Five Principles to Consider When Targeting Grammatical Forms

Elizabeth Ancel, HaeJi Lee, Miriam Kornelis, Kirstin Kuchler, Olivia A. Matthys, and Lizbeth H. Finestack

The University of Minnesota - Twin Cities







Introductions



Meet the members of the Explicit SMART Study!



Elizabeth Ancel, MS, CCC-SLP



HaeJi Lee, MA, CCC-SLP



Kirstin Kuchler, MA, CCC-SLP



Miriam Kornelis, MA, CCC-SLP



Olivia A. Matthys, MA, CCC-SLP



Lizbeth H. Finestack, PhD, CCC-SLP





The Child Language Intervention Lab



FIND US!

- https://www.finestackclil.com/
- campsite.bio/finestackclil
- @childlanguageinterventionlab
- @lfinestack
- @cldclab_umn o

Disclosures

Lizbeth H. Finestack

- Paid full-time employee of the University of Minnesota -Twin Cities, continuing relationship, 2009-present
- Principal Investigator on NIDCD R01DC019374-01, 2021-present

Liz Ancel, HaeJi Lee, Miriam Kornelis, Kirstin Kuchler, Olivia Matthys

- Funded from the NIH grant
- Affiliated with the University of Minnesota

Land Acknowledgement

- The University of Minnesota Twin Cities is located on traditional, ancestral, and contemporary lands of Indigenous people.
 The University resides on Dakota land ceded in the Treaties of 1837 and 1851.
- Honored to be on the land of the Massachusett, Pokanoket, Mashpee Wampanoag, Aquinnah Wampanoag, Nipmuc, and Abenaki where Boston resides.
- To learn more about the native lands you live on: https://native-land.ca/



https://marlenamyl.es/project/dakota-land-map/?fbclid=lwAR2RWA7ylTEYniQVfSPwhDTdy4zwKbyAi-AVx-poHQo-hp8Aytf1AKt7hLc%20

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- Internal Funding from The University of Minnesota



All of the families and children who have participated in our studies and others!

Today's Objectives

At the conclusion of the session, participants will be able to:



- Identify evidence-based principles that can be used to guide intervention targeting grammatical verb forms.
- Integrate knowledge of principles intointervention sessions that target different grammatical verb forms.
- Describe four different activities that may be used when targeting grammatical verb forms.





Why Grammar?



Typical Language Development

Producing 1st Words

12 mo

24 mo

27 mo

Combining

Words

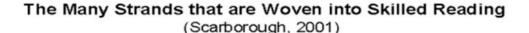


Brown's 14 Grammatical Morphemes

(Brown 1973)

•	, , , , , , , , , , , , , , , , , , , ,		
STAGE	MORPHEME	EXAMPLE	
II (27-30 mo)	Present progressive -ing Plural -s Preposition in	Me playing. That books. Cookie Monster in there.	
III (31-34 mo)	Preposition on Possessive 's	Doggie on car. Mommy's shoe.	
V (41-46 mo)	Regular past Irregular past Regular 3rd person singular Articles a/the Contractible copula be	He walked. She came. She plays. The cat. That's a puppy.	
V+ (47-50 mo)	Contractible auxiliary be Uncontractible copula be Uncontractible auxiliary be Irregular 3rd person singular	They're playing. I am coming. Who's here? I am. Who's playing. I am. She has. He does.	

Link Between Grammar and Reading



LANGUAGE COMPREHENSION

BACKGROUND KNOWLEDGE (facts, concepts, etc.)

VOCABULARY

(breadth assistantinks, etc.)

LANGUAGE STRUCTURES (syntax, semantics, etc.)

VERBAL KEASONING (inference, metaphor, etc.)

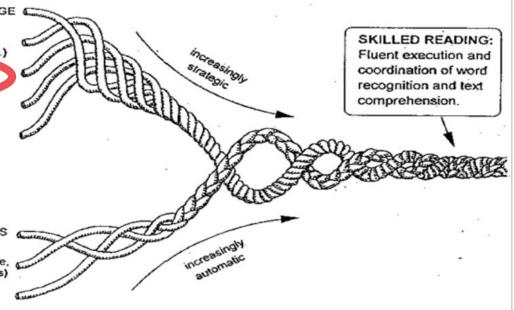
LITERACY KNOWLEDGE (print concepts, genres, etc.)

WORD RECOGNITION

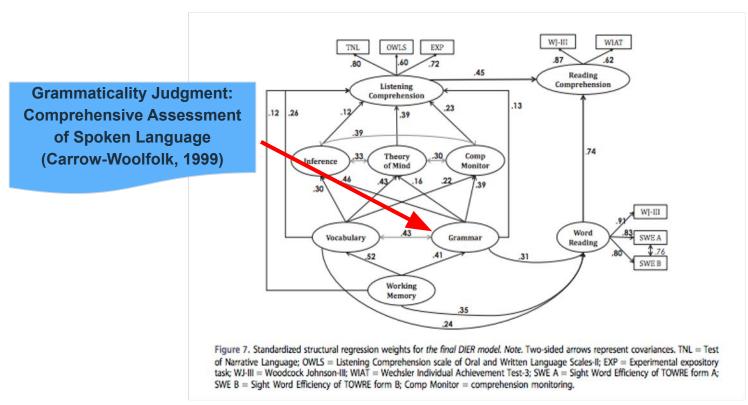
PHONOLOGICAL AWARENESS (syllables, phonemes, etc.)

DECODING (alphabetic principle, spelling-sound correspondences)

SIGHT RECOGNITION (of familiar words)



Link Between Grammar and Reading



Young-Suk Grace Kim (2017) Why the Simple View of Reading Is Not Simplistic: Unpacking Component Skills of Reading Using a Direct and Indirect Effect Model of Reading (DIER), Scientific Studies of Reading, 21:4, 310-333.

Examples of Educational Impact Related to Language Difficulties

- Grammatical errors may create problems with a student's orientation in time or impact written language products
- Syntactic errors may have an impact on a student's oral or written expression
- Morphological errors may inhibit the student from using complete sentences or may interfere with the student's ability to learn generative word parts, such as prefixes and suffixes

Why Grammar?

One area of language that is particularly difficult for many children to master:

- Developmental Language Disorder
- Down Syndrome; Fragile X syndrome
- Autism





Evidence-based Approaches when Targeting Grammatical Forms

Ten Principles of Grammar Facilitation for Children With Specific Language Impairments

Marc E. Fey
University of Kansas Medical Center, Kansas City

Steven H. Long
Marquette University, Milwaukee, WI

Lizbeth H. Finestack University of Kansas Medical Center, Kansas City

10 Principles

TABLE 1. Ten principles of grammatical intervention for children with SLI.

- The basic goal of all grammatical interventions should be to help the child to achieve greater facility in the comprehension and use of syntax and morphology in the service of conversation, narration, exposition, and other textual genres in both written and oral modalities.
- Grammatical form should rarely, if ever, be the *only* aspect of language and communication that is targeted in a language intervention program.
- Select intermediate goals in an effort to stimulate the child's language acquisition processes rather than to teach specific language forms.
- The specific goals of grammatical intervention must be based on the child's "functional readiness" and need for the targeted forms.
- Manipulate the social, physical, and linguistic context to create more frequent opportunities for grammatical targets.

- Exploit different textual genres and the written modality to develop appropriate contexts for specific intervention targets.
- Manipulate the discourse so that targeted features are rendered more salient in pragmatically felicitous contexts.
- Systematically contrast forms used by the child with more mature forms from the adult grammar, using sentence recasts.
- Avoid telegraphic speech, always presenting grammatical models in well-formed phrases and sentences.
- Use elicited imitation to make target forms more salient and to give the child practice with phonological patterns that are difficult to access or produce.

Selection of Intervention Goals

1

The **basic goal** of all grammatical interventions should be to help the child to achieve greater facility in the comprehension and use of syntax and morphology in the service of conversation, narration, exposition, and other textual genres in both written and oral modalities.

2

Grammatical form should rarely, if ever, be the only aspect of language and communication that is targeted in a language intervention program.

3

Select **intermediate goals** in an effort to stimulate the child's language acquisition processes rather than to teach specific language forms.

4

The specific goals of grammatical intervention must be based on the child's "functional readiness" and need for the targeted forms.

Intervention Procedures & Activities

Manipulate the social, physical, and linguistic context to create more frequent opportunities for grammatical targets.

8

Systematically **contrast forms** used by the child with more mature forms from the adult grammar, using sentence recasts.

Exploit different textual **genres** and the **written modality** to develop appropriate contexts for specific intervention targets.

9

Avoid telegraphic speech, always presenting grammatical models in well-formed phrases and sentences.

Manipulate the discourse so that targeted features are rendered more salient in pragmatically felicitous contexts.

10

Use elicited **imitation** to make target forms more salient and to give the child practice with phonological patterns that are difficult to access or produce.

5 Additional Principles





Clinical Focus

Five Additional Evidence-Based Principles to Facilitate Grammar Development for Children With Developmental Language Disorder

Lizbeth H. Finestack,^a Elizabeth Ancel,^a HaeJi Lee,^a Kirstin Kuchler,^a and Miriam Kornelis^a

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ABSTRACT

Purpose: Because the development of grammatical forms is difficult for many children with developmental language disorder (DLD), language interventions often focus on supporting children's use of grammatical language. This article proposes five additional principles to those suggested by Fey et al. (2003) to facilitate the development of grammatical forms by children with DLD. Three of

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5 Additional Principles

Principle 11: Present Target Forms Using a Large Number of Unique Verbs Principle 12: Present Target Forms Using Verbs that Vary in Difficulty

Principle 13: Present Target Forms in Sentences that Vary in Syntactic Structure

Principle 14: Incorporate the Use of Auditory Bombardment to Teach Target Forms Principle 15: Incorporate the Use of Explicit Instruction to Teach Target Forms

Current Study

- Grammatical Language Intervention Study:
 https://www.finestackclil.com/studies-enrolling-participants/
- Randomized Control Trial (RCT) funded by National Institutes of Health:
 NIDCD, R01 DC019374-01
- Targeting the development of grammatical forms for 5-9 year olds with Developmental Language Disorder (DLD)

The Randomized Control Trial

- 140 5- to 9-year olds with DLD
- Evidence of deficits on expressive grammatical forms: score below
 38% accuracy on at least two of the following forms:
 - regular past tense –ed
 - third person singular –s
 - present progressive is/are + ing
 - auxiliary do/does questions
- Native English speaker with English spoken in the home by at least one primary caregiver since birth



Still Recruiting!!

https://www.finestackclil.com/st udies-enrolling-participants/



Key Features



PHASES

2 Intervention Phases 32 Sessions Each

TARGETS

Cycle Through 4 Target
Forms

- regular past tense -ed
- third person singular
- auxiliary is/are in statements
- auxiliary do/does in questions

OUTCOMES

Long-term Follow-up



78 Explicit-added Participants
"38 of each age group; within each age
group, "14 low receptive language

32 Explicit-added Treatment Sessions

Assess

77 Implicit-only Participants
"38 of each age group; within each age
group, "14 low receptive language

32 Implicit-only Treatment Sessions

Assess



78 Explicit-added Participants
*38 of each age group; within each age
group, *14 low receptive language

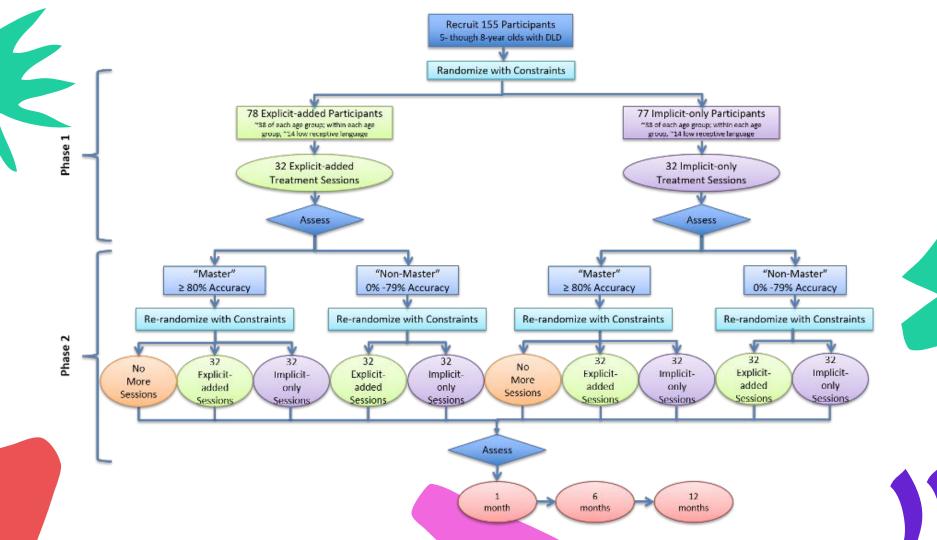
32 Explicit-added Treatment Sessions

Assess

77 Implicit-only Participants
"38 of each age group; within each age
group, "14 low receptive language

32 Implicit-only Treatment Sessions

Assess



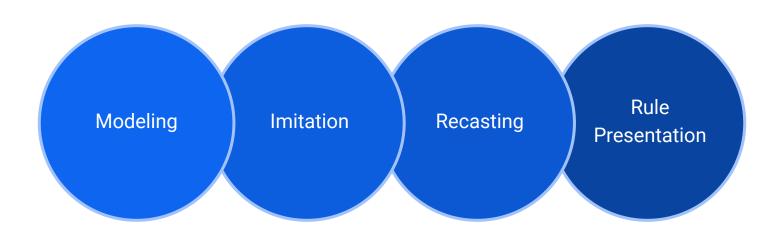
The Treatment

Sessions	Target	Cycle
1-4	Past -ed	Cycle 1
5-8	3 rd -s	
9-12	Aux is/are	
13-16	Q-do/does	
17-20	Past -ed	Cycle 2
21-24	3 rd -s	
25-28	Aux is/are	
29-32	Q-do/does	

Each 30 min Session



Hybrid Approach



Dosage Per Session

- At least 62 models or recasts per session
- Up to 27 rule presentations, that fade over time
- 24 different verbs

WAIT!! How can you do all this??

Resources

Intervention Materials https://www.finestackclil.com/resources/

VERBS MATTER!

Frequency & Phonological Complexity https://conservancy.umn.edu/handle/11299/241882



5 Additional Principles

Principle 11: Present Target Forms Using a Large Number of Unique Verbs Principle 12: Present Target Forms Using Verbs that Vary in Difficulty

Principle 13: Present Target Forms in Sentences that Vary in Syntactic Structure

Principle 14: Incorporate the Use of Auditory Bombardment to Teach Target Forms Principle 15: Incorporate the Use of Explicit Instruction to Teach Target Forms



Large Number of Unique Verbs

Plante et al., 2014

 4- to 5-year olds with DLD were randomized to either the high verb variability group or low verb variability group within intervention sessions.

High Variability Group

(n = 9)

 Randomly assigned to hear 24 unique verbs per session in conversational recasts

Low Variability Group

(n = 9)

 Randomly assigned hear 12 unique verbs repeated twice per session in conversational recasts



Large Number of Unique Verbs

Plante et al., 2014 cont.

- The high verb variability group outperformed the low verb variability group on the targeted grammatical forms.
- 4- to 5-year olds with DLD had better outcomes when targeted grammatical forms were modeled across a large number of unique verbs.
- Intervention targets included *-ed*, auxiliary *is*, she, third person *-s*

High Verb Variability

Low Verb Variability



Large Number of Unique Verbs

Principle into Practice:

Include a large number of different verbs across session tasks

1. Imitation

- 1. The unicorns appear
- 2. The unicorn appears
- 3. The cat and dog look
- 4. The cat looks
- 5. I know where they live
- 6. I know where he lives
- 7. The cookies need milk
- 8. The cookie needs milk
- 9. They picture the ocean
- 10. She pictures the ocean
- 11. They give a present
- 12. He gives a present
- 13. They stay after school
- 14. He stays after school

2. Story Retell

Asha wants to play by herself today. Sometimes she just likes to be alone at recess, so she can think.

- > Today she begins on the trampoline. The trampoline is one of her favorite places to play, but she gets worn out.
- > She jumps > as high > as she > can go.
- > Suddenly, Asha sees that the swings are empty. She loves to swing.
- > Asha does a lot of thinking as she swings higher and higher!



Large Number of Unique Verbs

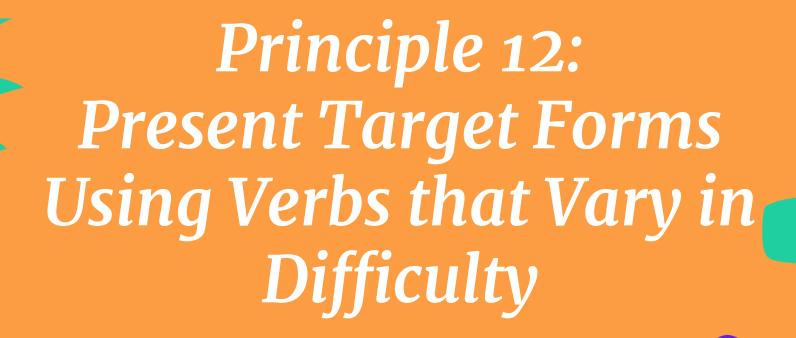
Principle into Practice:

3. Structured Play

- 1. **Prompt:** The farmer uses the tractor.
 - What does the farmer use?
 - **Target:** The farmer <u>uses</u> the tractor.
- 2. **Prompt:** The tractor blocks the way.
 - What does the tractor do?
 - Target: The tractor blocks the way.
- 3. **Prompt:** The farmer finds the chicken in the barn.
 - What does the farmer do?
 - **Target:** The farmer finds the chicken.
- 4. **Prompt:** The cow takes the hay.
 - What does the cow do?
 - **Target:** The cow takes the hay.
- 5. Prompt: The chicken goes over there. Starting with "The chicken" tell me where it goes?
 - **Target:** The chicken goes over here.

4. Bombardment

- The student tries
- 2. The students try
- 3. He <mark>means</mark> "ok"
- 4. They mean "ok"
- 5. Start when the teacher says
- 6. Stop when the teachers say
- 7. It sticks straight up
- 8. They stick straight up
- 9. He snatches the toy.
- 10. They snatch the toy.
- 11. She towers over me
- 12. They tower over me
- 13. My knee hurts
- 14. My knees hurt



Verbs that Vary in Difficulty

Defining Difficulty:

- Frequency of target verb and grammatical form used in children's speech
- Phonological complexity of grammatical form based on:
 - Word patterns (# of syllables & stress)
 - Syllable structure (clusters and final consonants)
 - Sound classes (velars, fricatives, affricates, liquids, rhotics)
- Telicity of a target verb in past tense (completed-ness of an action)

Verbs that Vary in Difficulty

Defining Difficulty:

Easy

- High Frequency
- Low Phonological Complexity
- High Telicity (completed-ness)

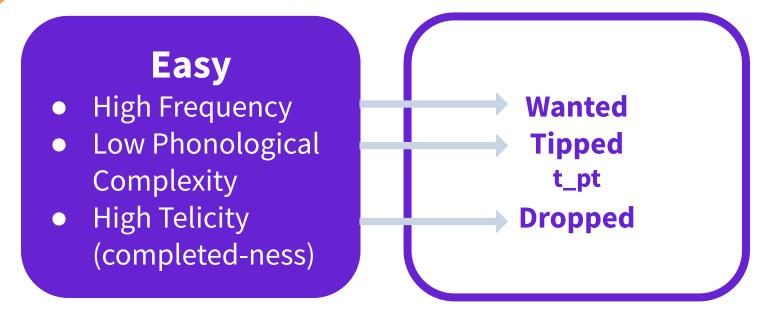
Hard

- Low Frequency
- High Phonological Complexity
- Low Telicity (completed-ness)



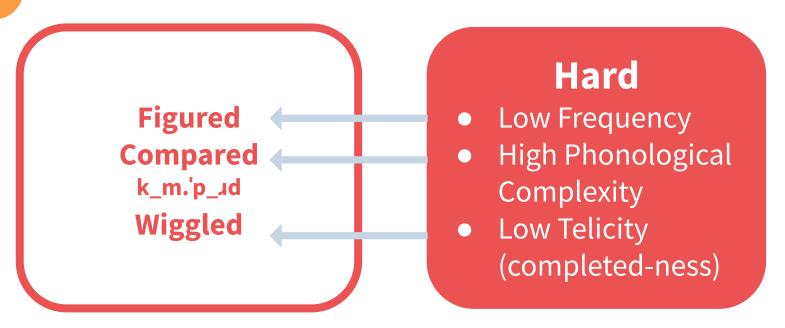
Verbs that Vary in Difficulty

Defining Difficulty:



Verbs that Vary in Difficulty

Defining Difficulty:





Verbs that Vary in Difficulty

Targeting past tense -ed in Owen Van Horne et al. (2017):

- Study included 18, 4- to 10-year olds with DLD who received treatment that began either with verbs that were EASY or HARD based on frequency, complexity, and telicity
- Learning was maximized when models and recasts included hard verbs along with easy verbs

Verbs that Vary in Difficulty

Principle into Practice:

- Get familiar with verb characteristics
 - Frequency and complexity characteristics available for:
 - past tense -ed
 - third person singular -s
 - present progressive is/are + ing
 - do/does questions
 - https://conservancy.umn.edu/handle/11299/241882

Verbs Matter: Verb Frequency and Phonological Complexity in Four Morphosyntactic Contexts

Finestack, Lizbeth H.; Linert, Jamie; Ancel, Elizabeth; Hilliard, Lisa; Kuchler, Kirstin; Matthys, Olivia (2022)



Title

Verbs Matter: Verb Frequency and Phonological Complexity in Four Morphosyntactic Contexts

Description

Published Date 2022-10-06

Authors

Finestack, Lizbeth H.

	Darrai	Readme_Finestack.txt	Readme file	21. <mark>1</mark> 3Kb	Text file
	Persi https: https:	Finestack_VerbsMatter_TalkBankDB_Transcripts.csv	TalkBank transcripts used for analysis	67.57Kb	CSV file
Frequency files	Servi	Finestack_VerbsMatter_Verb_ed.csv	CLAN output for past tense -ed verbs	5.199Kb	CSV file
for full frequency	Full N View	Finestack_VerbsMatter_Verb_ed_Frequency.csv	Frequency of past tense -ed verbs	5.343Kb	CSV file
	Keyw verbs	Finestack_VerbsMatter_WCM_ed.csv	Word Complexity Measure for past tense -ed verbs	5.380Kb	CSV file
_WCM files for ful	frequi phone	Finestack_VerbsMatter_Verb_3S.csv	CLAN output for 3rd person singular verbs	4.142Kb	CSV file
	gramı morpl	Finestack_VerbsMatter_Verb_3S_Frequency.csv	Frequency of 3rd person singular verbs	4.151Kb	CSV file
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CLAN output file	Date	Finestack_VerbsMatter_IsAre_Verb_ing.csv	CLAN output for is/are + verb-ing	4.091Kb	CSV file
for combined	2022-	Finestack_VerbsMatter_IsAre_Verb_ing_Frequency.csv	Frequency of is/are + verb-ing	5.333Kb	CSV file
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		Finestack_VerbsMatter_DoDoes_Verb.csv	CLAN output for do-does verbs	894bytes	CSV file
		Finestack_VerbsMatter_DoDoes_Verb_Frequency.csv	Frequency of do-does verbs	1.647Kb	CSV file
		Finestack_VerbsMatter_WCM_DoDoes.csv	Word Complexity Measure for do-does verbs	1.390Kb	CSV file

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Size

Format

Verbs that Vary in Difficulty

Easy

- High Frequency: Easy
- Low Complexity: **Easy**

CLAN Output	Verb	IPA with Inflection	Average Frequency Rating	Frequency Code	WCM Score	Complexity Code
v die-PAST	die	d_d	7.5	High		l Low
v want-PAST	want	'w_n.t_d	4	High		Low
v pop-PAST	рор	p_pt	7.5	High		Low
v pump-PAST	pump	p_mpt	9	High		Low
v bore-PAST	bore	b_nq	10	High	9	Low
v paint-PAST	paint	'p_n.t_d	10	High		Low
v pour-PAST	pour	p_nd	10	High	5	Low
v try-PAST	try	tu_d	3.5	High	:	Low
v play-PAST	play	pl_d	4.5	High	3	Low
v pull-PAST	pull	p_ld	6.5	High	:	Low
v knock-PAST	knock	n_kt	7	High	3	Low
v turn-PAST	turn	t_und	8	High	:	Low
v walk-PAST	walk	w_kt	8	High	3	Low
v pass-PAST	pass	p_st	8.5	High	3	Low
v push-PAST	push	p_ft	8.5	High	3	Low
v bug-PAST	bug	b_gd	9	High	3	Low
v burn-PAST	burn	b_und	9	High	3	Low
v dry-PAST	dry	dı_d	9	High	3	Low
v open-PAST	open	'p_nd	9	High	:	Low
v bang-PAST	bang	b_ŋd	10	High	3	Low
v pack-PAST	pack	p_kt	10	High	:	Low
v rip-PAST	rip	J_pt	10	High	;	Low
v stay-PAST	stay	st_d	10	High	:	Low
v thump-PAST	thump	θ_mpt	10	High	:	Low
vltug-PAST	tug	t ad	10	High		Low

Verbs that Vary in Difficulty

Mixed

- High frequency: Easy
- High complexity: Hard

CLAN Output	Verb	IPA with Inflection	Average Frequency Rating	Frequency Code	WCM Score	Complexity Code
v dial-PAST	dial	'dld	10	High	4	High
v dream-PAST	dream	du_md	10	High	4	High
v fire-PAST	fire	'fud	10	High	4	High
v hammer-PAST	hammer	'hm_ud	10	High	4	High
v kill-PAST	kill	k_ld	10	High	4	High
v lock-PAST	lock	I_kt	10	High	4	High
v ski-PAST	ski	sk_d	10	High	4	High
v slow-PAST	slow	sl_d	10	High	4	High
v stamp-PAST	stamp	st_mpt	10	High	4	High
v use-PAST	use	j_zd	10	High	4	High
v start-PAST	start	'st_u.t_d	2.5	High	5	High
v color-PAST	color	'kl_ad	3	High	5	High
v scare-PAST	scare	sk_ud	6	High	5	High
v climb-PAST	climb	kl_md	8	High	5	High
v grab-PAST	grab	gbd	8.5	High	5	High
v spill-PAST	spill	sp_ld	8.5	High	5	High
v attach-PAST	attach	't_ʧt	10	High	5	High
v compare-PAST	compare	k_m.'p_ud	10	High	5	High
v float-PAST	float	'flt_d	10	High	5	High
v screw-PAST	screw	sku_d	10	High	5	High
v stuff-PAST	stuff	st_ft	10	High	5	High
v trick-PAST	trick	tu_kt	10	High	5	High
v crash-PAST	crash	ku_ſt	9	High	6	High
v blast-PAST	blast	'blst_d	10	High	6	High
v cover-PAST	cover	'kv_ud	10	High	6	High
v rescue-PAST	rescue	ˈɹskj_d	10	High	6	High
v suppose-PAST	suppose	s'p_zd	10	High	7	High

Verbs that Vary in Difficulty

Mixed

- Low frequency: **Hard**
- Low complexity: **Easy**

CLAN Output	Verb	IPA with Inflection	Average Frequency Rating	Frequency Code	WCM Score	Complexity Code
v name-PAST	name	n_md	10.5	Low	2	Low
v show-PAST	show	<u>∫_</u> d	11	Low	2	Low
v wait-PAST	wait	'wt_d	11	Low	2	Low
v dump-PAST	dump	d_mpt	12	Low	2	Low
v tip-PAST	tip	t_pt	12	Low	2	Low
v pick-PAST	pick	p_kt	10.5	Low	3	Low
v yell-PAST	yell	j_ld	10.5	Low	3	Low
v wonder-PAST	wonder	'w_n.d_ud	10.5	Low	3	Low
v cheat-PAST	cheat	'tft_d	11	Low	3	Low
v peek-PAST	peek	p_kt	11	Low	3	Low
v talk-PAST	talk	t_kt	11	Low	3	Low
v wrap-PAST	wrap	_pt	11	Low	3	Low
v back-PAST	back	b_kt	12	Low	3	Low
v mail-PAST	mail	m_ld	12	Low	3	Low
v mess-PAST	mess	m_st	12	Low	3	Low
v miss-PAST	miss	m_st	12	Low	3	Low
v punch-PAST	punch	p_ntft	12	Low	3	Low
v rain-PAST	rain	_nd	12	Low	3	Low
v rub-PAST	rub	1_pq	12	Low	3	Low
v spy-PAST	spy	sp_d	12	Low	3	Low
v touch-PAST	touch	t tft	12	Low	3	Low



Verbs that Vary in Difficulty

Hard

- Low frequency: Hard
- High complexity: **Hard**

CLAN Output	Verb	IPA with Inflection	Average Frequency Rating	Frequency Code	WCM Score	Complexity Code
v allow-PAST	allow	'I_d	10.5	Low	4	High
v look-PAST	look	l_kt	10.5	Low	4	High
v like-PAST	like	I_kt	11	Low	4	High
v trip-PAST	trip	tu_pt	11	Low	4	High
v work-PAST	work	w_ukt	11	Low	4	High
v learn-PAST	learn	l_und	12	Low	4	High
v taste-PAST	taste	'tst_d	12	Low	4	High
v carry-PAST	carry	'kı_d	12	Low	4	High
v cough-PAST	cough	k_ft	12	Low	4	High
v cry-PAST	cry	ku_d	12	Low	4	High
v gang-PAST	gang	g_ŋd	12	Low	4	High
v lift-PAST	lift	'l_f.t_d	12	Low	4	High
v move-PAST	move	m_vd	12	Low	4	High
v reach-PAST	reach	_u_tft	12	Low	4	High
v stab-PAST	stab	st_bd	12	Low	4	High
v train-PAST	train	tu_nd	12	Low	4	High
v tumble-PAST	tumble	't_m.b_ld	12	Low	4	High
v wax-PAST	wax	w_kst	12	Low	4	High
v fix-PAST	fix	f_kst	10.5	Low	5	High
v save-PAST	save	s_vd	11	Low	5	High
v slip-PAST	slip	sl_pt	11	Low	5	High
v wiggle-PAST	wiggle	'wg_ld	11	Low	5	High
v brush-PAST	brush	bft	12	Low	5	High
v change-PAST	change	tf_nd3d	12	Low	5	High
v live-PAST	live	I_vd	12	Low	5	High
v slam-PAST	slam	sl_md	12	Low	5	High
v smash-PAST	smash	sm ft	12	Low	5	High

Verbs that Vary in Difficulty

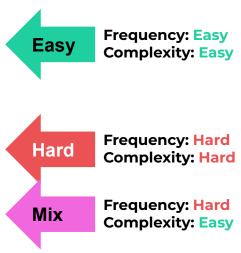
Principle into Practice:

- Include a variety of verbs in different activities
 - Sentence Imitation
 - Story Retell
 - Structured Play
 - Auditory Bombardment

Verbs that Vary in Difficulty

Sentence Imitation

Does she stay at the park?
Do they stay at the park?
Does he call his mom?
Do they call their mom?
Does the machine lift the rock?
Do the machines lift the rocks?
Does the child peek into the box?
Do the children peek into the box?
Does she yell a lot?
Do they yell a lot?
Does the cat fall down?
Do the cats fall down?
Does the dishwasher use water?
Do the dishwashers use water?





Principle 13: Present Target Forms in Sentences that Vary in Syntactic Structure

Variation in Syntactic Structure

Syntactic Structure: Verb Placement

Easy

- Sentence final verb placement
- He is **looking**

Hard

- Sentence medial verb placement
- He is **looking** out the window.



Variation in Syntactic Structure

Syntactic Structure: Verb Placement

- Sundara et al. (2018; 2011); Dalal & Loeb (2005) suggest starting intervention with sentence final target word placement
- Important to include more challenging syntactic structures

Variation in Syntactic Structure

The kangaroo is jumping.

The kangaroos are jumping.

The student is having fun.

The students are having fun.

The writer is telling a story.

The writers are telling a story.

The teacher is coming.

The teachers are coming.

The popsicle is starting to melt.

The popsicles are starting to melt.

The sink is dripping.

The sinks are dripping.

The cat is messing with string.

The cats are messing with string.

13 Variation in Syntactic Structure

Story Example:

Today, Amir and Manny want to play baseball. Lots of people like baseball, so people are watching them play. Amir is standing at home plate with a bat.

Manny is throwing the ball over the plate.

Sometimes, Amir swings and misses.

The next throw is right down the middle.

Amir is hitting the ball with the bat.

The ball flies into the air.

The people are yelling excitedly. It's a home run!

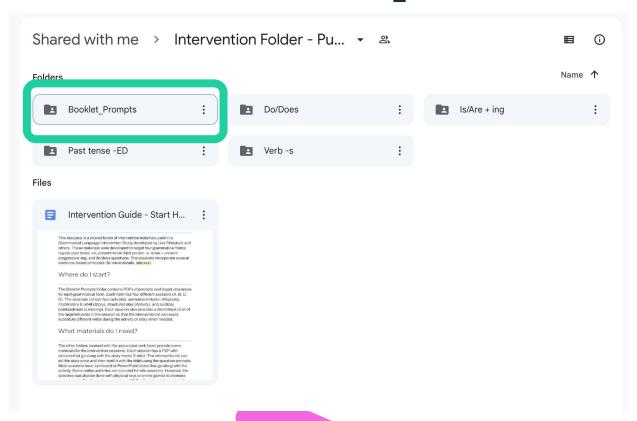


Prompt variation:

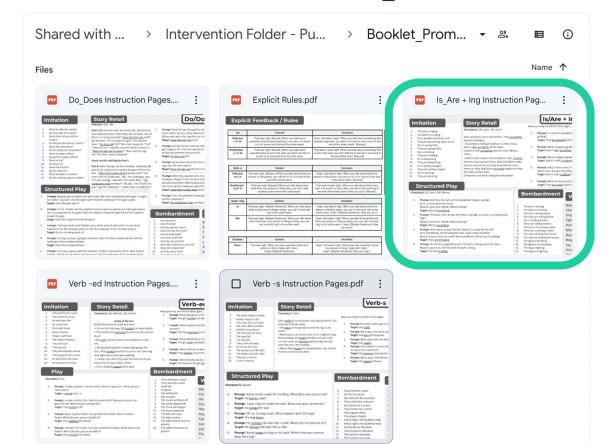
What is Amir doing?
He is standing at home plate.

What is Amir doing at home plate? He is standing.

Session Scripts



Session Scripts



Session Scripts

Imitation

- 1. The bell is ringing
- 2. The bells are ringing
- He is wondering about lunch
- They are wondering about lunch
- She is saying hello
- They are saving hello
- She is climbing
- They are climbing He is babysitting
- They are babysitting
- He is pulling a wagon
- They are pulling a wagon
- 13. She is spinning
- 14. They are spinning

Story Retell

Character/s: [A]: Asha: [B]: Quinn

Asha and Quinn are in the kitchen. They are getting food for breakfast.

/ Sometimes making breakfast is a little messy. Asha's eggs are falling off the table. / Quinn's milk is dripping onto the floor. What a

/ Asha's mom comes into the kitchen. She is telling

them to clean up their mess. Asha and Quinn make messes sometimes, but they know how to clean them up. Asha and Quinn are using napkins to clean the table and the floor.

/ Now they can finish eating their breakfast.

Is/Are + Ing A

Now, you help me tell the story again:

1. Prompt: It is time for breakfast. What are Asha and Quinn

Target: They are getting food for breakfast.

- 2. Prompt: What's happening with Asha's eggs? Target: Asha's eggs are falling off the counter.
- Prompt: What's happening with Quinn's milk? Target: Quinn's milk is dripping on the floor.
- Prompt: Asha's mom comes into the kitchen. What is Asha's mom doing in the kitchen? Target: Asha's mom is telling them to clean up.
- 5. Prompt: What are Asha and Quinn doing to clean up? Target: They are using napkins

Structured Play

Character/s: [C]: Amir; [D]: Manny

1. Prompt: Amir has the ball, and the basketball hoop is up high. Amir is reaching for the hoop.

Now it's your turn. What is Manny doing?

Target: Manny is reaching

Prompt: This time, Amir knows the hoop is up high. So, Amir is jumping really

Now it's your turn. What is Manny doing?

Target: Manny is jumping

Prompt: Amir wants to pass the ball. Manny is ready for the ball! Amir and Manny are throwing the ball. It goes back and forth. Now it's your turn to try it with Amir and Manny. What are they doing? Target: They are throwing

Prompt: Uh oh! He dropped the ball. The ball is rolling across the floor. Now it's your turn. Tell me what the ball is doing. Target: The ball is rolling

Prompt: Now, Amir wants to score a point. Amir is shooting a basket. Yay, I got a point!

Now it's your turn. What is Manny doing? Target: Manny is shooting

Bombardment

- The key is missing
- The keys are missing The boy is selling bread
- The boys are selling bread
- She is holding flowers
- They are holding flowers
- The boy is recording a video They are recording a video
- The cat is chasing the mouse
- The cats are chasing the mouse
- The glass is breaking The glasses are breaking
- The dog is fighting
- The dogs are fighting

Word Bank

Babysit	Break			
Chase	Climb			
Drip	Fall			
Fight	Get			
Hold	Jump			
Miss	Pull			
Reach	Record			
Ring	Roll			
Say	Sell			
Shoot	Spin			
Tell	Throw			

Wonder

Use

Principle 14: Incorporate the Use of Auditory Bombardment to Teach Target Forms

Auditory Bombardment

7 contrastive pairs per grammatical form = 14 sentences

- Verb ends the sentence
 - He is walking.
- Verb is medial.
 - She walks home.



- Few demands placed on the learner
- Gives the learner many models in a short period of time
- No real difference between putting auditory bombardment at the beginning or end of the session (Plante et al., 2018)



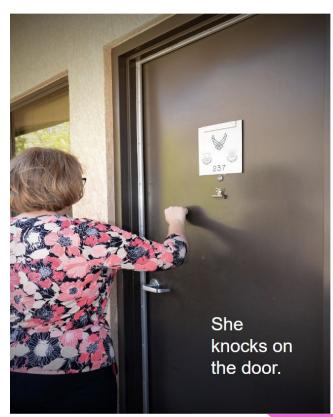


The bunny will thump the ground.



The bunny thumped the ground.















Does the magnet stick?

Do the magnets stick?



Principle 15: Incorporate the Use of **Explicit Instruction to** Teach Target Forms

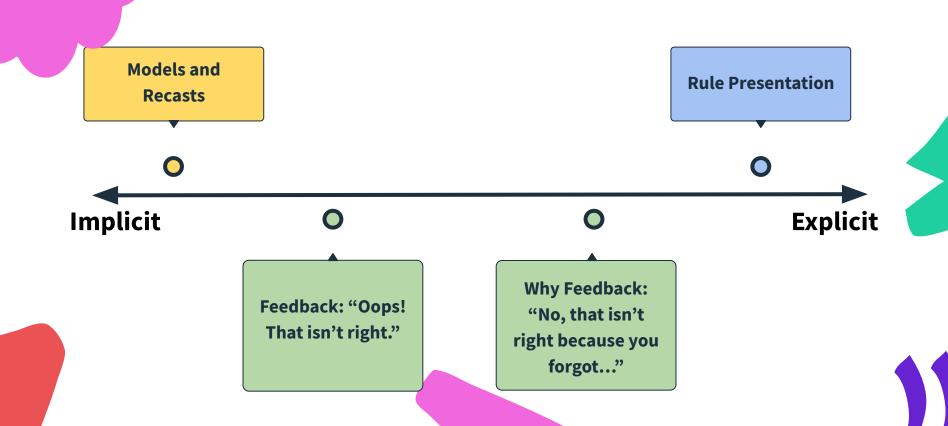
Explicit Instruction

Presenting grammatical patterns and rules enhanced children's performance in producing grammatical forms (e.g., Finestack et al., 2020; Finestack & Fey, 2009)

Implicit Intervention Components	Explicit Intervention Components
Modeling Prompting Recasting	Modeling Prompting Recasting Corrective Feedback Verbal Explicit Instruction



Continuum of Explicitness



Explicit Instruction

Examples: Present Progressive is/are verb+ing

When you talk about what one person or thing is doing, you add "is" and "ing" to the action word.

When you talk about what more than one person or thing is doing, you add "are" and "ing" to the action word.

Explicit Instruction

Principle into Practice:

Interventionist:

This one is up so high. So, what is he doing? [PROMPT]

Child: He jumping. He jumping.

Interventionist:

He <u>is jumping</u>. [MODEL] Let's try that again. [FEEDBACK] What is he doing? [PROMPT]

Child: He is jumping.

Interventionist:

That's right. [FEEDBACK] He <u>is jumping</u>. [RECAST]
Because we are talking about what one person is doing, you make sure to add is and -ing to the action word. [RULE]

Explicit Instruction

Principle into Practice:

Interventionist:

What does the tiger do? [PROMPT]

Child: Holds it!

Interventionist:

He holds it. [RECAST] You are right. [FEEDBACK]

Because we are talking about one tiger, you add /z/ sound at the action word. [RULE] Good job.



Explicit Instruction

Principle into Practice:

Child: Does people fall into the hole a lot?

Interventionist:

Oops, if we are talking about people, more than one person, you have to ask the question with "do." [RULE]

Child: Do people fall into the hole a lot?

Interventionist:

Yeah, do people fall into the lab a lot? [RECAST] Very good [FEEDBACK]

Child: No, they do not!

Interventionist:

They do not. You are right. Does that happen? [MODEL - Original target verb] No it does not!



Explicit Instruction

Principle into Practice:

Child: Does switches activate the big machine?

Interventionist:

Oh, that was close. [FEEDBACK] How many switches do we have? One, two, three. So we have more than one switch, you have to ask with "do." [RULE]

Do switches start the machine? [MODEL]

Child: Do switches start the machine?

Interventionist:

Do switches start the machine? [RECAST] Yep, that's right [FEEDBACK]

Child: Haha, NO!



Explicit Instruction

Principle into Practice:

Interventionist:

What did the van do at the busy street? [PROMPT]

Child: They turn.

Interventionist: They turned. [MODEL] Let me hear that one more time. I want to hear the /d/ sound after the action word. [FEEDBACK]

Child: They turned.

Interventionist: They turned. [RECAST] Good job. [FEEDBACK]
We need that extra /d/ sound after the word turn because it already happened. [RULE]

Explicit Instruction

Principle into Practice:

Interventionist:

Then, what did they do at the river? [PROMPT]

Child: Them crossed the river.

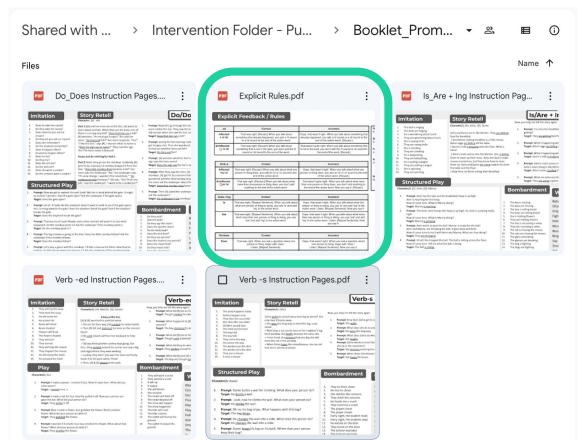
Interventionist:

Umhmm, they crossed the river. [RECAST] That's right. [FEEDBACK]

For that one, you added the /d/ sound after the word cross because it already happened. [RULE]



Explicit Instruction



Explicit Instruction

Explicit Feedback / Rules

-ed	Correct	Incorrect
Inflected + /t/ /d/	That was right. [Recast.] When you talk about something that already happened, you add a /t/ sound or a /d/ sound to the end of the action word.	Oops, that wasn't right. When you talk about something that already happened, you add a /t/ sound or a /d/ sound to the end of the action word. [Recast.]
Uninflected \(\sqrt{t} / td/	That was right. [Recast.] When you talk about something that is not in the past, you don't add the /t/ sound or /d/ sound to the end of the word.	That wasn't quite right. When you talk about something that is not in the past, you don't add the /t/ sound or /d/ sound to the end of the word. [Recast.]

Verb -s	Correct	Incorrect
Inflected +/s/ /z/	That was right. [Recast.] When you talk about what one person or thing does, you add an /s/ or /z/ sound to the end of the action word.	Oops, that wasn't right. When you talk about what one person or thing does, you add an /s/ or /z/ sound to the end of the action word. [Recast.]
Uninflected	That was right. [Recast.] When you talk about what more than one person or thing does, you don't add anything to the end of the action word.	That wasn't quite right. When you talk about what more than one person or thing does, you don't add anything to the end of the action word. Now you say it. [Recast.]

Is/are +ing	Correct	Incorrect
Is	That was right. [Repeat Sentence]. When you talk about what one person or thing is doing, you use 'is' and add 'ing' to the action word.	Oops, that wasn't right. When you talk about what one person or thing is doing, you use 'is' and add 'ing' to the action word. Listen: [Repeat Sentence]. Now you say it.
Are	That was right. [Repeat Sentence]. When you talk about what more than one person or thing is doing, you use 'are' and add 'ing' to the action word.	Oops, that wasn't right. When you talk about what more than one person or thing is doing, you use 'are' and add 'ing' to the action word. Listen: [Repeat Sentence]. Now you say it.

Do/does	Correct	Incorrect
Does	That was right. When you ask a question about one person or thing, begin with 'does.' Listen: [Repeat Sentence].	Oops, that wasn't right. When you ask a question about one person or thing, begin with 'does." Listen: [Repeat Sentence]. Now you say it.
Do	That was right. When you ask about more than one person or thing begin with 'do.' Listen: [Repeat Sentence].	Oops, that wasn't right. When you ask about more than one person or thing begin with 'do.' Listen: [Repeat Sentence]. Now you say it.







Intervention Materials https://www.finestackclil.com/resources/

VERBS MATTER!

Frequency & Phonological Complexity https://conservancy.umn.edu/handle/11299/241882





Today's Objectives

At the conclusion of the session, participants will be able to:





Identify evidence-based principles that can be used to guide intervention targeting grammatical verb forms.



Integrate knowledge of principles into intervention sessions that target different grammatical verb forms.



Describe four different activities that may be used when targeting grammatical verb forms.

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Resources

Intervention Materials https://www.finestackclil.com/resources/



VERBS MATTER!

Frequency & Phonological Complexity https://conservancy.umn.edu/handle/11299/2 41882



Lots of Verbs! Think about Complexity Think about Sentence Structure **Use Auditory Bombardment** Use Explicit Instruction

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