

## KINESIOLOGY TERMINOLOGY IN CROATIAN SIGN LANGUAGE

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### **Abstract**

The kinesiological areas of education, sport, sports recreation and kinesiotherapy of children and youth with hearing impairment present a methodological and didactical problem, which occurs due to the specific characteristics that people with hearing impairment possess. The communication aspect of the work with children and youth with hearing impairment is considerably limited. Therefore, to ensure an optimal and continuous kinesiological process, it is important to know all the specificities of working with them. The main goal of this paper is to outline some general recommendations and adjustments related to the work with children and youth with hearing impairment in kinesiological areas. Special attention will be given to the communication systems and the presentation of kinesiological terminology in the Croatian sign language in order to optimize the communication aspect. This professional paper is an introduction to a more comprehensive manual on the specifics of children and youth with hearing impairment in the motor environment, specialties of kinesiological education, with the addition of general recommendations and adaptations for work and a wider presentation of kinesiological terminology in the Croatian sign language. The basic knowledge on the methodological, didactic and communication approach to children and youth with hearing impairment in the field of kinesiological education, as well as other kinesiological orientations will be given to the educators, teachers and professors who are not sufficiently informed and adequately educated in this field during their studies, as well as to the current students of the same orientations.

**Key words:** education, hearing loss, kinesiology, sign language, terminology

### **INTRODUCTION**

The implementation of activities in the kinesiological areas of education, sports, sports recreation and kinesiotherapy in children and young people with hearing impairment represents a methodological and didactic problem, which occurs due to the specific characteristics generally found in people with hearing impairment (Kurkova, 2005).

The term child or young person with hearing impairment implies a child or a young person who is either deaf, hard of hearing or has a built-in artificial cochlea (irrespective of whether they actively use a hearing aid or the external part of an artificial cochlea).

Although physical activity is an area that does not depend much on auditory signals, receiving feedback on movement can be greatly hampered by hearing impairment (Winnick, 2011). The communication aspect of working with children and young people with hearing impairment is significantly limited, so it is extremely important to be familiar with all the specifics of working with them in order to ensure an optimal and continuous kinesiological process.

One of these specific characteristics is typical of information perception. As the auditory analyser accounts for over 10% of the information received, information perception in people with hearing impairment has been replaced by the perception provided by compensatory mechanisms, primarily visual perception, the dominant analyser which accounts for more than 80% of perception in general, and tactile-kinaesthetic analyser. It should be emphasised that hearing impairment does not only mean the absence of important information from the environment, but that it also affects the entire personality structure of a person with hearing impairment (Kurkova, 2005).

The main purpose of this professional paper is to present some general recommendations and suggest adjustments related to working with children and youth with hearing impairment in the fields of kinesiology, education, sports, sports recreation and kinesiotherapy. Special attention is paid to communication systems and presentation of kinesiological terminology in Croatian sign language with a view to optimising the communication aspect.

This is also an opportunity to announce the publication of a complete manual regarding the particular characteristics of children and youth with hearing impairment in the environment designed for acquisition of motor skills, the specific requirements in kinesiology education with the addition of general recommendations and adjustments which need to be made in physical education classes and a broader presentation of kinesiology terminology in Croatian sign language. This will enable educators and teachers who were not sufficiently informed and adequately educated during their own training, as well as current students of the same specialisations to acquire basic knowledge about methodological, didactic and communication approaches to children and youth with hearing impairment in kinesiology education.

## COMMUNICATION RECOMMENDATIONS

Communication recommendations and adjustments in working with children and young people with hearing impairment in physical education class (Schmidt, 1985; Palmer et al., 1996; Kurkova, 2005; Reich and Lavay, 2009; Atl - The education union, 2010; Winnick, 2011; Bright Hub Education, 2012; British Cochlear Implant Group, 2014; Queensland government, 2015):

1. Assess the audible distance - it should be noted that this distance will vary in different situations and spaces (Reich, 2007), but the rule of thumb is to be as close as possible to the child / young person when giving instructions or information (preferably within 2 m, even in quiet spaces). One should speak naturally, at a normal speed and without exaggerating or emphasising words. Children / young people with hearing impairment can be given a position where they can receive instructions according to their hearing abilities. If dealing with children / young people who use a hearing aid, consider their ability to use residual hearing.
2. Turn to the child / young person and keep eye contact during speech - although not all people with hearing impairments are experienced in lip-reading, it is important for them to see facial expressions and gestures (not just the mouth) to understand the context of

what is being said. Avoid chewing and keep your hands or any visual aid as far away from your lips as possible.

3. Short and clear verbal instructions and as frequent visual demonstration as possible are needed. Prepare a special demonstration (pictures, videos, presentations) for children / young people with hearing impairment and ask them if they have understood the instructions before verbal communication begins.
4. In case a hearing aid or artificial cochlea is used, it is necessary to be aware of the situation when the hearing aid will need to be removed - during water and contact sports and in other situations where there is a risk of damage (excessive sweat, heat and sun). If they do not wear a hearing aid or the external part of an artificial cochlea, children / young people may have greater communication difficulties than usual.
5. It is necessary to consult native speakers of sign language about the methods of specific communication and use basic signs to control activities (start, stop, go, repeat, etc.). In principle, it is necessary to teach all participants as many signs as possible. The teacher and all children / young people (not just those with hearing impairment) should learn the key signs for the terms used in the physical education class.
6. If the child / young person uses sign language and has an interpreter, the teacher should speak to them and not to the interpreter.
7. Readily recognisable and easily visible signals should be used for distance communication.
8. A video used during the learning process should be subtitled.
9. Communication is the responsibility of the teacher - which is why the teachers need to learn about the special needs of children and young people with hearing impairment and thus ensure the best possible transfer of necessary information.

## COMMUNICATION SYSTEMS

The Act on Croatian Sign Language and Other Communication Systems for Deaf and Deaf-blind Persons in the Republic of Croatia (OG 82/15) prescribes the right of deaf and deaf-blind persons and other persons with communication issues to use, be informed about and receive education in Croatian sign language and any other communication systems which correspond to their individual needs, in order to provide them with an equal access to the social, economic and cultural environment and to allow them the equal exercise of all human rights and fundamental freedoms.

Deaf, deaf-blind and other persons with communication difficulties who, due to functional impairments and whose communication opportunities are either impaired or non-existent as beneficiaries of this Act, have the right to choose the communication system that best suits their needs.

We distinguish the following communication systems for deaf and deaf-blind people (OG 82/15):

### 1. Croatian sign language

Croatian Sign Language is the original language of the community of deaf and deaf-blind people in the Republic of Croatia. This self-standing language system has its own grammatical rules and it is completely independent of the language of hearing people. Signs (words) in sign language are created by the simultaneous broadcasting of linguistic information from several sources, i.e. the action of hands, arms, torso, head and face, and the language signals thus produced are adapted to the visuospatial modality of communication.

## 2. Other communication systems based on the Croatian language

### a. Simultaneous sign-speech communication

A form of communication in which the syntactic structures of spoken language are simultaneously accompanied by lexical units of sign language and, if necessary, by signs of the manual alphabet. It is a visualised spoken language accompanied by characters borrowed from the original sign language and characters of the handwritten alphabet.

### b. Hand alphabets

A form of communication constituting a manual form of written language. The number of characters in the manual alphabet is equal to the number of letters in the alphabet of the written language. Manual alphabets have the role of an aid in communication and are most often used when it is important to accurately capture the phonological structure of words, neologisms, technical expressions, personal names and the like. There are two types of manual alphabets, namely the one-handed alphabet (typing) and the two-handed alphabet (chirology).

### c. Subtitling or typing

A form of communication that represents the simultaneous transfer of spoken language into written form.

### d. Lip-reading

A form of communication that refers to understanding the content of a speech message based on visual recognition of the movements and position of speech organs during the interlocutor's articulation. Research shows that people with hearing impairments who predominantly rely on reading, i.e. on their visual ability, can read only 30% of the content spoken by the interlocutor (Bradarić-Jončić, 1997).

### e. Writing in the palm of your hand

A form of communication in which large printed letters are written on the palm of a deaf-blind person's hand with the tip of one's index finger.

### f. Technical aids

All aids that can provide the beneficiaries of this Act with support in overcoming communication difficulties.

Deaf, deaf-blind and other persons with communication difficulties have the right to use all forms of communication systems available to deaf and deaf-blind persons, i.e. all types of support in the form of communication mediator in all life situations and before state administration bodies, bodies of local and regional self-government units and legal persons with public authority in cases when deafness and deaf-blindness would hamper their equal access to the social, economic and cultural environment and thus prevent them from equal exercise of all human rights and fundamental freedoms (OG 82/15).

## KINESIOLOGICAL TERMINOLOGY

Review of certain kinesiological concepts in the field of motor knowledge in Croatian sign language.



Image 1 – Catching

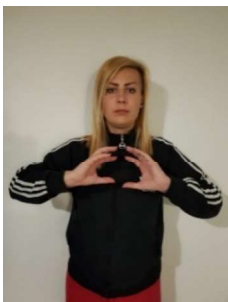


Image 2 -Lifting

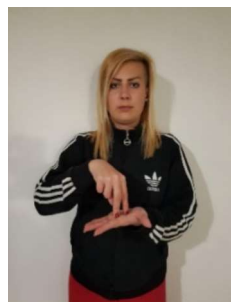
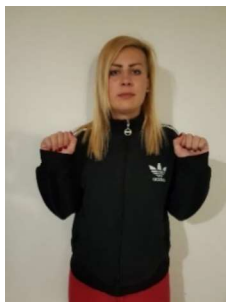


Image 3 - Jumping

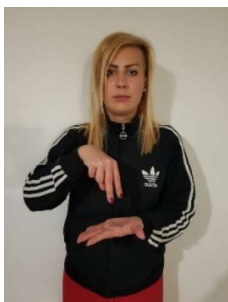


Image 4 – Hitting

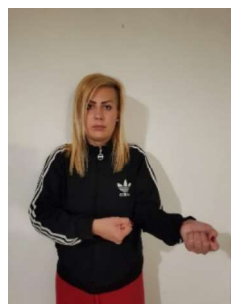
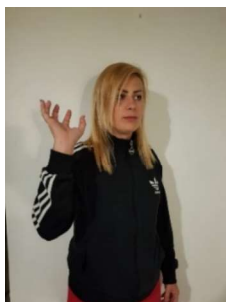


Image 5 – Pulling



Image 6 – Passing



Image 7 – Carrying

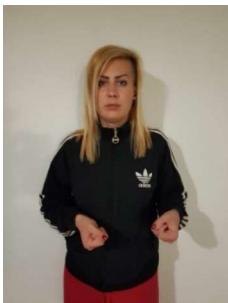


Image 8 – Descending

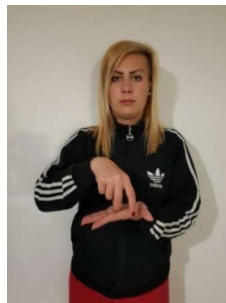
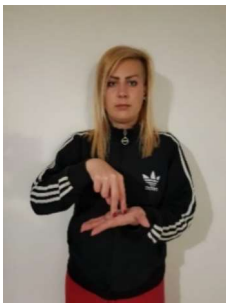




Image 9 – Running

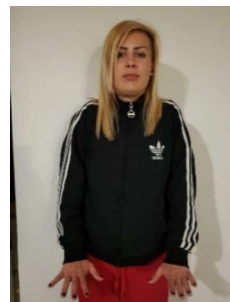


Image 10 – Resistance

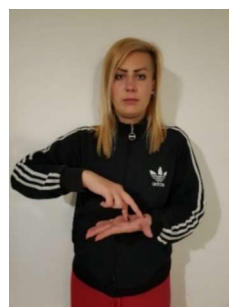
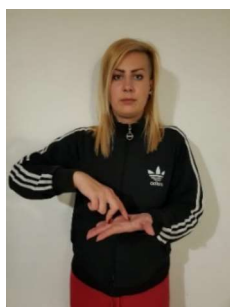
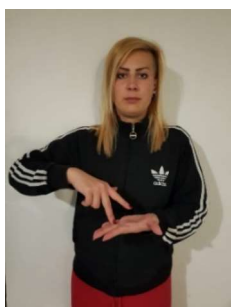


Image 11 – Walking

## CONCLUSION

This professional paper is an introduction to a more comprehensive manual on the specific characteristics of children and youth with hearing impairment in the motor environment, the specifics of work in kinesiology education with the addition of general recommendations and adjustments for work and a broader presentation of kinesiological terminology in Croatian sign language. This will enable educators and teachers who were not sufficiently informed or adequately educated during their own training, as well as current students of the same specialisations to acquire basic knowledge of methodological, didactic and communication approaches to children and youth with hearing impairment in kinesiology education, as well as other kinesiological orientations.

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