

What is the Action Observation Network and why is it important?

Observing actions

The action observation network responds when we observe someone performing an action



Performing actions

The action observation network reacts when we perform an action



Imitating actions

The action observation network responds when we imitate someone else performing an action



We looked at brain activity in the Action Observation Network for children with and without Developmental Coordination Disorder (DCD), also known as Dyspraxia, while they observed and performed different types of movement

What has our research revealed about the Action Observation Network in children with DCD?



Generally the Action Observation Network in children with DCD was less selective than their non-DCD peers



Children with lower motor scores and lower attention scores showed less activity in the Action Observation Network



The Action Observation Network in children with DCD does not seem to be filtering out irrelevant moving shapes



Children with DCD

Greater brain response to non-human motion (a kaleidoscope pattern) in children with DCD

Children without DCD

Expected brain response to non-human motion (a kaleidoscope pattern) in non-DCD children



What does this mean in terms of supporting children with DCD?



When learning new motor tasks, children with DCD might find it easier if there isn't any distracting movement going on around them. They may also benefit from consciously directing their attention to the motor task they are trying to learn.