Children with Motor Difficulties in Grade 5/6: A Resource for Educators



Lauren is a diligent worker who tries very hard to please her parents and her teachers. She attends well in class and works well independently. She has tremendous difficulty in completing written work, whether in printing or writing. She sits rigidly at her desk, holds her pencil in a very tight grasp and frequently puts holes in the paper due to the pressure she puts on her pencil. She erases her work excessively. She appears to be very anxious in class and gets quite teary several times a week. She has one friend who is in another class that she plays with consistently at recess, but otherwise keeps to herself. Her parents are concerned as Lauren frequently says she doesn't feel well and doesn't want to go to school. She often cries in the morning before the bus arrives to take her to school.

Recognizing Motor Difficulties

What is DCD?

Developmental Coordination Disorder (DCD) is a medical condition in which there is marked impairment in the development of motor coordination, and the impairment significantly interferes with academic achievement or activities of daily living (DSM IV, 2000). DCD may exist in isolation OR may co-occur with other conditions such as language-based or non-verbal learning disabilities or attention deficit hyperactivity disorder. Children with DCD usually have average or above average intellectual abilities.

What will a teacher see if a child has DCD?

- The child may appear to be clumsy or awkward in his/her movements. He/She may bump into, spill or knock things over frequently.
- The child may experience difficulty with gross motor skills (e.g., running, hopping, climbing), fine motor skills (e.g., pre-printing tasks, cutting with scissors, doing up buttons or zippers), or both.
- The child's motor skills might not match his/her abilities in other areas. For example, intellectual and language skills may be quite strong while motor skills are delayed.
- The child may have difficulty learning new motor skills. Once learned, however, certain motor skills may be performed quite well while others may be performed poorly.

- The child may avoid or appear to be uninterested in particular activities, especially those that require physical activity.
- The child may experience secondary emotional problems, such as low frustration tolerance, decreased self-esteem, and lack of motivation.
- The child may have difficulty with activities of daily living. For example, dressing independently, managing field trips or overnight trips, bathroom accidents.

WHAT CAN A TEACHER DO TO HELP A CHILD PERFORM AT SCHOOL?

The most important thing a teacher can do to help a child reach his/her full potential is to make sure the task and the learning environment are right for the child. The following "M.A.T.C.H." strategy will help the teacher *match* the activity to the child.

M.A.T.C.H. the Activity to the Child

odify the task

This involves changing aspects of an activity that are too difficult for the child to perform. The important thing about modifying a task is that the child can still experience success if they make a genuine effort to participate in the activity.

lter your Expectations

Consider what the ultimate goal of an activity is and then think about where you can be flexible. Allowing extra time or alternate methods of completing a task can make the difference between a lesson learned and an experience of failure for a child with DCD.

eaching Strategies

Children with DCD have full capacity to learn with their peers, but may require a slightly different teaching approach. Investigate alternate teaching strategies designed for children with special needs.

hange the Environment

Pay attention to what is going on around a child when he/she is experiencing success or difficulty (i.e. noise, level of activity, visual distractions). Minimize the environmental factors that make performance difficult for the child.

elp by Understanding

Understanding the nature of DCD will help you to problem solve and provide all of your students with rich learning experiences. If children feel supported and understood, they are more likely to attempt new activities and to persevere until they achieve success.

Grade 5/6

MATCH the Activity to the Child!

Modify the activity
Alter your expectations
Teach strategies
Change the environment
Help by understanding

What you might see	How can <u>you</u> MATCH?
Difficulty keeping up with volume of handwriting required for assignments (i.e., unable to keep up with note taking in class or complete essays in time required); complains of hands being tired; poor written product	Collaborate with parents. Educate them regarding how to be a scribe without influencing the content. Reduce amount of writing required. Allow draft and final copies of written work to be done on the computer. Photocopy notes from class and teach the child how to highlight key information. Allow more time to complete in-class assignments. If encouraging speed, accept less accurate product (and vice versa).
Performs poorly on academic tests (e.g., spelling – can't finish writing a word before next word given in a dictation; math – can't line up math columns correctly)	Allow child to work on typing skills as part of their school day. Photocopy math questions; use oral spelling dictations instead of written; only write spelling word, not full sentence. Allow dictation to a scribe or a tape recorder for tests requiring longer answers. Allow more time to complete the test. Use fill-in-the blank sheets. Evaluate what you need to 'see' to know the child has met curriculum expectations. Find a balance between oral, written, and demonstrative tests.
Desk is messy, disorganized; difficulties with self-organization (making sure to take necessary things home to complete homework)	Daily checklist to prepare knapsack for home (child should be directly involved in generating the list). Keep knapsack close by and put homework in throughout the day. Schedule a weekly desk cleaning time. Teach child how to use agenda book, ensuring the child has enough time to fill in/complete fully. Photocopy routine homework assignments and paste in agenda so the child only has to add in detail (e.g., math page numbers). Teach and review with all children how to organize their desk. Provide visual cues or labeling to assist with desk layout (i.e., for pencils, notebooks, etc.). Use colour coded books and materials when possible.

(continued)	DCD: A Resource for Educators
(continued)	(continued)
What you might see	How can <u>you</u> MATCH?
Clumsy and hesitant in gym	Use large balls, under-inflated balls, beanbags or Nerf balls to
class (poor throwing, catching,	reduce injury.
kicking, hitting of balls); poor	Use large target areas for striking/hitting games.
performance in playground	Keep the environment consistent whenever possible.
	When a new skill can be taught using hand-over-hand
games such as dodgeball,	instruction, consider teaching the new skills to the class by
baseball; often the last chosen	demonstrating first with the child with DCD. This allows the
for team sports	child to "feel" the movement and receive one on one practice.
	Put children who have similar abilities together in groups.
	Emphasize fun, activity, and participation rather than
	proficiency.
	Be aware of safety risks to a child with poor coordination.
	Give child a different role (e.g., team organizer, umpire,
	recorder) during sports that are really difficult or dangerous.
Bumps into people or objects	Ensure unobstructed pathways to frequently-used areas of
bumps into people of objects	classroom (e.g., pencil sharpener, teacher's desk, exit
	doorways).
	Mark doorsills visually (e.g., line with yellow tape).
	Seat child in edge desk of a row.
	Allow child to be first in line.
N f / /	
Messy / untidy appearance,	Allow more time to dress for gym class, outdoor time & home
slow to dress	(send child out earlier than classmates).
	Have parent label clothes to identify back.
	Suggest Velcro or clothes such as T-shirts and sweat pants.
Difficulty following through	Use verbal and/or visual reminders to stay on task.
with instructions, needs	Keep activities as routine as possible.
frequent reminders to stay on	Use consistent instructions for similar tasks.
task; may need assistance to	Teach children to self-evaluate time on task.
complete tasks	Break down longer activity into parts and have child check in
	with teacher or check off each stage as it is achieved.
	Teach students to work cooperatively and to use each other as
	resources.
Easily frustrated/low tolerance	Think about and reduce the amount of movement that is
for motor tasks; decreased	required to perform the activity.
self-esteem & motivation to	Break the activity into smaller parts and provide
perform, resists new activities	encouragement.
	Be available to assist/intervene when the child has difficulty.
	Allow extra time for teaching and practice.
	Provide lots of praise for child's attempts to perform new
	activities.
	Reassure the child when he or she has difficulty.
	·

(continued) What you might see	(continued) How can <u>you</u> MATCH?
Rushes through tasks or is unusually slow; gives up easily	Allow extra time to complete an activity. If the goal is to promote speed, accept less accurate product (and vice versa). Encourage children to self-evaluate process and product. Ensure the child has enough time to complete assigned tasks within the allotted time.

If a child is still experiencing difficulty performing motor tasks despite your best efforts, consider speaking with his/her parents about making a referral to a health professional.

WHO ELSE SHOULD THIS CHILD SEE?

Encourage the family to see their family physician. It is important that a medical practitioner rule out other conditions that might explain the child's motor coordination difficulties.

A physician, teacher or parent can refer the child to an occupational therapist. Occupational therapists (OT) are educated and trained in analyzing motor skill development and also in determining the ability of a child to cope with the demands and activities of everyday life. The OT will observe and assess the child and may then make recommendations including: specific strategies for handwriting and classroom tasks; tips to make self-care tasks easier; activities to improve the child's motor coordination; ideas for community leisure and sports activities; and techniques to ensure that the child experiences success.

A referral to a physiotherapist may also be appropriate if the child has gross motor difficulties (balance, running, stair climbing and other forms of physical activity).

REFERENCES AND FURTHER INFORMATION

The term "Developmental Coordination Disorder" (DCD) has only recently received the attention and acceptance of practitioners and researchers in health care and educational fields. Other terms that you may find helpful to search under include "clumsy" and "physically awkward" children. Very little has been published about children with DCD in professional journals and even less has been written in the popular press or parenting magazines. For further reading on DCD, please refer to the booklet "Children with Developmental Coordination Disorder: At home and in the classroom" located on the CanChild web site.

Acknowledgements

The authors are grateful to Lisa Rivard, Brianna McGuire and Michele Leslie for their contributions to the content and to Nina Cavey for graphic design. This project was funded, in part, by the Canadian Institutes of Health Research.

For more information about children with DCD, visit the *CanChild* Centre for Childhood Disability Research website:

www. fhs.mcmaster.ca/canchild

Cheryl Missiuna, Ph.D., OT Reg. (Ont.)

Professor and Scientist
School of Rehabilitation Science and *CanChild*McMaster University, Hamilton, Ontario
missiuna@mcmaster.ca

Nancy Pollock, M.Sc., OT Reg. (Ont.)

Associate Clinical Professor and Scientist School of Rehabilitation Science and *CanChild* McMaster University, Hamilton, Ontario pollock@mcmaster.ca



McMaster University Institute for Applied Health Sciences 1400 Main St. West, Rm. 408 Hamilton, ON L8S 1C7

Phone: 905-525-9140 ext. 27850

Website: www.fhs.mcmaster.ca/canchild/