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Pinches of SALT



mini-lessons in Language Sample Analysis
for the busy clinician.

This Lesson: Identifying Dependent Clauses (to calculate clausal density)

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(MW)

IDENTIFYING DEPENDENT CLAUSES



In this lesson we will cover:



1. Why do we want to know about complex language?
2. How to identify three types of dependent clauses.
3. How to calculate clausal density.
4. Test your knowledge!



Time to complete:
10 minutes max.



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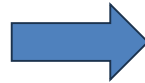
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COMPLEX SENTENCES:

"Complex thought drives the development of complex language"
(Nippold et al., 2005)

- Children start using complex sentences by 3 or 4 years of age!
- Clausal density is a key marker of later syntactic development.
- Children with DLD may have specific difficulty producing complex sentences.
- Language sample analysis can show us how the child constructs sentences.

Let's keep it simple!



View the mini-lesson on Communication Units if you need a refresher.

Steps:

1. Identify communication units (independent clauses with their modifiers).
2. Check for the use of finite dependent / subordinate clauses.



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Let's use Nippold et al.'s (2005) coding procedure

Only code **finite dependent clauses** (i.e. clauses that contain a subject and a predicate).

Code the following three types of dependent clauses:

1. Relative clauses – act like an adjective and modifies the noun that precedes it.
2. Adverbial clauses – act like an adverb and modifies a verb. It often describes a condition or verb and begins with a subordinating conjunction.
3. Nominal clauses – can serve as either the subject of the sentence or its object – they often begin with wh- words.



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RELATIVE CLAUSES

[IC]= Independent clause. [RC] = relative clause

NO	Child utterance	Explanation
1	But we have to hit the person [IC] who's doing that [RC].	Describes the noun 'person'
2	And he brings me to all the games [IC] that I can go to [RC].	Describes the noun: 'games'.
3	And you've got lines [IC] where you're allowed to go up to [RC].	Describes the noun: 'lines'.

(examples from an expository task – explaining the rules of a game or sport).



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ADVERBIAL CLAUSES

[IC]= Independent clause. [AVC] = Adverbial clause

It is important to differentiate between coordinating and subordinating conjunctions (see C-Units mini-lesson if needed)

NO	Child utterance	Explanation
1	And if they get the highest number [AVC] when the game's finished [AVC], they win [IC]	If and when are subordinating conjunctions
2	And then once you've done that [AVC], we pull out the blue mats [IC]	Once is subordinating
3	And if you remember that [AVC] and you don't get hit [AVC], you win the game [IC].	If is subordinating.

(examples from an expository task – explaining the rules of a game or sport).



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NOMINAL CLAUSES – replace the subject or the object in the sentence

[IC]= Independent clause. [NOM] = Nominal clause

NO	Child utterance	Explanation
1	And whoever gets the ball [NOM], gets to start with the ball in the centre [IC].	Serves as the subject.
2	And that's [IC] how they lose the game sometimes [NOM]	Serves as the object.
3	And whoever finishes all their beads [NOM] wins [IC].	Serves as the subject.

(examples from an expository task – explaining the rules of a game or sport).



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How to calculate clausal density

Simple!

- The average number of clauses (main and subordinate) per C-unit (e.g., 60 clauses / 50 C-units = 1.2)
- So count the total number of clauses and divide by the number of C-Units.
- We expect this to increase gradually from 1.22 in grade 3 to 1.59 by grade 11.
- The steepest increase is seen in the use of relative clauses (Nippold et al. 2005).



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TEST YOUR KNOWLEDGE

	Utterance	Type of dependent clause/s?
1	The girl woke up when she heard a noise outside	
2	The cat that was sleeping on the couch was tired.	
3	Unless you do your homework, you are not allowed to go outside.	
4	My mother who is the principal of my school takes me to school when it's raining	
5	I told her what she needed to hear.	
6	I never know who I should invite to my birthday party!	
7	A draw is when you both score 9 goals.	
8	I love sleeping in when it's winter.	



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ANSWERS

	Utterance	Type/s of dependent clause/s?
1	The girl woke up when she heard a noise outside	AVC (when is subordinating_
2	The cat that was sleeping on the couch was tired.	REL (tells us more about the cat)
3	Unless you do your homework, you are not allowed to go outside.	AVC (unless)
4	My mother who is the principal of my school takes me to school when it's raining	REL and AVC
5	I told her what she needed to hear.	NOM (object)
6	I never know who I should invite to my birthday party!	NOM (object)
7	A draw is when you both score 9 goals.	NOM (object)
8	I love sleeping in when it's winter.	AVC (when)



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DID YOU KNOW?



The language sample elicitation context will influence the child's use of more complex syntactic structures. For example:

- Children (ages 7 to 17) produced more complex sentences in an expository retell condition compared to a generation condition (Westerveld & Moran, 2012).

More cognitively challenging tasks are more likely to elicit more complex language. For example:

- Children, adolescents, and adults (ages 7 to 49) were more likely to use dependent clauses in expository than in conversational discourse (Nippold et al., 2005).



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FOR MORE INFORMATION

For a copy of the slides visit my website (navigate to E-learning):

<https://marleenwesterveld.com/pinches-of-salt/>

All 'pinches of SALT' will be posted on YouTube:

<http://www.youtube.com/@MarleenWesterveldSLP>

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