

There Is No Gene for Math, Only Practice

Zoe McAlister June 09, 2019



Understanding math has nothing to do with genetics, according to a new report published in the academic journal Psychological Reports.

New study from the Norwegian scientists suggests that if you want to be good at mathematics, you must practice different areas of mathematics.

([Newswire.net](#) -- June 9, 2019) -- What makes someone a good mathematician? Even if you love numbers you need a lot of practice because there is no genetic predisposition to be good in math, according to Norwegian scientists.

A new study by the Norwegian University of Science and Technology (NTNU) from Trondheim could influence the ways in which mathematics is taught. If you really want to be good in all areas of mathematics, you must practice them all. You cannot trust your natural talent to do all the work for you.

These findings oppose traditional views that say success in mathematics mainly depends on whether you are born with a talent for numbers.

Professor [Hermundur Sigmundsson](#) from the NTNU Psychology Department is one of the three researchers involved in this project. The findings of the study were published in the academic journal Psychological Reports.

The researchers tested mathematical skills in 70 fifth grade students of elementary school, on average 10 years old. Findings point to the importance of practicing each particular area of mathematics so that we can be good in them, and also show that calculating numbers and understanding mathematics are not skills we are born with.

Tasks from nine different areas of mathematics were tested, from oral and written addition and subtraction to verbal multiplication and understanding of a clock and calendar.

The study showed a small correlation between nine different mathematical skills, explained Sigmundsson. For example, there is a small correlation between the ability to solve the usual addition in the form of $23 + 67$ and adding the numbers up in the form of a task with words.

Perhaps basic mathematics is not a problem for Norwegian students, but reading is, according to the findings that say that up to 20% of Norwegian boys in higher grades in primary school have reading problems. Same as mathematics, practicing reading improves the reading skills.

Some students simply cannot be good in all areas of mathematics, but for example they can be good in geometry, Sigmundsson added. This research could eventually change the way in which mathematics is taught in schools.

Students who do well in geometry, but not algebra, just need to practice more algebra Sigmundsson said. Understanding algebra is also the result of practice and not genetic predisposition.

The fact that we are good at exactly what we practice is probably due to the fact that various types of exercises activate different relationships between neurons. These results can also be transferred to other areas. A soccer player that exercises a perfect shot at a distance of 25 meters will probably become very good at it. But that does not mean that he is good at dribbling.

This research has support in new findings in neurology. "By training, we develop specific neural connections" continued Sigmundsson.

The research was conducted in cooperation with prof. Remco C. J. Polmand from Victoria University in Melbourne and Dr. Havard Loras from the Faculty of Health Education and Social Work, Department of Physiotherapy, Sor-

Trondelag University, Trondheim.

Source: <http://newswire.net/newsroom/news/00110360-there-is-no-gen-for-math-only-practice.html>