

pedalo®



Balance-Box

A COORDINATION COURSE TO INTENSIFY THE MOTOR SKILLS, CONCENTRATION AND JOYFUL LEARNING

Extensive and varied perception and movement experiences represent an indispensable part of the development of children and teenager.

The balance-box with its nine stations is made of sturdy wood. With focus on targeted and regular use it stands for increased and intensified motor skills, concentration and joyful learning and experiencing. Games for group work and for individual work or rather individual needs complement one another.

- The Balance-Box supports healthful active learning with all senses, especially in the range of vestibular perception. Children get new challenges for their balance skills and can control their developmental skills with the test method "One-leg-stand" permanently.
- With the varied offer of balance exercises, the breaks at school become more active and therefore more valuable. Children and teenagers experience the trial of balance situations on the one side as timely flexible activity, appropriate to situation what means a special challenge- but on the other side also as slow-down and relaxation. For a limited time, the classroom becomes a movement room which allows to act independently. Naturally the Balance-Box is also applicable in physical education, remedial physical education and general movement lessons.
- The Balance-Box is easy to transport and therefore suitable for the "Active Break" outdoor or indoor as well. In case of rain, schoolgirls or boys can fulfill the function as experts for a balance station and present and supervise the exercise. For using, the coordination devices are put on anti-slip mats, so exercises will be effected on safe ground.

Recommended by Mr. Alexander Butte, graduate degree in sport education.



BALANCE-BOX

for a better learning true to the motto: schools in motion – motivate learning

The Balance-Box contains 9 coordination devices with different levels of difficulty. It can be used single or as coordination course for teams inside or outside of classrooms to intensify the motor skills, concentration and joyful learning as well as to improve the posture and movement in a playful way.

A good coordinated motion let us feel safe comfortable.

Movement fostering have to start early, to demand exercising and experimenting and have to be multisided. The Balance-Box stands for movement exercise for fitter children. Beside the using in kindergarten and school, these devices are also well-liked to specific coordination training in sport and fitness. Beside of many other fields and due to its numerous movement exercises, the Balance-Box particularly fosters the balance and therefore the vestibular perception by stimulating and sensifying, as well as posture and movement.

Scope of delivery: Art.-Nr. 654 001

Each 1 pc Balance Top ø 22 and ø 32 cm; each 1 pc Balance Seesaw ø 22 and ø 32 cm, 2 pcs Balance Hemisphere, 2 pcs Footboards moveable Fulcrum, 1 pc One-leg-stand with test-analysis documents for two coordination tests. 2 pcs Anti-slip-mat approx. 52x30 cm, 1 pc stackable and portable box with cover LxWxH 60x40x23.5 cm.



The Balance-Box stands for movement exercise for fitter children., because children...

- like to move themselves
- develop a positive self-concept, improve to trust in their body and spirit
- develop and improve their coordination skills in a playful way, especially to stand safe, to balance and turn
- assess balance exercises as individual challenges
- improve their posture and body perception
- force up their self-esteem
- increase their learning capacity by preceding movement
- force up their confidence and therefore prepare themselves for everyday situations
- increase their sensitivity for prevention of possible dangers

The Balance-Box is useful for:

- Kindergarten
- Clubs
- Schools in motion
- Full-time school
- Childcare
- Movement in breakrooms
- Recess ("Active Break") outdoor or indoor when it's rainy.
- Movement in classrooms
- Sensory attractions
- Movement promotion/ remedial physical education
- Physical education in gyms or wherever you like



GAMES

Cross the River

As the name says, the aim is to cross the river without become wet. The single parts of the Balance-Balance-Box are used as wobbly stones which rise from the water, and thereby enable the river crossing. First of all you have to set some facts like the width and the length of the river. After that the stones can be placed everywhere in the river. With the distance of the stones you can define the degree of difficulty. The person or team with the fewest water contacts wins.

Who crosses the widest river?

The aim is to cross a wide river as possible without contacting the water at no time. In turn the single parts of the Balance-Balance-Box are used as wobbly stones which rise from the water, and thereby enable the river crossing.

Each player defines the width of his river and therefore the difficulty of exercise by placing his stones thus to succeed in crossing the river. The player has to keep his balance on every stone for 3 seconds before continuing with next stone.

The winner of the game is the person or team who has crossed the widest river with fewest water contacts

Build statues

In this game, creativity is required. Each player chooses a partner and takes a balance device. Partner 1 stands on the device and tries to replicate the statue (figure), which Partner 2 gives as task. Partner 1 has to keep the position for about 5 sec. If he succeed, he gets a point. If he descends or cannot keep the position steady he gets no point. Now it is the turn of Partner 2 to replicate the predetermined statue.

Winner of the game is the player who reached the agreed points at first.

Colonize islands

In this game the various balance devices represent islands, which have to be colonized. First of all you have to distribute the devices in the sea (room). Once the gamemaster gives a sign, all players must stand on the islands and then for five seconds may not touch the water. The more players there are, the more difficult the settlement. Is it too simple, the game master has the possibility to take one or more islands from the game. In doing so the gamemaster have to be fair and make sure that game rests in players means. The players will only get a point if all of them succeed in having no contact with water for 5 seconds simultaneously. Teamwork and teamspirit are demanded. Winner of the game is either the team or the game master who reached the agreed points at first.

Musical chairs

First of all you have to build a circle with the devices. Take care that the number of devices is one less than the number of players. When the music sounds, all the players move in a circle around the devices. The game master stops the music to an arbitrary point in time; immediately, each player tries to stand one-legged on a device and keep his balance for 10 seconds, without touching the ground. After each round, this player who couldn't hold the balance for 10 sec. or who couldn't found a seat is out of the game. In case there are also players who haven't found a place as well as those who weren't able to hold balance, the players without device are further, because it is more grave not having balanced for 10 sec. After each round you have to take one device out of the game. The game has to be repeated, until two players and one device are left. The player who wins the last round, is the winner of the game.



INFORMATION ABOUT THE PEDALO®-BALANCE-COORDINATION CHECK

The balance and coordination skills of children and young people in Germany have increasingly deteriorated in recent decades. For this development is mainly a fast environmental change blame, which often leads to a lack of basic perceptual and motor experiences. A disturbance of balance and coordination skills have a negative impact to the personal development. Early detection of coordinative deficits may be in kindergarten and primary school age is crucial. Of course it is possible to improve your coordination skills in every period of life, but at the age of 6 until 12 it is the best time to influence your coordination skills.

This is shown in following model of the sensitive phases:

(according to Asmus 1991) ●=girls ○=boys	early school age aged 6-10	late school age aged 11-12/13 Jahre	1. puberty phase aged 13-14/15	2. puberty phase aged up to 18/19
Reaction skills	○○○○○○○○ ○○○○○○○○	○○ ○○		
Rhythm	○○○○○○○○ ○○○○○○	○○○○○○○○ ○○○○○○		
Balance skills	○○○○○○○○ ○○○○○○○○	○○○○○○○○ ○○○○○○○○		
Kinesthetic Differentiation	○○○○○○○○ ○○○○○○○○	○○○○○○○○ ○○○○○○○○	○○○○ ○○○○	○○ ○○
Orientation	○○○○○○○○ ○○○○○○○○	○○○ ○○○○	○○○○ ○○○○○○○○	
Agility	○○○○○○○○ ○○○○○○	○○○ ○○○	○○○○ ○○○	
Promptness	○○○○○○○○ ○○○○○○○○	○○○○○○○○ ○○○○○○○○	○○○○ ○○○○○○○○	○○
Strength endurance	○○○ ○○○○○○○○		○○○○○ ○○○○○○○○	○○○○○○ ○○○○○○○○
Aerob endurance	○○○○○○○○ ○○○○○○○○	○○○○○○○○ ○○○○○○○○	○○○○○○○ ○○○○○○○○	○○○○○○ ○○○○○○○○
Anaerobe endurance			○○○○○○○ ○○○○○○○○	○○○○○○○ ○○○○○○○○

Model of the sensitive phases (graphic by Asmus 1991, cited above, pp. N. Dober, nd).

With the help of the Pedalo®-Balance-Coordination checks those deficits can be shown. The check consists of two test tasks for children and adults to check the balance skills and body coordination. For each of these tasks the test objective, the necessary material, the development, implementation and recording of measurement are described as following. For possible errors is made.

Important!

Both test tasks have to be done in solid, well-fitting shoes (sports or Street shoes). The test tasks have to be demonstrated by the test leader at first. He also have to pay attention that each child understand the task instructions, so it is important to explain in an articulate an precise way for all participants.

Optionally, size and weight of test persons can be asked, to determin the Body Mass Index (BMI) additionally. In children, when evaluating the BMI to, the so-called Percentile curves are consulted. The BMI is calculated as the body weight [kg] divided by the square of height [m²].

The test questions at a glance

Test task	Ability range	Record a measurement reading
One legged stand	Static equilibrium, Coordination during precision tasks	<i>quantitative</i> : number of ground contact of the free leg for 60 seconds. <i>qualitative</i> : Monitoring / assessment of Balance security
Laterally back and forth jump	Strength endurance, coordination under time stress (Whole-body-coordination, motor coordination)	correctly performed jumps Two times each 15 seconds

Test material:

- 1 Stopwatch
- One-leg-stand
- 1 test record for each child (master copy attached)
- 1 Body balance (optional)
- Picture of a stork

attached

BESCHREIBUNG DER TESTAUFGABEN

One-leg-stand:

Test aim: Review of the static balance, coordination in precision tasks.

Test material: Stopwatch, One-leg-stand, picture of the stork

Test setup: At eye level of the test person, the picture of the stork is pinned onto the wall, to fix the view. The item One-leg-stand is placed in front of it.

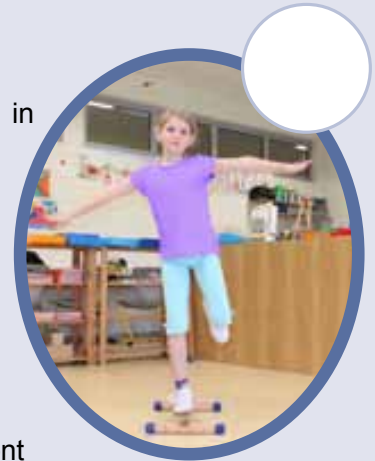
Test task: The test person tries to stand one-legged on the rail for about one minute, looking to the stork. The free foot can briefly touch the ground, but the one-legged stand position have to be taken back again immediately. The exercise is done optimally when the leg has not touched the ground at all during the 60 seconds. The preferred foot may be selected prior to the task, during the task no longer be changed. The free leg must not be trapped behind the leg or leaning. The arms may be raised to balance the side.

Measurement reading: The contact of the free leg with the ground, within the 60 seconds will be counted. With more than 30 contacts, the test is aborted and the value "31" entered in the test record. For longer ground contact, the clock is stopped, the test subject can initially focus again. Furthermore, the supporting leg will be noted (right or left) and there is also a qualitative assessment of the compensatory movements of the arms, the free leg and the entire body (see the test record).

Special notes:



- This task requires a high concentration
- The stork on the wall is for fixing the view and allows a calmer standing.
- The leg must not changing, the rail will not be leaved
- The free leg must be kept absolutely free.



Laterally back and forth jumping

Test aim: Review of endurance and coordination under time stress (whole body coordination).

Test material: Stopwatch, Tape in order to draw a line on the ground.

Test setup: Use the tape to glue a 50 meter line (2 cm wide) on the floor.

Test task: The test person stands with both feet next to the side of the line. You should meet twice for 15 seconds as soon as possible both legs sideways jump over the line back and forth without touching them. In case of touching the line, one-legged skipping or a short-term interruption, please don't stop the exercise, but ask the test person to proceed. If the test person does not continue in accordance with the predetermined instruction, please abort the test and repeat it after re-instruction and demonstration. Between the two experiments a short break of about one minute is indicated. There are five sample-jumps allowed before starting with test.

Measurement reading: The number of correct jumps over the line is recorded, and each crossing is counted as a correct jump. Does the test person touch the line or jump in another manner, it will be valued as "bad crossing", and therefore can not be valued as correct performance. For analysis the correct jumps of two periods each 15 seconds will be added.

Special notes:



- If the jump is interrupted, the exercise should continue.
- An anti-slip ground or overlay is essential for a correct execution and for safety.

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Code-Number: _____

Test Record to the balance and movement coordination screening for children and adults

Name: _____ Surname: _____
_____, _____
Sex: m f
Date of birth: _____
height: _____
weight: _____

Date: _____
Time: _____
Test leader: _____
Notes to participants:

<p>1.1 One-leg stand quantitative</p>	<p>Quantity of ground touching with the game leg for 60 seconds. The leg must not be changed! For longer interruptions stop the time! Qty.:</p>	<p>Quantity: _____</p>
<p>1.2 One-leg-stand qualitative</p>	<p>Assessment of exercise one-legged stand:</p>	<p>a) supporting leg right leg <input type="checkbox"/> left leg <input type="checkbox"/> b) How calm is the attitude? much <input type="checkbox"/> not so much <input type="checkbox"/> not at all <input type="checkbox"/> c) Are compensatory movements with the arms to observe? much <input type="checkbox"/> not so much <input type="checkbox"/> not at all <input type="checkbox"/> d) Are compensatory movements with the main pillar to observe? much <input type="checkbox"/> not so much <input type="checkbox"/> not at all <input type="checkbox"/></p>
<p>2. Laterally back and forth jumping</p>	<p>Single leg jumps and jumps with touching the item One-leg-stand are not allowed!</p>	<p>1. Turn: _____ jumps 2. Turn: _____ jumps Sum of jumps: _____</p>

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For exercise One-leg-stand:
Please pin the image onto the wall as fixing point.

STANDARD VALUE TABLE FOR EXERCISE ONE-LEG-STAND:

male:

<u>Evaluation</u>	--	-	o	+	++
<u>Age</u>					
3	> 30	24 - 30	16 - 23	9 - 15	< 9
4	> 30	23 - 30	15 - 22	9 - 14	< 9
5	> 29	22 - 29	15 - 21	8 - 14	< 8
6	> 27	20 - 27	12 - 19	7 - 11	< 7
7	> 25	17 - 25	11 - 16	6 - 10	< 6
8	> 24	16 - 24	10 - 15	5 - 9	< 5
9	> 21	15 - 21	8 - 14	4 - 7	< 4
10	> 20	14 - 20	7 - 13	3 - 6	< 3
11	> 19	13 - 19	6 - 12	3 - 6	< 3
12	> 17	12 - 17	6 - 11	2 - 5	< 2
13	> 15	11 - 15	5 - 10	2 - 4	< 2
14	> 13	9 - 13	4 - 8	1 - 3	0
Ground contacts					
15 bis < 50	> 11	8 - 11	4 - 7	1 - 3	0
50 bis 60	> 17	12 - 17	6 - 11	2 - 5	0
> 60	> 21	15 - 21	8 - 14	3 - 7	< 3

female:

<u>Evaluation</u>	--	-	o	+	++
<u>Age</u>					
3	> 30	24 - 30	16 - 23	9 - 15	< 9
4	> 30	22 - 30	14 - 21	7 - 13	< 7
5	> 27	20 - 27	12 - 19	6 - 11	< 6
6	> 24	17 - 24	10 - 16	5 - 9	< 5
7	> 22	15 - 22	9 - 14	4 - 8	< 4
8	> 20	14 - 20	8 - 13	4 - 7	< 4
9	> 17	11 - 17	7 - 10	3 - 6	< 3
10	> 16	11 - 16	6 - 10	3 - 5	< 3
11	> 15	10 - 15	6 - 9	2 - 5	< 2
12	> 14	9 - 14	5 - 8	2 - 4	< 2
13	> 12	8 - 12	4 - 7	1 - 3	0
14	> 11	7 - 11	4 - 6	1 - 3	0
Ground contacts					
15 bis < 50	> 9	7 - 9	3 - 6	1 - 2	0
50 - 60	> 14	9 - 14	5 - 8	1 - 4	0
> 60	> 17	12 - 17	7 - 11	3 - 6	< 3

STANDARD VALUE TABLE FOR EXERCISE Laterally BACK AND FORTH JUMPS

male:

<u>Evaluation</u> Age	--	-	o	+	++
3	0	1 - 7	8 - 18	19 - 29	> 29
4	< 5	5 - 15	16 - 26	27 - 37	> 37
5	< 12	12 - 21	22 - 32	33 - 43	> 43
6	< 20	20 - 29	30 - 40	41 - 50	> 50
7	< 28	28 - 37	38 - 48	49 - 58	> 58
8	< 34	34 - 44	45 - 55	56 - 65	> 65
9	< 40	40 - 51	52 - 62	63 - 72	> 72
10	< 46	46 - 57	58 - 68	68 - 77	> 77
11	< 50	50 - 61	62 - 72	73 - 82	> 82
12	< 52	52 - 63	64 - 75	76 - 87	> 87
13	< 55	55 - 67	68 - 79	80 - 91	> 91
14	< 57	57 - 69	70 - 83	84 - 95	> 95
Ground contacts					
15 bis < 50	< 58	58 - 71	82 - 85	86 - 99	> 99
50 - 60	< 51	51 - 62	63 - 73	74 - 84	> 84
> 60	< 48	48 - 56	57 - 64	65 - 73	> 73

female:

<u>Evaluation</u> Age	--	-	o	+	++
3	0	1 - 8	9 - 19	20 - 30	> 30
4	< 6	6 - 16	17 - 27	28 - 38	> 38
5	< 14	14 - 23	24 - 34	35 - 44	> 44
6	< 21	21 - 30	31 - 41	42 - 51	> 51
7	< 28	28 - 37	38 - 48	49 - 59	> 59
8	< 34	34 - 45	46 - 56	57 - 67	> 67
9	< 41	41 - 52	53 - 64	65 - 75	> 75
10	< 48	48 - 59	60 - 71	72 - 82	> 82
11	< 51	51 - 63	64 - 75	76 - 86	> 86
12	< 53	53 - 64	65 - 77	78 - 89	> 89
13	< 56	56 - 68	69 - 81	82 - 93	> 93
14	< 58	58 - 70	71 - 73	74 - 96	> 96
Ground contacts					
15 bis < 50	< 60	60 - 73	74 - 87	88 - 101	> 101
50 - 60	< 52	52 - 62	63 - 75	76 - 86	> 86
> 60	< 45	45 - 55	56 - 66	66 - 77	> 77