

Research show that encouraging children to use gestures in interaction is beneficial to vocabulary acquisition, (McGregor et al. 2009, Dimitrova et al. 2016), speech fluency (Rauscher et al. 1996, Goldin-Meadow 1998), grammatical structure comprehension (e.g. negation: Harisson 2009), or even problem-solving (e.g. ASD: Medeiros and Winsler, 2014). However, there has been no attempt at analysis of gestural repertoire collected from a population of Polish children, even though the knowledge derived from it can be helpful in early diagnosis of e.g. Autism Spectrum Disorder (ASD) (Ingerson & Lalonde 2010, Watson et al. 2013), or used as a tool by teachers and therapists working with children with language delays (Singleton & Saks 2015). The goal of the project is twofold: (1) to create a database of co-speech gestures used by children between 3 and 5 years of age; and (2) to see whether the number and versatility of gestures performed by toddlers in two types of facilities: a public kindergarten and a private kindergarten based on alternative teaching methods (here: Montessori) differ. The idea cuts across the latest linguistic research related to gesture analysis and semiotic studies.

In my hypothesis I focus on the use of gestures in communication, that I define following David McNeill (1992) as „hands and arms movements that achieve some communicative end”. I claim that children who attend the alternative kindergarten, due to the highly self-reliant and widely sensory form of classes and teaching methods, will present a wider spectrum of gestures and will additionally use them more often in communication with others, compared to the children from public facilities.

For my design, I chose longitudinal study (2 points in time for data collection) with naturalistic observation, in which I gather videomaterial of children at play in the kindergarten environment - the environment which brings many interactions with others. To supply my understanding of their development, I may use several measures, such as IRMiK SiZ test for toddlers, MLU measure, and TSN-M test for children, as well as gather socioeconomic data on the families. The videodata is estimated at 8-12 hours for each facility at two points in time: when children start their formal education there and after 9 months. All of the data will be collected upon an approval of an ethics committee. The data will be coded in a video-annotation programme ELAN and analysed both qualitatively and quantitatively.

Reaching the research objectives will help me answer the questions (i) what does the gestural repertoire look like in Polish children between 3 and 5 years old; (ii) whether the choice of teaching method influences the gestural development of children; and stress (iii) why should we pay more attention to the link between language and gesture in the educational programmes.

#### Expected results

1. Conducting a basic research on gestures in the communication of Polish toddlers.
2. Creating a database on gestural repertoire of Polish toddlers for the international linguistic debate.
3. Drawing attention of the scholarly community in Poland to the importance of gesture studies.
4. Informing international audience about the results of the research in the form of conference presentations, poster presentations, and paper publications
5. Providing answer to the question whether there may exist a link between teaching methods and gestural development in children.