

Occupational Therapy Service for Children and Young People

Motor Planning and Behavioural Organisation

Objectives

1. To promote the understanding of a child with motor planning difficulties and associated difficulties.
2. To provide guidance and suggestions of remedial activities to improve the child's motor planning functions for organisation of behaviour.

Introduction

Motor planning is the ability of the brain to devise (ideation), organise (programming) and carry out a sequence of unfamiliar actions (execution). Motor planning is the first step in learning new skills.

Good motor planning ability requires accurate information from all sensory systems of the body, mature body awareness, and perception of movement.

Sensations from the eyes, ears, skin, muscle and joints and from the vestibular system (sensation of body balance with respect to the pull of gravity) provide the brain with basic and essential information. This information is important in order to be able to organise sensory impulses to plan, organise, time and sequence an unfamiliar task. If a basic sensory component is contributing faulty or slow information, motor planning ability could be seriously compromised.

Motor Planning Difficulties

A child with motor planning difficulties may appear clumsy, accident prone and messy. They may experience a prolonged period of struggle in attempting to master a new skill and therefore will establish routines for them to eliminate the need for unfamiliar movement. A child may be able to compensate for their lack of accurate sensory information by figuring out the demands of a task cognitively, but may spend undue mental energy in doing so.

Alternatively a child may spend their time being verbally manipulative in order to avoid having to perform meteorically. This child may imitate the actions of another child rather than try to initiate the activity themselves. Another child may even experience difficulty imitating the actions of others and find it difficult to follow a teacher's verbal instructions.

Chief Executive: Colin Scales

Headquarters: Europa Point, Europa Boulevard,
Warrington, Cheshire, WA5 7TY

in Warrington
Quality first and foremost

Motor planning abilities are challenged in the classroom each time a child is presented with a variation of unfamiliar motor task or with a new assignment. When learning to write or cut with scissors, a child synthesises a variety of sensory information to plan and sequence each stroke or cut in order to successfully complete the task. A child with a motor planning problem may have significant difficulty finishing his/her work on time or he/she does not have an idea how to begin the task. Another child may rush through the task as he/she relates to the end product.

Strategies and Activities for Helping a Child with Motor Planning Dysfunction

1. Help the child identify steps needed to begin and accomplish the task. Have the child repeat directions and, if possible, write down steps.
2. Ask the child questions of what and how he is going to do.
3. Encourage the child to verbalise what they are doing while carrying out the activities.
4. Giving a short assignment so that the child can feel instant success in completing a task. Document the length of time a child can focus on the task and structure the assignment so that it can be completed in that length of time.
5. Set up a system for checking off steps as they are accomplished.
6. Giving one direction at a time. After one action is successfully completed, add another direction.
7. Minimise visual distractions. Check for clutter in classroom environment.
8. Art projects that require assembling parts to create a project. This challenges the child's ability to develop strategies for organising parts as they relate to the whole.
9. Reviewing how to play the game before actually playing it. Demonstrate verbally as well as visually.
10. Marking the boundaries of the game. For example, rope, masking tape or chalks can be used to mark a game circle. Or start and finish lines.
11. Using signals for control, e.g. two blows of a whistle to signal freeze.
12. Stopping action between turns in order to get everyone's attention and therefore regain control.
13. Child imitates a sequence of movements produced by the adult, e.g. jump, clap, jump, clap or jump, jump, clap, jump, jump, clap, etc.

Chief Executive: Colin Scales

Headquarters: Europa Point, Europa Boulevard,
Warrington, Cheshire, WA5 7TY

in Warrington
Quality first and foremost

14. Create different obstacle courses to challenge the child's motor planning ability.
 - e.g. - Under tables, chairs, blankets, duvets, tables draped in sheets
 - Over soft and hard surfaces - various heights to step over or clamber over.
 - Through hoops, climbing frames, rubber rings, cardboard boxes etc.
 - Change of direction: clockwise / anti-clockwise, always turning left or right.
 - Different postures: tiptoe, one foot in front of the other, crawling commando-crawling, snaking, lying on scooter board.
15. Rehearse what the child has learnt on a regular basis.
16. Walking around chairs - position two chairs about two to three metres apart. See if you and your child can walk around the chairs while hitting a balloon to keep it up in the air.
17. Running and weaving between objects - place boxes about one to two metres apart and encourage running and weaving in between the boxes without knocking into them.
18. Ladder walk - place a paper/chalk/masking tape ladder on the ground and see if your child can walk between the rungs forwards, backwards and sideways. See if they can do it while carrying something, for example a beach ball, box or large toy.
19. Walking along a line - make a straight line on the floor out of approximately six metres of masking tape. The game is played by walking along the line without stepping off. As with "ladder walk" the aim is also to walk forwards, sideways and backwards. See if your child can catch a ball at the same time.
20. Paper folding games - such as making aeroplane or a hat. Paper folding books can be purchased from toy shops.
21. Paper weaving - weaving strips of paper in and out of a slit sheet of paper to make a place mat. (NB watch out for sharp paper edges).
22. Miming - a game to be played with the whole family. Take turns to carry out an action and see if the rest of the family can guess what it is. For example, putting on a sock, squeezing toothpaste and cleaning teeth.
23. Maze drawings, maze puzzle.

Chief Executive: Colin Scales

Headquarters: Europa Point, Europa Boulevard,
Warrington, Cheshire, WA5 7TY

in Warrington
Quality first and foremost

24. Twister - this game is commercially available. It involves knowing right from left, planning where to place arms and legs as well as keeping balance. It is a fun game which also can involve the whole family.

25. Skipping - is often difficult for children with motor planning difficulties because it involves the correct sequence of movements. To teach skipping, as with all skilled motor tasks, teach each stage of the skill separately. i.e. step first, then hop, step with other leg, then hop. If your child is unable to hop, practise hopping first on a mattress or exercise rebounder to develop the "spring".

Chief Executive: Colin Scales

Headquarters: Europa Point, Europa Boulevard,
Warrington, Cheshire, WA5 7TY

in Warrington
Quality first and foremost