Raising Awareness of Society Using Service Dogs in the Integration of Hearing Impaired Children into Preschool and Elementary School Communities

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The choice of topic was partly motivated by our personal experiences: Eszter Loványi was born hearing impaired. Her everyday life is facilitated by a hearing dog, especially when she does not wear her hearing aid (cochlear implant), for instance at night (Loványi & Mányik, 2012; Loványi & Várszegi, 2008). Eszter holds a position as lecturer and researcher and is a PhD student at the same time. She is also a volunteer in the NEO Hungarian Service Dog Association dedicated to the training of service dogs where she coordinates hearing dog and sensitising programmes. Her PhD supervisor, Andrea Perlusz, vice-dean of the Bárczi Gusztáv Faculty of Special Education of Eötvös Loránd University, is a well-known expert in the field of teaching inclusive education of the hearing impaired. (Eszter’s school integration was previously assisted by Andrea Perlusz.)

In this article, innovative ways for raising society’s awareness are to be presented, elaborated based on results and experiences of the NEO Hungarian Service Dog Association, including awareness-raising programmes for kindergarten and school with the help of service dogs and a book of fairy-tales on service dogs (written by Eszter Loványi, and reviewed by Andrea Perlusz).

Theoretical foundation

Hearing dog as an opportunity of rehabilitation and integration

It is underpinned by popular scientific studies as well as our day-to-day professional and personal experiences that dogs as helpers may mean a great deal to disabled people: they not only provide physical assistance (e.g., indicating sounds, carrying baskets) but they exert significant somatic, cognitive, psychic and social effects too (Grandin et al., 2010; Köböl & Topál, 2012). Investigations of Lane, McNicholas and Collis (1998), carried out with service dogs, showed 92% of the interviewed owners with disabilities having noticed an increase in social interactions.
with people in their environment. People more often stopped these dog owners and had conversations with them. 73% reported on having made new friends since living with a service dog (McNicholas and Collis 1998). Hart, Hart and Bergin (1987) proved similar effects in their retrospective investigation on service dogs. Participants gave account of having socially interacted considerably more frequently during their usual shopping tours than previously without their dogs. This effect was especially strong in case of persons who had difficulties entering communication and social interactions (Hart et al., 1987). Authors agree that disabled people benefit from employing service dogs, which can be experienced in terms of acceptance by local communities, an increase in self-esteem and a decrease in loneliness. Hart, Zasloff, and Benfatto (1996) included in their study 38 hearing impaired service dog owners and 15 prospective hearing impaired service dog owners. They aimed to examine the degree of loneliness, social interactions and the level of stress in those two test groups. The groups with dog owners pointed out the service dog having changed their life in regard to communication with hearing people. 76% of them acknowledged their contacts to their neighbours and local communities having increased, whereas only 33% of the group of prospective dog owners presumed this outcome (Hart et al., 1996). Consequently, service dogs not only help in physical and mental respect, but also make a contribution to the social integration of disabled people (Bánfalvy, 2002; Guest, 2006; Köböl & Topál, 2012; Topál & Hernádi, 2007).

Nowadays, in Hungary there are several service dog types available: (1) service dogs for the hearing impaired, (2) guide dogs, (3) service dogs for the physically disabled, (4) personal service dogs (e.g., for autistic people), (5) seizure dogs, (6) therapy dogs.

In several countries of the world, the training of service dogs for the hearing impaired is widely practiced. These dogs signal sounds (e.g., calling their owner’s name, baby crying) and noises (e.g., alarm clock, knocking, bell, alarm system) making their owner’s life easier and more secure. In case of a noise, a dog firstly ascertains what happened, then it warns its owner by touching him or her and leading him or her to the noise source pointing it out precisely (e.g., knocking at a door or window) (Figure 1).

Figure 1. Signalling knocking

(Photo by: Virág Burányi)
In Hungary, the work of service dogs for the hearing impaired is relatively unknown. According to the records of the Hungarian Therapy and Service Dog Association (participating organisation), in Hungary there are only 7 such service dogs working with an official certification at present, whereas 154 guide dogs are assisting the daily life of the visually impaired (data as of 22 October 2016). In Hungary, compared to more developed countries, there is a significant disproportion about providing the visually and hearing impaired with service dogs which is supported by statistics too.\(^1\)

In the UK for instance, annually 140 service dogs for the hearing impaired are trained only by the training centre *Hearing Dogs for Deaf People*, set up in 1982. Its annual budget comes to 8.4 million British pounds (https://www.hearingdogs.org.uk/about/annual-review/).

Based on our work up until now, we can infer that service dogs for the hearing impaired play a relevant role, i.e., increasing their number at a higher rate is an eminent task in Hungary too, especially with innovative training and application methods. According to the results of the demand determination made by the NEO Hungarian Service Dog Association, this opportunity is looked at favourably by the hearing impaired as well (Hoffman, 2013; Loványi & Mányik, 2011).

This kind of special training of service dogs, like the trainings of other service dogs, requires a long time (1.5-2 years) and entails a high degree of responsibility. Teaching dogs to signal sounds is relatively easy. However, rendering this to a reliable, stable working style takes persistent practice. First, the dog needs to be taught to know which noises are important for its owner, then to realise in what situations it has to engage. The other training fundament is to teach the dog to take initiatives in an independent manner, considering that it has to give a signal to its owner when the sound emerges – without any external instruction.

In perceiving fire alarm signals, service dogs may play an important role for people who are deaf or hard of hearing (Loványi & Mányik, 2012), whether in the home or accommodation of the person with hearing impediment. There are different rights for service dog owners ensured by rules in order to facilitate their social integration. It is emphatically stated in Act XXVI of 1998 on the rights of disabled people and ensuring their equal opportunity that disabled people can take their service dogs to the unrestricted area of authorities, institutions or service providers (7/C. §). The decree 27/2009 (XII. 3.) SZMM on the rules of training, examination and applicability of service dogs, entered into force on 11 December 2009, as well as its amendment (decree 9/2016. (V. 12.) EMMI) grant different rights for individuals (owners and so-called habilitation dog trainers) using service dogs. Without attempting to be comprehensive, there are several

\(^1\)According to census data from 2011, in Hungary there are 71,585 hearing impaired people. Out of them, 63,014 are hard of hearing, 8,571 are deaf. According to the replies, the number of the visually impaired comes to 82,484, out of which 73,430 are partially sighted or nearly totally blind and 9,054 blind (KSH, Hungarian Central Statistical Office 2011).
examples stated by the law: means of mass transportation, shops (groceries, catering establishments), shopping centres, markets, fairs, accommodation (e.g., hotels), playgrounds, public baths (e.g., open-air baths, swimming pools), zoos. Service dogs for the hearing impaired certainly cannot substitute the function of a hearing aid or a corrective hearing surgery (e.g., cochlear implantation) but they can effectively complement the latter. The severity and the type of a hearing impairment make different demands on the dog training: those who are hard of hearing and wear a hearing aid during the day or went through a cochlear implantation, need less help than deaf people. In the evening, however, after the device has been removed, the role of the dog becomes an active one (considering that during sleeping the owner does not perceive important noises).

Deaf or hearing impaired dog owners often report on experiencing positive discrimination. Attention is diverted from their hearing impairment, sign language usage or pronunciation that may seem to be unusual for outsiders. People initiate contact with them more openly and show interest towards them. The presence of a service dog offers occasions for chats or socialising even for school or kindergarten children (e.g., playground, kindergarten group room, school corridor) (Figure 2-3). The emphasis does not lie on communication problems. Service dogs not only attract hearing communication partners towards reserved and less open hearing impaired dog owners but they also can dispel the emotion of frustration and embarrassment between the conversation participants through their mere presence.²

![Figure 2. Service dog on playground](Photo by: Kornél Sziklai)

²Eszter Loványi’s personal experience: “Without my dog, it happened to me several times that hearing people were taken by surprise hearing my ‘odd’ pronunciation, therefore as I started speaking (e.g., looking for a street) they turned around and left. However, this hardly ever happened to me when I was with my dog. Even if they felt embarrassed they crouched down, stroked my dog for a while and after having given some thoughts to what was happening, they stood up and the conversation restarted.”
Morover, service dogs can be employed at the speech and hearing development of hearing impaired children and the motivational effect of tasks performed together with dogs may improve the co-operation with a special education teacher or the parents.

*Presentation of the social awareness-raising programme of the NEO Hungarian Service Dog Association*

The NEO Hungarian Service Dog Association, founded at the beginning of 2011, primarily trains special service dogs that have not been widely available in Hungary up until that time. The service dog types from the scope of the Association are the following: service dogs for the hearing impaired, in Hungary less known (set out in detail above), personal service dogs (e.g., service dogs for the visually impaired, service dogs for autistic people), service dogs for the physically disabled, therapy dogs.

The other mission of the Association is to familiarise the day-to-day life of disabled people with interested outsiders, including service dogs at presentations and sensitising trainings.

The common educational sessions of hearing or visually impaired or physically disabled presenters and therapy dog handlers – according to experiences and questionnaire results – all make a contribution to the acceptance of people with disabilities. With the help of specially trained service dogs, the adverse life situation of disabled owners can be presented as a positive experience which is also important because this issue is frequently handled as a taboo by society. Service dogs may play an important role bridging the gap between disabled and non-disabled people.

Based on the types of programmes, the awareness-raising activities of the Association can be grouped as follows:

1. Service dog presentations for large audiences (e.g., company events, equal opportunity days). In this case, participants are mostly passive onlookers while watching the performance of the dog and its owner (e.g., how service dogs facilitate the everyday life of their owners). Its
advantage is that the number of participants is basically only limited by the capacity of the location (e.g., dimensions of the hall).

Figure 4. The team at the service dog presentation

![Photo by: Árpád Kohut](image)

2. Interactive sessions organised in order to sensitise smaller groups (e.g., for preschoolers and for school classes). Under the professional guidance of Eszter Loványi, the Association has developed several kinds of projects, taking age characteristics into consideration, such as sensitising trainings for (1) kindergartens, (2) schools, and (3) workplaces.

Figure 5. Situational games at a workplace session

![Photo by NEO](image)

The aim of sensitising trainings is not only promoting equal opportunities and the social integration of the people concerned but also developing the social skills of children and adults living without disabilities (such as acceptance, readiness to help, empathy), and also shaping personality and forging a community.

The presenters strive to achieve variance and respect diverse needs: the methods of special sessions, lasting about 45-60 minutes, include interactive and situational games, discussions in small groups, and teambuilding activities. Besides, the participants may try using traditional aids like a white cane or a wheelchair. Participants can also view a short service dog show and a video.

In only a few years, the Association has held 118 sensitising trainings (with 3,664 participants) and 160 presentations (as of August 2016).
Research experiences

One of the co-authors of the article, Eszter Loványi, has surveyed the impact of sensitising trainings. Interviews took place before and after the sessions, and the attitudes of children towards people with disabilities had been compared with content and statistical analysis. As a first step, the survey, containing open-ended, closed-ended and direct and indirect questions had been elaborated, with the participation of psychologists and with the use of relevant literature. The survey also contained several subjective questions, the answers to which could only rely on the respondents’ feelings and opinions. The aim of the survey was to reveal, in both a direct and an indirect way, the attitudinal changes that took place due to the programme.

Ten school classes were involved in the research, chosen specifically to show heterogeneity according to geographical position, to the authority that runs them, their type and their experiences concerning disabled people, also trying to secure that the chosen students should best represent the total population of elementary and secondary schools students. Altogether, 253 surveys were analysed.

The data of the survey showed that the programme series aimed at raising consciousness resulted in spectacularly favourable outcome. The summary of the answers proved that positive attitudes significantly grew, while those reflecting negative opinions fell after the sessions. The attitude, the tendency of acceptance and the positive attitude of non-disabled participants towards disabled people changed in a positive direction.

Figure 6. Changes in the judgment of handicapped people as a result of sensitising trainings

The content analysis of surveys on the participants’ attitudes also revealed certain modifications after the training. The respondents clarified, specified and detailed their responses given before the training (such as
“he can walk with a difficulty,” “he is unable to pick up things from the ground,” “he cannot reach overhead objects,” “searching for an accessible lavatory”). From this, the conclusion can be drawn that, besides sensitising, the Association managed to share certain knowledge as well concerning equal opportunities and disabilities in a playful manner. We do hope that these trainings shed light on the difficulties of living with disabilities, and this may contribute to fostering a more accepting, tolerant, attentive and cooperative generation (Loványi & Piczkó, 2013; Loványi, 2015b).

What service dogs can tell – socialisation and social integration may start at childhood

What we observed during trainings held in preschools, elementary and secondary schools and at workplaces was that preschoolers and junior school children were generally very open and they regard heterogeneity as a matter of fact. These years (especially in preschool) are valuable for this reason, for children are more tolerant towards otherness. Little children approach the world in a curious way and they relate to “other” people with disabilities without prejudices. Later, the adult environment teaches them that it is impolite to “stare at” the handicapped or to ask them about their problems. The lack of openness and honesty generates fear, the consequence of which is separation. Embarrassment or looking away are everyday phenomena if one sees a handicapped person moving with a wheelchair in the street or if one listens to a person with impaired hearing talk. Research concerning integration generally devotes less attention to receiving communities and those effects that are the results of the presence of disabled people, everyday contact and experiences. As Ligeti maintains, “tolerance must be learned” (Ligeti, 2001). We are not born empathic and tolerant towards our environment. The developmental history of empathic skills takes place through the development of social relationships from childhood (Buda, 1998:140). An integrated pedagogical situation and common experiences broaden the chances of a child to acquire experiences in empathy, and by force of the personal aspect, teach empathy, acceptance and tolerance. Situations requiring giving natural help are more frequent, and the solution of these situations is not independent of the ability to feel empathy and to adopt another person’s point of view. The conscious improvement of the empathic skills of children and students also affects their proactive behaviour, and the experience of everyday situations requiring giving assistance positively affects students’ empathic skills (Perlusz, 2009; Perlusz & Balázs, 2008).

It is for this reason that the fairy-tale book, based on true stories, entitled "Kuku és barátaí” – Ismerjük meg közösen a segítőkutyák világát! (Kuku and Friends – Let Us Get to Know the World of Service Dogs Together) has been written specifically for children. The aim of the 44-page book, illustrated with playful pictures, containing didactic tales is to
familiarise readers with the world of service and therapy dogs helping those with impaired vision, impaired hearing, restricted mobility and a personal assistance dog (helping an autistic boy) and the everyday experiences of their owners – all this from the aspect of Kuku, the hearing dog (Loványi, 2015a).

The publication, written in the language used by children and through the stories of dogs and their owners, gives an insight into:
- the similarities and differences between types of disabilities,
- the aids used by people with different disabilities,
- service dog training and how it concludes with an exam,
- the rights appertaining to service dogs and their owners (legal background),
- the way service dogs facilitate the life of owners with restricted mobility, impaired hearing or vision, autism, or mental disability,
- how other people can help them,
- being a responsible dog owner (such as regular veterinary care),
- activities that owners can engage in together with their service dogs (e.g., sports for the disabled with dogs or shows),
- finally, the ultimate message: in spite of disabilities, we share a common world and society.

Since the book is based on real characters, service dogs and their owners, and since they regularly organise awareness-raising programmes (including shows at different events, sensitising trainings at preschools

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3The fairy-tale book was presented, meeting with intense interest, at a conference “Service Dogs for Integration,” organised by NEO Hungarian Service Dog Association and the Bárczi Gusztáv Special Education Faculty of Eötvös Loránd University, Budapest, on 23 April, 2015. The illustrations were made by Tibor Simon and the book was proofread by Andrea Perlusz. For further information, visit www.mesekonyv.segitokutyarnet.
and schools), personal encounters with the “characters” make the tales for children more credible. The impact of awareness-raising programmes is also reinforced by the publication. After a single meeting, children would easily forget what they experienced there. By turning the pages of the book regularly, parents or preschool teachers can make children reflect on what they had previously seen or heard. The fairy-tales can be supplemented by the help of the internet (by looking at the photos of dogs and owners or by reading their blog entries).

The stories of the book can show an example and can give support for other disabled people, for every character, though with disabilities of different types and degrees, lives a full and content life, naturally, by taking age specificities into consideration (e.g., the fairy-tale book contains stories about children as well).

The book has already penetrated preschools, majority and special schools, different child events and hospitals for children. Family members and professionals concerned all reported about favourable experiences.

**Some examples for application**

*Reading out fairy-tales for preschoolers*

Reading out stories for preschoolers is useful for several reasons:

1.1. *The development of social skills*: while listening to and acting out stories, a positive attitude and empathy may be formed towards the characters of the tale.

1.2. *The development of communicational skills*: broadening vocabulary (e.g., learning words like harness, guide dog, hearing aid), and improving expressive skills in the mother tongue, using the new expressions in the tales in conversations.

1.3. *The development of gross and fine motor skills*: for instance, with the imitation of the movement of service dogs, playing with plasticine, drawing and colouring.

1.4. *The development of mental skills*: reviving the characters and the stories (improving memory and seriality), acting out the tale (improving imagination, observation and creativity).

These sessions may, of course, be enlivened by further aids and tasks (e.g., the presentation of a flashing/vibrating alarm clock, lip reading exercises). Presenting other types of disabilities in the book is also an option.

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4A colouring page with fairy-tale characters can be downloaded from www.mesekonyv.segitokutya.net
The fairy-tale book at a literature class

The tales have also been used at a fourth-grade literature class in Kodály Zoltán Elementary School, Nyíregyháza. The teacher, Gyöngyi Ágoston, reported about the experiences in the following way: “The basic mission of the school is to teach children to help, to accept otherness and to raise their awareness. (...) So, when I first heard about this book, the idea of integrating it into my classes immediately came to my mind. It is important for children attending a majority school, and thus largely lacking any experience in meeting people with disabilities in their surroundings, to acquire a sense of how to relate to them in everyday life” (Kanócz, 2016).

During or after reading the stories, an interactive, interesting, engaging class may be organised with plenty of discussion. Deepening common experiences and follow-up exercises may be assisted by pair work and group work and using digital tools (for example, gathering information on the internet).

Closing ideas – further plans

We examined the issues like social integration of people with disabilities, impacts of sensitizing training, social awareness-raising programs for children and adults involving helping dogs, hearing dog as an opportunity of rehabilitation, integration and development of social relationships from early childhood. Feedback from professionals, parents and institutions (including personal meetings, emails and letters) also support the fact that programs aimed at raising awareness and similar fairy-tale books do induce changes in the relationship, attitudes and tolerance of non-disabled children towards their disabled peers. We would like to continue our work in this direction. We plan to assess the impact of the fairy-tale book, in order to get a more precise picture regarding its effectiveness. We intend to execute a broader cross-national study on the impact of healthcare financing, socio-cultural and technical factors. Undertaking this form of analysis therefore is to better understand the present situation in different countries and to diagnose the key issues we have to address in Hungary, using the adoptable and interchangeable best practices of other countries in the frame of an international cooperation also to be mapped during this study. Just giving to these general ideas a more concrete form only with one application example: we examined yet how specifically trained service dogs could perform more tasks for disabled and/or elderly people in different home care case scenarios. Future studies will attempt to gain a better view based on the insights of the very different home care organizational structures and competing alternative solutions which have to be beaten by using service dogs in different countries. Just to reflect on one socio-cultural difference: in Japan home care robots are more accepted than service dogs while in EU and USA the reverse is true. So
what is the good question we should ask? Could home care robots replace helping dogs? Or the inverted question is the relevant? We strongly believe that technology must not compete but will rather cooperate with helping dogs. For this reason another multidisciplinary research (being beyond the scope of this paper) is going on: how to train and use technology-augmented helping-dogs in different application scenarios.

References

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