

# The impact of siblings vs. peers on the German language acquisition of Viennese bilingual children

## PROJECT AIMS & RELEVANCE

The aim of this research project is to investigate the influence of siblings and peers on children's language acquisition, focusing on lexicon acquisition, grammar, pragmatics and reading. The project will show, what impact siblings and peers have on kindergarten and elementary school children as well as why and how the variables of sibling and peer impact should be considered in educational programs. It will be discussed, for example, whether it is good practice to separate siblings in kindergarten and school classes and whether children of different ages should be in the same class together.

## RESEARCH QUESTIONS

**RQ1:** What is the impact of siblings on Viennese children's (second) language acquisition in bilingual vs. monolingual families?

**RQ2:** What is the impact of siblings vs. peers on Viennese (bilingual) children's (second) language acquisition?

## HYPOTHESES RQ1

### Lexicon:

- Firstborn monolinguals show better receptive and productive vocabulary skills than later born children before they reach the 50-word milestone [1]
- There are no birth order effects for children's vocabulary skills after reaching the 50-word milestone [1], [2]
- Later born monolinguals have an advantage in the acquisition of pronouns and verbal prefixes compared to firstborns [2], [3]

### Grammar:

- Monolingual firstborn children show better grammatic skills than monolingual later born children [4]
- Bilingual children either show no birth order effects [4] or bilinguals with school-aged older siblings show better second language skills [5]

### Pragmatics:

- Older siblings play an important role in the pragmatic development of preschool-aged monolinguals [6], [7]
- Successive bilinguals with older siblings hear their second language more often than bilinguals without older siblings and thus show better second language skills [5], [8]

### Reading:

- Engaging in literacy practices is beneficial to younger and older siblings [9], [10]
- The number of siblings has a negative effect on reading skills [11]
- Sibling gender has no influence on reading practices [11]

## HYPOTHESES RQ2

- Children who spend more time with their siblings than with peers show better language skills than children who spend more time with their peers than with their siblings. They also have better German grades at school [12], [13]
- The impact of siblings on (second) language acquisition is rated as more influential by children and their parents than the impact of peers

## RESEARCH METHODS

Spontaneous speech samples and different test data collected during the INPUT project (lead: Prof. W. U. Dressler) and its follow-up project (lead: Dr. K. Korecky-Kröll & Dr. V. Blaschitz) will be analysed using the computer program CLAN [14]. In addition, new data will be collected from the same children and their parents.

**Existing data:** During the INPUT-project multiple spontaneous speech samples (audio and video) were recorded of each child at four different points in time in kindergarten and at home. 30 minutes of each recording were chosen and transcribed following the CHAT (Codes for the Human Analysis of Transcripts) format. Data was coded using the computer program CLAN (Computerized Language Analysis). In addition to the spontaneous speech samples, different linguistic tests were administered. During the follow up project the children were interviewed at home (semi-spontaneous speech samples) and some new tests were administered (e.g. reading).

**New data:** Another follow-up study will be conducted by Laura Fischer with the same children (around age 12) and their parents. The study will consist of a guided interview with the children and an online survey with the parents.

**Participants:** 58 children participated in the INPUT project, 56 of them will be analysed for this research project (ages 3;1 to 4;8). 29 of the participants are monolingual children with German as their first language and 27 are successive bilinguals with Turkish as their home language and German as their second language. During the follow-up project 16 monolingual and 10 bilingual children were recorded again in elementary school (mean age 8;5). It is not foreseeable how many children will agree to take part in yet another follow up study.

**Analyses:** The following sibling variables will be analysed: Birth order, family size, age spacing, sibling gender and having a twin. The following language variables will be analysed: Lexicon (Lemmas, Types, Tokens, PPVT-4, lexical diversity, MLU), grammar (LiSe-DaZ, plural elicitation task), pragmatics (encouragements, discouragements, requests, narration), reading (comprehension, fluency). Depending on the distribution of variables within the groups of comparison either a statistical or descriptive analysis will be applied. For the statistic measures the free statistics software R Studio will be used.

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