

Playing with the therapy disc

Hartmut Diederley · Hans-Jochen Gallinat



SPORT-THIEME®

School Sports · Club Sports · Fitness · Therapy

Contents

Theoretical introduction

1. Structured play actions using the therapy disc in the sports hall and swimming pool
 - 1.1. About the term structured play action
 - 1.1.1. Structured play actions using the therapy disc
 - 1.2. Note

Practical/methodical part

1. Functional play in the sports halls
 - 1.1. Manipulating the therapy disc
 - 1.2. Maintaining balance on one or more therapy discs
 - 1.3. Moving over therapy discs
 - 1.4. Moving with therapy discs
2. Symbol play in the sports halls, “the flying saucer”
 - 2.1. Manipulating the therapy disc
 - 2.2. Maintaining balance on one or more therapy discs
 - 2.3. Moving over therapy discs
 - 2.4. Moving with therapy discs
3. Rule play in the sports halls
 - 3.1. Manipulating the therapy disc
 - 3.2. Maintaining balance on one or more therapy discs
 - 3.3. Moving over therapy discs
 - 3.4. Moving with therapy discs
4. Functional play in the swimming pool
 - 4.1. Manipulating the therapy disc
 - 4.1.1. Manipulating the therapy disc at the water’s surface
 - 4.1.2. Manipulating the floating therapy disc
 - 4.1.3. Manipulating the therapy disc on the pool floor
 - 4.2. Maintaining balance on one or more therapy discs
 - 4.3. Moving over therapy discs
 - 4.4. Moving with therapy discs
5. Symbol play in the swimming pool, “the flying saucer”
 - 5.1. Manipulating the therapy disc
 - 5.2. Maintaining balance on one or more therapy discs
 - 5.3. Moving over therapy discs
 - 5.4. Moving with therapy discs
6. Rule play in the swimming pool
 - 6.1. Manipulating the therapy disc
 - 6.2. Maintaining balance on one or more therapy discs
 - 6.3. Moving over therapy discs
 - 6.4. Moving with therapy discs
7. List of materials

The therapy disc

1. Structured play actions using the therapy disc in the sports hall and swimming pool

1.1. About the term structured play action

Playing and learning are very closely connected. Therefore: if you limit play actions you impede learning – or to put it the other way round – if you promote play actions you facilitate learning. During childhood development in particular, people learn easiest through playing. One should take advantage of this even when working with children with disabilities.

Playing is subject to a structured development during which

- *actions with objects* (functional play)
- *personal and interpersonal actions* (symbol play)
- *actions guided by rules* (rule play) are developed bit and bit.

Whilst repeated and targeted dealing (practice) with one or more objects is the focus of functional play, symbol play imitates actions with objects and social actions from the natural environment and/or the fantasy world as imagined.

In rule play, actions are guided by symbol-related (e.g. small games) or abstract rules (e.g. big games). Play is now aimed at a particular result: the aim is social assertion. The transition between the increasingly more complex types of play is fluent with the increasing mastery making the skilful action the real aim of the playful argument.

This increasing deftness of the action is subject to an internal structure. The internal structure is primarily determined by the object of learning's individual requirements.

1.1.1. Structured play actions using the therapy disc

The 'therapy disc' object of learning can be experienced in the types of play described above (functional, symbol, rule). Its internal structure design relates primarily to demands in the areas of eye-hand coordination as well as static and dynamic balance coordination. These requirements would have to be presented in their object and development logical context, so the following structure can be seen for the therapy disc:

a) *Manipulation of the therapy disc* (eye-hand coordination)

- in the sports hall: - Manipulation by turning, rolling, pushing etc.
- in the swimming pool: - Manipulation on the water surface
- Manipulation when floating
- Manipulation on the pool floor

b) *Static balance coordination on therapy discs*

- in the sports hall: - Maintaining balance on one or more therapy discs
- swimming pool:

c) *Dynamic balance coordination on therapy discs*

- in the sports hall/ - moving over therapy discs
- swimming pool: - moving with therapy disc

Depending on the requirement's type and intensity, regulative support is necessary. These regulative processes relate to the qualitative aspect of the action (from the unsteady to the skilful action). The regulative process leads from maximum support using aids in form of people or objects to independent actions which are gradually automated through repetition and the capability to accompany the actual movement action with simultaneous actions. Within the scope of the qualitative requirement, the following complexity structure results for the therapy disc:

Independent, partner or group-related actions with personal and/or object support

- Direct support: helper offers support with one or two hands
- Indirect support: helper offers support using objects (e.g. gym bar), support with one or two hands
- Independent support: objects are used for support (e.g. tensioned rope, swimming bars)

Independent, partner or group-related action without or with simultaneous actions

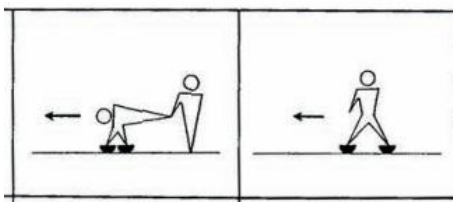
- From the independent individual to the independent social action
- From the actual action (e.g. keeping the balance on the TD) to the simultaneously accompanying action (e.g. additional throwing and catching of balls)

All tasks related to the therapy disc are subject to this level and complexity related structure and can be presented as task structure analysis as follows.

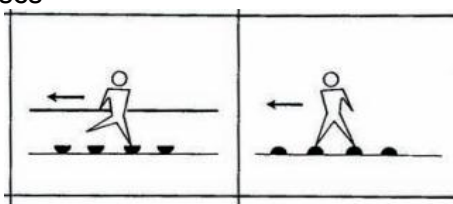
The therapy disc

Task structure analysis 'use of the therapy disc in sports halls'

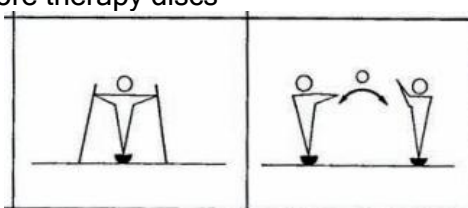
1.4 Moving with therapy discs



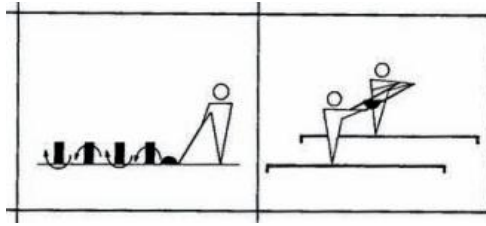
1.3 Moving over therapy discs



1.2 Balancing on one or more therapy discs



1.1 Manipulating the therapy disc

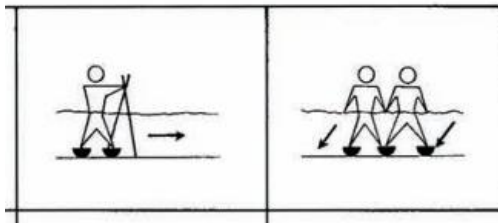


Independent, partner or group-related actions with personal or object support

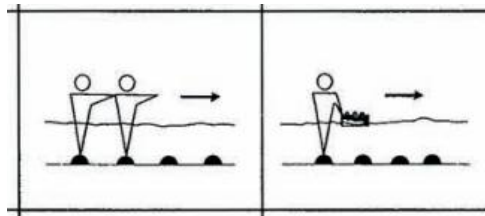
Independent, partner or group-related actions without or with simultaneous actions

'Using the therapy disc in the swimming pool'

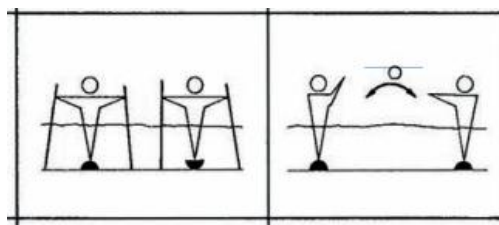
2.4. Moving with therapy discs



2.3. Moving over therapy discs

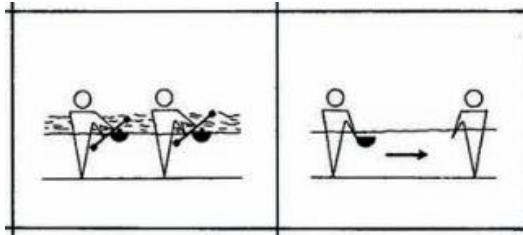


2.2. Balancing on one or more therapy discs



2.1. Manipulating the therapy disc

- on the water surface
- when floating
- on the pool floor



<p>Independent, partner or group-related actions with personal or object support</p>	<p>Independent, partner or group-related actions without or with or with simultaneous actions</p>
--	---

1.2. Note:

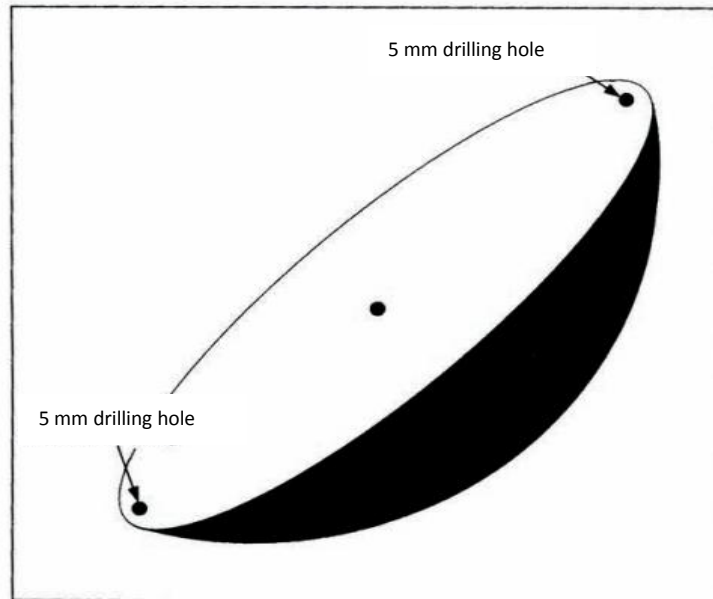
For use in the swimming pool, the therapy discs have to be fitted with two additional holes (5 mm) on the flat outer edge.

This allows the discs to sink completely or they can be used with the remaining buoyancy in a floating state.

Attention! There is a risk of accident if the remaining buoyancy is too strong!

Therefore, let enough water flow in before you start exercises underwater.

The individual exercises on the floor should only begin when the discs are completely filled with water.



The therapy disc

1. Functional play in the sports hall

1.1. Manipulating the therapy disc

- We rotate the therapy disc without small objects (rings, balls etc.) falling off.
- Using gym bars, push the therapy disc through the hall around obstacles and also transport small objects
- Using a skipping rope, pull the therapy disc around obstacles and also transport small objects

1.2. Holding the balance on one or more therapy discs

- We sit on the therapy discs
- We squat on the therapy discs
- We stand with both feet on the therapy discs
- Standing, we stretch both arms up
- We stand on the toes
- We stand with one foot on the therapy discs

First, the therapy disc's flat side should be on the floor for all exercises. The unstable position (flat side up) should only be offered later. At the beginning, the disc should also be stabilised using a cellular rubber ring or a rubber mat.

Possible simultaneous actions would be:

- We pass a ball around the body, through the legs
- We bounce the ball
- We throw the ball against the wall and catch it again
- We throw the ball to another player throwing (with partner, in groups)
- We hold two gym bars parallel and roll the ball along them
- We stand in pairs on one therapy disc
- Three of us stand with one foot each on a therapy disc
- The play leader calls a number – this number of body parts must touch the therapy disc

- Tug-of-war: two players stand opposite each other on one therapy disc each and try to unbalance the opposite by pulling a rope. To start with, the rope is pulled in from the end by each player. Letting go of the rope or stepping off the disc loses the game.
- Group rotation: the group of players stand in a circle on the therapy discs with players stretching their arms to the side and touching each other with the finger tips. The eyes are closed and each player rotates on their own axis.. With eyes closed, the two neighbouring players must then be found again.

Variation: Touch the earlobes of the neighbouring players and find them again.

1.3. Moving over therapy discs

For the following exercises, the therapy disc should always be placed on a slip-free surface (e.g. rubber mat or cellular rubber ring)

- We walk forwards over the therapy discs
- We walk sideways over the therapy discs
- We walk backwards over the therapy discs

For all exercises, first the therapy disc's flat side should be on the floor. The unstable position (flat side up) should only be offered later. The distance between the therapy discs should be gradually increased.

Possible simultaneous actions would be:

- Transport small/big objects (balls, balloons, gymnastics bars etc.)
- Transport small/big objects with a partner, e.g. transport a ball on two gym bars
- Change: Step from one therapy disc sideways onto another. Pick up the first therapy disc, place it on the other side and change again.
- Find your way: Blindfolded, carefully find the path over the therapy discs by touch (barefoot if possible).

1.4. Moving with therapy disc

- We walk forwards on two therapy discs
- We walk sideways on two therapy discs (side shuffle)
- We walk backwards on two therapy discs

For all exercises, first the therapy disc's flat side should be on the floor. The unstable position (flat side up) should only be offered later.

Possible extensions and simultaneous actions would be:

- Walk around obstacles
- Transport small/big objects
- Snake: several players stand behind each other touching the shoulders of the person in front and move together on command.
- In one line: two players holding hands move together using three therapy discs. For this, both players stand with one foot each on the therapy disc in the middle, extension: three players on four discs etc.
- Sitting flight: one player sits on the therapy disc and holds on to the sides. The other players hold the legs and pull him or her through the room.
- Wheelbarrow: one player in push-up position on two therapy discs is held at the legs and pushed forwards through the room.

2. Symbol play in the sports hall

The example of “the flying saucers” is meant to show possibilities to experience the therapy disc not only as functional object. Particularly for pre-school and primary school children, the transition to symbolic content means actions lead by interest, in which fictional situations can be translated into movement and language.

2.1. Manipulating the therapy disc

The flying saucer must fly certain routes in space:

- On the floor by pushing, pulling (gym bars, ropes ...), transport tasks, around obstacles ...
- In the air through transport of the therapy disc using two parallel tensioned ropes. The partners always have to ensure tension. Transport tasks around/over obstacles...

2.2. Holding the balance on one or more therapy discs

The astronauts are in space with their flying saucers and have to complete certain tasks which are transmitted via radio.

- Stand on the flying saucer
- The flying saucer rotates
- All flying saucers connect: e.g. holding hands in a circle, secret signals are transmitted (three times pressing the hand clockwise ...)
- Touch the flying saucer with only one foot and four fingers
- Pass on food (balloons, balls etc.)
- Pass on connecting rope and hold on as a cosmic storm is approaching the flying saucers. The players move the rope.

2.3. Moving over therapy discs

Space flight: the flying saucers connect two space stations (e.g. soft floor mats). All astronauts have to get from one space station via the flying saucers to the other space station.

Blind flight: the blindfolded astronauts have to get from one space station to the other.

Space transport: the astronauts have to transport various rock samples (e.g. balls)

2.4. Moving with therapy discs

Each astronaut has two flying saucers to fly through space and to complete various tasks.

- Fly to set destinations
- Fly around planets
- Complete transport tasks
- Move in pairs on three flying saucers.

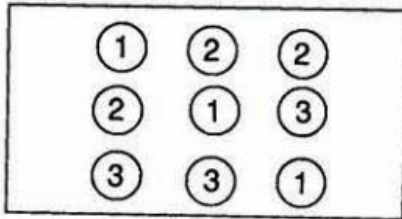
3. Rule play in the sports hall

3.1. Manipulating the therapy disc

- Curling: every player receives one therapy disc and tries to place it as close to a target (e.g. exercise ball) as possible. This is done by pushing the therapy disc away from a base line.
- Humming top: all players rotate their therapy disc as fast as possible. On a signal, one must no longer support the top using the hand/bar etc. Whose humming top rotates for the longest time?
- Extension: there are objects on the humming top such as a tennis ring in which a table tennis ball rolls.

3.2. Keeping the balance on one or more therapy discs

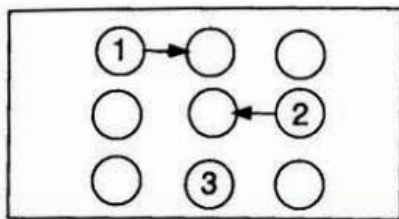
- Atom game: freely distributed around the room there are three therapy discs each on four rubber mats. The group of players runs around the room. When, for example, the call “atom 5” is made, five players each must meet on one mat and try to balance together on the therapy discs.
- Team “three in a row”: nine therapy discs make up a 3 x 3 playing surface. 3 teams with 3 players each come onto the playing surface one by one. Which team can complete a horizontal, vertical or diagonal row?



In this case
(standing on the therapy discs) team 1 would be the winner.

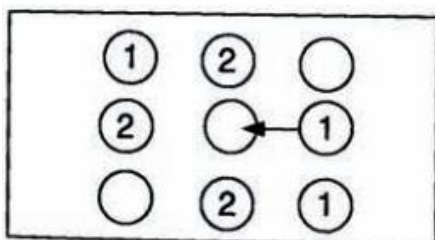
3.3. Moving over therapy discs

- “Three in a row”: nine therapy discs make up a 3 x 3 playing surface. 3 players select a free therapy disc position on the playing surface. Taking turns, each player may now take one step forwards/backwards/to the left/to the right onto a free therapy disc. The aim is to complete a horizontal, vertical or diagonal row. (Player 1 is always first to start)



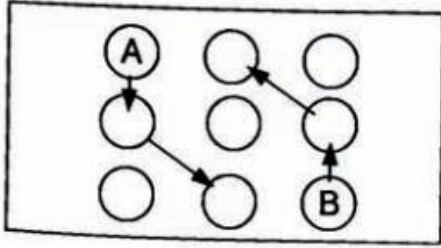
In this case, player 2 would be the winner
as he or she closes a vertical.

- Team “three in a row”: nine therapy discs make up a 3 x 3 playing surface. 2 teams with 3 players each step one by one onto free therapy discs. Taking turns, each team tries to complete a horizontal, vertical or diagonal row by moving around.



In this case, team 1 would be the winner.

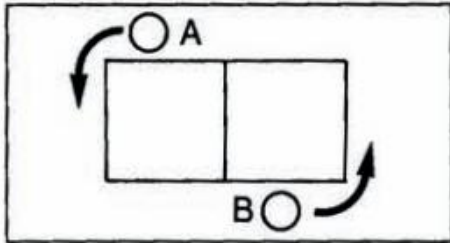
- Float game: nine therapy discs make up a 3 x 3 float. Player A chooses a free place on the float. Player B should now rebalance the float.



Player A chooses a new place.
Player B rebalances and so on...

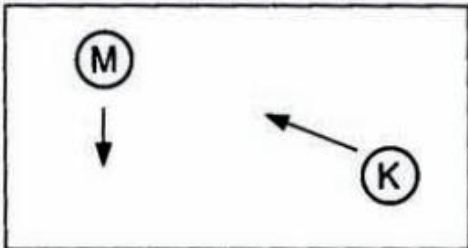
3.4. Moving with therapy discs

- Clockwise/anti-clockwise: player A tries to catch player B at a table tennis table. Both move blindfolded on two therapy discs.



Both players orientate
by hearing.

- A version of Blind man's bluff: 2 players move blindfolded on two therapy discs each in a restricted space (e.g. within marking ropes, on mats). Player 1 tries to catch player 2.



4. Functional play in the swimming pool

4.1. Manipulating the therapy disc

4.1.1. Manipulating the therapy disc on the water surface

- We push the therapy disc using both hands, one hand or individual fingers in front of us without the disc sinking. The brave ones can use chin, nose or forehead.
- We rotate the therapy disc clockwise/anti-clockwise whilst standing, then whilst walking.
- We push the therapy disc through the water using small objects (balls, diving rings etc.) at first using both hands, using one hand, using individual fingers, using the chin, the nose, the forehead.

- Using gym bars, we push the loaded/unloaded therapy disc through the water, around obstacles, without the disc sinking or the objects falling off
- Using marking tape or plastic chains, we pull the loaded/unloaded therapy disc through the water, around obstacles etc...

For all exercises, at first the therapy disc's flat side should be pointing upwards, the unstable position (flat side down) should only be offered later. All exercises can be done alone, with a partner or in a group. A circle formation is particularly suitable for groups.

4.1.2. Manipulating the floating therapy disc:

- We push the therapy disc using both hands or one hand in front of us without the disc sinking.
- Underwater, we transport small objects on the therapy disc (diving plates/diving rings, marbles etc.) using both hands, using one hand.
- Underwater, we push the therapy disc using gym bars, without the disc surfacing.
- Underwater, we transport objects around obstacles, using both hands, using one hand, using gym bars etc...

All exercises can be done alone, with a partner or in a group (circle).

4.1.3. Manipulating the therapy disc on the pool floor (flat side down)

- We feel the therapy disc with one foot and push it ahead of us, push it to a partner or pass it on in a group (circle).
- On the pool floor, we push the therapy disc alone or with a partner underneath obstacles or around obstacles using a gym bar.
- In hip- or shoulder-deep water, we place diving rings/diving plates in various colours onto the therapy discs (getting used to diving slowly)

4.2. Maintaining balance on one or more therapy discs

- We sit on the therapy discs
- We squat on the therapy discs
- We stand with both feet on the therapy discs
- We stretch the arms upwards
- We stand on the toes
- We stand with one foot on the therapy discs

For all exercises the therapy disc's flat side should be on the floor. The unstable position (flat side up) should only be offered later. All exercises can be offered in different water depths. Ensure that at first, the body's centre of gravity is underwater.

Possible simultaneous actions would be:

- Push a ball around our body
- Throw the ball into the air and catch it again
- Throw the ball into the air, rotate on our axis and catch the ball
- Throw the ball to a partner (with partner / in a group)
- Throw diving rings into a ring / square etc. into a net, onto a bar
- Two / three of us stand together on the therapy disc
- Two / three of us stand together with one foot each on the therapy disc
- Pushing bars: two players stand opposite each other on a therapy disc each and try to pull the opposite off the disc using a bar

4.3. Moving over therapy discs

- We walk forwards through the water over the therapy discs, without touching the floor

- We walk sideways through the water, if possible without touching the floor
- We walk backwards through the water, if possible without touching the floor
- Standing in a circle, we link arms and change positions clockwise

At first, all exercises should be carried out in chest deep water with the flat side of the therapy disc pointing down. On the unstable side, diving rings may be used for stabilisation. The distance between the therapy discs should be increased gradually.

Possible simultaneous actions:

- Transport small/big objects (balls, balloons, tennis balls etc.) on the water surface. For this, hands, the chin, the nose etc., can be used, but you can also 'blow'.
- Transport small/big objects on the water surface using gym bars
- Change: in 1m deep water, step from one therapy disc onto another. Pick up the first therapy disc and place it on the other side.
- Find the path: blindfolded, find the path over the therapy discs by touch.

4.4. Moving with therapy discs

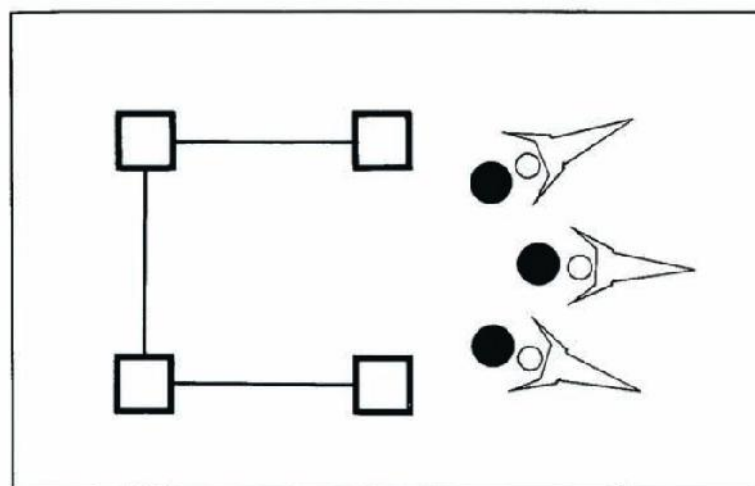
- We cross the water forwards, sideways and backwards using two therapy discs
- We glide on the therapy disc through the water (water ski), two helpers pull the player from the flat into the deep water
- We rest both hands on one/two therapy discs, let the legs float upwards and move forwards in the flat water using leg propulsion (front crawl or breast stroke leg movement)

Possible extensions and simultaneous actions:

- Walk around obstacles
- Transport small/big objects
- Move on one / two therapy discs using two gym bars (stilts)
- Two players holding hands move together using three therapy discs, with both of them standing with one leg on the therapy discs in the middle
- Snake: several players stand behind each other touching the shoulders of the person in front and move together on command.

5. Symbol play in the swimming pool

"The flying saucer" shall be an example of how the therapy discs can be used in symbol play even in the water.



5.1. Manipulating the therapy disc

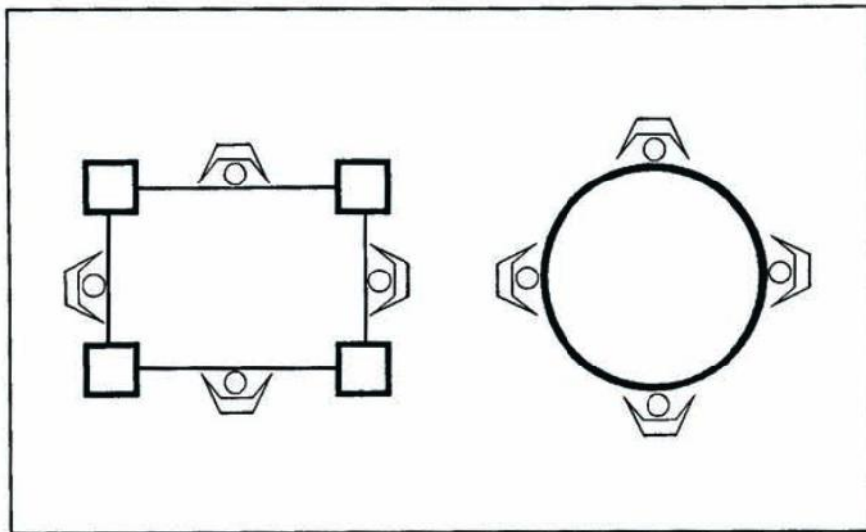
The flying saucers fly in space to individual space stations (e.g. swimming bars, colourful riders etc.)

- We transport important objects on the water surface
- We pull, slide, push the flying saucers with important objects into the space station
- Two or three or more transport bigger objects together using our flying saucers

Note: The astronauts can e.g. attach foam blocks to their backs as breathing device, use howling tubes as breathing tubes etc.

5.2. Holding the balance on one or more therapy discs

Four astronauts each are at one space station (square of swimming bars with short bars or colourful rings). They stand with both feet on their "flying saucer". A test is supposed to show if they are all fit for space.

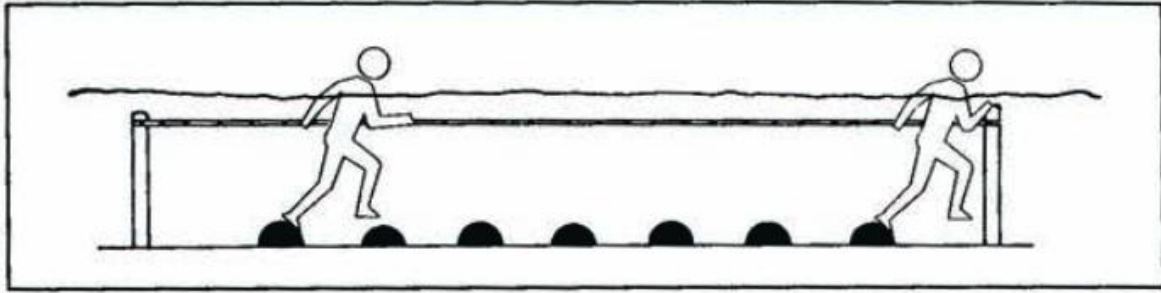


- One by one, each astronaut has to rotate by 360 degrees without leaving their flying saucer. Who can do it with eyes closed?
- On command, all four astronauts leave their "flying saucer" clockwise, anti-clockwise, without gliding into space.
- The space station (square of swimming bars with important objects on the foam blocks) is rotated clockwise / anti-clockwise, without the astronauts leaving the station or objects falling off.

All exercises should be carried out in hip-deep water, at first the flat side of the therapy disc should be on the floor. Additional difficulty is created when "meteorites" hit and hit individual astronauts (soft balls are particularly suitable for this)

5.3. Moving over therapy discs

The astronauts want to undertake the first space flight. They have to pull themselves along a thick rope, however, they are only allowed to move using the "flying saucer".



Who can manage, perhaps by blowing, to take along important objects on the water surface (balloons, small balls, table tennis balls etc.).

The astronauts cover the distance even by night (blind flight).

Meteorites make the challenging space flight even harder. You can also create turbulences by swinging the support rope.

5.4. Moving with therapy disc

A young astronaut is squatting on the flying saucer with the feet at the front. Two helpers stand on the right and the left and pull the astronaut through space (water skiing position)

- We fly around planets and obstacles
- We try the same flight using a tensioned rope with one or two flying saucers.
- Two of us move together on three flying saucers, from one space station to the other, next to each other / after each other.

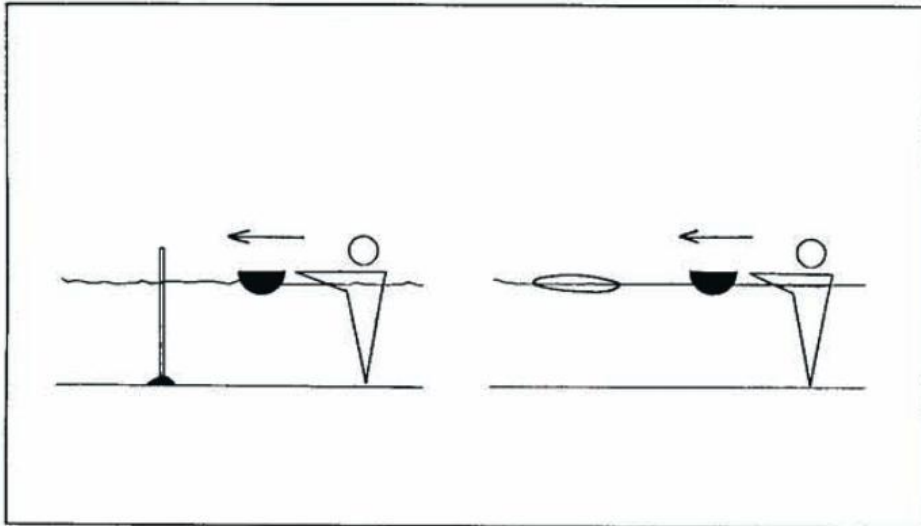
All exercises should be carried out from shallow water to deep water if possible.

6. Rule play in the swimming pool

6.1. Manipulating the therapy disc (on the water surface)

Who hits the target?

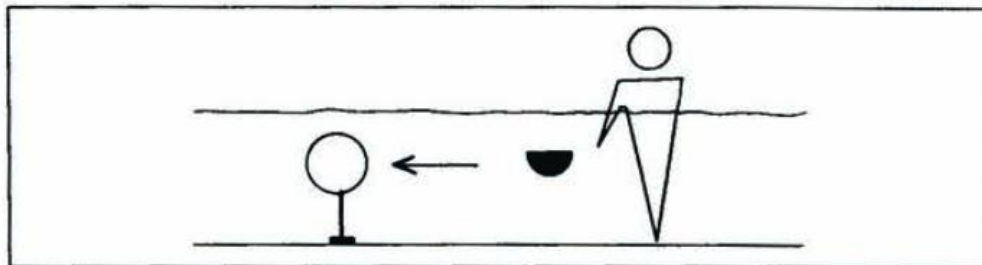
- Every player receives a therapy disc. Starting from a baseline the player tries to “push” their disc as close as possible towards a target.



- The therapy discs are loaded with small objects (diving rings, tennis balls etc.)
- The other players' therapy discs may be pushed away.

Team game: two teams (of 4 each) stand opposite each other. Team A starts and tries to place all discs into a ring. Team B tries to push all discs of team A out and to place their own. The second round begins with team B. The team with most discs in the ring after two rounds wins.

The same games can be played underwater, e.g. let the therapy disc slide through a floating ring.



Underwater goal ball:

Four players try to place the therapy disc underwater in the opposition's goal using only one hand. The opposite team tries to get hold of the therapy disc. If the therapy disc surfaces, possession changes to the opposition.

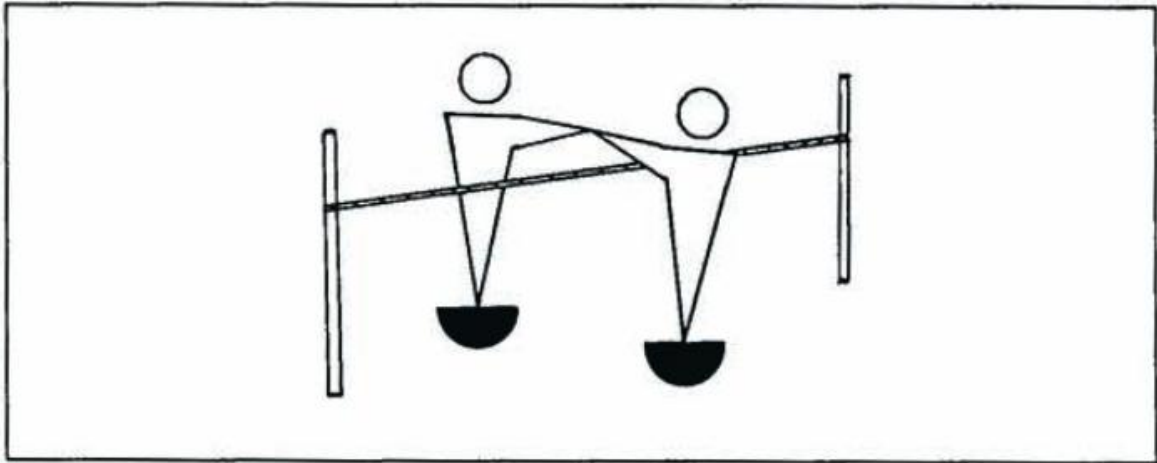
Underwater castle ball (on the pool floor):

Using their feet, several players try to place their therapy discs into a ring. One "guard" tries to prevent the therapy discs getting into the underwater castle.

6.2. Holding the balance on one or more therapy discs

Pulling competition:

Holding hands, two players each stand opposite each other. They are only separated by a rope. On a signal, they try to pull each other off the discs.



The same game with two players each on one therapy disc.

This “pulling competition” can also be fought with additional bars and ropes or in form of a “pushing competition”.

For teams, it is recommended to form a chain with each player standing on a therapy disc and holding on to the player in front. The teams are connected by a gym bar.

Circle game

We stand on our individual therapy discs and throw various objects.

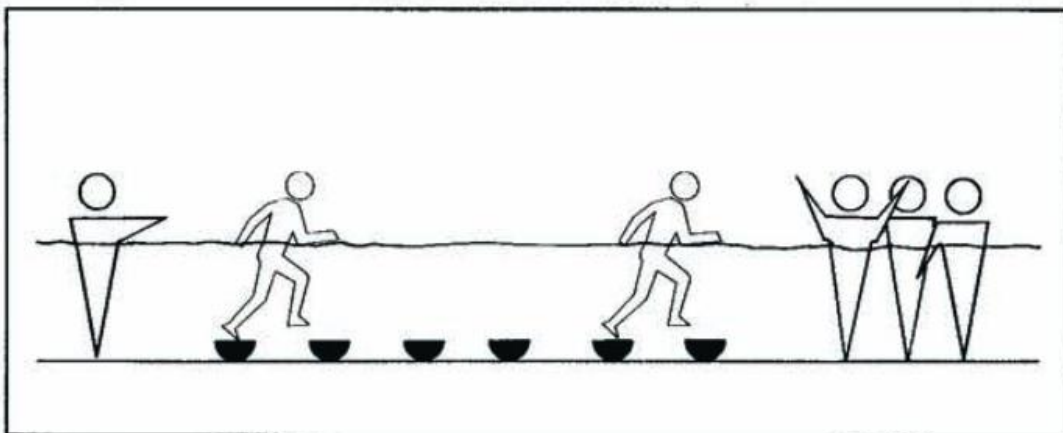
Atom game

Several therapy discs are spread out on the pool floor. All players swim or walk around the pool. When for example the call “atom 3” is made, three players each must meet on one therapy disc.

6.3 Moving over therapy discs

Group race over therapy discs

Two teams stand opposite each other and change from one side to the other. The next player may only start when the previous one has reached the finishing line.



At the same time, we transport objects such as balloons, table tennis balls etc. by blowing, pushing, gliding. It is recommended that two teams stand opposite each other. We walk backwards over the therapy discs.

Change the therapy disc!

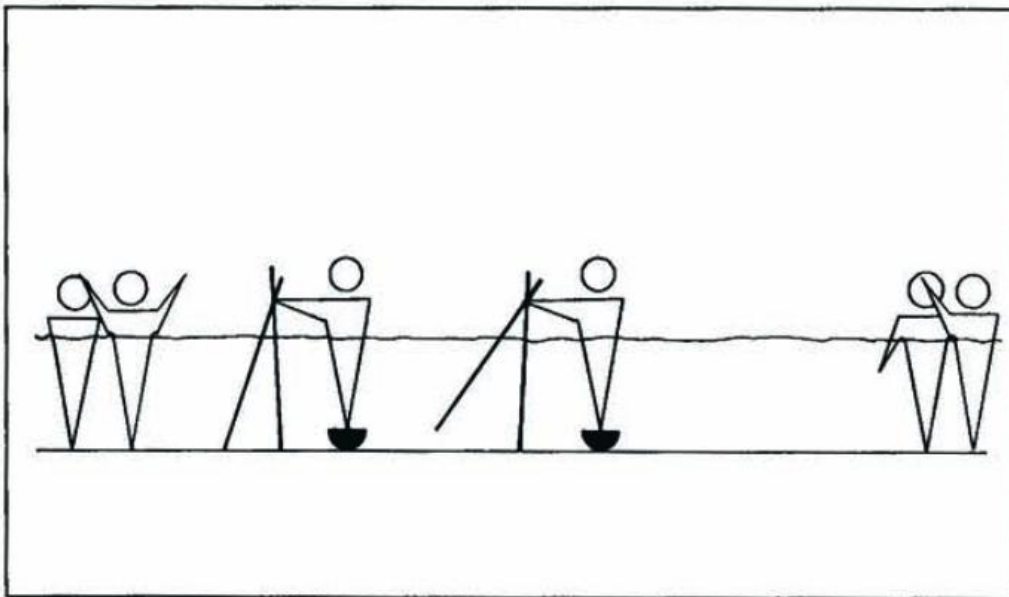
The players stand on their therapy discs in the pool, in no particular pattern. One additional player in the middle of the pool calls, "Change disc!" All players have to step off their disc and find a different one. The additional player takes part as well, so one player won't find a disc.

6.4. Moving with therapy discs

Team game:

2 teams standing opposite each other in two groups and try to cover a set distance using two gym bars and one or two therapy discs. They pass the aids and the therapy disc/discs to the player on the other side.

The team that changes completely first wins.



We try to transport small objects at the same time.

7. List of materials

- Marking tape
- Blindfolds
- Various types of balls
- Bean bags
- Gymnastics hoops, coloured (PVC)
- Gymnastics bars, coloured (PVC)
- Balloons, various colours and sizes
- Various types of mats
- Medicine Balls
- Cellular rubber rings / ring tennis rings
- Marbles
- Plastic chains
- Kickboards
- Swimming bars
- Swimming and diving hoops
- Long skipping Rope
- Skipping ropes

Stand-up hoop
Diving rings, coloured
Diving rocks
Diving plates
Tennis balls
Therapy disc, in colour if possible
Table tennis balls
Training aid
Water bricks
Rope

Note: Every player requires a therapy disc, if possible.



Hartmut Diederley

Headmaster at the School for physically disabled people in Lübeck; additionally, working in initial and further training in the area of pedagogics for physically disabled people. lecturer at the HPI in Kiel.



Hans-Joachim Gallinat

Head of studies at the institute for practice and theory of the school (IPTS); responsible for the initial and further training in the areas pedagogics for mentally and physically disabled people with a focus on psychomotor activity; lecturer at the institute for curative education in Kiel.