

Thinking out loud helps solve problems

Thinking out loud really does help you to solve problems faster, scientists have discovered.

By [Richard Alleyne](#), Science Correspondent
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People who talk out loud to think through their maths problems are able to solve them faster and have more chance of getting the right answer, the research has found.

In a finding that flies in the face of the old-fashioned theory of studying in silence, classrooms should be full of the noise of students tackling their problems out loud.

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The research, published in the Journal of Research in Educational Psychology, could even have an impact in the way mathematics is taught.

Professor Jose Luis Villegas Castellanos, of the University of the Andes, Venezuela, said that discussing problems was a smart way to learn.

"Those students who think aloud while solving a mathematical problem can solve it faster and have more possibilities of finding the right solution than those who do not do it," he said.

"Likewise, drawing or making a pictorial representation relating to the also contributed to its solution."

The study, led by the University of Granada, Spain, focussed on final year university maths students, who were recorded while trying to answer complex maths problems.

Those who detailed their thinking process aloud had more chance of answering the same question correctly as those who did not talk about their problem solving plan, the researchers found.

"The ability in the management of representations such as talking aloud or drawing the problems is closely related to the success in problems solution," Prof Castellanos said.

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