



# MANUAL:

## MORE SPORT FOR PEOPLE WITH SPECIAL NEEDS

**MORE  
SPORT**



Co-funded by  
the European Union

## INTRODUCTION

The project called “More sport for people with special needs” is a two-year project (March 1, 2022 – February 29, 2024) which is financed by Erasmus+ programme. The project contractor is the Association of Inclusive Culture from Slovenia, which has 17 years of experience in the field of inclusion of people with special needs and which has been performing adjusted exercises, called “Special Athlete”, for children with intellectual disabilities, autism spectrum disorder and combined disabilities for 8 years. The partners of the project are the Singidunum Sports Club for people with special needs from Serbia which has been organizing regular training and participating in competitions within the Special Olympics of Serbia for people with intellectual disabilities for 20 years. Since 2010 it has regularly participated in the European and world competitions within the Special Olympics. Indirectly involved in the project are Center Janeza Levca Ljubljana and Belgrade High School of Chemistry and Food Technology.

The aim of the project is to provide more sports activities for people with special needs, more precisely children with autism spectrum disorder, moderate and severe intellectual disabilities and combined disabilities. Through the project we have changed the existing practices and work methods, with which we upgraded the knowledge of the participants and exchanged experiences. This way, we take care of the professional development of the personnel and in general for the contribution to the development of the profession. The target group of the project are coaches, volunteers, teachers, sports educators, special rehabilitation educators, occupational therapists and other experts who work with the aforementioned population. In the long term, we want to strengthen the knowledge and skills of the experts, and as a result, to reinforce positive effects on the psychophysical health of children.





In order to prove the significance of regular sports activities among the mentioned population, the project was aimed at measuring physical dimensions and movement ability. There were two primary objectives of the measurement. First, to determine if there is a greater improvement in physical and motor skills in children who, in addition to sports at school, had additional exercise in their free time compared to those who did not. Second, we wanted to discover what adjustments should be made during the measurements in order to achieve the maximum efficiency of the child's or adolescent's movement and what problems we face in our population when measuring.

Moreover, we prepared a manual intended for all the aforementioned experts and others who in their work or life come into contact with developmental disabilities in their work or life. The manual is written in three languages: Slovenian, Serbian and English and is available in printed and electronic form. It covers some theoretical bases about the importance and effects of exercise, but above all it shares our experience that we gathered during the project by performing movement ability measurements.

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Enjoy the reading!



*Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.*

## **WHY IS IT IMPORTANT TO MONITOR MOVEMENT PROGRESS?**

Children with developmental disabilities represent a diverse group of children. Depending on the developmental disability they face, they may have different difficulties in motor, emotional, and social development. Exercise programs developed according to their capabilities should achieve the desired learning in all areas. The positive effect of the exercise program achieved in the motor domain indirectly indicates the health status of children. For the social and emotional advancement of each individual it is necessary to interact with other people, especially with peers.

Children with various disabilities don't have the same possibilities to realize their social and intellectual potential, keeping in mind that they are often isolated from their peers from birth. The social interactions of children with various developmental disabilities are limited both in terms of frequency and quality. Reduced frequency of social interactions, frequent rejection by peers, rarely established friendships lead to their social isolation, and less participation in common activities. Therefore, exercise programs should provide children with as many interactions as possible, collaborative activities, etc.





# AN EXAMPLE OF TRAINING - SPORTS CLUB SINGIDUNUM

## INTRODUCTION

Form several groups so that there are no more than five children in each group. Let the children of the same group stand in a circle, and give them inflated balloons. The task is to gently lift them with sticks (props) moving towards the sign GOAL, which should be capitalised.

Encourage them to work as a team, to focus on the common steps as they approach the goal, to move as one and not to drop the balloon. Speed doesn't matter. Groups start from the same line.

It is important to point out that this is not a game of speed, but that the task is to follow each other within the group, be focused, mind the speed and steps, coordinate so as not to drop the balloon.

After you finish the game, talk to the children:

- Did you like the game? Why?
- What was nice?
- Was anything difficult? If yes, what?
- Did you follow the instructions so as not to drop the balloon? (Patience).



## MAIN PART

### Shaping exercises (exercises for the development of muscle groups):

- Children form a circle and take hold of the elastics with both hands and then spread it out.
- From a standing position, children grasp the elastics with both hands and first pull it towards them, then pull it away (7- 8 times).

### Exercises for the back muscles:

- Straddle stance (feet spread apart; this stance is reached by stepping to the side or jumping), we hold the elastics in front of us with our hands, the torso is in a forward bend (bending the torso forward) (5 - 6 times).
- Straddle stance, hands holding the elastics, torso in a deep fivefold, hands touching the floor (5 - 6 times).

### Exercises for legs and feet:

- Standing position, elastics is on the floor, children first touch the elastics with their front legs, then their heels (7 - 8 times).
- Children walk on the floor like giants (walking on their toes with arms raised high) (7 - 8 times).

### Exercises for abdominal muscles:

- Lying on the back in front of the elastics, hands next to the body, we lower and raise both legs (5 - 6 times).
- Lying on the back in front of the elastics, hands next to the body, alternately raise and lower the legs, i.e. when the left leg is up, the right is down and vice versa (5 - 6 times).

**The aim of the activity:** to enable the normal growth and development of all organs and systems, their training through specially organized and carefully dosed physical activities, to form motor skills and knowledge and to develop physical abilities (strength, speed, endurance, dexterity, precision), to satisfy the biological and aesthetic need for movement, as well as to enable all-round development of children.

**Health and biological tasks:** formation of proper posture, normal condition of the locomotor apparatus, influence on the growth and development of the organism.

**Educational tasks:** formation and improvement of motor habits; consolidation of acquired habits to properly lift and carry; development of physical abilities.

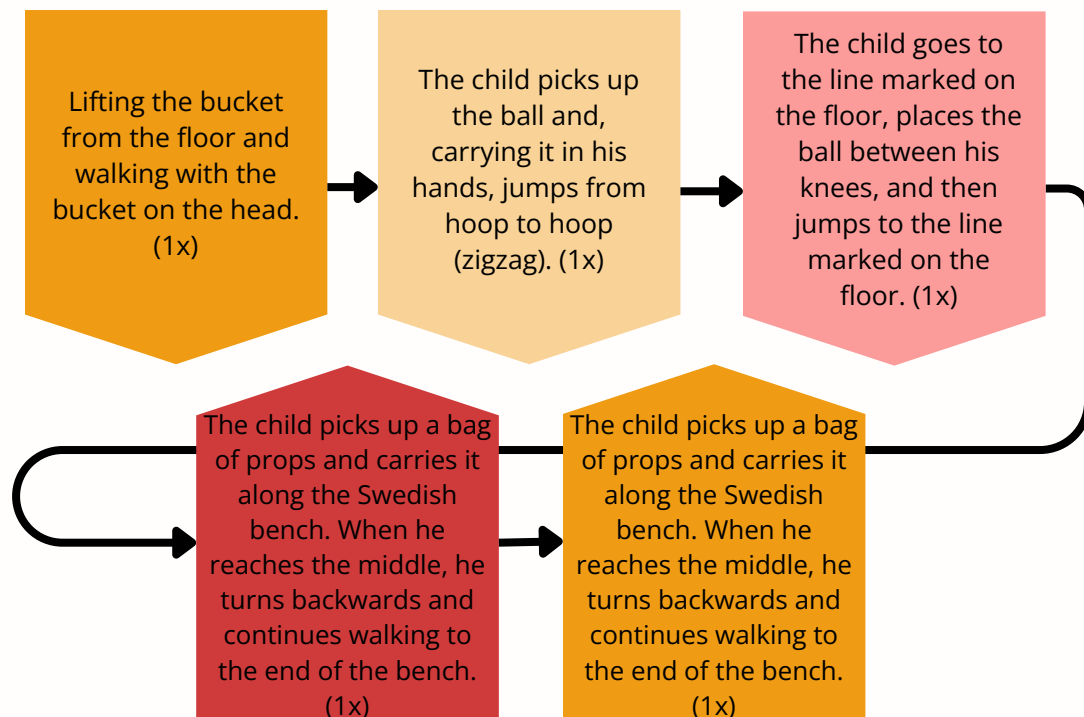
**Social-emotional development:** development of volitional personality traits (will and self-control, responsibility and perseverance); development of professional attitude towards physical activity; encouraging competitive spirit; disciplined attitude towards colleagues and teamwork.

**Associating with other educational areas:** speech development (development of initial mathematical concepts (counting while we exercise); getting to know the environment (children get to know the props and materials which the props are made of as well as their).





The polygon is set up along the entire hall in a circle. Children stand in a column, one behind the other behind the marked line on the floor where the polygon starts. The polygon consists of:



## FINAL PART

In addition to stretching and relaxation exercises, the participants discuss the past activity (what we did that day).

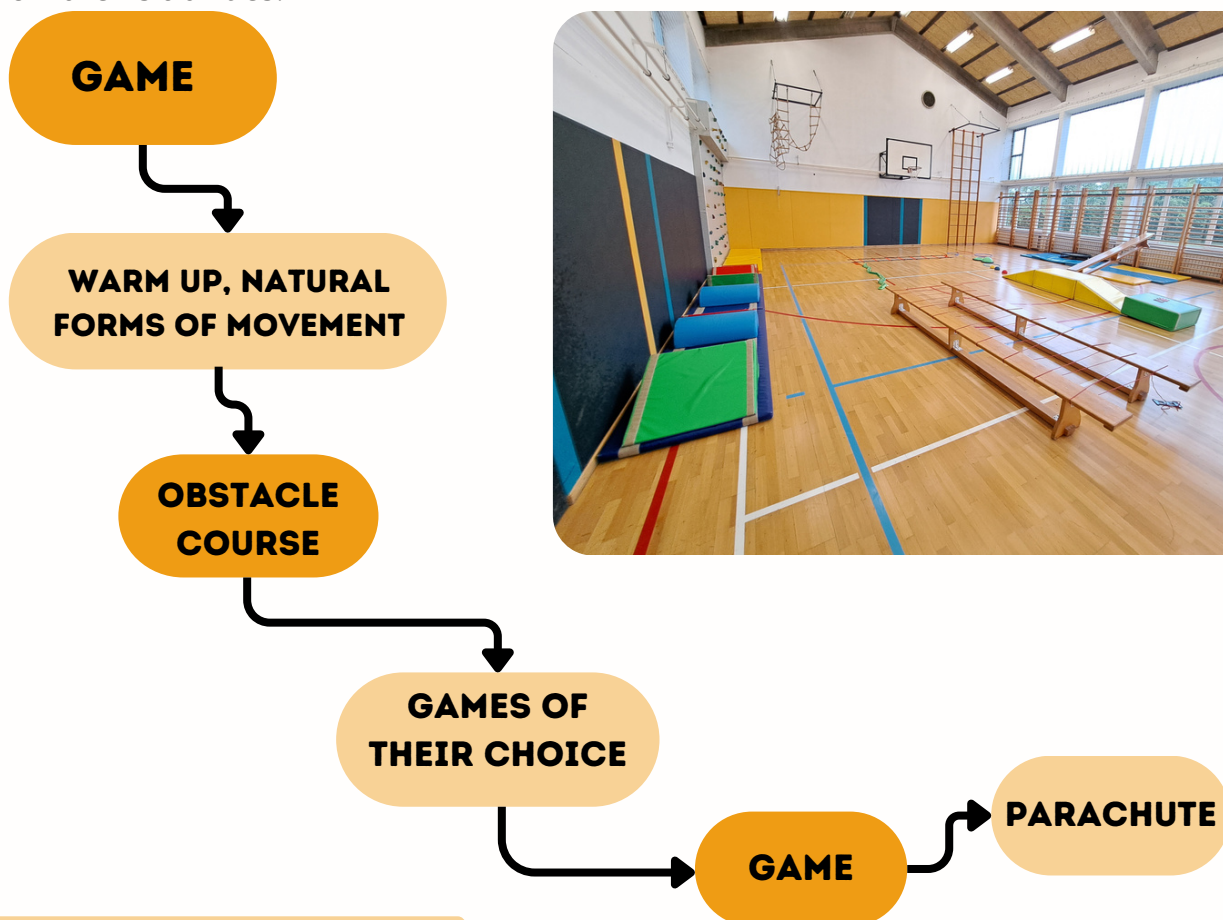


## **EXAMPLE OF AN EXERCISE CLASS: THE ASSOCIATION OF INCLUSIVE CULTURE, EXERCISE: SPECIAL ATHLETE**

The 'Special Athlete' exercise is one that is intended for children with special needs. The program of sports activities of the Association of Inclusive Culture has been implemented for 8 years in a row. The need for sports activities is growing, and the number of children involved is growing from year to year. The target group are children with intellectual disabilities, autism and combined disabilities. For younger children, the emphasis is on developing natural forms of movement and basic movement skills, while for older children or those who reach a certain level of movement, the focus is on the development of specific movement skills and sports games.

The exercise is led by educated and experienced coaches with the support of experienced volunteers. Children need individual guidance and direction, which implies adapted exercise conditions. In practice, we adhere to the principle of inclusion in group practice, where children through sports, creating a relaxed environment, can learn social skills, which are often less developed in the case of the mentioned population.

Below is an example of an exercise class in the 'Special Athlete' exercise but the flow of the class varies from group to group, as each group works in its own way. We adapt the activities and course of the lesson to the characteristics of the group and children's abilities.





The first activity is a joint running game that serves as a warm up game and a way of bonding within the group. We strive for games that encourage cooperation and interaction among children. The games we use most often include are: Tails, Brother Save Me, Flood, Earthquake, Airplanes or classic Tag game as well as different versions of these games that are more or less demanding. After the joint game, warm-up, stretching and strength exercises follow. Through the imitation of animals, we apply natural forms of movement.



A key part of our training is the obstacle course through which we develop basic movement skills, with a special emphasis on coordination and balance. The obstacle course includes various obstacles that children overcome completely independently, with verbal support, demonstration or physical support. Obstacle course tasks include climbing slats, sliding down a slide (bench) and jumping on a trampoline. This task is used as a great game for learning to jump with one foot on firm ground, which represents a challenge for most children. Moreover, the obstacle course includes various mats, obstacles, hula-hoops, coordination ladders, sensory bases, a bench, crawling obstacle or tightrope walking obstacle. The last part of the training ground contains multi-purpose mats of different shapes and sizes, on which children have to walk or crawl.

After the tasks on the obstacle course are completed, games of their choice follow as a reward activity, which are usually very interesting for children. They often pick a specific sport, such as basketball or soccer, but we encourage them to try other sports equipment, such as rackets and hockey sticks. They are very fond of eventually expressing their desire for a "car/runner", which is a sit-on stroller that is propelled by moving the legs left and right. With some groups, towards the end of the class, we clean the hall and all the equipment together.



Before the end of the training we usually play quieter group games, such as Duck, Duck, Goose, Fox, what do you like to eat? or Rabbits and carrots.

We always end the exercise in the same way, using a parachute and singing a song. This way the children know very well that the lesson will end after the song is sung. Before going to the changing rooms, the children receive stamps as a reward for participating in the exercise.

## TESTS DESCRIPTION

Children conducting measurements must wear appropriate clothing (short or long sports pants and a sports t-shirt) and be barefoot when measuring height, weight, and flexibility. For other measurements, they can wear non-slip sports shoes. It is advisable to perform these tests under the same conditions each time (either wearing shoes or being barefoot).

### **BODY WEIGHT – BW (kg)**

#### **PURPOSE**

Body mass represents the volume of the body. An individual's body mass changes from birth onwards, and it is recommended to maintain a healthy body mass at approximately the same level throughout life. A rough measure of healthy body weight is obtained by subtracting 100 from the height. Body weight, along with other body measurements, allows for an assessment of nutritional status.

#### **PROCEDURE**

Person steps onto the center of the scale and stands still. The scale must be on a horizontal surface. The measurer reads the result with an accuracy of at least 0.1 kg (trimester recording).



### **BODY HEIGHT – BH (cm)**

#### **PURPOSE**

Measuring body height determines the length dimension of the body. During childhood, body height continuously increases, but growth stops with the conclusion of adolescence. In adulthood, body height remains constant, although it fluctuates daily. We are tallest in the morning and shortest in the evening. Body height, along with other body measurements, enables an assessment of nutrition and identifies any negative impact on certain motor tasks.

#### **PROCEDURE**

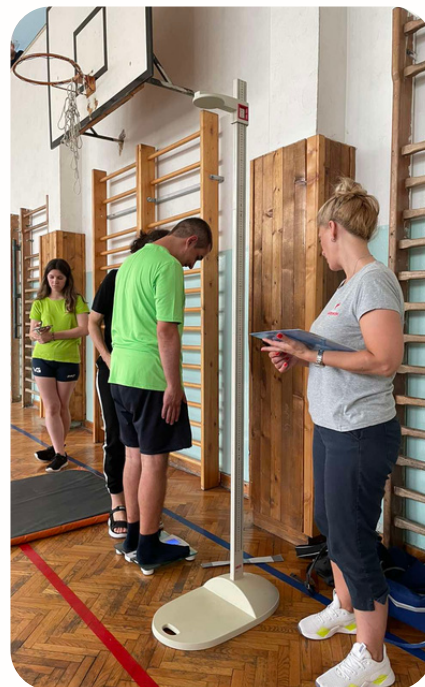
Person stands upright, with feet parallel to each other. The head is in a position where a horizontal line connecting the lower edge of the eye socket and the upper edge of the ear opening is parallel to the ground. The measurer stands on the side of the person and ensures that the anthropometer is vertical and directly along the back. Then, a horizontal bar is lowered to the subject's vertex. The result is read with an accuracy of 0.1 cm (four-digit recording).



## BODY MASS INDEX - BMI

### PURPOSE

The Body Mass Index (BMI) is a general indicator of the relative composition of the body, allowing individuals to be classified into different categories of nutrition: underweight, normal weight, overweight, and obese. Excessive weight brings increased risks of cardiovascular and metabolic diseases, as well as certain types of cancer. BMI is a very rough estimate of nutrition, and some individuals with higher muscle mass may sometimes fall into the overweight category, even though they are not. If, with a high BMI, there are low values of skinfold thickness on the upper arm, we are very likely in the normal weight range. Individuals with both a high BMI and a large waist circumference are at the greatest health risk.



### PROCEDURE

The Body Mass Index is calculated by dividing body weight (kg) by the square of height (in meters):

$$\text{BMI} = \text{body weight (kg)} / (\text{height (m)})^2$$

## STANDING LONG JUMP - SLJ (cm)

### PURPOSE

The Standing long jump provides information about the explosive power of the legs, indicating our ability to generate maximum force. Lower values in this measurement may suggest insufficient muscle power in the thigh muscles or poorer coordination between the arms and legs during takeoff.

### PROCEDURE

The takeoff must be two-footed. Before takeoff, the person may rise on his toes, but he must not perform the takeoff with a previous jump. He performs at least three jumps, and the longest one is measured. Using a longer stick, measure the distance from the line on the takeoff point to the heel that is closer to the takeoff point at landing. The surface must be completely flat. The takeoff location is marked with a line (adhesive tape). Measurement is carried out on a mat for measuring the long jump or on a floor marked with a measuring tape. Read the result, record it in cm precisely (trimester recording), and circle or write down the execution method.



## ADJUSTMENTS

If the person cannot perform the jump independently, assist with one hand. If that is also not possible, assist with both hands. If a two-footed jump is too challenging for him, let him jump as much as he can. He may jump a bit higher or just step over. In any case, precisely circle or write down the execution and thus monitor possible progress in the jumping technique.

## SIT-UPS - SU (Number of Repetitions in 30 s)

### PURPOSE

It is a measurement task in which the number of correctly performed sit-ups is measured in thirty seconds. With this measurement task, we assess the endurance in the strength of the trunk and hip flexors. Well-developed muscular endurance of this kind is important for preventing injuries, as it enables proper body posture and, consequently, the proper functioning and movement of the entire body.

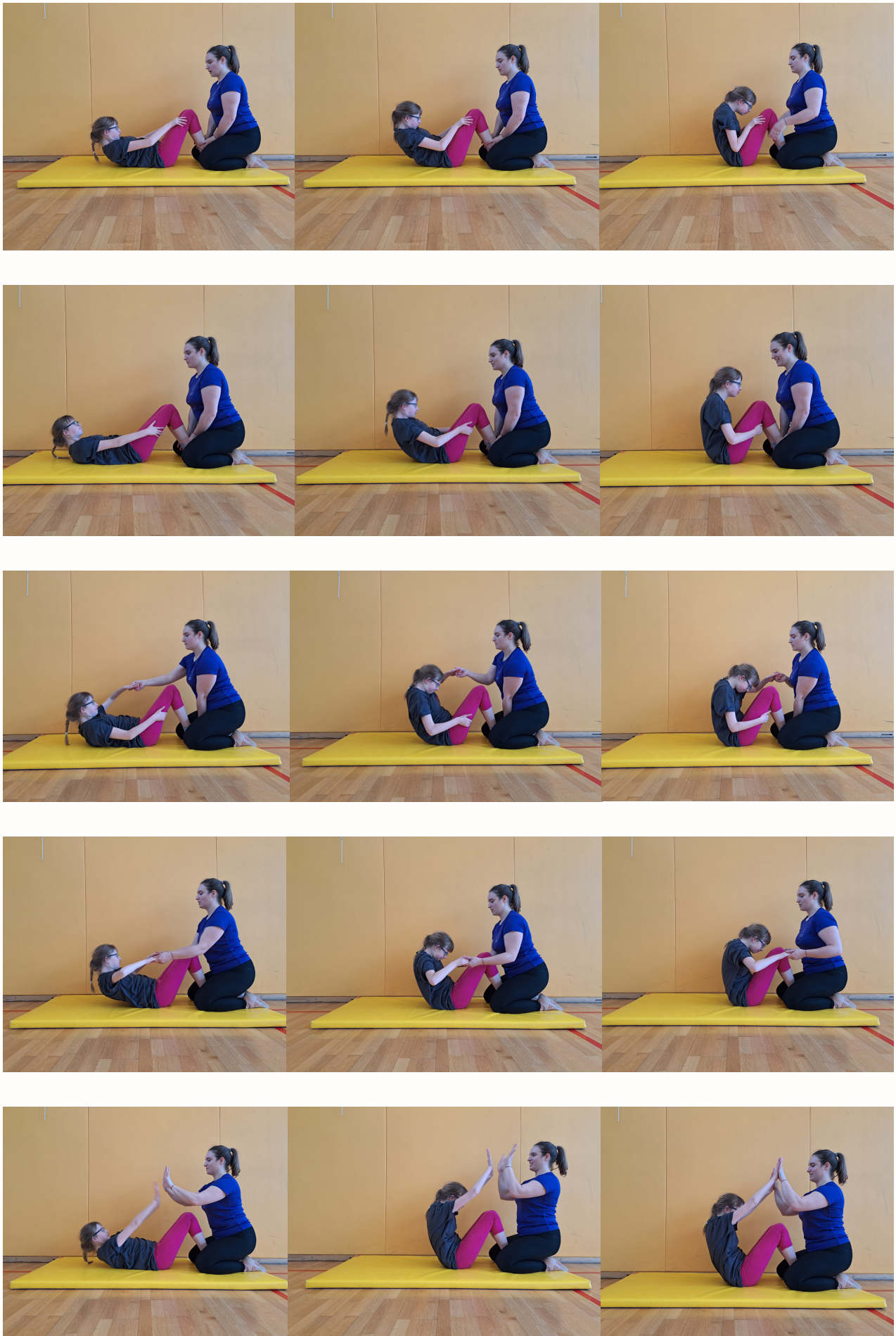
### PROCEDURE

The person lies on a mat with bent legs at a right angle, his feet are in contact with the surface. One of the assessors holds his legs or the person wedges them behind a bar. His arms are in a position behind the head, if possible; if there are difficulties, they are placed on the chest. To determine this, the person performs one to two repetitions as a warm-up. Person rises to a sitting position, lifting to a sitting position until the torso is at least perpendicular to the surface. Person returns to the starting position until the middle of his back touches the surface. The assessor gives a signal "attention - now". The test execution begins on the "now" signal and ends when the assessor gives the "stop" signal. Rests are allowed between individual repetitions. The result is the number of correctly performed repetitions in 30 seconds. If the person cannot perform the correct repetitions, adjust and write down or circle accordingly.

### ADJUSTMENTS

If the person cannot keep his arms behind the head all the time, he is warned, then allowed to complete the measurement as much as he can. If he already has difficulties with the sit-up, allow him to hold onto his legs. If that is not possible either, assist with one or both hands. Document the entire measurement process precisely.





## FORWARD BEND SITTING - FBS

### PURPOSE

The forward bend sitting is a measurement task used to measure the length of the forward bend of the torso while sitting and indicates appropriate flexibility. Flexibility is important for the safe execution of explosive movements and movements performed with great amplitude. With the forward bend sitting, we assess the flexibility of the legs and the lower part of the spine. Low values indicate shortened hamstring muscles, posing an increased risk of injury during explosive leg movements and an inability to perform leg movements with full amplitude, as well as reduced flexibility in the lower part of the spine.

### PROCEDURE

Person sits in front of a bench with legs extended, feet parallel and fully touching the wooden surface. He performs a forward bend and push the board that holds the assessor against the measure as deeply as possible (the task must not be performed with a jerk or swing). The person should remain in the final position for at least two seconds. The subject performs the task twice. The result is the position of the board, read on the horizontal scale in cm. The better result of the two attempts is valid. The assessor must instruct that the legs are completely straight in the knees and that the subject maintains the forward bend for two seconds. The subject must perform a trial before the measurement. Record the result in cm (two-digit notation).

### ADJUSTMENTS

If, despite the instructions, the subject does not straighten his legs, he is warned. If the legs are still cramped, hold them by the knees and keep them against the surface. Document adjustments by circling or marking them.





## 600 METER RUN - 600MR

### PURPOSE

The 600-meter run provides information about an individual's aerobic power. Its basis is aerobic energy processes, which depend primarily on the functioning of the respiratory, cardiovascular system, and blood. A strong heart, circulatory system, and lungs facilitate daily efforts, and high levels of aerobic power are also associated with a reduced risk of developing non-communicable chronic diseases and premature death.

### PROCEDURE

Person starts with a high start. The starting commands are: "to your positions" after which a whistle is blown. The assessor must explain to the person how to distribute their strength on the track and describe the length of the run as well as possible. Person who cannot run the course can walk during the run. The result is recorded in whole seconds.

### ADJUSTMENTS

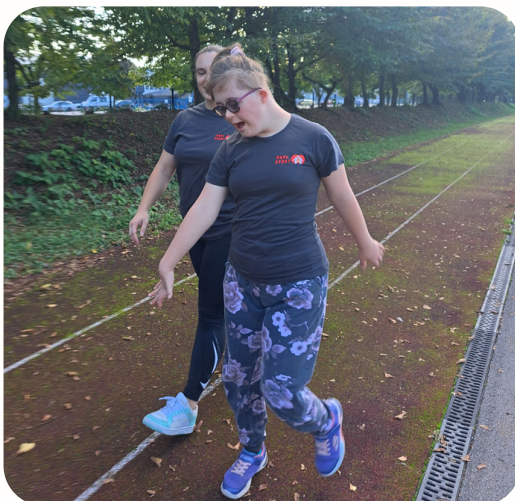
Person who, due to fatigue, cannot run or walk 600m, are circled, and it is noted how much distance they managed to cover and how they covered it. Also, note any specificities and the course of the measurement to better track potential progress.



Running independently



Running together



Walking independently



Walking together

## COMPARISON OF MEASUREMENT RESULTS

During the project, we measured the motor skills of two groups of children: children with special needs who, apart from regular sports activities at school, had additional sports exercises, and a group that did not. In subjects with additional exercise, improvements were visible in most tests, except for long jump measurements compared to previous measurements.

The biggest differences between the two groups of subjects were in BMI measurement and running. Subjects with additional exercise showed great improvement in the abdominal musculature strength test-trunk lift. In the trunk lift test, two subjects improved their score by one or two repetitions while three subjects achieved the same result. However, the four subjects reduced their result by two to six repetitions. The only test in which the group was better, without additional training, was precisely this test of abdominal muscle strength. Thus, we conclude that the subjects in this period had appropriate sports training during classes and that they enthusiastically participated in the testing.

In the long jump, only one subject improved his result and one achieved the same one. On the other hand, seven of them reduced their result while four of them reduced the result by more than 25 centimeters. In the running discipline, subjects who did not have additional training showed slightly reduced results in the last measurements. Five subjects ran to the finish line 16 to 74 seconds slower compared to previous measurements, and only two improved their results by 92 or 218 seconds. Thus, we assume that the subjects without additional exercise did not progress as successfully in this period also because of the weather conditions. We took the first measurements at a time when the weather conditions allowed them to be physically active, i.e. during the summer and at the beginning of the school year. The last measurements were done in the winter and spring periods when students spend more time indoors.





In the group with additional exercise, one third of the children lowered their BMI while half of them performed the long jump better. Moreover, the same number of them improved the trunk lift test. More than half of the children improved on the running test, even by at least 10 seconds on all three measurements. None of the subjects in the running test reduced the result and some of them kept the same time result. Moreover, most of them improved the result in the range of 2 to 7 seconds.



In addition to the general improvement in children who had additional exercise, a decrease and changes in the results on the last two measurements were also observed, which were the result of a longer absence from training and reduced motivation.

## INTERPRETATION OF TEST RESULTS

*The information we receive during the monitoring of physical development and motor skills is important, both for the child and their parents, as well as for the teacher and coach. In pedagogical work, they are important for evaluation and planning. The obtained data allow us to analyze the condition of each individual and plan an individual approach to exercise in accordance with his capabilities (Kovač and Jurak, 2012).*

Conducting testing of physical development and motor skills allows us to monitor the changes and progress of people with special needs, but this process is very challenging considering that they differ in terms of motor, social and cognitive development. Moreover, there are big differences in the way they function in a group or in pairs with a coach, as well as in understanding certain instructions for performing a task.

For some, simple instructions are enough to understand the task and perform it correctly. The problem occurs especially with children and adolescents who do not understand the task or are not motivated to perform it. They need verbal encouragement, physical help, repeated demonstration, and often additional motivation with props (for example: ball, skipping rope, hoop). The coach's physical help can range from hand holding in the sense of guidance and support, to indirect help in the task.



Most tests for monitoring motor skills are aimed at objective and measurable results. When working with people with special needs, we know that exceptional progress is not always just numerical. Accordingly, in the project "More sports for people with special needs", we also highlighted the way to perform a certain task. Through the testing process, we monitored changes in the implementation of the set task, not just the achieved result (example: number of repetitions, time in which the task was performed). The highest level of performance was independent correct performance, then independent adapted performance, then assistance with one hand, both hands or other physical assistance that served to maintain the correct position during the specific task. Although throughout the testing the emphasis was on the best possible numerical result, this was still not a key part of the interpretation in the case when the individual did not perform the task completely independently.

An important part of the interpretation of the results or of a change was the way in which the task was performed. If on the second test the individual achieved the same result as on the previous one or even worse, performing the task with less help and more independently was considered a big improvement.

Important factors that are indicators of progress are that the task is performed without interruption, or without additional means of motivation. Therefore, we always strive for individuals to complete the task as best as they possibly can, according to their abilities. We want the execution and the level to be as independent and high as possible.



Because task performance varies from individual to individual, it is necessary to apply the observations from task training to the testing process itself so that each individual achieves their maximum. Thus, we can set a certain standard for each child and young person, enabling him to use his full potential and achieve maximum results.

## **SUMMARY OF OBSERVATIONS ON MEASUREMENTS**

Testing a person with developmental disabilities is very specific and is influenced by various factors. Each individual needs a specific approach, way of working, giving instructions for performing the task, type of help, etc. In the following text, we will state the observations during the testing that were realized within the framework of this project.

Working with members of the "Singidunum" club requires a special approach during training in accordance with their disabilities. Accordingly, such way of working was also necessary during the testing of motor skills, which meant that the explanation and demonstration of each individual test should be adapted to the individual capabilities of the trainees. Most of the trainees did not understand the explanation for performing the test, which required it to be repeated several times. Moreover, it was necessary to repeat the demonstration of each test several times. After repeated explanations and demonstrations, some trainees managed to do the tests on their own. Exercisers with more severe disabilities performed the first and second attempts with the help of a coach, and the third one independently.

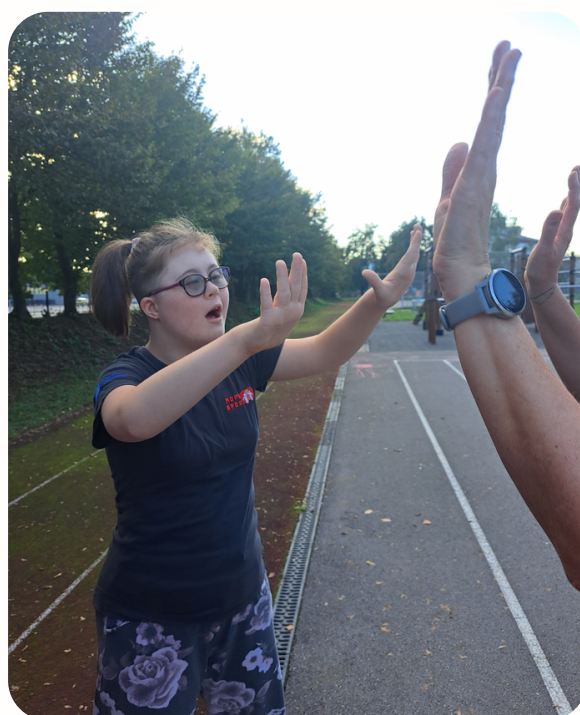






For some athletes, the requirement to land on their feet in the long jump test was a problem. During the 600m run for athletes with mild disabilities, there was no need for additional stimulation and exercise. They got tired quickly and continued their movement by walking, which required constant verbal encouragement from the coach.

Children from the Association of Inclusive Culture were more successful when the test was implemented as an integral part of the game. To increase their motivation when performing the test, physical assistance was needed more often than in the case of a regular exercise. When lifting the body, most of the subjects had difficulty keeping their hands in the given position, as they moved uncontrollably through the air ("danced"), or wanted to lean on them. For almost all subjects, praise after the completed task was necessary.



## THE ISSUE OF INCLUDING CHILDREN WITH SPECIAL NEEDS IN SPORTS CLUBS

The benefits of regular participation in physical activity for physical, social and emotional health and well-being are well recognized (Janssen & Leblanc, 2010; Warburton & Bredin, 2017). Physical activity is considered safe and beneficial for people with developmental disabilities without contraindications and major risks, if the current level of FA is in accordance with the current state of health and level of physical functioning (WHO, Bull et al., 2020)

One type of physical activity in which children and young people participate in order to maintain good health and for fun is organized physical activity. Such activity is defined as physical activity in the organization of a club, association or other type of organization. It usually consists of training or classes, competitions or matches supervised or implemented by an adult (Viium and Safvenbom, 2019). It is required that children and young people with disabilities participate in programs of a recreational nature in which the risk of injury is reduced to a minimum.



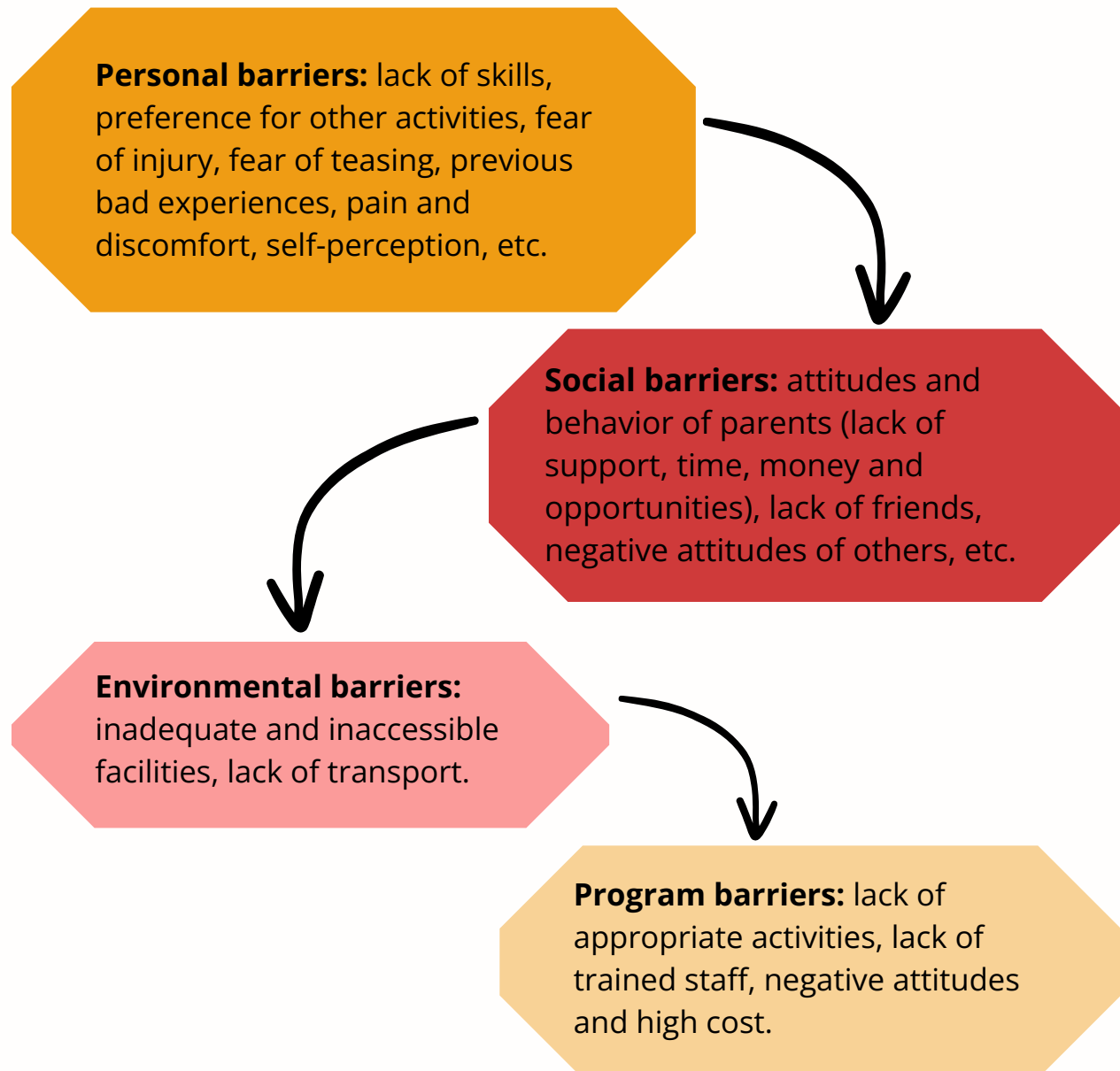
Well-designed programs should be aimed at developing basic movement skills (throwing, catching, jumping, walking, running, balance, etc.) and improving motor skills\* (Carbone et al., 2021).

In designing public health interventions that aim to promote organized physical activities for young people with disabilities, it is necessary to make the activities enjoyable, promote the participation of their siblings and parents, as well as financially support parents with low incomes to participate in them (Papadopoulos et al., 2020).

Understanding the factors that influence the participation of children with developmental disabilities in FA is essential for designing effective interventions. In the context of the inclusion of children and young people in physical activity, certain obstacles (barriers) were identified, such as: type of disability, low self-efficacy, lack of parental support, inadequate or inaccessible facilities and lack of adequate programs. Factors that are related to the physical activity of children with disabilities are: high self-efficacy, enjoyment of physical activity, sufficient parental support, social interaction with peers, attending physical education classes and adaptation of the program for children with disabilities (Yu et al., 2022).

Organized physical activity has the potential to provide additional benefits for children and young people with disabilities, including promoting inclusion, ensuring social connection, improving social and emotional relationships, and slowing the decline of body functions (Hovells et al., 2019). In addition to the benefits of participating in these activities, numerous obstacles (barriers) have been identified for the inclusion of children and young people with disabilities in these forms of exercise (Shields et al., 2012). The most common obstacles can be classified into four groups: personal, social, environmental, and program barriers.

Family plays the most important role in the inclusion of a child with disabilities in organized physical activity. It adapts to several aspects of life in order to meet the needs of the child. Caring for children with disabilities can be physically and mentally challenging, depending on the type of disability, and can lead to impairment of the quality of life as well as jeopardizing careers at work. Helping parents cope with the physical, mental, and emotional stress of caring for their child is often overlooked. Caring for a child with long-term functional limitations can be tiring for parents and can affect the quality of life.





Also, the most commonly reported barriers to participation in physical activity by parents are that the environment and programs are unable to cope with the nature of the disability, and that the environment and programs are not adapted to their needs (MacEachern et al., 2022).

In order to overcome obstacles, possible strategies for improving the participation of children with disabilities in physical activities are (Shields & Synnot, 2016):

### Individual level of strategy

- Include practical training for instructors in the field of disability.
- Ask children with disabilities and their families what kind of activities they want.
- Introduce flexible or subsidized payment options for families of children with disabilities.
- Encourage children with disabilities to participate in physical activity from an early age.

### Social level strategies

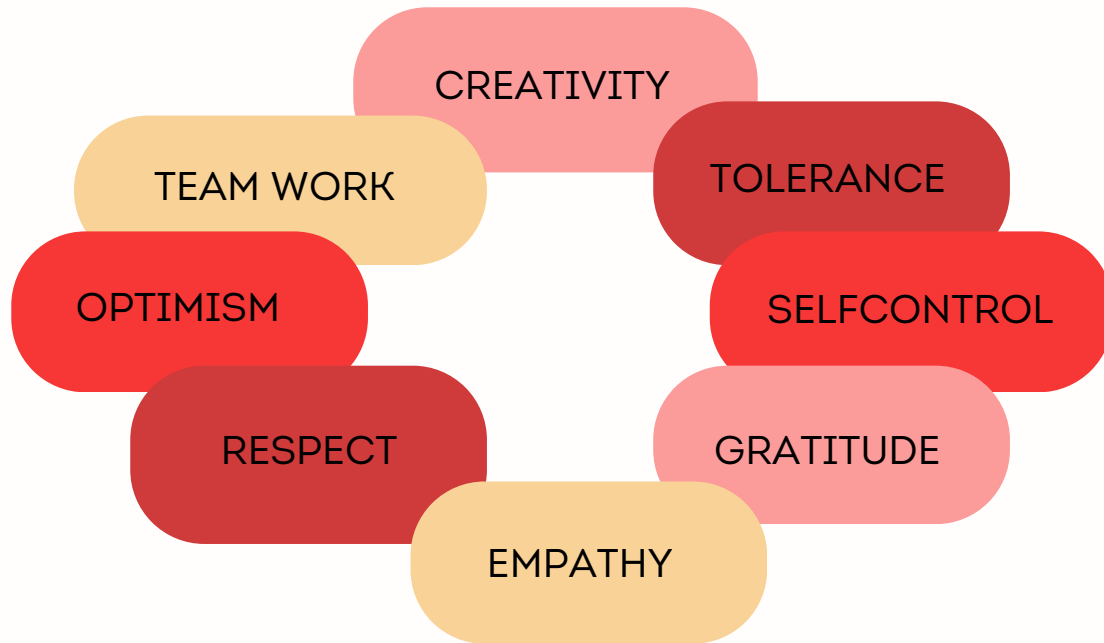
- Reduce the burden on parents of children with developmental disabilities with financial or social support or incentives.
- Introduce flexible financing arrangements for sports organizations.
- Promote physical activity programs in which children with disabilities can participate.
- Ensure that children with disabilities purposefully participate in physical education at school.

### Strategies at the policy level



## WHAT ARE SOCIAL EMOTIONAL SKILLS?

Social-emotional skills of children with developmental disabilities refer to the abilities and skills that enable children to develop and maintain healthy interpersonal relationships, understand and express their emotions, and deal with their emotional needs and challenges. Such skills are crucial for the overall development of the child, regardless of the presence of developmental disabilities.



People with moderate mental disabilities, as well as people with different levels of intellectual abilities, develop social-emotional skills, even though this may require additional support and structuring.

Here are some of the key social-emotional skills that can be developed in people with moderate mental disabilities:

### **Communication:**

Basic communication skills are key to understanding and expressing needs and feelings. People with moderate mental disability can develop verbal and non-verbal communication skills. This may include understanding gestures, facial expressions, saying basic sentences or using alternative communication systems if they are verbally limited.

**Emotional regulation:** People with moderate mental disability can develop the ability to recognize and express their emotions. It is important to teach them how to deal with different emotions, such as happiness, anger, sadness and fear, and how to express them in an appropriate way. Understanding other people's feelings and creating empathetic relationships with others is a key social skill. People with moderate mental disability can develop empathy towards others through observing and learning social norms.



**Understanding social norms:** Teaching people with moderate mental disability about social norms and rules is crucial for their integration into society. Teaching people with moderate mental disability how to resolve conflicts in a peaceful and constructive way can be challenging, but it is important for building stable relationships with others. People with such disabilities should be encouraged to get involved in community activities, build friendships with their peers and feel accepted.

Each person with a moderate mental disability has their own unique path of developing these skills and will need support and adapted approaches in the learning process. This support can come from family, educational professionals, therapists, and other community members. Through sports activities, children with disabilities can develop social and emotional skills in several ways.

It is important to note that the support of experts, such as coaches or therapists, is of great importance in adapting sports activities to children with developmental disabilities. They can provide guidelines and set up an environment that is inclusive, supportive and adapted to the needs of each child. With appropriate access and support, sports activities can be extremely useful for developing social skills and improving the quality of life of children with developmental disabilities.



## DEVELOPMENT OF SOCIAL-EMOTIONAL SKILLS THROUGH SPORTS ACTIVITIES

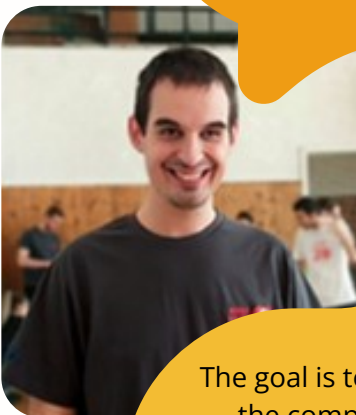
**Social interaction:** Sports promote social interaction and provide opportunities for children with disabilities to meet peers and form friendships. Through joint trainings and competitions, children have the opportunity to show their skills, support each other and develop a social bond with others.

**Communication:** Sports activities provide children with developmental disabilities the opportunity to communicate with coaches, teammates and opponents. Through verbal and non-verbal communication, children can develop their skillful expression, listening and understanding of others.



In a continuous, targeted and planned way, sport encourages the development of social and emotional skills of children and young people, in order to prepare them for a successful life, work and participation in society.

**Teamwork:** The inclusion of children with developmental disabilities in sports gives them the opportunity to develop a team spirit and to learn how to cooperate with others. Through trainings and competitions, children are taught about mutual respect, support and joint work which leads towards a common goal.

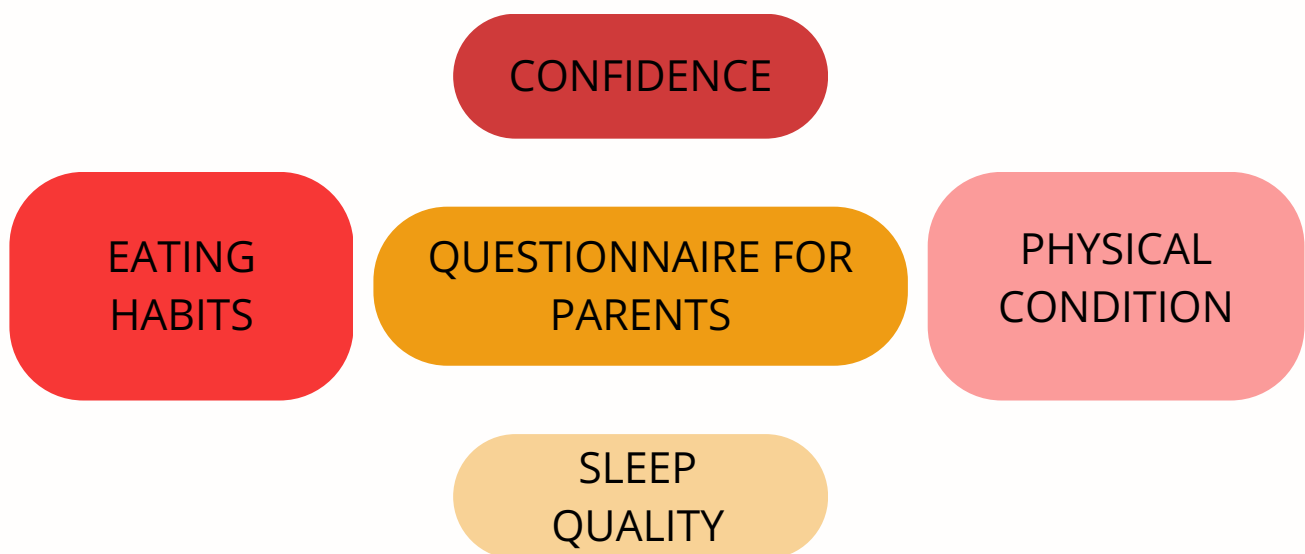


The goal is to strengthen the competence of experts to develop social and emotional skills in children and young people and to act educationally.

**Control of emotions:** Sports activities provide children with developmental disabilities a space to express and manage their emotions. With the support of the coach, they can learn how to deal with frustration, success, defeat and stress during the game. Through sports activities, children can develop strategies to control their emotions and respond to different situations.

## QUESTIONNAIRE FOR PARENTS - ANALYSIS

At the beginning of the project's implementation, we sent the children's parents a "Questionnaire for parents," which was important to us because the parent assessed the child's development in different areas, such as physical development, emotional development, and social development (the area of self-confidence), eating habits, and sleep quality. Parents are the ones to provide information about their child's behavior, habits, and achievements in order to better understand his developmental potential and possible problems. The information collected through such questionnaire can help professionals, teachers, and also parents better understand the child's needs and design appropriate interventions, therapies, or support.



The results of the questionnaire showed that all the respondents have a regular and high-quality diet, but due to irregular movement and exercise, they have a weaker condition, and 40% of the respondents are overweight. In the area of self-confidence, we covered the subjects' attention, mood before and after training, communication with coaches as well as with other children, and self-confidence. The results we obtained in this area are that all respondents like physical activity, that their mood is better after exercise, and that they need help and support for communication and interaction with other children as well as with coaches.

Based on the results of the questionnaire and motor testing for people with moderate intellectual disabilities, SK Singidunum adjusted the activity during the training itself and has put emphasis on social-emotional skills that will be included in the introductory part of the training, lasting from 15 to 30 minutes, with a focus on key values and skills within the social-emotional development of children.



## **PRESENTATION OF THE INDIVIDUAL AND THE RESULTS OF THE CHANGES - THE ASSOCIATION OF INCLUSIVE CULTURE FROM SLOVENIA (EXAMPLE OF GOOD PRACTICE)**

Motor skills were tested three times within the project. The initial testing was in October 2022, intermediate in January 2023 and the final one in April 2023. Within all tasks, we paid attention to the numerical results, as well as the way of performing the task, which defined how much and what kind of adaptation or help the individual needed.

### **The Association of Inclusive Culture:**

A 13-year-old girl achieved a positive change in all measurement tasks. The girl was diagnosed with Prader-Willi syndrome; she has a positive attitude and is motivated to exercise. She always comes to training with a big smile and handles every task with great enthusiasm. There are no major problems with understanding; usually, a description is sufficient, and in the case of some tasks, a one-time demonstration follows. As a result, the tasks were performed correctly and well. During the period, she gained weight and height, but the calculated body mass index decreased by 1.09. In addition to the body mass index decreasing, which is considered a positive change, the aforementioned girl is slightly underweight, so one must be careful what this apparently positive change means.

In the field of movement, visible improvements have been observed, despite the fact that she is considered to be a fairly physically skilled girl. In the standing long jump, she **improved her result by 5 cm**, despite intermediate measurements that indicated regression.

She performed the task independently on all measurements. She **improved her mobility by 0,5 cm**, and she did the task with the help of a trainer, because she needed assistance, so that her legs remained stretched out. A notable improvement was observed in the 600 meter run. At the final measurement, she finished the race **20,34 seconds faster** than at the start. She completed the task independently, with the motivational support of her coach. The biggest improvement was in the trunk lifting task, where she **improved her performance by as many as 6 executions**, as she did 6 trunk lifts on the first measurement and 12 on the last. She also needed help with both hands on the first measurement, and on the final one she finished the test task **completely independently**.



# PRESENTATION OF THE INDIVIDUAL AND THE RESULTS OF THE CHANGES - AN EXAMPLE OF GOOD PRACTICE: SPORTS CLUB SINGIDUNUM

## Intellectual capacities

Functions are at the upper limit of moderate intellectual disability. Short-term attention, vigilance, and stimulation is maintained. Speech is developed, and perseveration is present. He can recognise sounds and syllables as well as shorter words.



30 years  
(April 16, 1992)  
Diagnosis:  
existence of the  
fraginologous X  
chromosome

## Physical and motor assessment

He is mobile and has satisfactory physical dexterity. He has not adopted lateralization on himself or on the other. Explanation and demonstration have to be repeated several times.

## Social and emotional skills

Warm and kind. Easily establishes communication with people from the environment, is more focused on coaches, and has weaker interaction with members of the sports club. When he is excited, he flaps his arms. He needs help understanding the principles; he relies on the model learning method.

The athlete of the club was tested before the start of the exercise program and after its implementation. Explanation and demonstration had to be repeated several times. He regularly attended training sessions and was active in all individual and group activities.

The results of the final testing showed that he improved the results from the initial testing on the forward bend - sitting position (flexibility) and sit-ups for 30 seconds (power endurance), but not on the long jump (explosive strength) and 600m running. It is crucial to note that when running, he runs at an uneven pace.

Also, on stimulation he speeds up, gets tired quickly and then continues walking, which is also reflected in his achievement. It should be pointed out that the involvement of this athlete in training and testing depends to a large extent on his current mood, inspiration, encouragement and motivation he receives from contact with the coach and other athletes.

## RECOMMENDATIONS FOR THE DEVELOPMENT OF SELECTED MOTOR SKILLS IN CHILDREN

The motor skills we focused on in the project “More sport for people with special needs” are endurance, strength and flexibility. In these areas, we noticed a positive impact of the additional exercise that we performed twice a week. In the “Special Athlete” exercise, we emphasize the development of all motor skills, but most of them are tackled indirectly through play or activities with an indirect goal. Foremost, we strive for the most general effects of the given task.

Endurance is developed throughout the training, as children are encouraged to be constantly active with as few interruptions as possible. With this, we maintain a slightly elevated heart rate for at least 40 minutes. At the beginning of each exercise, there is a running game in which all the children are active, for example with the motive of chasing someone or avoiding being caught. The pace of the run varies. Some generally have a faster pace, while others are encouraged to walk briskly. If necessary, the child has the support of a coach or volunteer who adjusts the pace. If they believe that the child could run faster, they look for a motive in the game to increase the pace.

We develop flexibility with flexibility exercises, such as forward bends, swings etc. We perform them in the initial part during the warm-up. During the exercises we look for motives to achieve the greatest range of mobility, such as touching the neighbor's leg, and we pay special attention to the correct execution. Most of the problems arise in keeping the legs outstretched, either due to misunderstanding or intolerance to pain. Metaphors such as sticking the legs together with glue or physical assistance usually help. With some children, we also use a motivational tool, such as a ball or string.



Strength is developed more or less indirectly throughout the training unit. During the warm-up, at the beginning, we perform strength exercises - squats, lifting the trunk, lifting the back, etc. We encourage them by cheering, "knocking" or some other motivational tool (e.g. a ball), and we usually complete the tasks through a story. We develop strength through natural forms of movement and through the entire range. Leg strength is developed primarily through jumping, first on a trampoline and then on a hard surface over various obstacles. A very important help is still demonstration through which children visually learn a certain pattern of movement.



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*How do we change the world? One random act of kindness at a time.*

*Morgan Freeman*







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