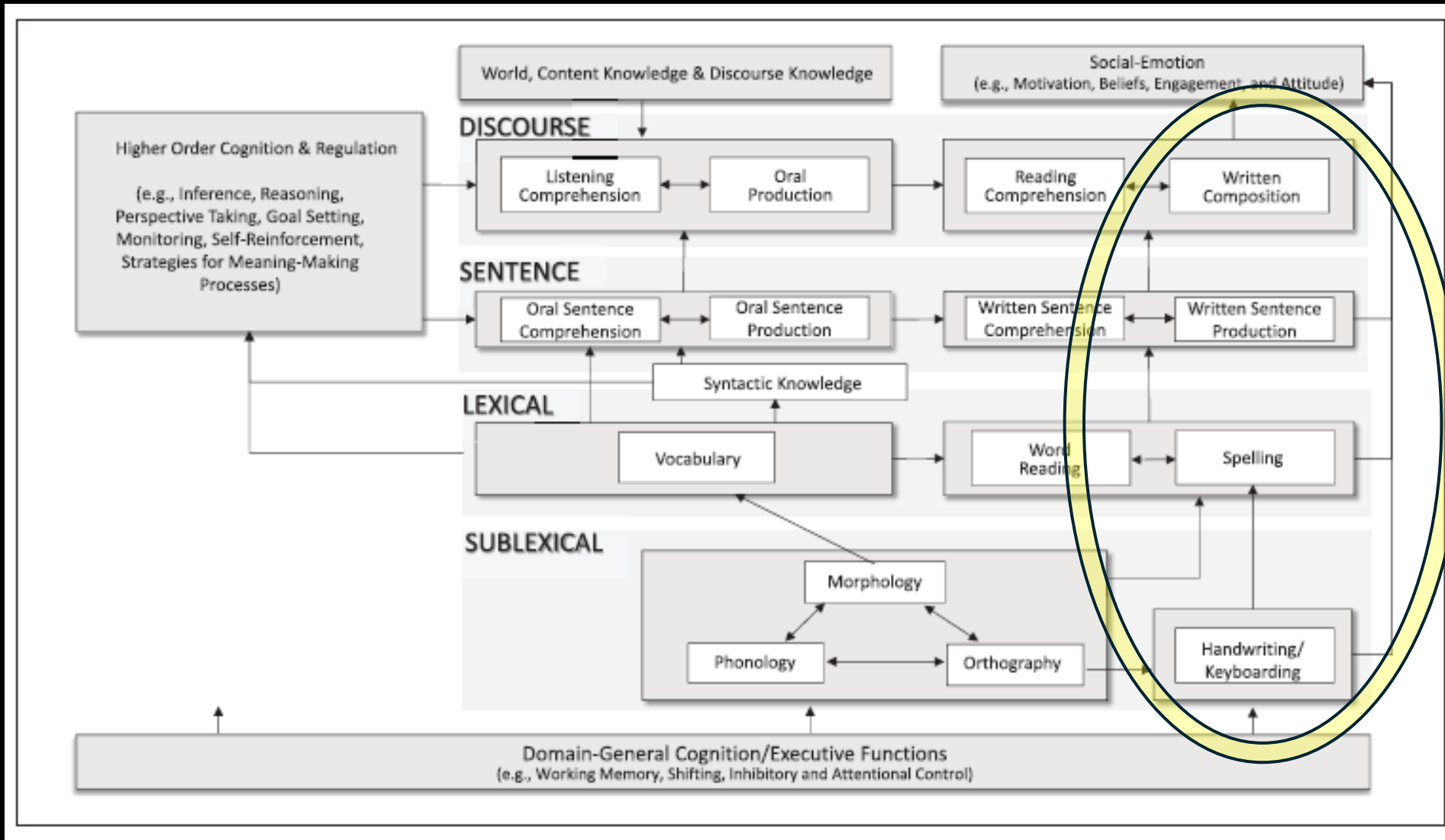
Shifting to Evidence Based Literacy Instruction



Theoretical framework: *Interactive Dynamic Literacy Model*



Model: Sentence production mediates growth of written composition



Grade 1 sentence writing

- Average: one clause per sentence, e.g., "*We went to a party.*"
- Average: 5 words per clause
- Frequent sentence fragments, rambling sentences
- Concept of a sentence unclear
- Capitals and punctuation inconsistent
- Some students not yet writing sentences

(Berninger et al., 2011; Kim et al., 2013; Parkin et al., 2020; Wagner et al., 2011)

Ontario 2023 *Language* curriculum

Ontario Curriculum	Grade 1	Grade 2
B3.1 Simple Sentence: declarative, imperative, interrogative, exclamatory	I	C
B3.1 Compound sentence	I	C
B3.2 Common nouns, singular nouns, , plural nouns, pronoun I; verb tense—past, present, future; common adjectives; common conjunctions.	I	C
B3.3 Capital letters at beginning of sentence.	I	C
B3.3 Appropriate punctuation mark at end of sentence.	I	C
<i>I = Introduce; C = Consolidate</i>		

Grammar for communicating

I can make my sentence more interesting by telling the WHERE and the WHEN...

"These language conventions need to be introduced and developed within the contexts of writing, reading, and oral communication, rather than in isolation, so that students can learn to use them to communicate and comprehend in meaningful ways."

<https://www.dcp.edu.gov.on.ca/en/curriculum/elementary-language/context/appendix-b>



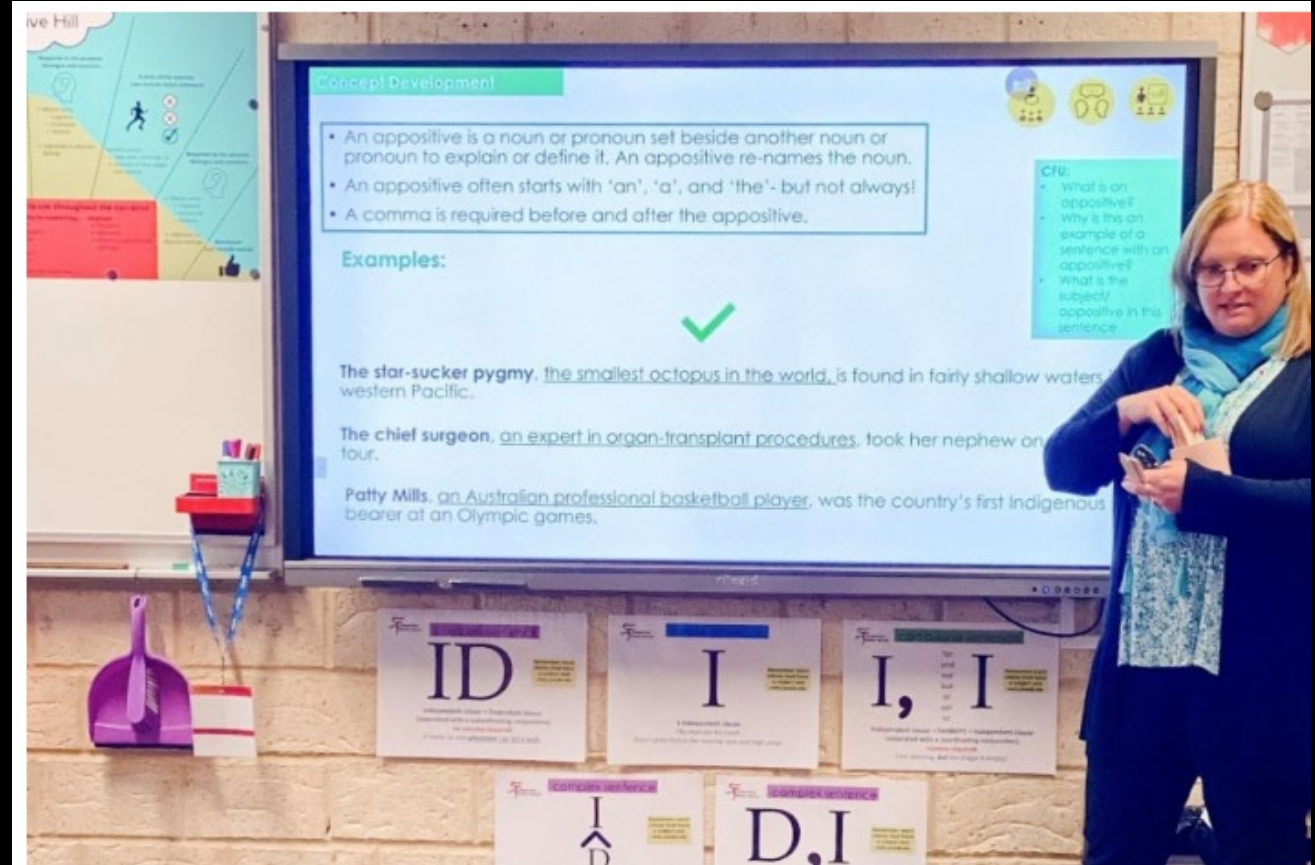
Stock photo

Previous research on sentence & grammar instruction

- Focused on middle and late elementary grades
- Mostly small group intervention, students with exceptionalities
- Instructional methods
 - Traditional grammar instruction
 - Sentence combining
- Outcomes
 - Increased sentence complexity: Words per clause; clauses per t-unit or sentence
 - Holistic quality of written composition
- **But!** Sentence writing is usually taught in Grade 1 intact classes

The *Syntax Project*

- Creative Commons resource by Australian teachers
- Series of units for teaching sentence writing and grammar
- Pre-foundations to Year 6
- Teaches students to make sentences interesting and informative
- ...by expanding them with words, phrases and clauses



Research Questions

Does *Syntax Project—Foundations* ...

- ...increase grammatical complexity and correctness of sentences?
- ...increase the quality and length of composition?
- ...effective for students with a range of initial skills?
- ...have social validity for teachers?





Method

Research design: Wait List control

N = 109 students	October	9 weeks	January	9 weeks	April
Instruction First: 5 classes	Pretests: -WIAT3 Sentence combining -Composition (journal style) -WIAT3 Oral Vocabulary -WIAT3 Spelling	The Syntax Project	Mid-tests (same)	Regular program	Post-tests (same)
Wait List: 5 classes		Regular program		The Syntax Project	



Phase 1

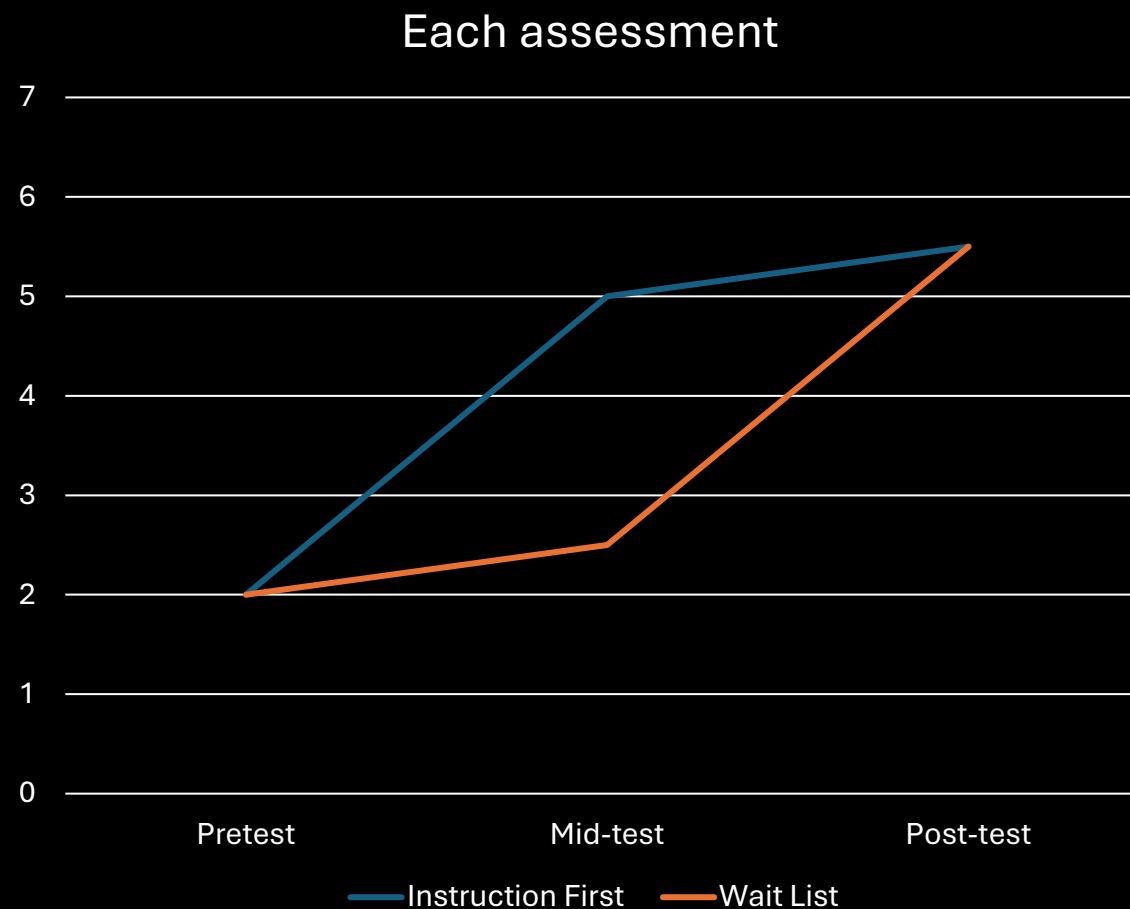


Phase 2



Why wait list control?

- Advantage: All students receive the instruction
- Disadvantage: Possible carry over effects
- Hypotheses about assessments illustrated by this graph -->





The Syntax Project Lessons – Explicit Instruction

Modeling

- Learning goals
- Clear explanations
- Planned examples

Practice

- Guided and Independent

Supports

- Frequent responses
- Immediate feedback
- Brisk pace

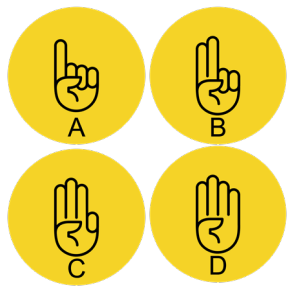


A **sentence** is a complete thought.

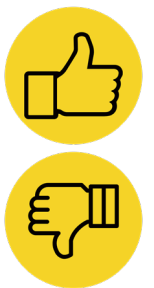
It must contain a **subject (or who/what)** and a **verb (a do)**.



Syntax Project – Slide Deck Icons



Multiple
Choice



Vote



Pair Share



Pick a Stick/Answer
(non-volunteer)



Whiteboards



In Your Workbook



Track with me



Read with me

Concept Development

- By adding additional information, we can expand sentences to make them more interesting.
- Including **when**, **who** and **what** will make your sentence more informative for the reader:



CFU:

- Who ate?
- When did they eat?



Pat ate.
Boring!



During lunchtime, Pat ate his apple.



Concept Development



Pat ate.
Boring!



When?
Where?
Who?
What?

- By adding additional information, we can expand sentences to make them more interesting.
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Syntax Project Scope and Sequence

O-=Orally	Sentence Knowledge	Sentence Composition	Punctuation	Word Knowledge
Kindergarten	<ul style="list-style-type: none"> Repeat phrases and sentences O Count/clap words in sentences O 	<ul style="list-style-type: none"> Sentence completion tasks O Ask and answer questions using simple sentences O Compose sentences and phrases to express ideas and needs O Guide students to expand simple sentences by including more information: who, what, where, when, how. O Guide students to expand sentences using additional describing words (adjectives, adverbs), adding conjunctions - because, after, then etc O 	<ul style="list-style-type: none"> Exposure to capital letters especially for names 	<ul style="list-style-type: none"> Concept of a word (as opposed to sound, letter. sentence)
Foundation/ Pre-Primary	<ul style="list-style-type: none"> Identify fragments and sentences Identify sentence types: statement or question 	<ul style="list-style-type: none"> Convert fragments into sentences Expand simple sentences (kernels) by including more information: what, where, when, who Expand sentences using additional describing words (adjectives) Complete <i>but, because, so</i> sentences from sentence stems (<i>I woke up late, but...</i>) – compound sentence (<i>I woke up late, so...</i>)- compound sentence Complete sentences when provided with a sentence stem containing a subordinate conjunction 'before', 'after' 	<ul style="list-style-type: none"> Capital letters for beginning of sentence & names Ending punctuation: <ul style="list-style-type: none"> Full stops 	<ul style="list-style-type: none"> Nouns and verbs Adjectives Conjunctions- and, but, because, before, after, if, when
Year 1	<ul style="list-style-type: none"> Identify fragments and sentences Identify all sentence types: statement, command, question, exclamation Identify subject & verb of a clause/sentence Unscramble statements- bolded first word 	<ul style="list-style-type: none"> Convert fragments to sentences Sentence expansion (who, what, when, where, why, how) Complete <i>but, because, so</i> sentences from sentence stems (<i>I woke up late, but...</i>) – compound sentence (<i>I woke up late, so...</i>)- compound sentence (<i>I woke up late because...</i>)- complex sentence Expand sentences using adjectives and adverbs. Complete sentences when provided with a sentence stem containing a subordinate conjunction 'before', 'after', 'if', 'when' Develop questions given a picture or text material (who, what, where, when) Combine 2 sentences using a conjunction (compound subject & compound predicate) Develop statements, questions, commands and exclamations based on a picture/text 	<ul style="list-style-type: none"> Capital letters (Sentence and Proper Nouns) Ending punctuation: <ul style="list-style-type: none"> Full stops Question marks Exclamation marks 	<ul style="list-style-type: none"> Types of nouns: common, proper, pronouns Verbs Adjectives and adverbs Conjunctions- and, but, because, so, before, after, if, when Subject (the doer) Past tense (verbs) Plural (nouns)

What does a typical lesson look like?



We are learning to speak in full sentences.



A **sentence** is a complete thought that makes sense.



A sentence must:



make sense



have a WHO/WHAT



and a WHAT DOING

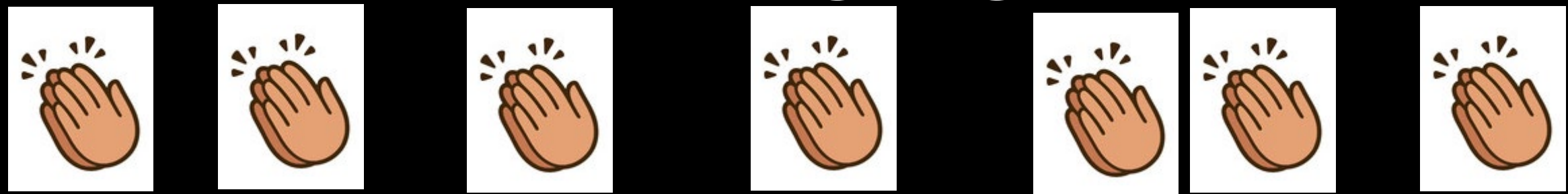


The dog is barking.





The birds are singing in the tree.





Ben and Raj are laughing.





A sentence must:



make sense



have a WHO/WHAT



and a WHAT DOING



The dog barked.



The birds sang.



The tree swayed.



A sentence must:



make sense



have a WHO/WHAT



and a WHAT DOING















Choose pictures from
texts/topics/knowledge units used
in class.

Research design: Wait List control

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Phase 1



Phase 2



What did classes do during their control phase?

Fall—Wait List Group

- Informal teaching of sentence writing
- Context: introducing writing activities
- Teachers modelled sentence writing, capitals and periods
- Median: 2 sessions/week, 10 minutes per session

Winter-Instruction First Group

- Reviewed skills from Syntax Project
- Context: assigning/teaching composition
- Median 3 sessions/week, 15 mins per session



Assessments

- Personal Narrative Writing Sample
- Wechsler Individual Achievement Test-III (WIAT-III)
 - Sentence Combining
 - Spelling
 - Oral Expressive Vocabulary



Analysis of writing samples

- Two raters, inter-reliability $r > .85$ for each measure
- Transcribed text with spelling corrected
- Holistic quality
- Grammatical complexity
 - words per clause
 - clauses per sentence
- Grammatical correctness/incorrectness
 - sentences
 - initial capitals
 - final punctuation

/ [I went to Toronto with half of my family X] /

/ [it was so much fun X] /

/ [It was a girls day off of boys X] /

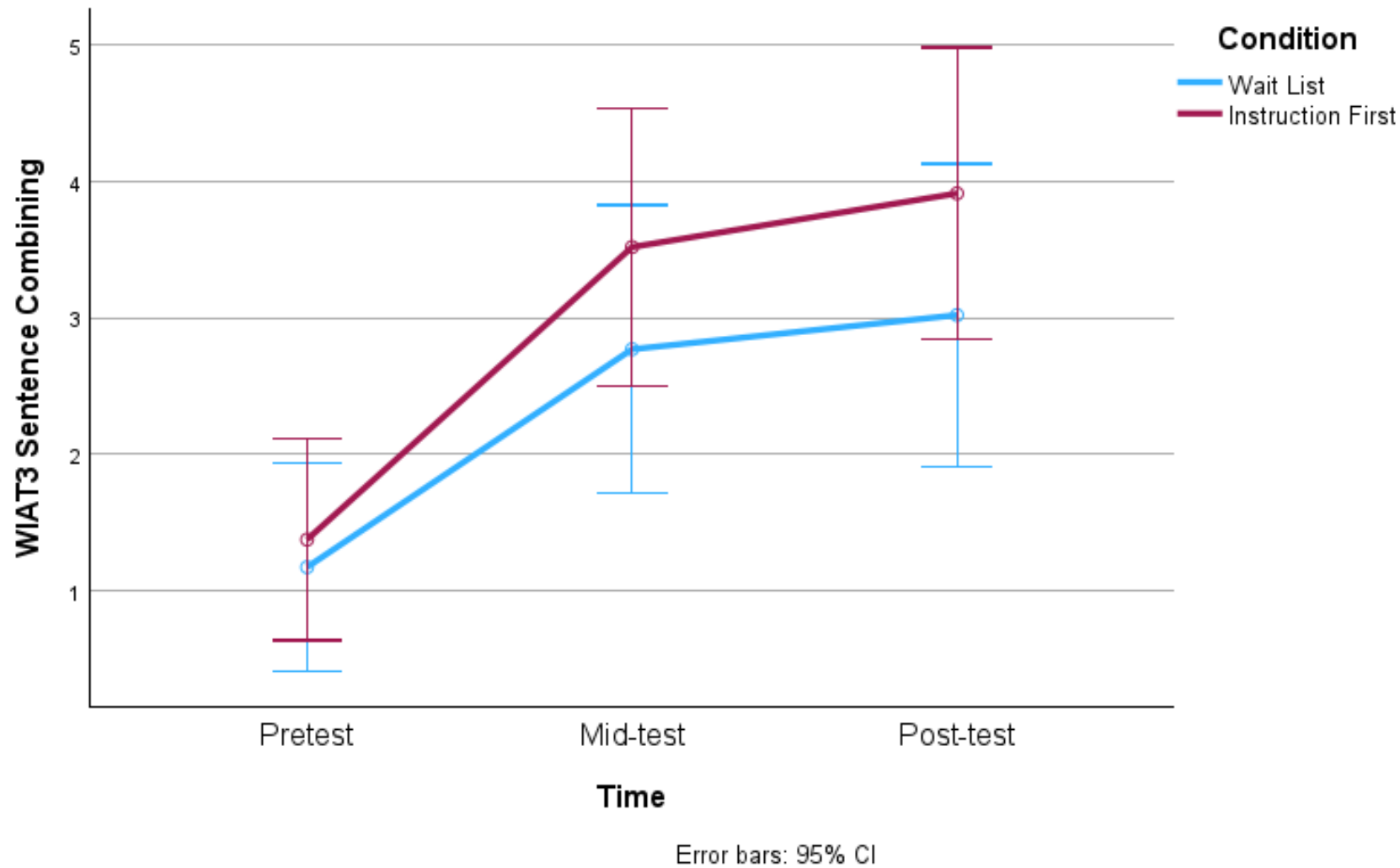
/ [We invited some of my mom's friends.] /



Results

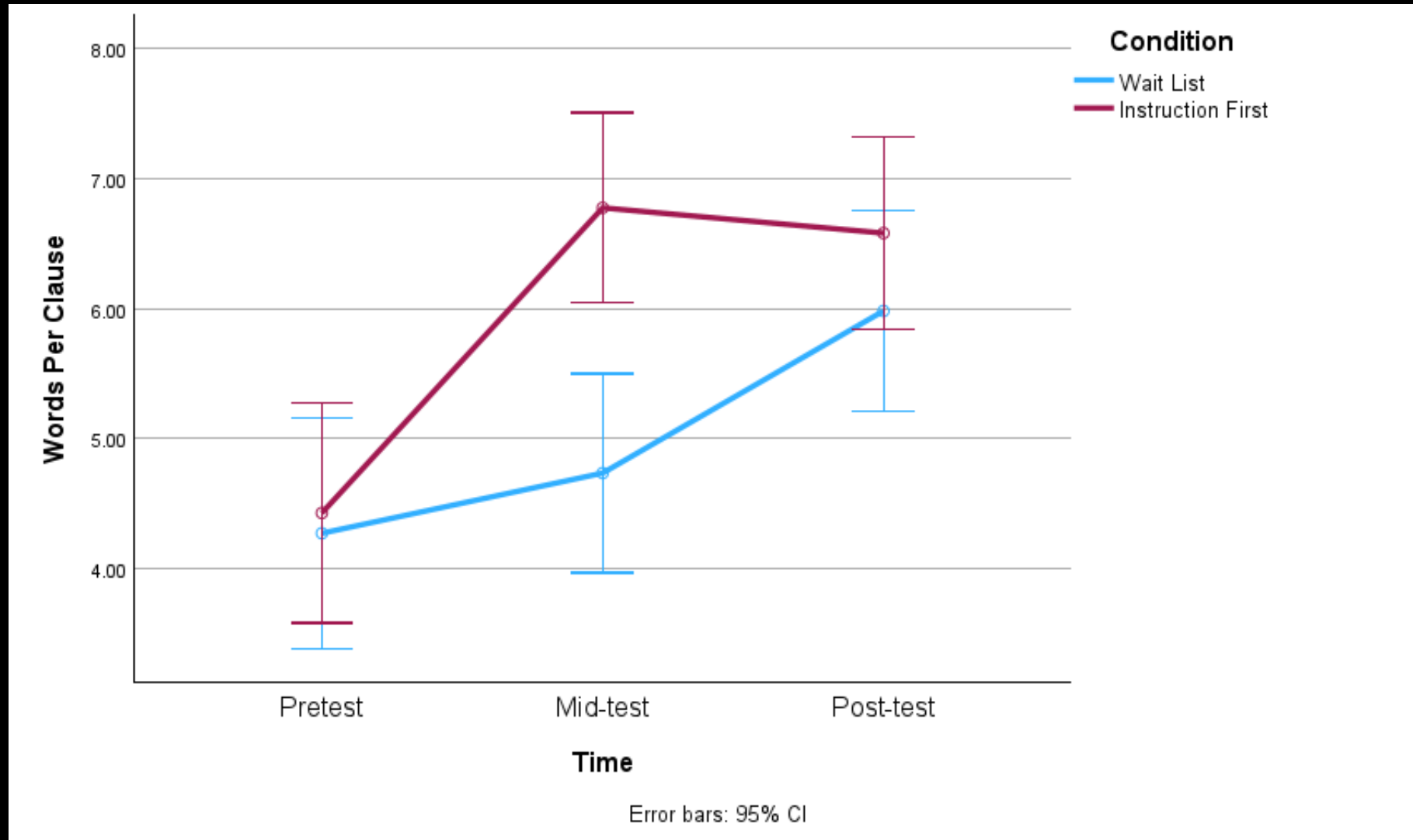
Did the Syntax Project improve the complexity and correctness of students' sentences?

Did the Syntax Project affect WIAT3 Sentence Combining?



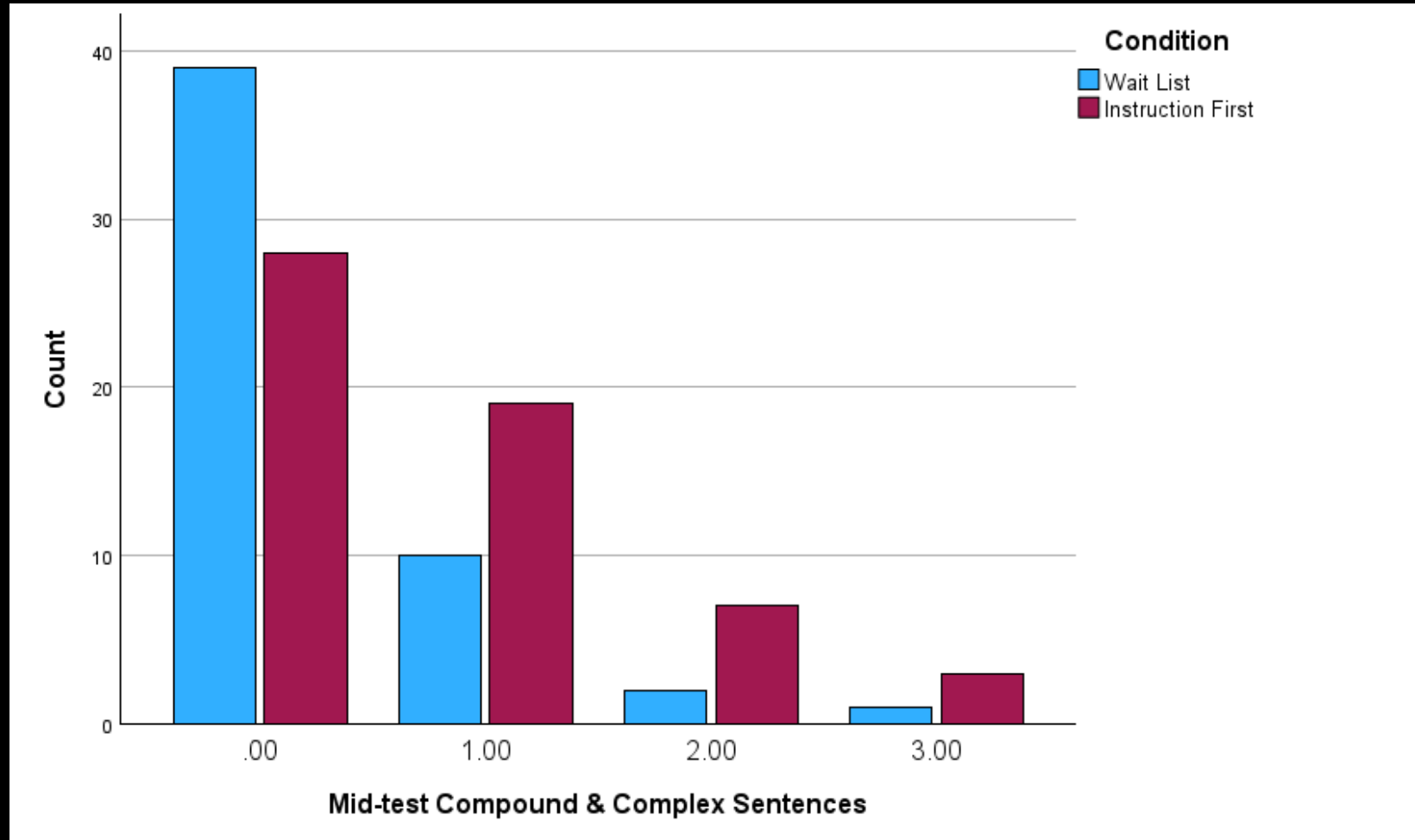
$F = .82$,
 $p = .56$
partial $\eta^2 = .01$

Did the Syntax Project increase complexity of clauses?



$F = 3.52,$
 $p = .03,$
partial $\eta^2 = .07$

Did the Syntax Project increase the complexity of sentences?

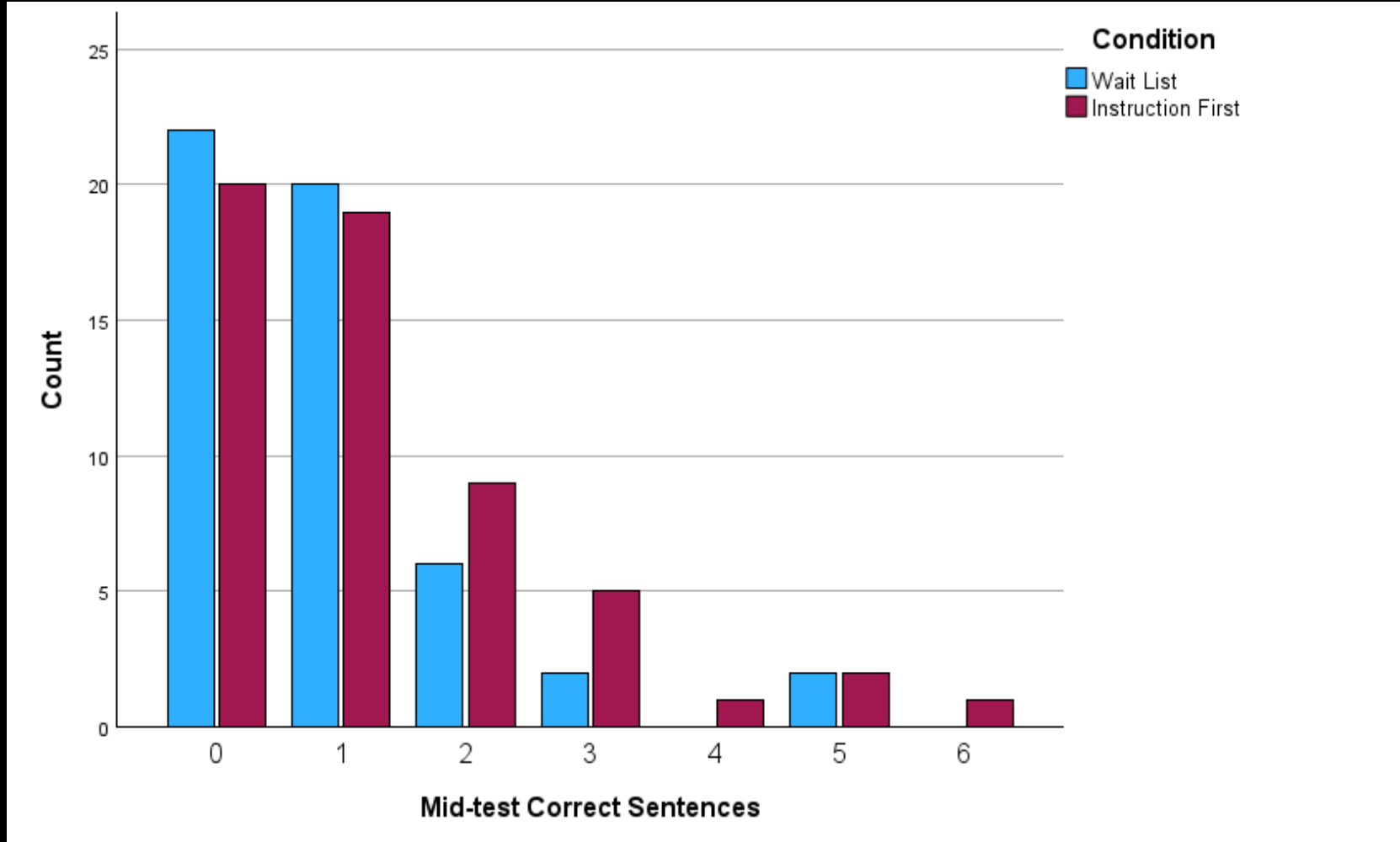


$Z = 2.84,$

$p = .003,$

$ZES = .27$

Did the Syntax Project increase the grammatical correctness of sentences?

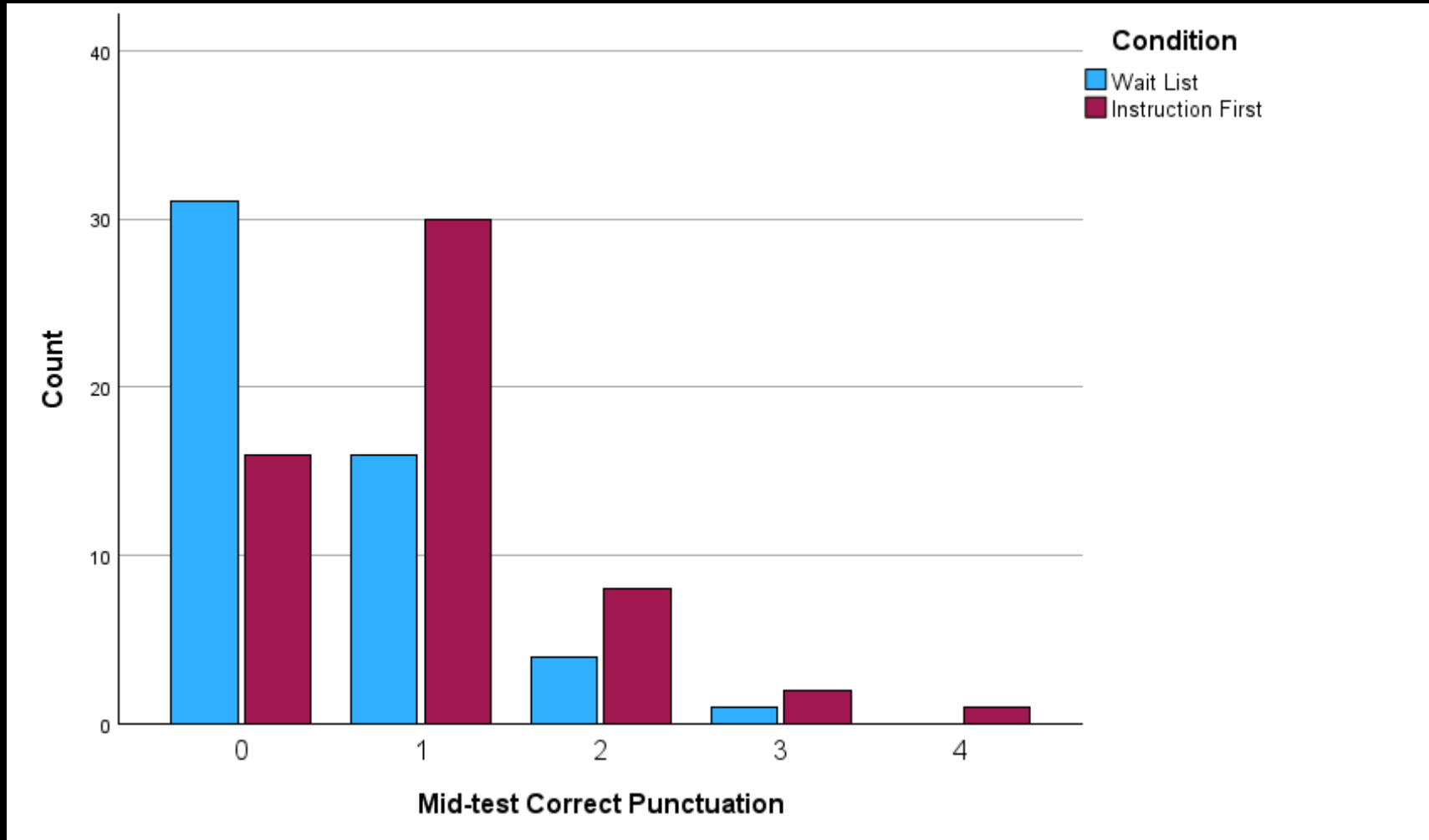


$Z = 1.28,$

$p = .10$

$ZES = .12$

Did the Syntax Project increase correct final punctuation?

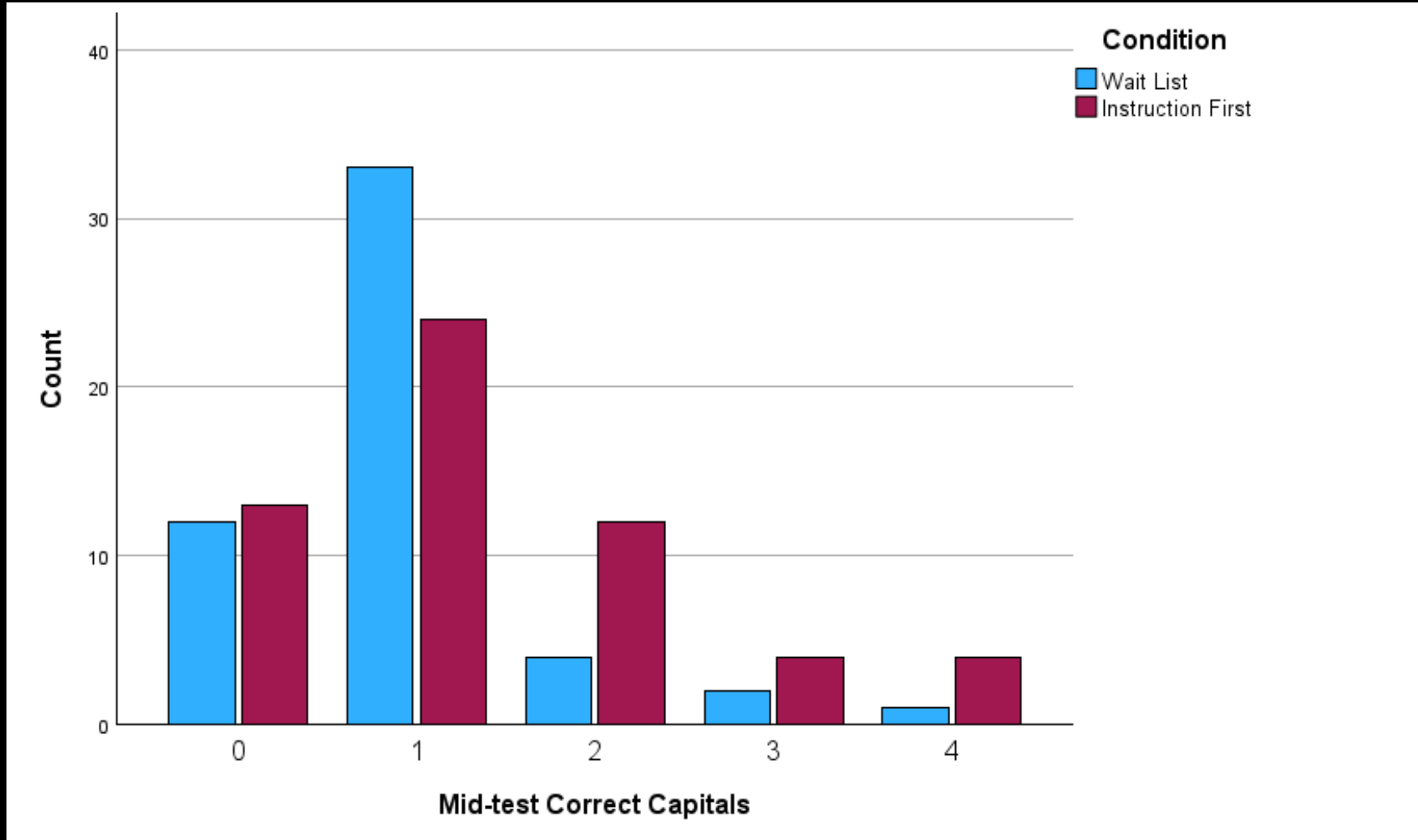


$Z = 3.19,$

$p < .001$

$ZES = .31$

Did the Syntax Project increase correct initial capital letters?

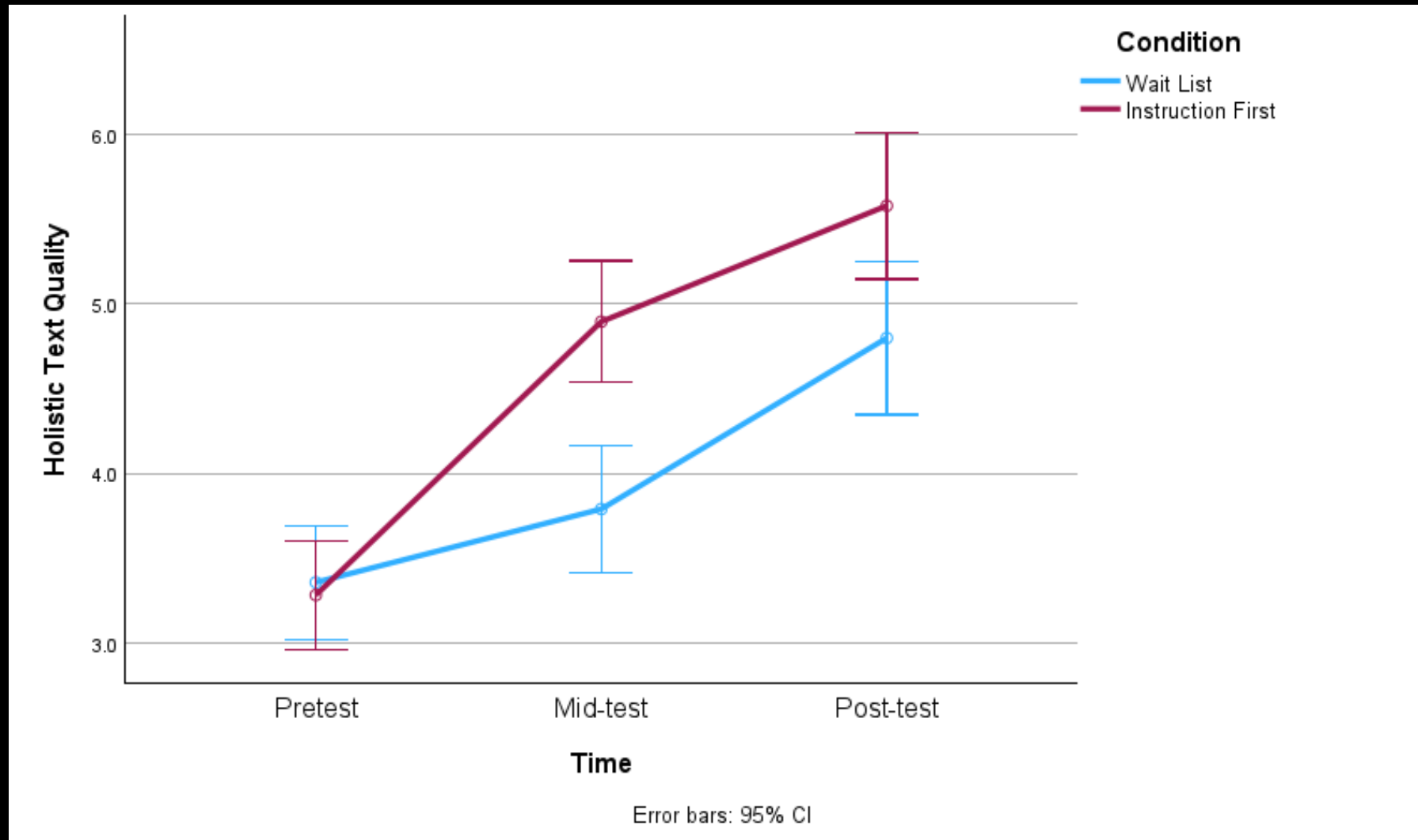


$Z = 1.65,$
 $p = .05$
 $ZES = .16$

More Results

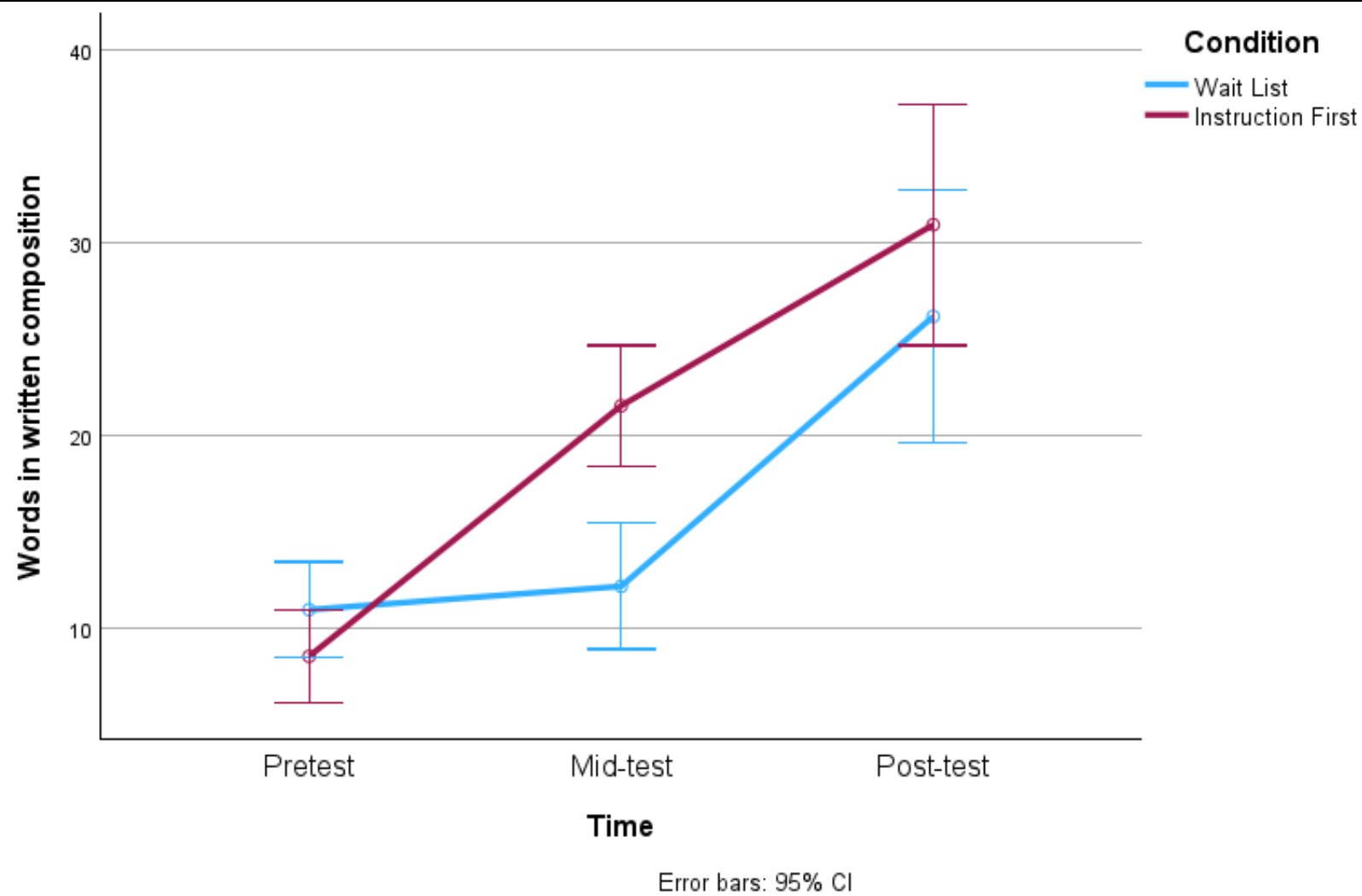
Did the Syntax Project increase the quality and length of written composition?

Effect of Syntax Project on text quality



$F = 8.90,$
 $p < .001,$
partial $\eta^2 = .07$

Effect of Syntax Project on text length

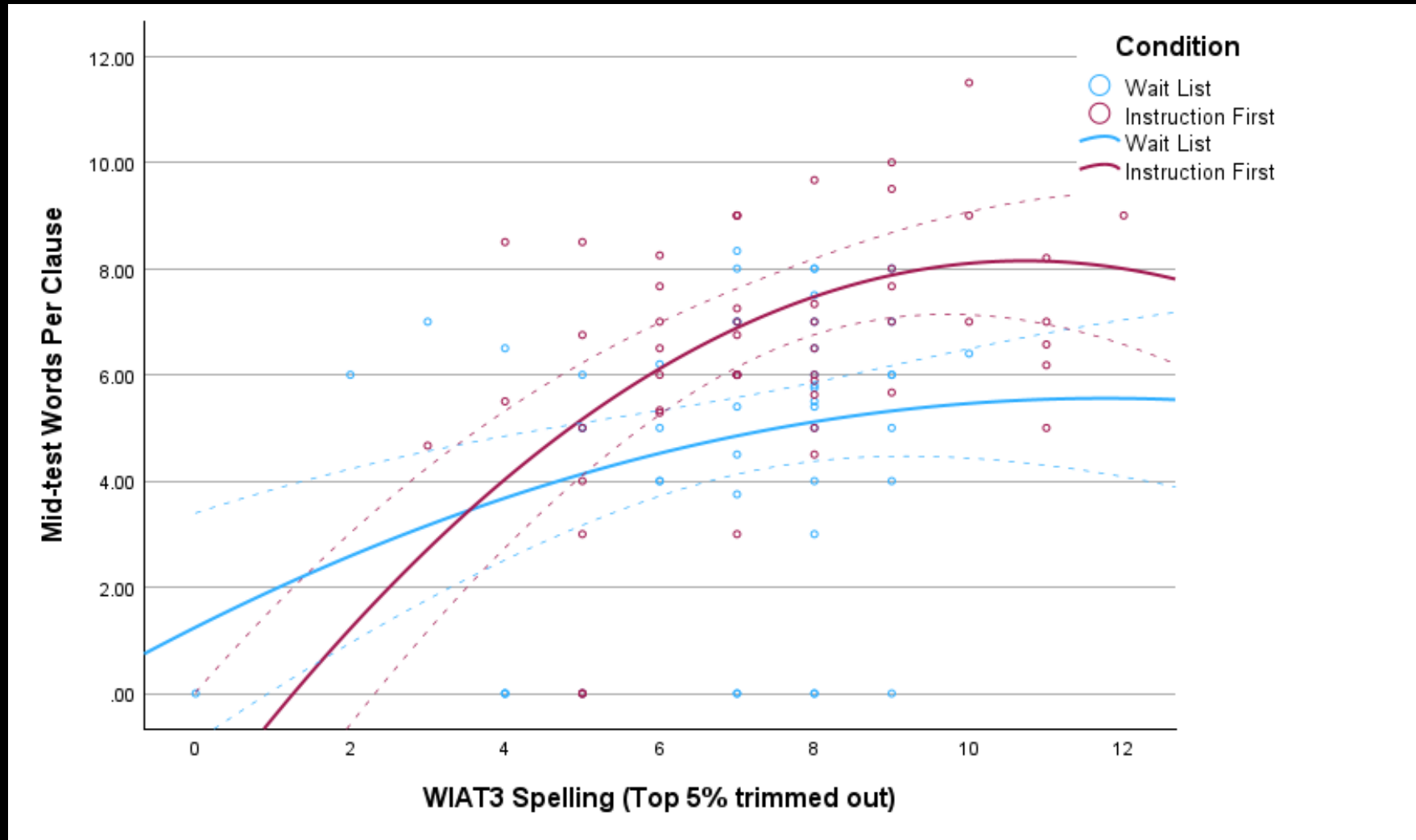


$F = 12.79,$
 $p < .001$
partial $\eta^2 = .19$

Was the Syntax Project effective
for students with a range of initial
language skills?

[More Results](#)

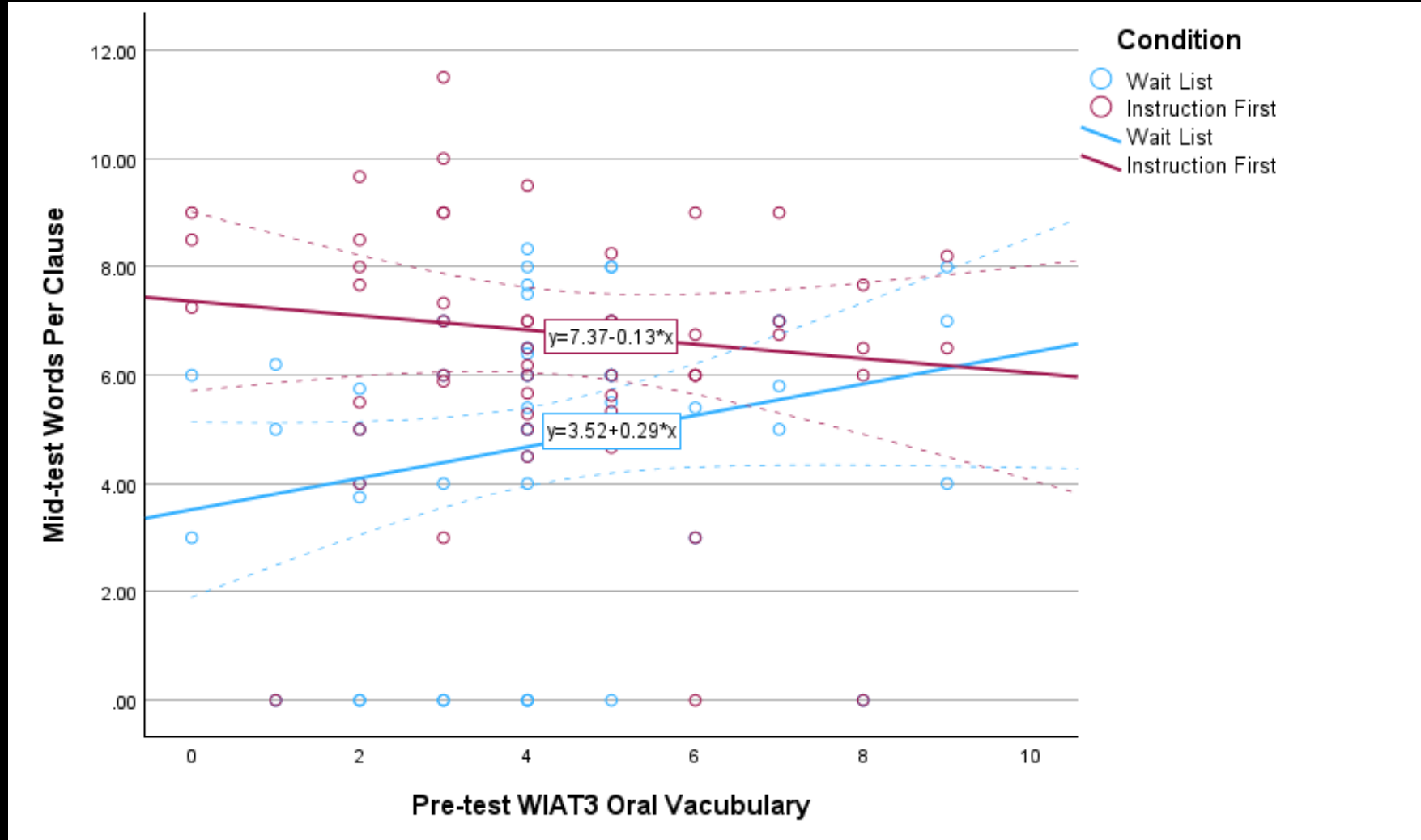
Is the *Syntax Project* effective for students with various levels of spelling skill?



Spelling²
 $\beta = -.81, p = .03$

Interaction,
 $\beta = -.15, p = .46$

Is the SP effective for students with various levels of oral vocabulary?



Vocabulary
 $\beta = -.22, p = .16$

Interaction
 $\beta = -.40, p = .08$

Teacher interviews on social validity

More results

Please rate the following statements	Median	(Min to Max)	In what ways? [illustrative comment]
The Syntax Project has important educational objectives.	5	(5-5)	Taught initial sentence writing Taught parts of speech

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The syntax project helped struggling students improve their sentence writing.	4	(2-5)	Students learn skills Needed more time and assistance Some lacked pre-requisite skills

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The Syntax Project was engaging for students.	4	(3-5)	Students liked writing about the pictures. Some lessons were long/repetitive.

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The Syntax Project was engaging for students.	4	(3-5)	<p>Students liked writing about the pictures.</p> <p>Student looked forward to lessons.</p> <p>Some lessons were long/repetitive.</p>
Overall, I would recommend this unit to other teachers.	5	(5-5)	<p>Will use it again</p> <p>Unique resource</p>

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Overall, I would recommend this unit to other teachers.	5	(5-5)	<p>Will use it again</p> <p>Unique resource</p>
What changes, if any, would you make to The Syntax Project?	--	--	<p>Start at beginning of the school year</p> <p>Teach longer lessons over 2-3 sessions</p>

Discussion



Educational implications

- Addresses Ontario expectations for Grade 1
 - Introducing
 - Consolidating
- The Syntax Project-Foundations improves...
 - complexity and correctness of sentences
 - quality and length of written composition
- Effective for students with moderately low to high skill levels
 - Students with very low skills may need work on spelling to participate effectively in Syntax Project
- Teachers value it highly

Educational Implications

- Not significantly effective for grammatical correctness
 - Why?




Limitations

- Instruction included the first 18 lessons published by 2023; 4 additional lessons have since been published
- WIAT3 Sentence Combining probably too unfamiliar
 - A better measure could be, e.g., WIAT3 Sentence Building
- There are other pieces to writing instruction

LDCSB Literacy Framework for Grades 1 and 2




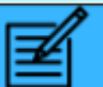
Daily Literacy Learning

Grades 1 and 2 Classroom Teachers, English Schools



Updated August 10, 2024

A Framework (not a formula!) for 120 minutes of literacy instruction

30 minutes	40 minutes	50 minutes - Integrate with Other Content Areas			
Word Recognition and Transcription 	Differentiation (Small Groups) 	Language Comprehension 	Composition 		
<p>B2-Language Foundations for Reading and Writing</p> <p>Grade 1</p> <ul style="list-style-type: none"> Phonemic Awareness Alphabetic Knowledge Phonics (Grapheme-Phoneme Correspondence) <p>Grades 1 & 2</p> <ul style="list-style-type: none"> Word Level Reading and Spelling: <ul style="list-style-type: none"> Phonics Orthographic Knowledge Morphological Knowledge Reading Fluency <p>UFLI Foundations Manual, Toolbox and Sharepoint Files</p> <p>Heggerty*</p> <p><small>*If student data shows a need. More recent research indicates that phonemic awareness tasks are best connected to graphemes (letters). Learn more here.</small></p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center; border-right: 1px dashed black;">20 minutes</td> <td style="width: 50%; text-align: center;">20 minutes</td> </tr> </table> <p>Lexia Student Program</p> <p>Teacher-Led Small Group</p> <ul style="list-style-type: none"> Lexia teacher lesson UFLI review lesson Progress monitoring Decodable texts with a group Literacy games <ul style="list-style-type: none"> FCRR UFLI Games UFLI Task ideas in Sharepoint <p>Student Practise (Skill Building)</p> <ul style="list-style-type: none"> Lexia skill builders Partner reading with decodable text Literacy games (FCRR, UFLI Games, UFLI Task ideas in Sharepoint) 	20 minutes	20 minutes	<p>B2-Language Foundations for Reading and Writing</p> <ul style="list-style-type: none"> Vocabulary, word level reading <p>B3-Language Conventions for Reading and Writing</p> <ul style="list-style-type: none"> Syntax & Sentence Structure, Grammar, Capitalization and Punctuation <p>C1-Knowledge About Texts</p> <p>C2-Comprehension Strategies</p> <p>C3-Critical Thinking in Literacy</p> <p style="text-align: center;">Read Alouds</p> <p>Vocabulary Routines</p> <p>The Syntax Project</p> <p>Lexia Resource Hub</p>	<p>B2-Language Foundations for Reading and Writing</p> <ul style="list-style-type: none"> Vocabulary, word level spelling <p>B3-Language Conventions for Reading and Writing</p> <ul style="list-style-type: none"> Syntax & Sentence Structure, Grammar, Capitalization and Punctuation <p>D1-Developing Ideas and Organizing Content</p> <p>D2-Creating Texts</p> <p>D3-Publishing, Presenting, Reflecting</p> <p style="text-align: center;">Vocabulary Routines</p> <p style="text-align: center;">The Syntax Project</p> <p style="text-align: center;">Self-Regulated Strategy Development (SRSD) - example</p> <p style="text-align: center;">Lexia Resource Hub</p> <p style="text-align: center;">Learning Without Tears</p>
20 minutes	20 minutes				

Strand A - Literacy Connections & Applications and BI - Oral and Non-Verbal Communication



Directions for extending learning and future research

- What could a year of effective writing instruction look like in Grade 1?
- How might we support teachers in integrating explicit writing instruction into content areas?
- How might a bank of writing exemplars support professional conversations about assessment and evaluation?

Two ways to access *the Syntax Project*

<p>Ochre Education Official source of materials, complete, free requires you to create an account. Once you have an account, search for “The Grammar Project” and then “The Syntax Project”</p>	<p>https://ochre.org.au/</p>
<p>OnLit Syntax Project lessons, revised to align with the Ontario curriculum by Ontario SLP Melinda Hinch, free.</p>	<p>https://onlit.org/resource/syntax-and-grammar-slide-decks-grade-1-the-syntax-project/</p>

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