

Language development methods

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Structure of the module

Topics of the theory class

- ❑ Acquisition of phonemes and phonetic rules in L1 and L2
- ❑ Lexical development in L1
- ❑ Morphological development in L1
- ❑ Syntactic development L1
- ❑ Errors in L2
- ❑ The critical period hypothesis
- ❑ Non-linguistics aspects of L2
- ❑ Differences between L1 and L2
- ❑ Theories of L1 and L2 acquisition
- ❑ etc.

Topics of the methods class

- ❑ Work with child language corpora, i.e. introduction to CHILDES
- ❑ Design of an experimental study
- ❑ Design of a questionnaire study
- ❑ Structure of an empirical research paper
- ❑ Some basic aspects of quantitative data presentation and analysis
- ❑ etc.

Requirements

1. Empirical research paper

- ❑ Analysis of L1 or L2 corpus data
- ❑ Off-line experiment with L2 (or L1) learners
- ❑ Questionnaire study with L2 learner
- ❑ Theoretical paper (only LA students of theory class)

2. Questionnaire / experimental study on an aspects of L2 acquisition and PPP presentation in class

3. A few very short assignments

4. A few readings

-> Syllabus

Goals of L1 and L2 acquisition research

What do researchers of L1 and L2 acquisition want to find out?

- ❑ When do children learn their first words, verb inflection, grammatical categories?
- ❑ How does the development proceed? -> Linear development, exponential development, cumulative learning vs. restructuring, etc.?
- ❑ What kind of errors occur in L1 and L2 acquisition? What do these errors reveal about the process of L1 and L2 acquisition?
- ❑ What are the social and cognitive prerequisites of L1 acquisition?
- ❑ What is the influence of the native language on L2 acquisition?
- ❑ Are there differences between L1 and L2 acquisition?
- ❑ Is there a critical period of L1 acquisition?
- ❑ Does bilingualism influence language acquisition?
- ❑ Is language acquisition genetically prespecified? Nature vs. nurture
- ❑ What does the process of language acquisition tell us about the organization of the linguistic system, notably grammar?

Planning an empirical investigation

How do we investigate these questions?

- Read literature
- Look at data
- State a hypothesis
- Find an adequate methodology

Five phases of an empirical investigation:

- Explorative phase
- Theoretical phase
- Planning phase
- Data collection
- Data analysis

Explorative phase

Literature search:

- ❑ Library catalogue
- ❑ Internet search
- ❑ Particular bibliographies
- ❑ References in recent authoritative articles
- ❑ Homepage of people who are known for their research of a particular topic

Explorative phase

Impressionistic analysis of observational data:

From file <adam43.cha>

- *CHI: oh # Mommy # I think I have +...
- *CHI: I think I've [=? I] finished with that .
- *CHI: I think I've [=? I] finished # Mommy .
- *CHI: think Robin uses those .
- *CHI: I think we finished with all dose .
- *CHI: I think we finished .
- *CHI: Mom # I think we really [?] finished .
- *CHI: I think I got it .
- *CHI: I don't think I have it in de right way .
- *CHI: I think I do it the other # way .
- *CHI: I think I finished playing with this .
- *CHI: I think this bag has a top .
- *CHI: I think I use this for paper .

Explorative phase

Informal pretest:

An experimental and a questionnaire study always starts with an informal pretest, also called a pilot study.

Theoretical phase

In the theoretical phase you formulate your hypotheses:

- ❑ Define the goal of your study and state a precise hypothesis
- ❑ Is your hypothesis falsifiable in the planned investigation?
- ❑ Is your hypothesis consistent with previous findings in the literature?

Planning phase

Select a method:

- Observational or experimental study
- What kind of observational data? (e.g. longitudinal vs. cross-sectional)
- What kind of experiment? (e.g. comprehension vs. production)
- How do you select your subject? (random sampling, stratified sampling)
- How time-consuming or expensive is the methodological approach?

Planning phase

Define and operationalize your variables:

- (1)
 - a. When we arrived in Berlin it was dark.
 - b. It was dark when we arrived in Berlin.
- (2)
 - a. Because it rained we stayed at home.
 - b. We stayed at home because it rained.

Predictor variables:

- The meaning of the adverbial clause
- The length of the adverbial clause
- The occurrence of the same subject in main and subordinate clause
- Intonation: bound / unbound

Planning phase

How do you measure these variables:

- ❑ Meaning of adverbial clause: Naïve coder
- ❑ Length of the adverbial clause: words, phrases, utterance time
- ❑ The occurrence of the same/different subject: define same vs. different
- ❑ Intonation: impressionistically with Praat

	Meaning	Percentage	Length (words)	Same Subject	Bound
Initial	Conditional	73.0	4,1	45.3	91.9
	Causal	5.1	4,3	22.3	85.1
	Temporal	53.7	3,7	56.7	89.9
Final	Conditional	27.0	6,7	12,0	50,1
	Causal	95.8	7,5	17,9	37,0
	Temporal	46.3	5,7	22,0	54,2

Planning phase

Select the appropriate statistical method:

- Type of data (nominal, ordinal, interval)
- Type of hypothesis (difference between groups, correlation)
- Experimental design (related vs. independent)
- Data distribution (normal vs. not normal)
- Number of items and number of subjects

Data collection

Experimental and questionnaire study: Run the study after an informal pretest. Don't change the procedure in the course of the study!!!

Observational study: Develop a precise coding scheme before you analyze the entire data. If you realize that the coding schema has some shortcomings, you can change it. But if you change the coding scheme you have to revise your previous codings!!!

Analysis

Once the data are collected, they are analyzed with specific methods

- ❑ Descriptive methods
- ❑ Statistical methods