

HEARING IMPAIRMENT AND ITS PROJECTION IN THE INTEGRATIVE EDUCATION PROCESS

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Key words

hearing impairment, a child, a pupil, education, integration, hearing impairment symptoms

Summary

In this article, the author presents information about the impact of hearing impairment on the efficiency of education. A pupil's performance depends, and thus varies, on the degree of hearing loss, and the conditions that require adjustments in order for such pupil to achieve the anticipated goals in training as well as in the educatory elements must thus change as well.

When speaking of educating children and pupils with hearing impairment, we assume the impairment to be the main source of the problem and thus the reason for seeking effective educational approaches becomes ever more evident. Owing to the current and continuously increasing integration trend, the following text concentrates on a group of children and pupils with hearing impairment whose lives have been exposed to the trend of integrated education. It pertains to a group, which has the conditions necessary for being able to achieve the highest possible level of learning on the one hand, but on the other, the very specific position of such children among a group of classmates must be taken into consideration, as well as the specific requirements for the conditions that bring about successful schoolwork. Let's try and display the specific symptoms of children with various intensities of hearing impairment, and thus also the specific requirements for adjusting the conditions and the environment where the education process takes place¹. For our needs, we will create a group according to the extent of hearing loss; although in the conditions of our schools, the number of children and pupils with combined impairments whose education is much more demanding and in terms of very specific and often individual needs

¹ As for special conditions in integrative education of the children with hearing impairment we can see a long list of various items. More about it see HULL, K., GOLDHABER, J., CAPONE, A. *Opening doors*. Mifflin Comp., Boston, MA. 2002

absolutely incomparable to the pedagogical work with a pupil displaying “only” one hearing impairment, is very much on the rise. These notes should also be useful for practicing integrated education.

Hearing impairments must be evaluated according to the degree of loss, stipulated in decibels (dB), and then the most suitable is hearing impairments classification from the perspective of loss in dB and frequency, in the regions of 500, 1,000 and 2,000 MHz, as stipulated by WHO, revised in 2001², where the following classifications are stated:

loss:

- 0 dB–25 dB normal hearing
- 26 dB–40 dB mild hearing loss
- 31 dB–60 dB child – moderately severe hearing loss
- 41 dB–60 dB adult – moderately severe hearing loss
- 61 dB–80 dB severe hearing loss
- 81 dB and over profound hearing loss

Firstly, according to the degree of severity, let’s mention minimal *hearing losses*. These are minimal hearing impairments, which may however in combination with other impairments prove to be unpleasant for all participants of the education process. These are most frequently occasional difficulties in following a conversation³. Another symptom may be unnatural displays of behaviour – “slowness” or on the contrary, excessive “precipitation” in reactions and common activities. These symptoms are caused by impaired hearing control of the environment. Elements of hearing deficiency may also become evident in communication with peers, especially in pre-school and younger school ages⁴, when children are more in motion and are used to conversing while in motion. Interaction with peers may thus be affected even with slight hearing impairment. We mean especially the speed as one of the parameters for successful participation in communication process. In combination with other impairments or deficiencies, at some children we can monitor changes in variation of attention

² *Primary ear and hearing care training resource*. World Health Organization 2006

³ It should be reminded that school conversation, as a very specific version of conversation activities, differs from the general type conversation in its features and the communicating individuals’ abilities to enter it. The main issue is the assumption that pupils should be following the teacher’s conversation with their classmates and actively participate in this form of learning.

⁴ TRAD, V. P. *Interventions with Infants and Parents*. A Wiely and Sons, Inc, N.Y. 1992

and fatigue⁵. Children belonging to such sets of values of hearing loss show increased defatigability. This is of particular significance at early schooling, where the condition can be confused with immaturity and unpreparedness for school work, which is detrimental to the child.

If within the previous group we talked more about indications and occasional difficulties then the group of children and pupils with confirmed hearing loss of 26–40 dB is the first one outside normal hearing. These deficits can remain unnoticed for a very long time, and all utterances of a child are then wrongly attributed to mental retardation. Such mistake may then irreversibly affect a child in the sense of incorrect placement in school, focused on educating pupils with mental retardation. Probably the most pronounced demonstration at these values of hearing loss may be the seemingly states of daydreaming or inattentiveness, caused by increased hearing strain. In this range of hearing loss, problems with orientation in communication and following its course is an expected symptom. In school communication there is another hindrance caused by reduced or completely lost ability of selective thinking. Children have difficulties mainly with communicating in a noisy environment, as the ability to suppress disturbing sounds and to resist acoustic smog is deficient or missing, which keeps on increasing in our environment. A negative element from the perspective of school work and socialization process quality is insufficiency in interacting with peers and surroundings. This is in addition to difficulties in following the flow of a conversation at discussions in a classroom during frontal work. This often culminates in one of the teachers' frequently repeated grievances such as: "...he/she does not know what we are reading, when asked...". More difficulties can be expected with dictations or other activities, based on listening and active participation in communication in a group.

It is a paradox that the first group, where we can be grateful to the hearing aid for fulfilling the function of a notice to the hearing communication partners, is a group of children with impairments ranging from 41–55 dB. This is a category of children with hearing impairments where we expect fairly strong reliance on technical aid. In previous cases, it would be more of occasional difficulties, especially in an environment that is not completely suitable for the specific needs of persons with hearing impairment of the said parameters. Hearing loss in the range of 41–55 dB means a significant impairment in the communication process. If this is a congenital hearing defect, we must realise that communication process has already been compromised in the phase of its

⁵ GREGORY, S. *Deaf people in hearing world*. Walton Hall: The Open University. 1991.

development. The existence of motivation to communicate and communication development are very closely related to this issue. A hearing child is motivated to communicate from an early age also by the fact that he/she experiences the success and receives relevant and inspirational answers. In children with hearing impairment, this does not occur in the required extent – it has an especially negative effect during the entire period prior to effective compensation of the hearing impairment with a technical aid. There are effects that limit the socialization process, the impact of which is truly shown much later. Although these are children and adults who are hard of hearing, the process of integrating them into the society is negatively impacted by the hearing defect (even compensated). During research⁶ conducted in 1997, it proved from analysis of responses acquired from adults who were hard of hearing that these people are not in all cases “happily” integrated, and their contact with persons with more severe hearing impairments is significantly restricted by their unreadiness to communicate in the sign language.

Constant dependency on a technical aid is one of the accompanying signs, characteristic for the stipulated group of persons⁷. One of the additional very ominous effects on communication efficiency is the acoustic quality of an environment, where the child dwells. Without due adjustments to the acoustics of such an environment and intervention in organizational forms, educating such pupils is much aggravated. It should be reminded that the project approach provides for individualising speed, environment conditions, and the socialization process. The increased defatigability should not be forgotten, and the pace of work and load must again be adjusted according to the pupils’ individual needs.

The extent of hearing loss in the range of 56–70 dB is a cause of problems, which manifest as a significant impairment of the communication process – in the sense of spoken speech communication. Hearing impairments in these values are manifested as a negative cause, producing significant difficulties in the socialization process. This means difficulties, which may be recorded even if a child is using a hearing aid and the degree of its efficiency is very high. Cogitation and speech development must be provided in the form of special education support. In our experience, we encounter children and pupils who are integrated and whose education takes place with the support of employees of special education centres and is basically successful. The term “basically” en-

⁶ POTMĚŠIL, M. *Národní výzkum úrovně vzdělávání neslyšících*. Research report RS 97-126, Praha 1998

⁷ TAKALA, M. *They say I'm stupid, but I just don't hear*. University of Helsinki. 1995

compasses usually dramatic and remarkable engagement of not only the child's educationist, but also the child him/herself and the members of his/her family. The author is able to document cases from his experience, where integrated education at this degree of hearing loss was not successful, and the pupil transferred to a school for the hearing impaired, and the new social and educational reality, and sometimes even the need to use dormitory accommodation, was the cause of a severe psychic injury. Although we do not have any statistics on this matter, we dare to assume that these are usually the cases where integrated education was asserted by parents, who insisted on it despite different recommendations by experts. And again, in this group, we cannot omit the permanent dependence on technical aids, increased sensitivity to the quality of acoustic environment that the children with this intensity of hearing loss dwell and work in. One of the significant factors impacting successful socialization and later integration is the insufficient level of social maturity. Understandably, it is based on ineffective communication and retardation in cogitation and speech development. However, from our own experience we are able to document cases of children from this group, who were in the early age accorded sizable and effective tool of communication – the sign language, and these children prosper very well in all areas of mental development with direct positive impact on the results of education. Typical examples are children of parents with hearing impairment, who state the sign language as their first language. It may be stated for experts, who still doubt the advocacy of such procedure, that children guided in such manner also have significantly higher success rate in speech and language training and spoken speech communication. The reason for this is fairly simple: they have their language. Owing to the fact that we wish to remain objective in evaluating the results of communication development, we perceive it as necessary to state that there is an increasing number of children with the above stated degree of hearing loss, at whom absolutely trouble-free communication based on spoken speech was achieved upon a cochlear implant (especially at an early age). Again, it is the existence of a language, which developed into the phase of speech that ensures a high degree of socialization and integration for an individual with impairment⁸. From the perspective of psyche and personality development, it is rare to encounter the feeling of rejection and ineffectuality in these cases, as well as the subsequent reaction, which may be perceived by intact surroundings as spiteful, aggressive or even unacceptable. The most interesting cases from

⁸ HARRIS, M. *The Importance of Audition in Early Communication*. Nottingham UK: The Ear Foundation. 2003

a professional perspective are those of implanted deaf children, whose parents are deaf themselves.

Hearing losses in the range of 71-90 dB are rated as profound, and although in some case, children are advised to use hearing aids, their contribution is not sufficient for spontaneous development of spoken speech. We speak of unsuitable level of communication competences with direct negative impact on the level of social ties in the child's immediate environment. If integrated education is taken into consideration, it is essential to bring attention to the specific preferences of peers and friends with the same type of impairment. In cases, where we encounter integrated education or training e.g. in the place of residence, we record fairly strong inclination towards younger partners for games or other types of joint activities. From the perspective of asserting integration, there is a threat of higher degree of social isolation and a strong inclination towards a group with similar type of impairment. For school work, there are some basic requirements: environment modification from the number of classmates' perspective, adjustments of the acoustic climate, specific methods and forms of work and higher level of the teachers' communication competences. In the previous text we dealt with integrated education of pupils with severe hearing impairments. It was revealed that even the highest degree of support - in the sense of a personal sign language interpreter, does not provide a guarantee for successful integration, nor is it a guarantee for effective education.⁹

Hearing losses *exceeding 91 dB* are rated as practical deafness or deafness. As the terminology used in practice is not unanimous, the intensity of hearing loss is determinant. When considering children and pupils with hearing impairments in this range, it must be said that communication preferences are very clearly, and in the majority of cases, consciously focused on the selection of partners for communication and joint activities from a circle of persons with hearing impairments that are of similar extent. The implication of a severe hearing loss in spoken speech or even the attempts for it is so obvious that we speak of the degree of social usability of spoken speech. No, we do not mean those segments of spoken speech, which are developed based on respectable, huge and mutual effort, expended during speech and language therapeutic care sessions, and its further continuation in a family. Instead, we mean the usability of speech in common and everyday situations, adequate to the child's age. If compensatory technology is used (however not cochlear implants), it is usually in order to utilise the trace residuals of hearing, which must be designed to make use

⁹HARRIS, J. M. *Social Isolation of Deaf Adolescents*. PCP 548 Life Span Development 2001.

of any existing fragments of a sound field. It will, nevertheless, most certainly not be sufficient for developing spoken speech to the commonly expected level. The choices and preferences of communication partners suggest that in this case, the successful approach in education will be bilingual and bicultural. It is again for the purpose of objectivity that we remind such cases of children, where the cochlear implant helped and became a technical aid, which facilitated the child user with spoken speech communication, and led him/her all the way to successful integrated education. In order to maintain the ideological line of this text, we will remind the reader that it is the project education that has a high efficiency degree in such cases. It is also due to the fact that utilising the presence of teachers with hearing impairment is more likely to be considered and thus the focus of their communication preferences for utilising sign language¹⁰ – hence the bilingual/bicultural programme.

If we are to summarise the most frequent difficulties pursuant to hearing impairment in children and pupils encountered most often, we can state the following:

- insufficiently saturated bank of terms, on which education is based,
- low level of communication competences,
- initiative and activity loss,
- signs of frustration,
- manifestations, perceived as elements of unsuitable behaviour,
- insufficiency in monitoring communication networks (inadequate reactions),
- manifestations of immature behaviour,
- trouble in interaction – inadequate effort,
- manifestations of tiredness, which are often perceived as daydreaming, inattentiveness, disturbance.

References

1. GREGORY, S. *Deaf people in hearing world*. Walton Hall: The Open University. 1991.
2. HARRIS, M. *The Importance of Audition in Early Communication*. Nottingham UK: The Ear Foundation. 2003

¹⁰ This is totally different comparing to philosophy of the oral approach in deaf education. See van Uden (leading person of that way) UDEN VAN, A. *A World of languages for Deaf Children. Part I. Basic Principles*. 3rd edition. Amsterdam. 1977

3. HARRIS, J. M. *Social Isolation of Deaf Adolescents*. PCP 548 Life Span Development 2001.
4. HULL, K., GOLDHABER, J., CAPONE, A. *Opening doors*. Mifflin Comp., Boston, MA. 2002
5. POTMĚŠIL, M. *Národní výzkum úrovně vzdělávání neslyšících*. Research report RS 97-126, Praha 1998
6. TAKALA, M. *They say I'm stupid, but I just don't hear*. University of Helsinki. 1995
7. TRAD, V. P. *Interventions with Infants and Parents*. A Wiely and Sons, Inc, N.Y. 1992
8. UDEN VAN, A. *A World of languages for Deaf Children. Part I. Basic Principles*. 3rd edition. Amsterdam. 1977

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