# Information letter

## Title of the study:

*Children with Cochlear Implants in Mainstream Educational Programs: Analysis of Acoustic and Linguistic Barriers to Inclusive Primary Education*

Dear parent(s),

We kindly ask your child to participate in a scientific study (see title). It is your decision whether your child takes part. Before you take that decision, it is important to know more about the study. Please read this information letter carefully.

If you have any unanswered questions after reading through this document, you can contact the researcher. You will find the contact details at the bottom of this letter.

1. What is the objective of the study?

With the introduction of the Appropriate Education Act (*Wet Passend Onderwijs*), an increasing number of children with cochlear implants will enter mainstream education. It is important that children with cochlear implants are able to do so successfully. That requires new and improved research into the linguistic and academic skills of these children and into the features of their new school environment which may support or hinder that entry.

The current study examines which factors support and which actually hinder the academic success of children with a cochlear implant. [fill in the relevant description of the subproject]

[1] Therefore, we will examine the acoustics of classrooms in mainstream primary education, as well as how those circumstances influence speech transfer, speech intelligibility and indirectly also the academic results of children with cochlear implants.

[2] Therefore, we will examine the influence of the grammatical complexity of spoken linguistic input (instructions), in particular in the presence of background noise as is common in mainstream classrooms.

[3] Therefore, the current study will examine if exercises in speech intelligibility will improve daily classroom situations. For those exercises we use materials that are used in speech/hearing rehabilitation.

1. What is expected of your child?

[fill in the relevant description of the subproject]

[1] For this study, we will collect a variety of data. Firstly, we will conduct a standard hearing test with beeps. We will also study your child’s speech intelligibility. We do this by asking your child to listen to numbers, words or sentences. Your child is asked to repeat them.

In addition, we will make a recording of the sounds and speech in class. Your child will wear a special vest to which a recording device has been fastened level with the chest. For part of the school day, this device will record the sounds and the speech that your child hears in class for a number of hours. That enables us to examine precisely what your child hears.

We will also ask your child’s teacher to fill in a questionnaire about your child’s listening behaviour in class. Finally, we would like to be given access to the pupil monitoring system for your child’s academic results of the current year. This does not require any action from your child.

[2] To test your child’s speech intelligibility, we will ask your child to listen to different sentences in Dutch. Your child will be asked to repeat these. We will also ask your child to conduct a number of simple tasks to gather information about your child’s working memory and attention.

[3] To be able to assess the effectiveness of the exercise material for speech intelligibility, we need the results of children who completed those exercises. The exercises consist of listening to spoken sentences. Your child will be monitored for a period of 9-12 weeks and within that period will do a series of exercises for 3-4 weeks. Your child’s skills will be tested at four moments in the exercise period.

1. What happens if your child does or does not want to take part in the study?

It is up to you whether your child takes part. Participation is voluntary. If you decide not to take part, you do not need to take any further action. If you do decide to participate, we would like to ask you to read the enclosed consent form, fill it in, sign it and return it to us. As stated on the consent form, your child can reconsider at any time, even during the study, and withdraw. There are no costs or compensation for taking part in this study.

1. What is done with my data and the research results?

All your child’s personal data is anonymized (based on codes) and stored separately from the research results, so that outsiders cannot link the two. Only authorized researchers have access to the data. The results from this study can be used for scientific purposes such as publications, conference presentations, etc. This is always done in an anonymized way.

1. Do you still have any unanswered questions?

You can find the contact details of the researcher here: