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## **Význam pohybu v edukácii žiakov s mentálnym postihnutím**

### **The Importance of Movement in the Education of Pupils with Intellectual Disabilities**

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#### **Abstract**

The article deals with the importance of movement in the education of pupils with intellectual disabilities. There is now a growing body of research that emphasizes the positive impact of physical activities on the physical, mental, and social aspects of the lives of individuals with intellectual disabilities. This article evaluates the importance of including diverse forms of exercise in educational programs for this group of learners. Research has shown that comprehensive and adapted exercise programs have the potential to significantly improve the functional abilities, psychological well-being, and social integration of students with intellectual disabilities. This article highlights the need to provide physical education teachers and coaches with specific guidelines that reflect the latest scientific findings and assist in the effective planning and implementation of exercise programs for this specific population. In the final recommendations, the article highlights the necessity of integrating physical activities into the educational environment for students with intellectual disabilities as a key factor in promoting their overall development and quality of life.

**Keywords:** Pupil with intellectual disability. The impact of movement. Movement activities.

#### **Introduction**

Currently, the educational environment is moving towards the continuous development of inclusive disabilities. This study aims to further understand and evaluate the utility of such integrated approaches and their impact on the development of motor skills, social interactions, and overall health of students with intellectual disabilities. The proliferation of movement integration within inclusive education raises questions regarding the optimal adaptation of teaching methods, the creation of conducive learning environments, and the identification of the specific benefits that such approaches bring. In the context of learners with intellectual disabilities, we face the challenge of properly adapting teaching strategies that not only support the development of motor

skills, but also take into account the individual needs and abilities of each person. Approaches that take into account the diversity of pupils within the education system are also crucial. One of the key areas of this inclusive guidance is the integration of movement resources in the education of pupils with learning disabilities.

### **Physical fitness and literacy of pupils with intellectual disabilities**

Promoting physical activity and trying to reduce sedentary lifestyles has a positive impact on the health, well-being and social development of young people with intellectual disabilities, which carries over into their adult lives. Considering the importance of promoting active lifestyles in teenagers, researchers decided to develop and assess a new "exercise package for young people with intellectual disabilities" (Sport Science Research Institute - SSRI) to improve the motor and social development of this group of individuals (Kashi, Dawes, Mansoubi, & Sarlak, 2023) . The American Association on Intellectual and Developmental Disabilities (AAIDD) defines intellectual disability as a condition with significant limitations in intellectual function and adaptive behavior that affect a variety of daily social and practical skills and manifest before the age of 18. Intellectual disabilities impacts not only on the individual, but also on their family and society. Given the high prevalence of this disability, ensuring quality of life, motivation, development, access to education, employment, culture and leisure activities, as well as maintaining an adequate level of physical health and fitness (including cardiovascular and respiratory health, muscular endurance, flexibility and balance) for these individuals carries a significant public responsibility with important public health implications. Several researchers (Cuesta-Vargas, Paz-Lourido, & Rodriguez, 2011) have investigated the physical fitness of young people with intellectual disabilities, with most of these studies reporting disappointing results compared to their able-bodied peers. In addition, it is found that young people with intellectual disabilities often lag behind in motor and social development compared to their peers without disabilities. Another common problem among young people with disabilities is the high amount of time spent sitting. In addition, various studies on physical activity levels among this group have shown that, on average, they are not as physically active as their able-bodied peers. It is a challenge for individuals with disabilities and their families to find appropriate leisure activities because they are not able to participate in all activities and there are not always sufficient programs available for each group of individuals with disabilities. As a result, these people often do not participate in specific activities, which leads to their isolation and exacerbates their social and health problems, reducing their overall quality of life. In the context of increasing physical fitness with a view to the healthy development of the individual with intellectual disabilities, the development of movement abilities, movement skills and movement competences is very important.

Weinert (2001) considers movement competencies as context-dependent and functional dispositions of performance that evolve from the specific demands of a given situation in a culture of movement, exercise and sport. These competencies maintain control of motor demands, take into account acquired experience and are permanently learnable. Basic movement competence is not just the performance itself, such as catching, throwing, rebounding, etc., but rather represents the basic dispositional mastery of performance required to solve given types of tasks (Scheuer et al., 2014).

Movement competencies represent the movement skills and abilities that an individual with intellectual disabilities possesses. Using them, he or she is able to move economically and confidently in a variety of movement situations. environment in which the individual moves and the culture of the society (Vasickova, 2016).

**Table 1:** *Differences and characteristics of the terms: motor competences, motor abilities and motor skills*

<b>Motor abilities</b>	<b>Motor skills</b>	<b>Motor competencies</b>
conditioning/coordination/hybrid	floating on the water surface, submergence under water	movement in the aquatic environment
conditioning/coordination/hybrid	throwing, ball handling, dribbling, catching	movement with tools/ball
conditioning/coordination/hybrid	cycling, skiing	movement on the means (vehicle)
conditioning/coordination/hybrid	running, balancing, jump, roll	movement of your own body

*Source: Masaryková (2021)*

A key prerequisite for physical activity and sport for pupils with intellectual disabilities is the development of basic motor competences, which are also a basic requirement for participation in physical activity. Movement literacy is one of the basic and significant human abilities, which represents an acquired disposition of a pupil with intellectual disabilities, which includes motivation, confidence, movement competences that form the basis of physical activity as an integral part of every person's life (Vrbas, Vlček, 2017). The basic elements of movement literacy for pupils with intellectual disabilities include movement competencies, rules, tactics and strategies of movement, motivation and behavioural skills of movement, personal with social attributes of movement (Dudley, 2015).

### **The importance of physical and sport education for pupils with intellectual disabilities**

Physical education and sport education in special primary schools and inclusive education creates a space in which skilled and meaningful opportunities can be created for pupils, and should play a critical role in the acquisition of skills with subsequent development of competence (Gerlach et al., 2017). Pupils with intellectual disabilities and young people with reduced levels of physical activity have a higher risk of cardiovascular problems, high blood pressure, cancer, diabetes and other diseases in adulthood. Research has also shown that inactivity in young individuals with disabilities can cause secondary problems such as osteoporosis, osteoarthritis, loss of balance, strength, endurance, fitness and flexibility, obesity and depression. The fact that people with disabilities tend to have lower physical fitness than their mainstream peers highlights the importance of developing physical exercise and sporting activities specifically for this group of individuals.

It is widely accepted that physical activity has beneficial effects for all individuals with ID, regardless of any disability. However, for a variety of reasons, people with disabilities show less interest in participating in physical activities and exhibit lower levels of physical fitness compared to the intact population. Nevertheless, students with ID or disabilities can benefit from regular physical activity in the areas of physical development, bone health, mental health and social participation. Accordingly, physical activity positively influences factors of physical and psychological well-being, including mood, life satisfaction, self-acceptance, and self-confidence in individuals with disabilities. Movement competencies developed and refined through movement enable students with intellectual disabilities:

- to be able to participate in a culture of sport and exercise,
- to be able to gain certain experiences,
- understand sport and exercise as an enrichment of their lives,
- to be able to make a decision whether to integrate sport into their lives (Gogoll, 2012).

For this reason, movement competencies do not represent movement performances per se for students with intellectual disabilities, but general performance dispositions that condition their execution (Hermann et al., 2019).

### **Movement programme for pupils with intellectual disabilities**

Teens with disabilities are more likely to be less active and may be overweight or obese. Therefore, they need support and suitable physical activities and sports that enable them to move and be physically active, and at the same time motivate them to maintain their health. These exercise programs do not only focus on specific movement problems of individuals, but also contribute to their overall health and well-being through participation in activities and games. These activities improve not only physical but also psychological qualities, while individuals learn positive aspects of social behavior such as fair play,

cooperation and group participation. Undoubtedly, learning to move and moving actively is an important addition to structured programs of physical education and physical activities. Physical activity increases adaptive behavior through regular physical activity. In addition, physical activity helps individuals with intellectual disabilities to develop the skills necessary for independent living, finding employment and maintaining overall health. We consider physical activity to be a biologically necessary stimulus for the development of the child's movement and health, as well as psychological and social areas (Weinert, 2001). This process is significantly influenced by neuromuscular maturation, growth dispositions, genetic component, growth rate, maturation rate, movement experiences, or motor learning, while the process itself can be perceived as gradual (Malina, 2013). Given the increased incidence of secondary disabilities and other health complications in individuals with ID compared to the general population, it is imperative that these individuals have access to specialized care, exercise, and physical activity that is tailored to their needs, more than is common in the rest of the community. According to Scheuer et al. (2020), the level of movement competence is a decisive element for the inclusion of a child with intellectual disabilities in physical activity, both in the school facility and outside it. It is with regard to the nature of the activities that compulsory physical education enters this process in a significant way.

In the 2022/2023 school year, we conducted research to determine the most frequently used physical education tools and exercises by teachers in special elementary schools in connection with the development of motor skills of students with mental disabilities. In Table 2 we present the information obtained from 63 teachers from the Košice region and Košice surroundings. We live in a time when most students with intellectual disabilities actively perform any regular physical activity exclusively as part of physical education at school. Physical and sports education often became the only opportunity for them to develop their motor skills to the required extent. If this development is not sufficient, it negatively affects physical activity, which is necessary for health itself and their health fitness. Lack of physical activity is considered by the World Health Organization to be the main cause of mortality, while physical inactivity ranks fourth in this assessment. Research shows that physical inactivity will be the number one cause of human mortality in 2030 (Antala, 2014).

**Table 2:** *The most commonly used means of developing motor competences*

Type of exercise	always	very often	often	seldom	never
	%	%	%	%	%
<b>Exercise with tools</b>	1,59	87,30	11,11	0	0
<b>Movement games</b>	100	0	0	0	0
<b>Yoga exercises</b>	0	0	26,98	73,02	0
<b>Music-movement games</b>	11,11	79,36	9,53	0	0
<b>Psychomotor games</b>	15,87	46,03	31,74	6,36	0
<b>Balance exercises</b>	68,23	19,04	3,19	9,52	0
<b>Endurance exercises</b>	3,19	7,93	25,39	63,49	0
<b>Strength exercises</b>	0	3,19	88,88	7,93	0
<b>Breathing exercises</b>	9,53	90,47	0	0	0
<b>Relaxation exercises</b>	100	0	0	0	0

*Source: own elaboration*

## Conclusion

In the past, we have seen many reports of the positive impact of exercise programs that focus on different types of exercise, including strength, aerobic, muscular endurance and flexibility, on people with intellectual disabilities. Recently, researchers have begun to investigate combinations of strength, balance, aerobic and other types of exercises, with the aim of creating complex individualized training programs that would achieve higher efficiency. Studies in this area have shown that multimodal exercises can be more effective in improving the functional abilities and physical fitness of people with intellectual disabilities compared to exercises targeting only one area (Kashi, Dawes, Mansoubi, Sarlak, 2023). Nevertheless, it is important for physical education teachers and athletic trainers to have general guidelines based on the latest knowledge in the field in order to successfully plan long-term exercise programs for individuals with intellectual disabilities. Pupils will achieve better results in other subjects as well, if high-quality physical education is provided in schools, the goals of which also include basic motor skills.

With purposefully guided movement activities with an accent on the development of movement competences, we work on the student with intellectual disabilities without him being aware of it. It is movement that represents a peculiar way where a person meets the surrounding world and gains new experiences. Through movement, a person comes to terms with his

surroundings and at the same time with himself. Movement mediates multifaceted sensory experiences about one's own body and surroundings. Movement can be described as self-knowledge. Through movement, a student with a disability receives feedback about himself, his abilities, weaknesses and strengths, he learns to recognize his boundaries and the limits of his body. By knowing his own body, the student comes to terms with himself. Through movement, a student with intellectual disabilities enters into interaction with others, creates the basics of communication, trains consideration, empathy and learns to follow the rules. Through movement, the student expresses his feelings, perceptions and moods. He does it mostly unconsciously, through body posture, facial expressions and gestures. Movement also represents an emotional experience. When moving, endorphins are released, which cause a feeling of joy. Intense emotional involvement is a characteristic feature of movement activities. Positive emotions that are induced by physical activity can be awakened in different ways. Movement is not only the shaping of the outer body, but it is the refinement of the whole human personality, because the cultivation of the body must go hand in hand with the cultivation of the spirit.

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