

## Smarter Kids with a Growth Mindset Intervention

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### Original title

A national experiment reveals where a growth mindset improves achievement.<sup>1</sup>

### Introduction

Many of us believe that we were born to do a certain thing. And if we are bad at something, it is probably just because we were born that way. Most of us would agree that if we want to get stronger and have bigger muscles, we have to go to the gym or do other kinds of sport. What many do not realize is that our brains can also be trained to become smarter, and even failures will increase our brainpower. Even though the cartoon above showed that the brain is growing in size that is actually not the case. But it is growing on the inside with more neuron connections being made every time we learn something new.

Professor Carol S. Dweck found out some years ago, that in general people can be divided into two groups: Either you have a fixed mindset, or you have a growth mindset. With a fixed mindset you do not believe that you can become better, and having a failure is the end of it. On the other hand, if you have a growth mindset, you will see failures as a way to progress and become smarter. Carol has previously shown that kids with a growth mindset do better in school than kids with a fixed mindset. In the current study, Carol and her team find out more details about which specific students that would benefit from a growth mindset intervention.

### Findings

The authors of “A national experiment reveals where a growth mindset improves achievement”<sup>1</sup> have researched whether it was possible to teach 9th-grade students with a fixed mindset about the growth mindset, and thereby convert them from their fixed mindset to a growth mindset. To do so, the students were shown a video explaining that they are able to train their brain by keeping on trying and failing.

Students were categorized into whether they had a fixed mindset prior to the intervention, by answering the question “You have a certain amount of intelligence, and you really can’t do much to change it”. The effect of the intervention was measured by:

1. looking at the student’s grades before and after the intervention, and
2. by looking at how many students decided to choose the advanced mathematics class in the 10th-grade.

The authors found out that the growth mindset intervention does not improve every student’s ability. The biggest effect was found for students who were not doing very well in school to begin with, and who had support from their classmates afterwards. In other words, if students who were not doing so well did not get support from their classmates, the effect was much less. Additionally, students who were already performing well did not enhance their performance much after the growth mindset intervention. The authors mention that this could be due to these students already having reached peak performance.

## Conclusions

The study showed that a short one-hour growth mindset intervention could indeed have an effect on a student's performance. But it also showed that this short intervention alone was not enough to make the whole difference on whether you do good or bad in school. In the past, other research groups have questioned Carol's findings on the growth mindset, and the current work may be able to explain why. Because the growth mindset intervention will only have a great effect when poorly performing students are supported by their classmates. Carol has also previously mentioned that in the end it is not like everyone either has a growth mindset or a fixed mindset, as many people have a bit of both mindsets depending on the task at hand.

## Article info

Editorial submission by Jonas N. Søndergaard @thefairjournal. ID: 2019.09.06. Please refer to the original article<sup>1</sup> for more details.

## References

1. Yeager, D. S. *et al.* A national experiment reveals where a growth mindset improves achievement. *Nature* **573**, 364–369 (2019).