



GONGE® EDUCATIONAL INSIGHTS

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Working Memory and Floor Surfer Relay

What is working memory?

Our working memory – also known as our short-term memory – stores and manages multiple impressions and thoughts, e.g. words and numbers, for a short time so that our brain can process and include them in more comprehensive thought processes.

The working memory allows children to grasp sensations, information and impressions for a short time while they resolve a task. Children who have a good working memory can process information and compare this to the knowledge they already possess. It is therefore essential to exercise and stimulate the working memory because it helps to ensure that we are capable of receiving multiple messages and therefore of becoming proficient at learning and resolving the tasks presented to us.

The working memory allows children's brains to access several different types of information simultaneously. For example, it enables a child to associate a word with his/her mental picture of a specific object.

Memorising information

Our working memory can absorb large but not boundless volumes of information. From time to time, we all find that some information escapes us.

Children often find that they forget adults' instructions, especially when they are actively involved in several things at one time.

If a child finds it difficult to hold on to information, this may be a sign that the child's working memory is poor. However, some children find that they are more easily distracted than others, a factor that may also be of significance.

Floor Surfers help to improve working memory

It is possible to improve working memory. One good way to achieve this is to connect motor activity with play.

The Floor Surfer is versatile. In addition to strengthening the body core, it can also be used as a tool to exercise working memory.* The Floor Surfer trains children to hold on to a verbal instruction while they perform a motor activity.



Art no. 2168
Floor Surfer

*Gonge Roller, RoboBoard, GoGo or Mini Stilts can also be used for this activity.

Case:

An experienced educator contacted us and asked for help. She had discovered that, from time to time, her group of children found it difficult to understand instructions for new games. Rather than follow the rules, the children often just ran around when the games began. The educator always ended her presentation of the rules with a rhetorical question, i.e. to ensure that the children had understood the rules. However, the children often seemed to daydream and when it was their turn to say something, they had invariably forgotten what they wished to say.

Based on the educator's observations, we decided to focus on working memory. The Floor Surfer is an excellent instrument you can use to exercise working memory. You give the child a piece of information that he/she has to memorise while performing a task on the Floor Surfer. The training is therefore a combination of play, movement and body control with working memory stimulation.

The activity – rules of play

The children form teams and line up. They have to move from A (starting point) to B (a wall with pictures) and then back to A on the Floor Surfer. Each team is assigned one Floor Surfer. The children may sit or lie on their stomach on the Floor Surfer, depending on their motor skills or on your chosen focus. When the first child is ready on the Floor Surfer, you give the child one or more words to memorise (e.g. "red apple"). The child now moves from the starting point towards the wall with pictures. When the child reaches the wall, he/she must get up from the Floor Surfer, pick up a fly swatter and swat the correct picture, then lie back down on the Floor Surfer and return to the starting point. The next child climbs onto the Floor Surfer and the activity is repeated.

Focus points

In the activity described above, the children receive innumerable pieces of information for their working memory to process. It is important that the adult is aware that some children may find some or all of the following points difficult and therefore that differentiation of some kind will be necessary.

- Noise from the other children.
- Knowledge of letters, colours, shapes, numbers, etc.
- The rules of the game.
- The child's physical fitness and coordination between child and the Floor Surfer.
- To make the rules simpler, you can ask the children to tap on the pictures with their hands
- This activity can be performed by children in groups but also by a child on their own.

Development opportunities

This activity offers many opportunities for developing the child's or children's skills. They can learn colours, shapes, numbers or letters. To introduce an element of progression, the adult may ask the child/children to memorise several objects.

After a couple of months, the educator contacted us again. She found that the same group of children now held on to information better and that the group learned new games much faster.



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