

# Brain breaks during lessons

45 Minuten bewegen per dag is in het schoolcurriculum opgenomen in Denemarken. Wel is het nog zoeken voor scholen hoe ze dit structureel aanpakken op school. Er wordt bewogen tijdens de lessen Deens, Engels, rekenen of wiskunde en veel scholen doen dit in de vorm van 'brainbreaks.' Brainbreaks zijn 5-10 minuten durende beweegactiviteiten tussen de lessen door. In het Engelse artikel van de Universiteit van Zuid-Denemarken lees je meer over de brainbreaks, het onderzoek dat de universiteit uitvoert en voorbeelden van brainbreaks die jij of andere leraren zelf ook in de klas kunt doen.

TEKST LARS BREUM CHRISTIANEN EN PERNILLE LUND-CRAMER

**I**t is after noon. The students in 5<sup>th</sup> grade on Southern Elementary School are 20 minutes in an English lesson. Several students are slouching over their tables and books, looking a bit tired. Their teacher decides that it is time for a brain break - a short physical activity break. Today, it is Marias turn to choose an activity from the class' brain breaks collection. She chooses "Full Body Rock Paper Scissors", an activity, which the entire class can have fun doing together. Before commencing the teacher informs that after the brain break, the students should return to their seats and continue with the next assignment. One-two-three- GO! And for the next five minutes moving limbs, laughs and an explosion of energy fills the classroom.

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Most teachers recognise the situation of increasing unrest or reduced attention and concentration in their students during the span of a school day - or just a single lesson. The description above gives an example of how brain breaks can be integrated in the classroom to prevent failing concentration and

increase motivation, while at the same time promoting student's well-being. Over the past decades, it has become ever more evident that regular physical activity (PA) can contribute to strengthen both general well-being and specific aspects of physical, psychological and social health in children and adolescents (1). Among other things, PA can help build social skills and self-esteem - the latter commonly viewed as a key indicator of positive well-being.

This article will present how brain breaks can be planned and conducted to promote well-being and an active school day for all children. Our experience originates from the *Move for Well-being in School* research program, which was established to assess, how school PA can improve psychosocial well-being in all children (2). By doing so, special attention was paid to the children, who have decreased self-esteem and are less or not at all motivated for PA. During one school year new physical activities were promoted, and they were all developed according to three principles (3):

- 1 Mastery - more students participate in activities, where they experience mastery through practice
- 2 Involvement - more students participate in activities, where they are involved in decision-making and development.
- 3 Relatedness - more students participate in activities, where there are focus on team work and supporting each other.



▲ *Gebruik smart board*

### Brain breaks with different purposes

In *Move for Well-being in Schools* we worked with brain breaks that differentiate in purpose and focus targeting different aspects of well-being. Brain breaks with a primary focus on *energy* includes high intensity activities, which activates the entire body, increasing the heart rate and energy level. *Social* brain breaks focus on strengthening student relations and the social climate in class through activities characterized by teamwork and having fun together. Brain breaks with a focus on *coordination* offers challenges for body and brain that stimulate children's motor co-ordination. Coordination activities have been found to improve cognitive performance by enhancing attention and concentration (4). Finally, brain breaks focusing on *relaxation* includes low intensity activities such as massage, yoga, stretching, and meditation, which can contribute to the release of muscular tension, increase bodily awareness, and reduce class room bustle. In practise, most brain breaks activities will have characteristics from more than one category. Nevertheless, working with the different purposes for brain breaks activities will make it easier to communicate and ascribe meaning to performing a non-academic activity in the class room. At the same time,

it will ensure variation and different forms of bodily movement that satisfies varying student preferences and increases chances of success and positive experiences with PA.

### Didactical approach for brain breaks

Establishing a new habit of brain breaks demands clear structures. In *Move for Well-being in Schools* the set goal was two brain breaks per day per class in average, and we encourage teachers to specify in which lessons, they will integrate the brain breaks - preferably involving the students' needs. By doing so, they make it clear to the students when they could expect a break, they increase the sense of responsibility, and they have better opportunities to plan and prepare themselves.

Introducing physical activity during normal quiet and sedentary lessons can be a challenge if the conditions are not clear. Therefore, it is necessary for the teachers to articulate the purpose of the brain breaks and to conduct them focusing on directing the new released energy to the next assignment. This can be done by focusing on the termination of the activity in the introduction of the break, as the example in the beginning. Furthermore, we recommend to start with activities with lower intensity



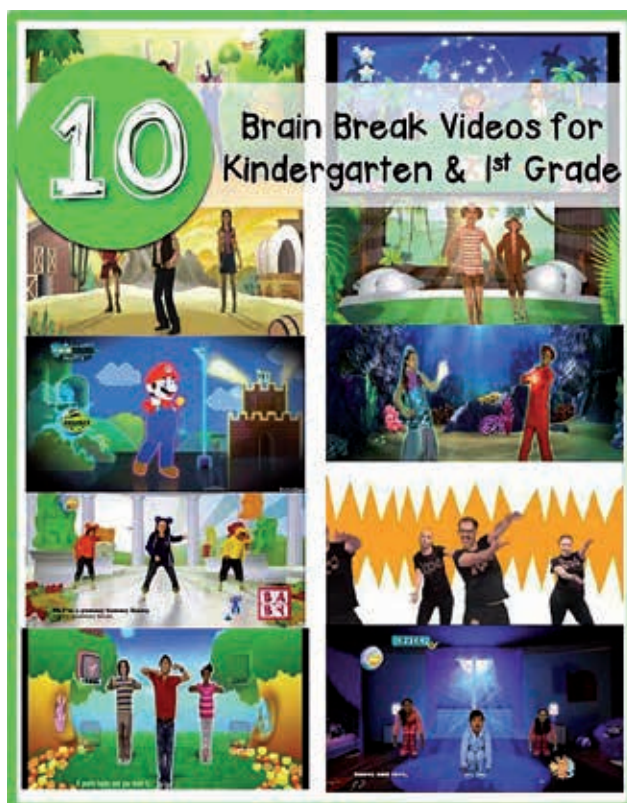


and fewer relations between students in the beginning until the students have learned to switch between physical activities and learning activities. As with all new initiatives teachers should be aware that it requires time to accommodate to conducting brain breaks and to gain the potential of them.

#### Evaluation after a school year

In the end of the school year 90% of the responding teachers state to be doing brain breaks with an average on 4.5 brain breaks per week

per teacher. We know there is a great variation between schools and teachers, but even so, the brain breaks have been integrated with some success at the 12 participating schools. In general brain breaks were well received by students, and they reported that getting a brain break could help them regain concentration. Many students enjoyed brain breaks that included the whole class, but special attention must be given to prevent exclusion during activities. This could be done by choosing activities where all students independent of skill level can participate; and by being explicitly clear on the importance of supporting each other to ensure good experiences for all.



**Many teachers like the brain breaks as well and find them necessary to keep motivation high during a longer school day**

Many teachers like the brain breaks as well and find them necessary to keep motivation high during a longer school day. At the same time, they also see the effect on increased participation from students, who normally are more passive during recess and physical education. Alongside the positive experiences, teachers also reported several challenges. The most profound being time constraints for preparation, and "losing" time on non-academic activities. Other challenges were increased disturbance after the brain breaks, and trying to balance the different needs and wishes from the students. Brain breaks have the potential to promote school well-being, but challenges exist to

integrate active breaks during lessons. The didactical approach used in *Move for well-being in schools* can be an assistance and a starting point for further development. For many teachers conducting brain breaks is a challenging task, which calls for competence development, supportive structures, materials and leadership.

## Brain break examples

### 1-2-3 (Coordination)

Students pair up two and two facing each other. Taking turns, the students count 1-2-3 out loud in a loop. Student A says 1, student B says 2, student A says 3, and student B says 1 and so on. When counting runs smooth, replace 2 with a movement (e.g. jump on the spot). After a while replace 3 by another movement (e.g. rotation). It is important that the number is not said out loud when performing the movement, so at the end only 1 is counted out loud.

Variations:

- Let the students choose news movements
- Repeat in groups of four students
- Count 1-2-3-4-5 and replace one number at the time with a movement

### Tactile back massage (Relaxation)

Students pair up two and two. One student sits on a (reversed) chair or leaning over the table. The other gives the massage. Change seats after a few minutes.

Inform the students that this is a gentle massage that has to be a pleasant and calming experience for the one receiving it. Never massage directly on the spine. Ask the students to communicate – is it to gentle/hard? What feels good? Etc.

At the beginning, guide the students by demonstrating different gentle massage techniques e.g.:

- Stroking movements from side to side or on both sides of the spine
- Circular movements - small or big - using the palm of your hands



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- Tapping with your fingertips
- Light rubbing with closed hands
- Light tapping using the edge of your hands

Variation:

- Let a story guide the massage e.g. a weather report with wind, light rain etc.
- If students are reluctant or just unaccustomed to direct touch, try massaging with a small firm ball.

### Go! (Energy)

The teacher gives the students a task, e.g.:

When I say "Go!" you have to:

Touch three different walls

Give three different classmates a high five

Crawl under your table and sit back down

When the task is solved, all students return to their seats, ready for the next task

A good tip:

Try giving the command following the S-A-G-A-principles: Specific command, Action, Gathering and Attention. E.g. "When I say Go! You have to do 10 jumping jacks, hug three different classmates, and sit down at your seats". "Go!" (specific command), students perform the activities (action) and returns to their seats (gathering). At this time the teacher must be ready to catch the students' attention in a positive manner (attention) so that the released energy can be redirected to the following (academic) task.

### Full body Rock Paper Scissors (Social)

This is a variation of the classic hand game, where students use their entire body when striking a pose:

- Rock: Bend down and hug your knees so you look like a rock.
- Paper: Jump to a narrow leg stand, arms down and tight to you body (making an I), so you look like a piece of paper.
- Scissors: Jump to a wide leg stand, stretching your arms over your head (making a X) so you look like a giant pair of scissors.

Students pair up challenging each other on the count "3-2-1-Shoot". On "Shoot" each student strike a pose with rock beating scissors, scissors beating paper, and paper beating rock. Try again if it is a tie!

Students with the winning/losing pose make a thumb up/down and now have to find a matching thumb to challenge next (this way all get many chances to be the winning part).

Variations:

- Let students create new, fun poses e.g. giants, wizards and elves etc.
- Team the students up on small groups and make group battles.

## References

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## Kernwoorden

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