

## **Objective of the project**

The aim of the project is to scientifically describe the reading process of deaf or hard of hearing children in comparison to hearing children. We will focus on characteristics of reading captions while watching audio-visual materials. Additionally, we will estimate whether adding of captions fosters new vocabulary learning by deaf and hard of hearing children.

It may be surprising that for deaf or hard of hearing people, Polish is actually a foreign language. Inability to hear the language creates enormous difficulties in the language acquisition. Deaf people are struggling with learning words, understanding of grammar rules and complex sentences. Sign language is very often the first language for deaf people, which result in limiting social interactions to other deaf or hard of hearing people. Being part of the popular culture in Poland requires knowing Polish. That is why it is extremely important to expose deaf and hard of hearing children to Polish language.

One of the ways to help hearing impaired children to learn Polish might be by captioning video materials for children. In this way children may automatically learn new vocabulary and have the access to the material in which the vision is joined with a written word.

## **Research**

The study will be performed by eye tracking, which allows to follow the movements of the eyes so that we know exactly what the participant is looking at and how the gaze is distributed between the picture, the captions and the lector of sign language. We can also know for example how big pupils are when the person looks at particular parts of the image and how long a person looks at different parts of the image. Thanks to that measurement we know what parts of the images are neglected and which of them require longer attention (longer fixations).

It is possible for example that hearing impaired children need to focus their attention longer on particular words in captions than hearing children, because reading is more difficult for them. However it is also possible that hearing impaired children may ignore captions or skip some words because they will be of too much difficulty.

To learn these differences, we will compare different ways of video display: with a sign language lector vs. sign language lector with captions vs. captions alone. We will be able to compare different ways of captions display and how hearing impaired children are able to focus their attention in different conditions. Additionally, we will also test whether adding captions will actually foster learning new Polish vocabulary by hearing impaired children, which may in future help children to learn a foreign Polish language.

## **Reasons for choosing the research topic**

I have chosen to do the study on this subject because hearing impaired children are a very rare group in this type of research. I think it is a great shame, because the earlier we can help children with reading process, the better chance of integration with healthy community they have. Integration to hearing community also allows being a more functional person in the adult life in terms of socializing, working and independency.

To know how to help children in reading process, we first need to know how they actually read. This project allows not only to scientifically describe the reading process by hearing impaired children, but also estimate whether adding captions to video materials will help them in learning new vocabulary.

Summing up, the project is important due to scientific aims about reading description, but also due to social aims about integration of disabled people into the community.