



THE RATIONALE AND DESIGN AND METHODS OF NEW STUDIES

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Project “Equalizing opportunities – raising competence of children with disabilities”

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ABSTRACT

The project will enable the use of the Tomatis therapy for children with central auditory processing disorders and the introduction of a proprietary curriculum preparing children to learn English in primary school – based on the method that streamlines the auditory analysis, on the proprietary language integration CDs used in the Tomatis method and on individual educational and therapeutic lessons with the teacher. The curriculum will be developed in the course of research under the guidance of prof. UM dr hab. Ewa Mojs from the Poznan University of Medical Sciences. The leader of the consortium implementing the project is the Foundation for Local Activity. The innovation has a high potential for implementation. Applicants to begin with estimate ultimately the ability to implement the program in the first year in 350 schools with the right equipment.

Keywords: Tomatis therapy for children, primary school.

General information

Project “Equalizing opportunities – raising competence of children with disabilities” was awarded a grant from The National Centre for Research and Development (Narodowe Centrum Badań i Rozwoju, NCBR) (grant number: IS-2/24). The project is run by a consortium that includes:

- Fundacja Aktywności Lokalnej (Foundation for Local Activity) – Consortium leader,
- Learn Up Sp. z o.o.,
- Poznan University of Medical Sciences.

The main project team consists of: prof. UM dr hab. Ewa Mojs (Project Manager), prof. dr hab. Włodzimierz Samborski and mgr Beata Marciniak.

Ethics

Bioethical Committee of Poznan University of Medical Sciences on 8th November, 2012 gave its approval for the project (number 882/10).

Project objectives and concept

The goal of the project is to develop and implement an innovative educational program that will help to prepare primary school pupils to learn English. The educational program is based on Tomatis Method – a method of sound sensory stimulation, authorial language recordings that are used in the Tomatis Method, and individual educational-therapeutic sessions. The program will be implemented in primary schools in Poland.

The Tomatis Method was created by Alfred Tomatis, a French otolaryngologist in the fifties of XX century [1, 2]. Alfred Tomatis was studying the relationship between the ear and the voice, and in extension, between listening and communication. His discoveries were summarised in three laws that explain the influence of listening and voice emission on behaviour and competences [2, 3]:

- the voice contains only these frequencies that ear can hear (the ear and the larynx are parts of the same neuronal loop),

- if hearing is modified, the voice is immediately and unconsciously modified,
- auditory stimulation undertaken over a certain time may result in permanent phonation transformation.

Tomatis Method is based on a distinction between hearing and listening [3, 4]. Hearing is a passive process of sound perception, that doesn't require conscious action. Listening, on the other hand, is a very active process, it consists of intentions, willingness and conscious focusing of attention. Listening is an ability that can be disrupted, disordered or lost, but also it can be regained. Listening deficits can be caused by medical and social factors, such as ear infections, head injuries, severe stress or trauma. Tomatis Method (via authorship rehabilitation device called the electronic ear) through direct influence on the middle ear adapts its efficiency which allows to open a specific frequency band that is optimal for information processing. Tomatis Method is used in rehabilitation of patients with such disorders as: ADHD, ADD, dysgraphia, dyslexia, autism and Asperger syndrome, stuttering or speech and language delay [4].

The project's main focus is on helping Polish primary school pupils to master English skills. Poland experiences problem with low level of foreign language skills in children and teenagers. This is especially important in regard to children with specific learning needs. According to European Survey on Language Competences (ESCL) from 2011 Polish pupils have one of the lowest levels of language competences in Europe. The project's goal is to develop an educational-therapeutic program that will help pupils in learning English by utilizing therapeutic effects of Tomatis Method.

Project plan

Task 1. Building and defining of research area

The goals of this task are: to gather and summarise up to date knowledge about modern methods of cognitive rehabilitation in children; performing preliminary quantitative study of 80 children (aged 6–11), 40 of which will have diagnosis of dyslexia. The study results will help to define and specify the research area. The initial level of language and other psychological skills of the research group will be determine.

Task 2. Test study

The main study of 80 children (aged 6–11) with normal intelligence level and auditory processing deficits. A subgroup of 40 children will be also diagnosed with

dyslexia. Clinical psychologist will examine children 4-months after implementation of educational-therapeutic program based on Tomatis Method (n = 80), and after simultaneous implementation of individual educational-therapeutic English sessions (only for 40 randomly selected participants).

Task 3. Final test study and development of application for school purposes

The goal is to evaluate the long term effectiveness of the educational-therapeutic program. The final psychological evaluations will be performed one year after the implementation of the program in the research group. This task consist also of a control group (n = 80) evaluation and its comparison to research group in the field of language skills. After the evaluation an application that can be used in terms of mass schools will be developed.

Task 4. Measures preparing for implementation of the program in schools

The project expects that the program may be implemented in 350 primary schools in Poland that already have the necessary equipment for Tomatis Method. To do so it is necessary to develop tools for teachers that will use this method. A vital part of this task will be creating an e-learning program, open to all interested, that will allow to explore the method and get to know how it may be used in teaching English.

Expected results

The project has high scientific value and it's a continuation of previous research made on Tomatis Method in Poznan University of Medical Sciences. The research results are expected to be implemented within one year from completion of the project. The project expects that the program should be fairly easily implemented in about 350 primary schools in Poland – the ones that already have the necessary equipment for Tomatis Method.

The project provides adequate solutions to target group's problems. The educational-therapeutic program can be especially beneficial for children with auditory processing deficits – specifically for children participating in the research, but also in general population. It will help in learning foreign languages, a skill that is extremely important nowadays. The project's impact will be nationwide. Its direct users will be schools and teachers, and its beneficiaries will be children with specific educational needs.

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Conflict of interest statement

The authors declare that there is no conflict of interest in the authorship or publication of contribution.

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