

Supporting Language Development in Young Children

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<https://www.sprache-spiel-natur.de/>



Overview

- Stages of language development
- Universal properties of child-directed speech
- Intercultural variation
- Corrections
- Providing Good Input
- Multilingualism
- Education for Sustainable Development
- Combining Language Education with Education for Sustainable Development

Stages of Language Acquisition

Language Stage

Crying

Cooing

Babbling

Intonation patterns

1-word utterances

2-word utterances

Word inflections (*walk-**ed**, car-**s***)

Questions, negatives

Rare or complex constructions

Mature speech

Beginning age

Birth

6 weeks

6 months

8 months

1 year

18 months

2 years

2¼ years

5 years

10 years

- These numbers are averages!
- Children's language development can vary depending on a range of factors, including physical health at the time or changes in the environment or the (amount) of input.



3 Months

- Smiling when parents appear
- Cooing
- Knowing parents' voice
- Different cries for different needs

6 Months

- Gurgling sounds
- Babbling
- Looking toward sounds.
- Responding to music and changes in the tone of voices

12 Months

- Mimicking speech sounds
- First words (typically familiar people, toys or objects)
- Understanding simple commands and requests
- Turn to other speakers

24 Months

- Producing about 50 different words (and understanding more)
- Word combinations (two-word stage)
- Answering questions
- Understandable to caregivers about half of the time

Universal Properties of Child-Directed Speech, I

O'Grady (1997: 250)

- Exaggerated intonation and stress patterns
- High and varied pitch
 - Attention grabbing
- Slow, with longer pauses between utterances and after words
- Fewer disfluencies than in adult-adult speech (1 vs. 4.5 disfluencies per 1000 words)
 - Easy to segment into words

Universal Properties of Child-Directed Speech

O'Grady (1997: 250)

- Restricted vocabulary
- Reference mostly restricted to here and now
 - Easier to learn words for concrete objects
- Short, typically not syntactically complex, but mostly correct and complete utterances
- More imperative and questions than in adult-adult speech, i.e. more variation in word order patterns
- More repetitions than in adult-adult speech
 - Easier to learn basic grammar

Repetition and Variation: Variation Sets

Variation sets are series of adult utterances with a common theme and a constant intention, but variation in form:

- adding or deleting a word or phrase,
- replacing one word with another,
- changing the word order, etc.

(Eisenbeiss 2003, Küntay/Slobin 1996, Slobin et al. 2010)

<https://childdirectedspeech.wordpress.com/books-and-articles/self-repetition-and-variation-sets-in-cds/>



English Variation Set (Slobin et al. 2011)

	<u>VERB</u>	<i>OBJECT</i>	GOAL	
1 let's	<u>put</u>	<i>J's bottles</i>	in the refrigerator	
2 want to	<u>put</u>	<i>them</i>	in the refrigerator	with me
3 let's	<u>put</u>	<i>J's bottles</i>	in the refrigerator	
4 we'll	<u>put</u>	<i>it</i>	in the refrigerator	
5 let's	<u>put</u>	<i>it</i>	in the refrigerator	
6 we'll	<u>put</u>	<i>it</i>	in the refrigerator	
7 you can	<u>put</u>	<i>it</i>	in	
8 I'll let you	<u>put</u>	<i>it</i>	in	yourself
9 you	<u>put</u>	<i>it</i>	right in	
10 you	<u>put</u>	<i>it</i>	in there	
11	<u>put</u>	<i>it</i>	right in the refrigerator	

How could Variation Sets Support Learning?

Variation sets provide clues about the target language:

- adding or deleting a word or phrase
=> which elements can be omitted?
- replacing one word with another
=> which types of elements fulfill similar functions?
- changing the word order, etc.
=> which word order variations are possible?

The Frequency of Variation Sets

- In the Turkish data analysed by Slobin & Küntay (1996), about 25-30% of child-directed utterances occurred in variation sets.
- On average, variation sets were 3 sentences long (range 2-25).
- Similar frequencies were found for other languages.
- The frequency decreases when children get older.

Universality of Variation Sets

Variation sets have been documented for:

- English
- Turkish
- German
- Hindi
- Russian
- Tzeltal (Mayan language)
- Qaqet (Papua New Guinea)

...

<https://childdirectedspeech.wordpress.com/books-and-articles/self-repetition-and-variation-sets-in-cds/>



Variation Sets for a UK infant (9 months)

https://childdirectedspeech.wordpress.com/2015/10/02/childdirectedspeech-nurseryrhymes-slides-of-talk-at-uni_of_essex-language-computation-day-nlproc/

Repetition/variation types used per hour

	Immediate	Within 1 minute	Total
Repetition	18.35	18.17	36.51
Expansion	8.26	.73	8.99
Reduction	6.42	.18	6.61
Overlap	26.79	3.49	30.28
Total	59.82	22.57	82.39

Both repetition and variation play a role, even though the child is very young and cannot answer questions or follow commands

Repetitions per hour

	Immediate	Within 1 min	Total
Nurs. Rh.	2.57	12.29	14.86
Other	15.78	5.87	21.65
Total	18.35	18.17	36.51

Nursery rhymes contained 23 instances of immediate overlap that were repeated within a minute; e.g. the refrain "*Fly away Peter! Fly away Paul!*". This refrain-based pattern did not appear in spoken speech.

Intercultural Variation

- Amount of input from adults vs. older children
- Role of fathers
- Use of special baby words
- Attitudes to and use of special language teaching strategies
- Amount of time spent facing children and showing objects to them, depending on whether children are carried on the backs of mothers, etc.
- Degree of language mixing and code switching in the input
- Proportion of interactions between two people vs. multiple people

Qaqet (Papua New Guinea): Language Mixing

(Eisenbeiß, Schippling, Hellwig 2018)

Mother	FAP (2;04)		
ulu, ulu, ah? ai, i holim bek, na kek ya	kek ya	au, amakekiara, luqiara, luqiara	kek?
kek, iv utes	ah?	ee, em ya, okay, emia ya, luqiara	ai
luqaira, ivutes	luaia?	na.. tupela wanem?	ai aivipki
mh	pis	lusim	nna?
na nyilu	ah?	tupela rat, kek, nyinyim	nana?

Qaqet
Tok Pisin
 either language

Qaqet: Multiple Participants

(Eisenbeiß, Hellwig, Frye 2018)

Speaker	Addressee	Translation
mother	ZJS (5;08); ZFI (teen)	you two get up and go to get lime
mother	ZJS (5;08)	ZJS, go and tell papa..
mother	ZFI (teen)	hey, sit down over here, you're disturbing the thingy
ZFI (teen)	mother	sorry
mother	ZDL (2;00)	come sit down
ZFI (teen)	ZJS (5;08)	hey
mother	ZJS (5;08)	ZJS, go and ask papa for lime
ZFI (teen)	ZJS (5;08)	you almost crushed the thingy
mother	ZJS (5;08)	and a betelnut
ZDL (2;00)	mother	house
mother	ZDL (2;00)	sit down and look at the parrot up there

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ZFI (teen)	ZJS (5;08)	you almost crushed the thingy

Should you correct? How?

- Explicit corrections like „no, we don't say xxx“
 - Disrupt the flow of speech
 - Can be discouraging
 - Are often not taken up
- Implicit corrections can be helpful
 - Expand utterances with omissions: CHI: *teddy cry* PAR: *Oh, the teddy is crying*
 - Replace incorrect forms and repeat correct forms several times:
 - Create more contexts for „practice“ and feedback
 - CHI: *Sue singed*
 - PAR: *Yes, Sue sang really loudly, and she sang so beautifully.*
 - PAR: *Who else sang?*

Explicit corrections do not work when the child is not ready... (McNeil1 1966, p. 69)

- Child: Nobody don't like me.
- Adult: No. say "nobody likes me."
- Child: Nobody don't like me.
- [Eight repetitions of this dialogue follow.]
- Adult: No, now listen carefully, say "NOBODY LIKES ME."
- Child: Oh! Nobody don't likes me.

A German Example (Miller 1973)

F: Wem gehört der Löffel?

Whom does the spoon belong to?

F: Wem gehört der Löffel?

Whom does the spoon belong to?

F: Wem gehört der Löffel?

Whom does the spoon belong to?

F: Mir. Wem gehört der Löffel?

To me. Whom does the spoon belong to?

F: Wem gehört der Löffel?

Whom does the spoon belong to?

F: Mir. Und das bist Du. ne?

To me. And that is you, huh?

F: Wem gehört der Löffel?

Whom does the spoon belong to?

Simone: *ich.

I.

S: * ich. ja.

I. Yes

S: * ich.

I.

S: mir.

To me.

S: mir.

To me.

S: ja. gehört mir.(...)

Yes. Belongs to me.

S: * ich.

I.

.....



How can you Provide Good Input?

- Child-directed speech with its special sound and structural properties is helpful.
- Special babywords and teaching strategies are not universal and not necessary.
- Grammatical variation (statements, questions, requests, commands ...) is informative.
- Open questions and „tell me about“-requests are particularly helpful as they give children a chance to say more than „yes“ or „no“.
- Repetition and variation strengthen memory traces and provide informative contrasts:
 - Repeat and expand short utterances.
 - Create an environment with contrasts that encourage everyone to repeat/vary:
 - *Do you want the yellow shovel or do you want to have the black shovel?*
 - *Can you put this one on the big table and that one on the small table?*
- Use implicit rather than explicit corrections.



Multilingualism

<https://www.mercator-institut-sprachfoerderung.de/de/themenportal/thema/faktencheck-mehrsprachigkeit-in-kita-und-schule/>

- Multilingualism is the norm around the world.
- Multilingual children are not confused by hearing and using several languages.
- Switching between several languages is not a sign of confusion, but a sign of being able to use all linguistic resources in one's repertoire.
- Multilingual children develop better language awareness as they experience contrasts between languages (Torregrossa, Eisenbeiß, Bongartz 2022).
- Growing up with more than one language removes some emotional barriers towards language learning: They have experienced that they can do it.
- There is no evidence that you need to follow a one-person-one-language approach.
- It is recommended that parents speak to children in their own dominant language.
- Speaking to children in the education/school language even when it is not a language you speak well is not recommended.



BNE: Bildung für nachhaltige Entwicklung

Education for sustainable Development

<https://www.sprache-spiel-natur.de/2021/01/16/online-ressourcen-fuer-sprachsensibel-gestaltete-materialien-zur-bildung-fuer-nachhaltige-entwicklung-bne/>



Sprachspinat - Language Spinach?

Sprache + Spiel + Natur

Language + Play + Nature



Designing a Sprachspinat-Garden

<https://www.sprache-spiel-natur.de/2020/12/01/der-sprachspinat-garten-spielerische-sprachbildung-sprachfoerderung-naturbildung-und-bildung-fuer-nachhaltige-entwicklung/>

- a toolkit for educational activities in any setting
 - private garden , school, community garden, living room etc.
- 3 plant lists for playful learning about language & nature
- 1 tutorial for a plant box with built-in worm compost "tower"
- 1 set of teaching materials and information about the 5 Rs:
 - Refuse, Reduce, Reuse, Recycle, Rot (= compost)



Implementing the Sprachspinat-Garden Concept

- Sharing Materials via a website/blog:

<https://www.sprache-spiel-natur.de/>

- Plantings at a [Youth Center](#) and at the [Zentrum für Lehrer:innenbildung](#)

- Workshops, seminars, and other events (University of Cologne, TH Cologne, [VHS](#))



Wopf: A Word Plant List

<http://www.sprache-spiel-natur.de/tag/wopf/>

- plant names containing every-day words:
 - *Frauen-mantel* (Lady's mantle)
 - *Löwen-zahn* ("Lion's tooth" = dandelion)
- aims:
 - building up the lexicon
 - learning about biodiversity & our relationship to nature



Wopf: Some Activities

- selecting plants & planting
- researching origin of plant names
- search & find games in the garden
- labeling plants
- cross-linguistic comparisons
- ...



Wofopf: A Word Form Plant List

<https://www.sprache-spiel-natur.de/2020/12/20/sensorischer-kuechen-garten-wofopf-wortform-pflanzen-liste-sprachbildung-sprachfoerderung-natur-bildung-nachhaltigkeit/>

- compound plant names involving:

Zitrone (lemon), *Basilikum* (basil),

Minze (mint), *Thymian* (thyme),

➤ *Zitronenmelisse* (lemon balm),

Zitronen-Basilikum (lemon basil)

- aims:

- learning about word structure & creating new words

- learning about biodiversity, food (miles)



Wofopf: Some Activities

- sensory play
- cooking
- creating new names & finding out whether they exist already (licorice basil?)
- swapping places within words (*mint chocolate* vs. *chocolate mint*)



Wokopf: A Word-Combination Plant List

<http://www.sprache-spiel-natur.de/tag/wokopf/>

- drought-resistant stonecrop plants (Crassulaceae)

- *Reichblühendes Fettblatt*

- ("richly blooming fat leaf")

- *Weißblühender Rotmoos-Mauerpfeffer*

- ("richly blooming red moss wall pepper")

- aims:

- learning about phrases and grammar

- learning about our climate change and biodiversity



Wokopf: Some Activities

- hide-and-seek toys in the garden
with verbal instructions
- sensory play
- experimenting with watering systems
- researching climate-adaptation of plants
- fitting plants into botanical taxonomies
(with gamification elements)



The Wupf - Worm Plant Box

<https://www.sprache-spiel-natur.de/2021/08/07/wurmkompost-faq/>

- a plant box with a built-in worm compost "tower"
- aims:
 - learning to talk about space, time, color, size
 - learning about soil and the circle of life



Farbadjektive: *rot, orange*
Größenadjektive: *klein, groß*

Adverbien: *oben/unten*
Zahlwörter: *eins, zwei*



Wupf: Some Activities

- building a plant box
- building a worm compost "tower"
- planting up the box
- "decorating" the box
- discussing soil and the circle of life



Farbadjektive: *rot, orange*
Größenadjektive: *klein, groß*

Adverbien: *oben/unten*
Zahlwörter: *eins, zwei*



The 5 R Box: Information about Sustainability

- The 5 Rs:
 - Reduce
 - Reuse
 - Recycle
 - Rot (compost)
- aims:
 - learning to use (modal) auxiliaries
 - learning about sustainable production and consumption



The 5 R Box: Some Activities

- Discussing the 5 Rs and what one could/should/must (not) do ...
- applying the 5 Rs:
 - indoors
 - in the garden
 - when creating the Wupf-box



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