

Studies recommend increased research into achievement, engagement to raise student math scores

February 15 2024



Credit: Unsplash/CC0 Public Domain

A new study into classroom practices, led by Dr. Steve Murphy, has found extensive research fails to uncover how teachers can remedy poor student engagement and perform well in math.

More than 3,000 [research papers](#) were reviewed over the course of the study, but only 26 contained detailed steps for teachers to improve both student engagement and results in math. The review is [published](#) in the journal *Teaching and Teacher Education*.

Dr. Murphy said the scarcity of research involving [young children](#) was concerning.

"Children's engagement in math begins to decline from the beginning of primary school while their mathematical identity begins to solidify," Dr. Murphy said.

"We need more research that investigates achievement and engagement together to give teachers good advice on how to engage students in mathematics and perform well.

"La Trobe has developed a model for research that can achieve this."

While teachers play an important role in making decisions that impact the [learning environment](#), Dr. Murphy said [parents](#) are also highly influential in children's math education journeys.

"We often hear parents say, 'It's OK, I was never good at math,' but they'd never say that to their child about reading or writing," Dr. Murphy said.

La Trobe's School of Education is determined to improve mathematical outcomes for students, arguing it's an important school subject that is highly applicable in today's technologically rich society.

[Previous research](#) led by Dr. Murphy published in *Educational Studies in Mathematics* found many parents were unfamiliar with the modern ways of teaching math and lacked [self-confidence](#) to independently assist their children learning math during the COVID-19 pandemic.

"The implication for parents is that you don't need to be a great mathematician to support your children in math, you just need to be willing to learn a little about how schools teach math today," Dr. Murphy said.

"It's not all bad news for educators and parents. Parents don't need to teach math; they just need to support what their children's teacher is doing.

"Keeping positive, being encouraging and interested in their children's math learning goes a long way."

More information: Steve Murphy et al, A scoping review of research into mathematics classroom practices and affect, *Teaching and Teacher Education* (2023). [DOI: 10.1016/j.tate.2023.104235](https://doi.org/10.1016/j.tate.2023.104235)

Steve Murphy et al, Parents' experiences of mathematics learning at home during the COVID-19 pandemic: a typology of parental engagement in mathematics education, *Educational Studies in Mathematics* (2023). [DOI: 10.1007/s10649-023-10224-1](https://doi.org/10.1007/s10649-023-10224-1)

Provided by La Trobe University

Citation: Studies recommend increased research into achievement, engagement to raise student math scores (2024, February 15) retrieved 9 May 2024 from <https://phys.org/news/2024-02-engagement-student-math-scores.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.