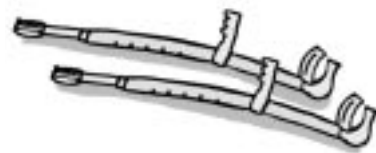


# *Who cares about crutches?*



*leerlingen met motorische beperkingen  
in het regulier bewegingsonderwijs*

*een praktijkboek*

Michiel Krop • Robin Groeneveld



## **Introduction**

# **Aaron, Maria, Billy and Joe, four children with individual educational needs.**

### **Aaron**

Aaron, a pre-schooler aged 4, cannot walk. Each day his mother brings him to school in his wheelchair. In class, he has his own special chair. The wheelchair is banished to the corridor. Aaron moves around the classroom by crawling, that is to say, he 'walks' by supporting himself with his hands and dragging his lower body behind him. This is a slow process, but in this way he can at least get to all the corners of the room. Using his wheelchair would make it much more difficult.

It is difficult for Aaron to reach the water-play table and the painting board. The teacher has managed to create innovative solutions for these problems, but in the playroom the teacher is at a bit of a loss. During the lessons in this room, Aaron amuses himself mainly by watching what the others are doing. He thus loses the contact he has with them. He is unable to do much himself with the laid out games materials.

### **Maria**

Maria is 9 years old and suffers from juvenile rheumatoid arthritis. When her illness plays up, she is in a lot of pain, especially in her finger and wrist joints. Under these circumstances, using them may be too painful for her. Even at the best of times, she is in pain. Despite her suffering, she loves to play with her friends, within her limitations, in the play ground during breaks.

When the class goes to gym, Maria may always go to Ms Smith's room. Ms Smith is the internal counsellor. At these times, Maria always takes some language or maths work with her. She says herself that she does not mind. "After all, maths and language are much more useful later on, than sports", she wisely states ...

### **Billy**

Billy is seven years old. He has recently arrived in grade 4. Through a muscular disorder he does not have a lot of strength. At first glance, there does not seem to be anything wrong with him. It only becomes noticeable in the gym. If he jumps off any of the equipment, his legs always collapse underneath him when he lands. Even the slightest collision causes him to fall over.

### **Joe**

Joe, aged 11, has difficulty controlling his bodily movements. He is spastic. He has a slightly twisted facial expression and stands with somewhat contorted arms shakily on his feet. Joe is difficult to understand. He is given speech therapy to maintain his speaking skills and perhaps even improve them a bit.

Joe is meanwhile in grade 7. Because of the impairment of his fine motor skills, Joe has had enormous problems with his writing. He has received a computer with a specially adapted keyboard. After extensive practise, he has managed to cope with this and is now able to type nearly as quickly as his classmates can write.

Joe always accompanies the class to gym, but is unable to participate in most of their activities there. Often he is allowed to go to the storeroom to do 'something by himself' such as playing with a ball or with the blocks. Usually he watches the others' activities from there.

# Chapter 1

## Justification

### The functions of children's movement

Children are always moving. Movement has four important functions, namely instrumental, exploratory, social and character-forming.

#### **Instrumental**

During growth, movement allows for the correct evolution of the muscles, organs and the skeleton as well as the optimum development of all bodily functions. Movement contributes to a well-coordinated locomotive apparatus.

Billy from grade 4 has a muscular disorder. Because, during his growth, his muscular tissue is not being built up correctly, he is more restricted in his movements than his classmates. He just does not have the strength. One can already predict that he will experience problems with the evolution of his skeleton. There is a risk of spinal deformity, which in turn could have consequences for his organs. Billy's growth will have to be carefully guided by physiotherapy and probably also by surgery.

#### **Exploratory**

Through movement, children get to know their environment and learn to come to grips with it, both the objects and the people around them. Our understanding of the reality around us is also developed thanks to this exploratory side of movement.

Aaron sits on the floor of the games room and watches his friends. While these children are tearing down the slide, they are physically experiencing the meaning of the words high, quick, climb and slide. This is not the case with Aaron. Due to his restricted movements, is unable to interpret these abstract 'experiences'. This can have consequences for his understanding of all kinds of concepts in the fields of, amongst others, spatial orientation, consciousness of time and understanding of size and volume, with all the educational repercussions thereof.

#### **Social**

Movement enables us to come into contact with others. In this way, experience is gained in making and maintaining social relationships.

Due to his spasticity, Joe cannot control his movements well. He finds talking debilitating. He is rather shunned by the children in his class. This is not because they do not like him, but rather because if you ask him something it takes ages before you get a reply. And then the answer is often barely comprehensible. Furthermore, because of his motor impairments Joe is not the ideal playmate. He lowers the performance of the group in which he plays. Character-forming There is a close relationship between the formation of a positive feeling of self-esteem and substantial motor skills.

At school, Maria is spared having to participate in the physical education lessons. She remains at school during these lessons doing either maths or language work even when her juvenile rheumatoid arthritis is not playing up. Maria believes that she is incapable of any physical accomplishments. She greatly admires other children even those younger than herself. Maria's mother says that she is sometimes very angry about her failures. This anger is directed not at her illness, but at herself: she feels inferior. Because of her experience of repeated failures, her self-image is in a downward spiral.

### When 'normal' movement is not a matter of course ...

This practice-oriented book is aimed at children with motor impairments. By this are meant children whose motor skill development strongly deviates from the norm, such as children with a physical handicap, children with Down's syndrome, children who have an impaired motor skill development and children who have sustained brain damage as a result of an accident. These children have fewer possibilities of movement than their peers. This has fundamental consequences for their development. However, it is possible for these children to experience movement to which they can attach special meaning and through which they can develop themselves. During this process of learning through movement, these children need focussed support and supervision from their environment.

Where the instrumental function of movement is concerned, paramedical therapy can in many cases contribute to the development or maintenance of movement capabilities. With respect to the exploratory, the social and the character-forming functions of movement, these children are, in contrast to their peers, particularly dependant on the assistance of adults in their immediate environment; adults such as parents, family members and teachers. These adults can decide in which way the child's movement capabilities can best be utilised. They can support the child in initiating social relationships and they can establish which types of movement would be most beneficial. They can bring these motor impaired children into situations where the various functions of movement will arise.

## **The aims of physical education**

The subject 'physical education' or 'physical training' is an important component of the school curriculum. It contributes to the achievement of important general educational goals, such as learning to deal with rules and procedures; learning to consider one's own experiences and potentials; discussion and co-operation at team level; learning to take into account different norms and values. It is not without reason that plenty of time is reserved for this subject in the timetable.

In physical education the enjoyment of a wide variety of movement exercises and game activities is central. "In general, the children's motivation is not a problem. When we see young children playing outside together, we can see that they like to move about a lot. In the physical training lessons, this positive attitude can be further developed", as is written in The Core Aims of Physical Education for Primary Schools (Kerndoelen Lichamelijk Oefening Basisonderwijs). This instinct for movement that children display is therefore used in physical education as the starting point in the design of the core aims, as formulated by the government.

Groels' books on teaching methods have formed the basis for many teachers' physical education skills. The aims that Groels gives for physical education include not only the development of motor skills, but also the development and acquirement of social skills. Other aims that he mentions are experiencing pleasure at your own movement and that of others, the contribution of movement to health by a high level and intensity of movement, and gaining knowledge and insight into motor skills through issues such as safety, combined play and use of equipment. Groels outlines how these aims can be realised for each age group.

The pursuit of these goals implicitly provides support for the instrumental, the exploratory, the social and the character-forming functions of childrens' movement.

It is beyond the scope of this practice-oriented book to go in depth into the elaboration of these aims in modern physical education. We limit ourselves to the observation that the methods for physical education studied by us all have the following in common: in pursuing the aims, they classify the study material into various forms of movement. These forms include activities such as walking, jumping, waving, balancing, rolling, climbing, clambering, throwing and catching. We presume that anyone teaching physical education is familiar with such a classification and with a methodical structure.

## The short end of the stick

This book is focussed on students whose motor skill development deviates to such an extent from the norm that they fall outside the usual scope of catering to a broader range of educational needs for physical education. They do not meet the criteria of normal motor skill development.

It is obvious that the task faced by the primary school is not a simple one. In general, primary school teachers and specialised physical education teachers have little or no experience of motor impaired students. The standard lesson equipment is often unsuitable. These students therefore often are unable to participate in the physical education lessons. However, it is possible to offer a full educational package that does justice to the individuality of these children.

Our starting point is that children with motor impairments also have an intrinsic need to move. Their fulfilling this desire is however hampered by a number of factors. Some of the limiting factors are inherent in the child: because of their motor impairments some movements appear very unusual or even impossible to execute. Other limitations are imposed by the child's environment: parents, teachers and other supervisors often do not adequately respond to the way in which the child presents itself in terms of motor skills. Excessive concern, lack of knowledge and insecurity play a role here. As a result of these hampering factors the balance between success and failure often tilts towards failure. Through this, the positive attitude of the student towards movement is often hardly, if at all, developed. As a consequence of repeated confrontations with their motor impairments, a negative attitude towards movement can arise.

Every child must be motivated to learn and this applies to physical education as well. The core of the concept of adaptive education is that every child finds its motivation to learn in three primary needs. Firstly, the child should experience that when in contact with others there must be appreciation and respect. This concerns the need for recognition in relationships with others. Secondly, the child must have self-confidence in his or her own abilities. They should be able to experience that one can make things happen and can be successful in that which they do. Finally, the child must have the feeling of being an autonomous creature, able to engage in activities without the aid or permission of others. These three needs must be provided for. They are the conditions necessary to be motivated to learn. Although the concept of adaptive education is mainly focussed on the acquisition of instrumental skills, we feel that it is also applicable to learning other skills as well; including locomotive ones.

## Chapter 2

# About this practice-oriented book

### 'Our students'

In this book a distinction must be made between remarks which concern all students and remarks which apply only to students with motor impairments. We often refer to 'our students' in this book. By this we mean students with motor impairments.

### Safety first!

By using the ready-made exercise material the teacher will learn to appreciate how to make the most of the movement potential of our children. By this, the teacher will give meaning to the main goal striven for in this book: participation of motor impaired students in regular physical education lessons.

We can imagine that teachers would like to get started with this book as soon as possible. A warning beforehand is required. The presence of a motor impaired student requires that the teacher, in preparing for a lesson, checks whether the standard safety procedures are sufficient. The teacher has to also check whether there are specific circumstances as a result of which our students could run exceptional risks during the lesson. This type of specific student-related information can be acquired from the parents or it is to be found in the student's file. Here are two examples: there are children who might have a drain implanted in their heads. These children can be especially sensitive to collisions. Children who have juvenile rheumatoid arthritis have to be restrained in their enthusiasm during physical education lessons because intensive movement could be detrimental to their joints.

### Classification of the exercise material to modes of locomotion

There are innumerable disorders and chronic illnesses. They cover the full range of motor impairments. In teaching physical education to students with motor impairments the manner in which they move themselves about is of key importance. Keeping this in mind we can divide our students into three main groups:

1. **Wheelchair occupants.** In this book we make no distinction between electrical and manual wheelchairs.
2. **Crawlers and sliders.** Many children in wheelchairs, walking frames or other locomotive aids, move around their homes by crawling or sliding. They often play on the floor at home.
3. **Walkers with limitations.** This is a large and varied group of children. Apart from children with visible functional impediments, it also includes children with less obvious disorders and those with chronic illnesses such as (juvenile) rheumatoid arthritis.

Section A of this book includes exercise material for 'wheelchair occupants'. Section B is focussed on 'crawlers and sliders'. In section C one can find exercises for the group of 'walkers with limitations'.

Section D describes a number of games. Some of these you will be familiar with, others might be less well known. Each game is presented in such a way that all students can participate, irrespective of the manner in which they move about.

### The basis is the standard lesson

During the standard physical education lessons, the so-called 'basic forms of movement' are presented to the student. These can be classified as follows:

- **Balancing:** being able to keep oneself or an object in balance on a smaller (narrower) support surface which is either slanted or raised.
- **Rolling:** to move oneself about by turning on a (bodily) axis.
- **Action:** to move from one place to another in terms of time and distance.
- **Throwing and catching:** getting rid of an object using one's hands and being able to seize an approaching object in one's hands.
- **Climbing and clambering:** overcoming objects in terms of distance or height differences.
- **Jumping:** lifting off the ground and floating in terms of distance or height.
- **Waving:** using equipment to lift and stay off the ground, and floating down.

In this practice-oriented book the exercise material from sections A, B and C relates to these 'basic forms of movement'. In this way the teacher can be guided by the contents of the normal lesson plan in the choice of exercise material. That this is not always possible is self-evident. If a lesson is about 'jumping', a child confined to a wheelchair cannot take part. In such a case, the teacher must offer some alternative theme.

### **Problem areas: balance, stamina, co-ordination and strength**

In physical education, students are challenged to explore and extend the boundaries of their motor skills in one or more of the above-mentioned areas. Usually this happens automatically: we take it for granted. In giving physical education to a student with a motor impairment, it is however essential to be able to draw this distinction. Because of his or her disorder or chronic illness, a student might perform worse than usual in one or more of the areas. If the teacher is able to recognise this possibility, s/he can take compensating measures. The successful use of exercise material depends entirely on a correct assessment of the capabilities and handicaps of the student in each of these areas.

What exactly do we understand by these four problem areas? These are our definitions:

- **Problem area balance:** the student is able to maintain physical balance, despite the presence of interfering factors.
- **Problem area co-ordination:** the student is able to complete simultaneous or consecutive movements that are harmonious with regard to direction timing and applied strength.
- **Problem area strength:** the student is able to assert a physical effort against an obstruction, where this obstruction can be a heavy object or (part of) their own body.
- **Problem area stamina:** the student is able to maintain an effort of average intensity for a long time without developing breathing difficulties.

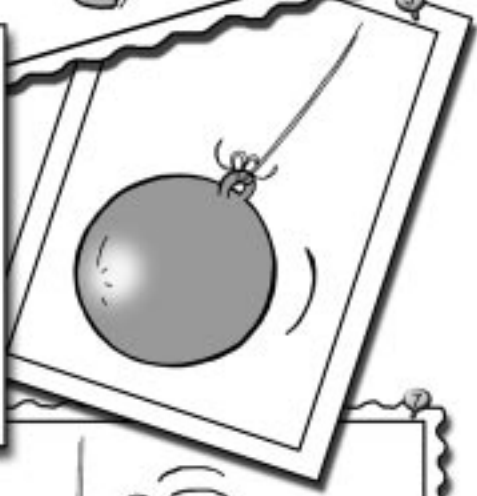
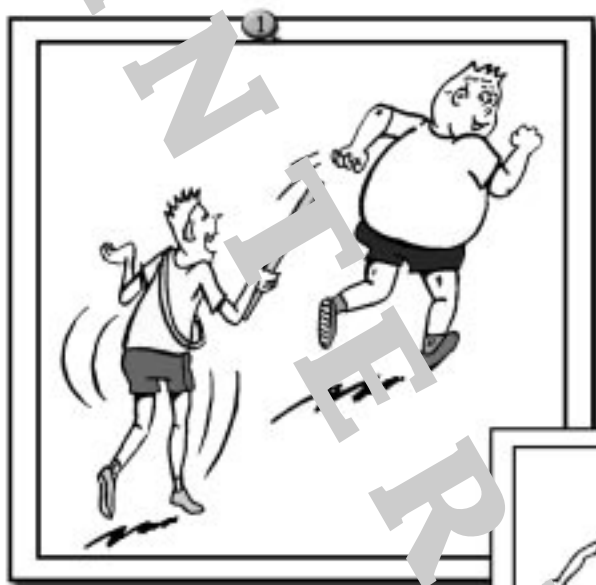
Sections A, B and C are preceded by instructions for the teacher. These can assist the teacher in achieving a better insight into the problems that our student is faced with. If the teacher can identify in which problem area our student performs worst, s/he can consult the outline which accompanies each exercise. Here s/he can read which aspects require extra attention and receive practical tips about compensatory measures. The tips are in a random order. The teacher chooses the tip most closely related to our student's capabilities. It is quite conceivable that the teacher will remodel the tip into a tailor-made solution to the student's problem.

The problem area 'balance' needs some further explanation. As previously stated, balance is about maintaining physical equilibrium, despite the presence of interfering factors. In physical education, loss of balance is usually brought about by external factors. The balancing beam is an obvious example. Our students can however also lose their balance due to internal factors. Examples are the reduced physical control that spastic children have over their movements, or the lack of strength of children with a muscular disorder. In other words: many of our students with co-ordination or strength problems, will also have balancing problems. Drawing a distinction between these problem areas may seem artificial – and so it is. However, such a distinction is necessary in order that safety and specialised measures can be systematically added to the outlines accompanying the exercise material.

In the 'outlines' referred to, there are no tips given for problems concerning 'stamina' nor any possible solutions. Because these tips are more or less the same, they are dealt with in short summaries in the prefaces to sections A, B, C and D.

### **Special; equipment**

Sometimes our students can benefit by using equipment that is not standard issue in gyms. In this practice-oriented book such equipment is referred to now and again. In practice it often involves objects being put to a use other than the one for which they were designed. Some examples:



## Assistance

We should not be too ready to allow a fellow classmate to help one of our students. Apart from the fact that the classmate is thereby hindered from full participation in the lesson, there are also safety aspects that call for an adult assistant. As an example we use the case wherein a wheelchair student is being pushed by a classmate during a game of tag. In the fervour of not being caught, the student pushing the wheelchair student can go too fast. Braking or taking corners then becomes very difficult. One can easily imagine that the student pushing the wheelchair can lose control of it. The wheelchair then virtually becomes an unguided projectile. Chances of an accident are greatly increased. Sometimes it is not only undesirable, but also for practical reasons that it is impossible to involve classmates in assisting our student, for example if a special arrangement of equipment is required.

The use of an assistant can provide the solution in such cases. Because in practice it is virtually impossible to allocate staff time for this purpose, schools could consider using parents. Many schools know all about 'reading mothers' and 'DIY fathers' etc. In the same way, a 'gym parent' could attend a physical education lesson.

It is of utmost importance that the assistant knows our student well. S/he should be able to accurately assess our student's capabilities in order to be able to adequately assist them. It is therefore advisable to keep the number of parents that assist a student in turns to a minimum.

Another reason for limiting the number of assistants is that a personal relationship can spring up between the assistant and our student. Certainly in cases where a child requires much 'bodily' assistance, this could have a positive effect on the feeling of security and thus improve the overall effect of the lesson.

This book explicitly recommends assistance for certain exercises. This does not mean that the use of assistance should not be considered for those exercises where there is no such explicit recommendation. The practical value of assistance is sometimes already evident during the walk from the school to the gym.

## Attire

The last point that we would like to raise in this chapter is a rather general one, but in our opinion not unimportant. It concerns the attire worn during the physical education lessons. Because of the splints, wheelchairs, orthopaedic shoes and other aids that our students have to use, it is sometimes impractical to expect them to change clothing completely. However, wearing gym clothes can be an important "sign of belonging" and in so doing can fulfil an important social function. Therefore we strongly recommend that our students at least be allowed to wear a sport or gym shirt designed especially for physical education.

# **Section A**

## **Wheelchair occupants**

### **Wheelchairs**

Besides the distinction between electrical and manual wheelchairs, there are a number of other differences which can be significant. Some wheelchairs have three wheels; some have swivel castors at the back; in some the seat can be lowered to just above the ground etc. When using the exercise material for students in wheelchairs the teacher should also always bear in mind the specific possibilities of that wheelchair.

### **The problem areas**

In Chapter 2 we consider the problem areas of balance, co-ordination, strength and stamina. In order to discover whether our wheelchair students perform poorly in one or more than one of these areas, the teacher should pay attention to the following:

#### **Balance**

This concerns the balance of the torso and head. Students who have a balance impediment can have their torsos and/or heads slumping forward as a result of their balance being upset, for example when driving over a bumpy road or negotiating the pavement curb. The design of the wheelchair often takes these possible balance impediments of the student into account. In such cases, safety belts and extra support cushions are installed in order to keep the student upright.

#### **Co-ordination**

The student is not able to move in a smooth and easy way in the wheelchair. In electrical wheelchairs we can observe a jerky use of the control button which makes the wheelchair lurch forward or 'jump' sideways. In manual wheelchairs we can observe that the student is not capable of making a fluid motion of the hands across the wheels.

#### **Strength**

In the case of a student in a manual wheelchair we may notice that s/he moves forward very slowly and that a passage across uneven ground can be especially tiring. Students who have an electrical wheelchair usually do so because they have more serious strength impediments. They often have great difficulty with all those activities that require a strength of hand or arm. For that matter, we do not only mean strength impediments brought about by muscular debilities. Students with, for example rheumatoid arthritis, sometimes have enough strength to do an exercise, but they cannot or may not use their full strength. In such cases we also speak of a strength impediment.

#### **Stamina**

The student gets out of breath quickly.

### **Exercise material and specialization**

In drawing up the exercise material we have assumed that the wheelchair student is not significantly weaker in any one of the problem areas. If there is a weakness in either 'balance', 'co-ordination' or 'strength', this will also affect other aspects; the student's speed and skill for example. In the outlines with the exercise material, points of attention are listed and tips given by means of which the teacher can adapt the exercise material.

The outlines do not deal with the problem area of 'stamina'. For an impediment in this area there are few adaptations possible. One could shorten the exercise in time or distance, or one could include breaks. The student determines which adaptation is appropriate.

Finally: many wheelchair students move about at home by crawling or sliding. They can often move about quicker and more nimbly by doing so than in their wheelchairs. During the physical education lessons one could give them this opportunity by offering exercise material from Section B.

## 8. **Obstacle course**

### **Obstacle course:**

#### **Who**

- Individual activity as part of a group activity.

#### **Where**

- The inside track on the edge of the gym.
- Classmates run, skip, jump etc in the outside track.

#### **With what**

- 8 traffic cones, 10 blocks.



### **Description:**

#### **Set-up**

- Along the one long side of the gym, the cones are placed at 1.5 to 2 metres apart in a straight line. Along the other long side of the gym the blocks are placed to make five or more gateways.

#### **Assignment**

- Our students must negotiate the obstacle course as quickly as possible. They must go through the gateways and slalom around the cones.
- Our students follow the direction changes of the group.

#### **Instructions**

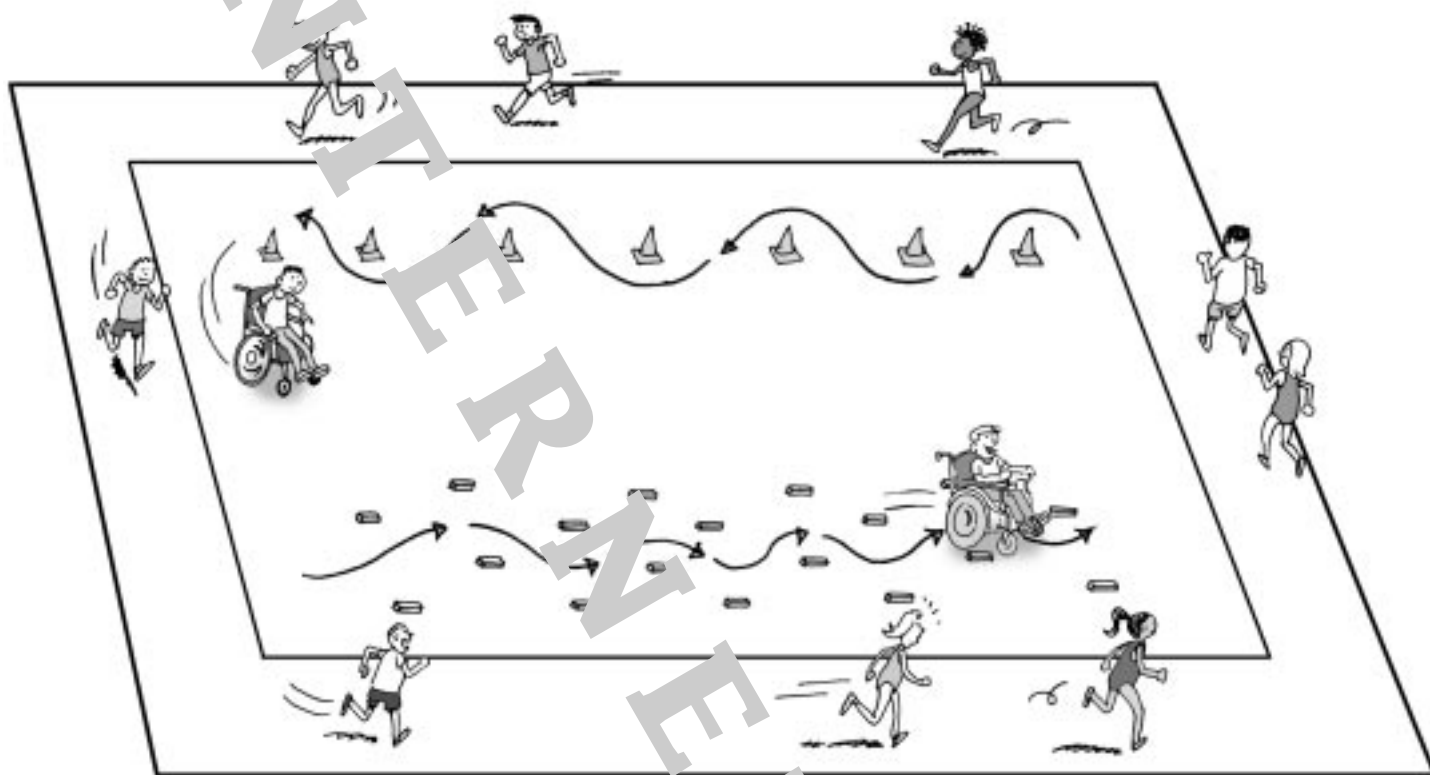
- Try to go as quickly as possible. Take the bends amply so that you can keep up your speed!"
- "Pay attention to the instructions being given to the others. If they have to change direction then so do you."



### **Alternatives:**

- Change the position of the cones and blocks. In this way the bends can be made sharper or gentler.
- Lay skipping ropes in the pathway. Our students must keep these between the wheels.
- Without equipment: while the classmates, at the teacher's command, have to skip, jump etc., our students have to turn alternatively right and left, stand still and immediately start up again, use their hands on the wheel to go forwards-backwards-forwards-backwards, zigzag, etc.





<i><b>Problemareas:</b></i>	<i><b>Points of attention:</b></i>	<i><b>Tips:</b></i>
<ul style="list-style-type: none"> <li>• <b>Balance</b></li> </ul>	<ul style="list-style-type: none"> <li>• Provide additional safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the safety belts</li> <li>• Replace the blocks with party ribbons: driving over a block at speed can seriously upset the balance.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Co-ordination</b></li> </ul>	<ul style="list-style-type: none"> <li>• Allow more space for the execution of the exercise.</li> </ul>	<ul style="list-style-type: none"> <li>• Widen the gateways and extend the distance between the cones.</li> <li>• Increase the distance between our students and other classmates by moving the gateways and slalom section further in towards the centre of the gym.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Strength</b></li> </ul>	<ul style="list-style-type: none"> <li>• Make the exercise easier.</li> </ul>	<ul style="list-style-type: none"> <li>• Make the bends as gentle as possible.</li> <li>• Shorten the track.</li> </ul>

## **Section B**

# ***Crawlers and Sliders***

### **Crawling and sliding**

Many children with wheelchairs, walking frames or other aids are able to crawl or slide. Crawlers move about on their hands and knees. Sliders move about principally using their arms. They hardly, if at all, use their legs. Students who can crawl are usually children who can walk (with the help of aids). Children who slide generally use wheelchairs. Sometimes we allow ambulatory students to participate by crawling for safety reasons. These are children who fall easily and cannot break their fall adequately.

## 10. The inclined slide

### **Suggestions:**

#### **Who**

- Activity for two students.

#### **Where**

- At the wall bar.

#### **With what**

- A wall bar, 2 gym benches, a safety mattress, 2 skipping ropes.
- 2 hoops, 2 stacks of an equal number of beanbags.



### **Description:**

#### **Set-up**

- The wall bar is placed against the wall. The two benches are placed parallel to each other and hooked into the wall bar at an incline to the floor. The safety mattress is placed across the benches. The skipping ropes are used to tie the mattress by its handles to the wall bar.
- The hoops are placed behind the wall bar.



#### **Assignment**

- The student takes a beanbag from the bottom of the slope and clambers up the mattress. Through one of the openings in the wall bar an attempt is made to throw the beanbag into one's own hoop.

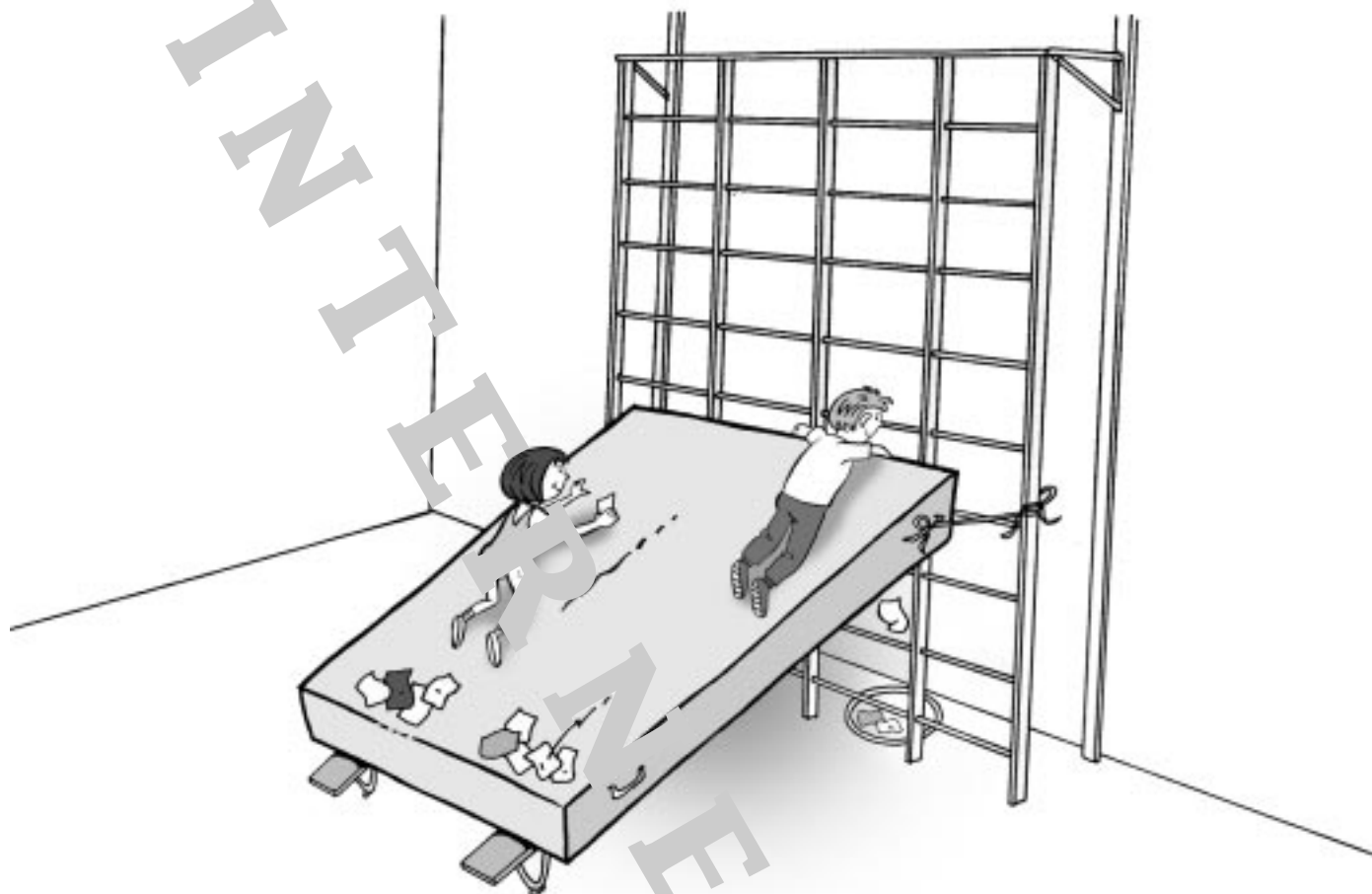
#### **Instructions**

- "Beanbags which fall into the hoop are worth one point." (Possibly: each red beanbag is worth two points.)
- "Beanbags which land up on the edge of the hoop, also count."

### **Alternatives:**

- Crawl to the top and roll back down again.
- Slide on your tummy to the bottom.
- Take balls up to the top of the slope.
- At the bottom of the slope a box is placed. Our student takes a beanbag or tennis ball up to the top of the slope and then throws or rolls it into the box.





<b>Problemareas:</b>	<b>Points of attention:</b>	<b>Tips:</b>
<ul style="list-style-type: none"> <li>• <b>Balance</b></li> </ul>	<ul style="list-style-type: none"> <li>• Provide additional safety.</li> <li>• Enlarge the supporting surface.</li> </ul>	<ul style="list-style-type: none"> <li>• An assistant must be present to offer our students help if they are in danger of falling off the mattress.</li> <li>• Let our student move along the centre of the mattress.</li> <li>• Let our students practise 'low-down', possibly by crawling.</li> <li>• Let our student carry the beanbag in their clothing (the hands can then be used solely for clambering.).</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Co-ordination</b></li> </ul>	<ul style="list-style-type: none"> <li>• Provide additional safety.</li> <li>• Pas het materiaal aan.</li> </ul>	<ul style="list-style-type: none"> <li>• See the 'Balance' tip.</li> <li>• Place the benches so that the slope becomes gentler.</li> <li>• Replace the hoop with a box.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Strength</b></li> </ul>	<ul style="list-style-type: none"> <li>• Reduce the resistance.</li> </ul>	<ul style="list-style-type: none"> <li>• Tie a strong rope to the wall bar. Our students can then pull themselves upward.</li> <li>• Make the exercise more difficult for the classmates: i.e. they may not touch the mattress with their hands.</li> </ul>

## **Section C**

# **Walkers with limitations**

### **Walking with a limitation**

In this section we describe the exercise material for students who are able to walk, but who are motor impaired in some way or another.

This is not only about children who, either with or without an aid, wobble, jerk, move very slowly or are in other ways different in their movement. It also includes children whose walking disability is hardly perceptible. Imagine children with certain types of rheumatoid arthritis or those with an arm prosthesis.

## 6.

# Groupsactivity: depth, height-, distance or supported jumping

### Suggestions:

#### Who

- All students.

#### Where

- The whole gym.

#### With what

- Various materials required for depth, height, distance or supported jumping.



### Description:

#### Set-up

- The standard methods prescribe specific set-ups for each type of jump. Choose the relevant set-up for the chosen method. An alternative set-up can be created for our students.

#### Assignment

- Do the exercise in the manner prescribed in the method.

#### Instructions

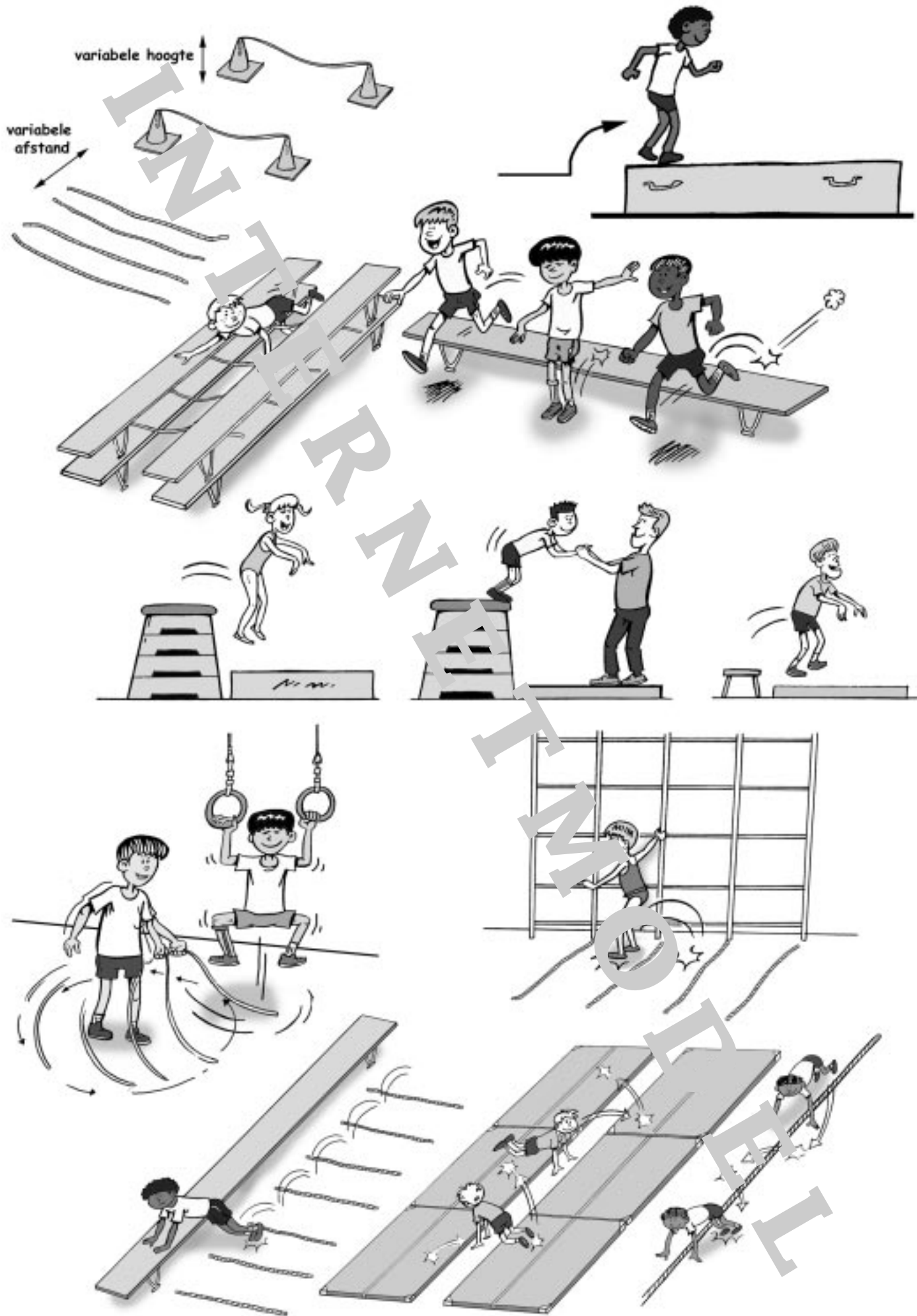
- “Make sure that there is enough room between you and the person in front of you. Otherwise you may accidentally get a leg in your face, or jump on them.”



### Alternatives:

- See illustration.





<b>Problem areas:</b>	<b>Points of attention:</b>	<b>Tips:</b>
<ul style="list-style-type: none"> <li>• <b>Balance</b></li> </ul>	<ul style="list-style-type: none"> <li>• Provide support.</li> <li>• Make the exercise easier.</li> <li>• Provide safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Let our students support themselves on benches, boxes and other objects.</li> <li>• Should our student find it necessary, s/he can be supported by the assistant's arm or hand.</li> <li>• The student may climb or step over obstacles instead of jumping off them or over them.</li> <li>• When jumping down: allow our student to jump from a lower height. Let them not jump from a cabinet, but from a bench.</li> <li>• When running and jumping: allow our students to jump over ropes on the ground, rather than over benches.</li> <li>• When high jumping: if jumping over a rope, let the rope then be lower at one end. Our student can then try to jump over the lower part.</li> <li>• When long jumping: make sure our students do not stumble. Do not let the child jump from mattress to mattress, but rather across the gap between two chalk stripes for instance.</li> <li>• Mattresses can erroneously suggest a safe landing. Use them, but also provide assistance.</li> <li>• Avoid collisions by giving our students lots of room.</li> <li>• If our students are not able to break their fall, do not let them participate in jumping activities. They can be offered an alternative type of exercise.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Co-ordination</b></li> </ul>	<ul style="list-style-type: none"> <li>• Make the exercise easier.</li> <li>• Provide safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Most students who have co-ordination impediments find it difficult to convert a run up into a jump. Let them jump from a stationary position. Allow our students to climb or step over the obstacles</li> <li>• When jumping from a walk: allow our students to stop in front of the bench.</li> <li>• When jumping with the aid of supports: allow our students to jump over a smaller or narrower area, such as the space between mattresses or a long rope</li> <li>• When high jumping: Do not allow our students to jump over a rope, but rather over a number of stacked gym mats or on a safety mattress.</li> <li>• See 'Balance'.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Strenght</b></li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that the exercise is less strenuous.</li> <li>• Provide safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Most of the students with strength impediments cannot launch themselves and thus cannot jump. Allow our students to climb or step over obstacles.</li> <li>• Set out a course which has low elements. Our students can either step onto, off or over these obstacles.</li> <li>• Many students with strength impediments cannot break their fall well, if at all. Jumping can therefore be very risky. Always offer assistance or an alternative exercise.</li> </ul>

## **Section D**

# **Games**

### **Games**

When participating in games, our students are forced to use a number of different motor skills. They similarly also have to use their social skills, such as dealing with rules and procedures and consulting and co-operation as a team. The development of such social skills is one of the most important general educational aims. It is truly desirable and also possible to let our students benefit in game situations from these combinations of motor and social skills.

## 7. Tag

### **Suggestion:**

### **Who**

- All students.

### **Where**

- The whole gym.

### **With what**

- Possibly beanbags, foam insulation conduits (tag sticks), carpet tiles, chalk.



### **Description:**

### **Set-up**

- The students spread themselves around the gym. Every here and there should be “safe” spaces for our students.

### **Assignment**

- Try to avoid the tagger.

### **Instructions**

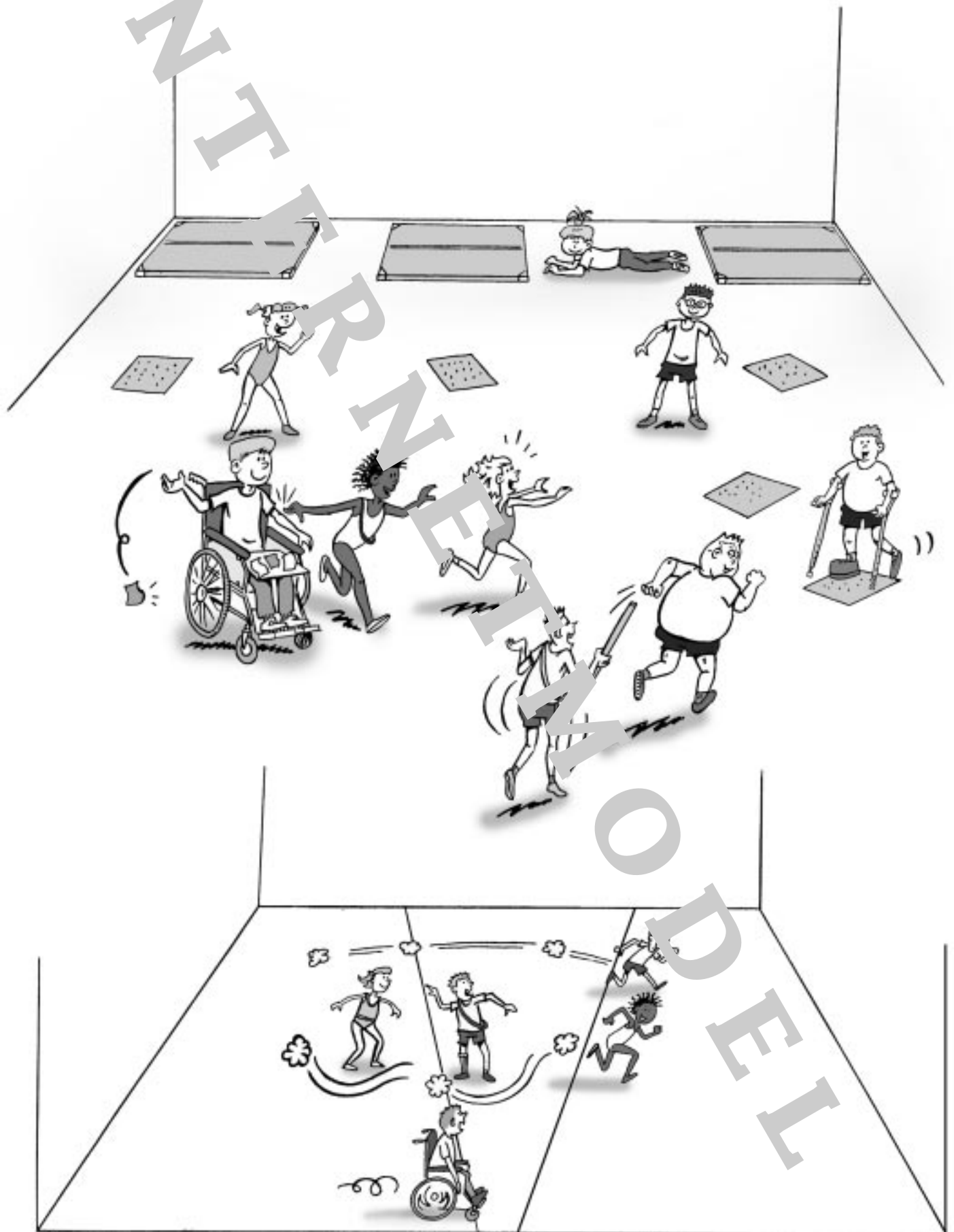
- “You may not use the same “safe” space twice in a row.”



### **Alternatives:**

- We play ‘Cross-over’ tag (see illustration). At a sign from the teacher, the students run up and down across the tag area. The lines of the tag area are conical. Ensure that there is sufficient turn-about space; many of our students need a longer braking distance. Our children play the game at the side of the game area.
- We play ‘Diamond robbery’, a cross-over tag game where ‘robbers’ attempt to steal beanbags (the diamonds) and ‘policemen’ try to prevent them by tagging them in the tag area. The robbers who are not tagged, grab a diamond out of the basket (the ‘vault’) and return along the outside gym hall lines (the ‘thieves highway’). The stolen diamonds must be placed on a gym mat (the ‘robbers den’). Robbers who have been tagged must first touch the robbers’ den before they can try again.
- If we have an ambulatory student who is paralysed on one side only, we can play the game of “The stork and the frogs”. The idea is that the stork hops around on one leg trying to tag the frogs jumping around. The frogs who are tagged also become storks and help to tag the others. Our student with the semi-paralysis, starts off as the stork. S/he may use their other leg for support if necessary.
- In the case of a student who walks very slowly, we can play “The lobsters and the chef”. Here the lobsters walk up-side-down on their hands and feet with their tummies facing upward, and the chef tags them with his wooden spoon in the form of a foam insulation conduit. We can also play “The bird and the caterpillars” where the foam insulation conduit is the beak, etc., etc.





INDEPENDENT

<b><i>Problem areas:</i></b>	<b><i>Points of attention:</i></b>	<b><i>Tips:</i></b>
<ul style="list-style-type: none"> <li>• <b>Balance</b></li> </ul>	<ul style="list-style-type: none"> <li>• Provide safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure our students have “safe” areas free from harm made from carpet tiles or draw chalk squares on the floor. These can possibly also be placed on the outside of the tag area.</li> <li>• Prevent collisions: ensure there is enough space between the “safe” areas and the wall or apparatus.</li> <li>• Allow an ambulatory student to participate by crawling exclusively at the edge of the tag area. Give him “safe” areas.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Co-ordination</b></li> </ul>	<ul style="list-style-type: none"> <li>• Reduce the probability of being tagged.</li> <li>• Increase the probability of tagging by compensating for the lack of speed.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce the distance between the “safe” areas.</li> <li>• Our wheelchair or ambulatory students get a number of beanbags as ‘extra lives’. In each case, they have to drop a beanbag when they are tagged. Only after losing the last bag is s/he ‘out’. The tagger first has to tag another participant before our student can be tagged again.</li> <li>• Let the other students hop, crawl, etc.</li> <li>• Increase the reach of our student by means of one or two tag sticks in the shape of foam insulation conduits.</li> <li>• Allow an assistant tagger to be chosen.</li> <li>• If our crawling student is the tagger, then the other students and the assistant tagger must also crawl.</li> <li>• Allow the other students to hop, walk backwards, crawl, leap-frog etc.</li> <li>• Play the game in a smaller area of the gym.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Strenght</b></li> </ul>	<ul style="list-style-type: none"> <li>• Provide safety.</li> <li>• Reduce the possibility of being tagged and increase the possibility of tagging.</li> </ul>	<ul style="list-style-type: none"> <li>• See ‘Balance’ tips.</li> <li>• Our student walks supported by an assistant.</li> <li>• See co-ordination tips.</li> </ul>