## New test identifies attention difficulties in kids as one cause of listening problems

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Children with poor listening skills can now be distinguished from those with hearing problems thanks to a new test created by HEARing Cooperative Research Centre Researcher Imran Dhamani.

The problem emerged as anxious parents reported their children as having difficulty in listening, especially in noisy classrooms. It may affect as many as one child in every classroom.

"Parents have been frustrated by a system that couldn't tell them why their child was having difficulties. The child was equally frustrated thinking the parents don't understand. It affects the parent-child relationship, and the child's social relationships, which can result in low self-esteem," Mr Dhamani says.

When children were referred to us, the first thing to be ruled out is a hearing problem. Then they were tested for auditory processing, the ability of children to process and make sense of what they hear.

About 30-40 per cent of all referred children passed these tests, with their condition remaining unexplained. They have a normal sense of hearing, they can process the information they hear, but they still have some difficulty in listening.

We then gave them a battery of further tests, to look at their capacity for attention and memory.

"We discovered that almost universally these children had difficulty in 'attention-switching'," Mr Dhamani says. "This was a Eureka moment – we're glad that we may now have some clues now about what may be wrong."

They found the children can divide and sustain their attention between more than two speakers, they can also selectively attend to a target speaker, but what they can't do well is to switch their attention rapidly between two or more speakers.

This makes it hard for them to follow a conversation or group discussions which often occur in a classroom.

The next step is to carry out more tests and gather more data, to prove these promising preliminary results. The second stage will be to develop treatment for this difficulty.

"Switching attention is a cognitive ability," says Imran, "so there is potential for psychologists as well as audiologists to use the tests to diagnose the condition resulting in a better chance of helping the children affected."

Imran Dhamani will be speaking at the **annual conference of the Cooperative Research Centre Association**—'Collaborate | Innovate | 2012'—, **National Wine Centre of Australia in Adelaide on 15–17 May**.

He will speak at Plenary Session 3 on **Wednesday 16 May 8:30–10:30am** following addresses by Senator The Hon. Chris Evans, Minister for Tertiary Education, Skills, Science and Research and Simon McKeon, 2011 Australian of the Year.

For interview: Imran Dhamani, m: 0468 932 582, <a href="mailto:imran.dhamani@mq.edu.au">imran.dhamani@mq.edu.au</a>

Media assistance: Jenni Metcalfe, Econnect Communication, m: 0408 551 866, jenni@econnect.com.au

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