

Mass media responsible for education of genetics well before yr 10

September 24 2012, by Min Song



Children gain much of their knowledge of genes and DNA from the mass media before genetics concepts are introduced at school, new research suggests.

The findings, published in *Science & Education*, suggest genetics concepts should be taught earlier in schools before scientific misconceptions become ingrained in [children](#).

Paper co-author and UWA researcher Jenny Donovan says although television crime shows excite children and encourage them to take interest in genetics, the mass media often fails to impart complete information about genetics concepts.

In the study, 62 children aged 10 to 12 completed questionnaires about their media habits and were interviewed to determine their understandings of genetics concepts.

On average, the children spent 5 hours and 10 minutes a day using the media, the dominant type being television and followed by other types of electronic media such as radio and the internet.

Children also perceived television to be their main source of genetics information, followed by school, parents and books.

"A quarter of the interviewed children had done their own research on genes and DNA because they got interested in what they saw on television," Ms Donovan says.

"But half of them thought DNA is only in 'forensic' body parts such as blood and fingerprints.

"What children see in the media, they know about genes and DNA; what they don't see in the media, they don't know about genes and DNA."

Another common misconception was that genes and DNA are two separate things: that genes cause family resemblance while DNA is used to identify individuals.

Ms Donovan says this is due to the tendency for the mass media to associate words such as 'DNA' and 'blood' with solving crime and words such as '[genes](#)' and 'mutation' with [genetic](#) disease.

Such misconceptions need to be challenged before they become ingrained by teaching core scientific concepts at school when children are ready for them, she says.

"As educators we need to use the opportunity provided by the fact kids are watching crime shows and capitalise on that while they are interested instead of leaving [genetics education] until year 10," she says.

"If you deal with the simpler ideas early on and establish the basics right back in year 5, students have a better chance of attaining sophisticated understanding in year 10."

Ms Donovan hopes to expand the study to analyse what other types of academically relevant scientific information, such as that relating to nuclear power and climate change, students commonly gain from the [mass media](#).

Provided by University of Western Australia

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