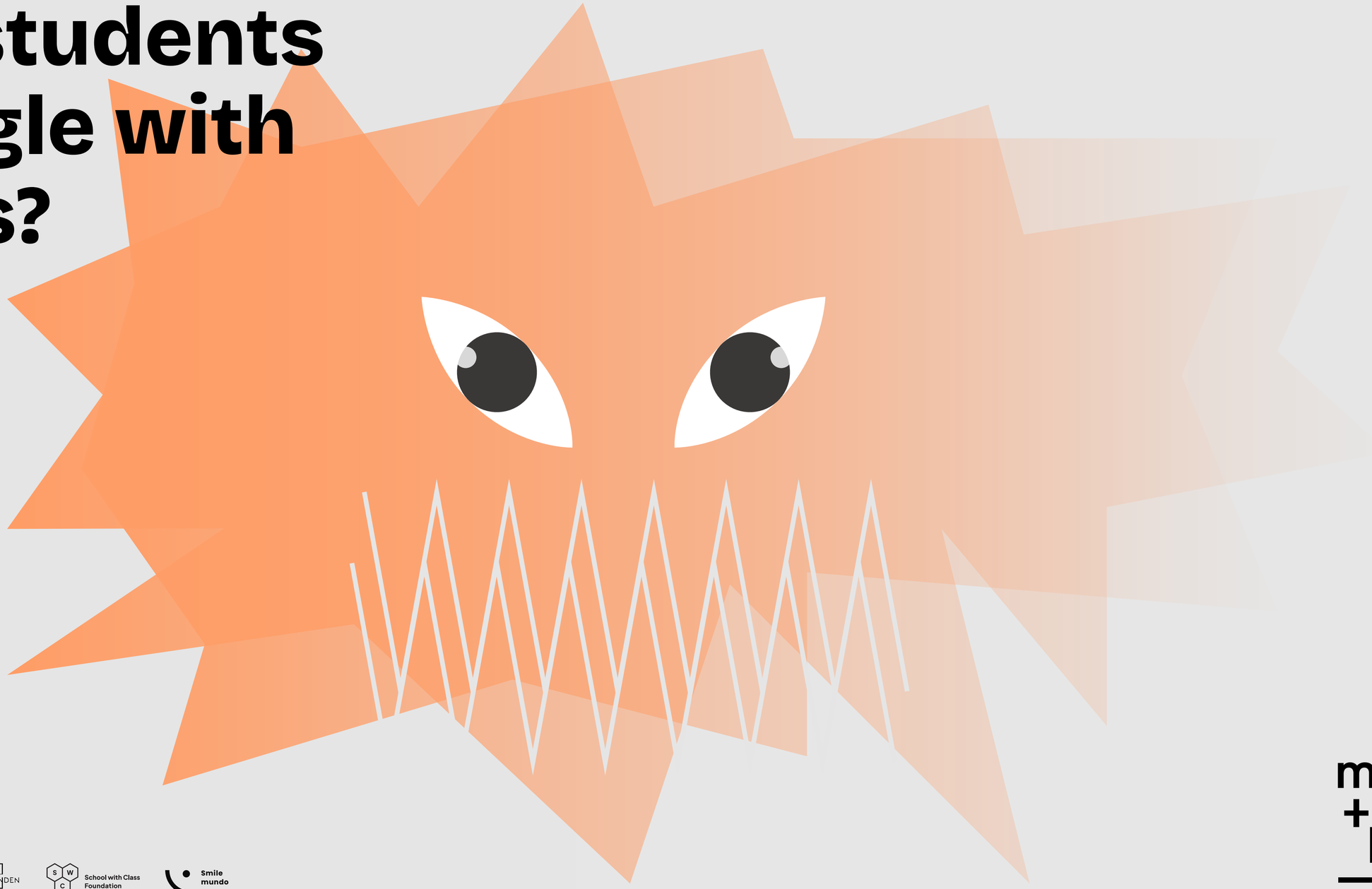
Why students struggle with maths?



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"No one cares here. We all just want to finish."

"No one in my family gets maths. It's too hard."

"They don't really ask how school is going."

"I chose this school only because it's close."

"The teacher talks for ten minutes and I'm already lost."

"They say dyscalculia, but I never got a real diagnosis."

"I'm just too stupid for maths."

"I need a job and money. Maths feels pointless."

"Teachers never checked what I was missing. I always failed."

"The class is chaotic, the teacher is exhausted."

The struggle is real, so what students say?

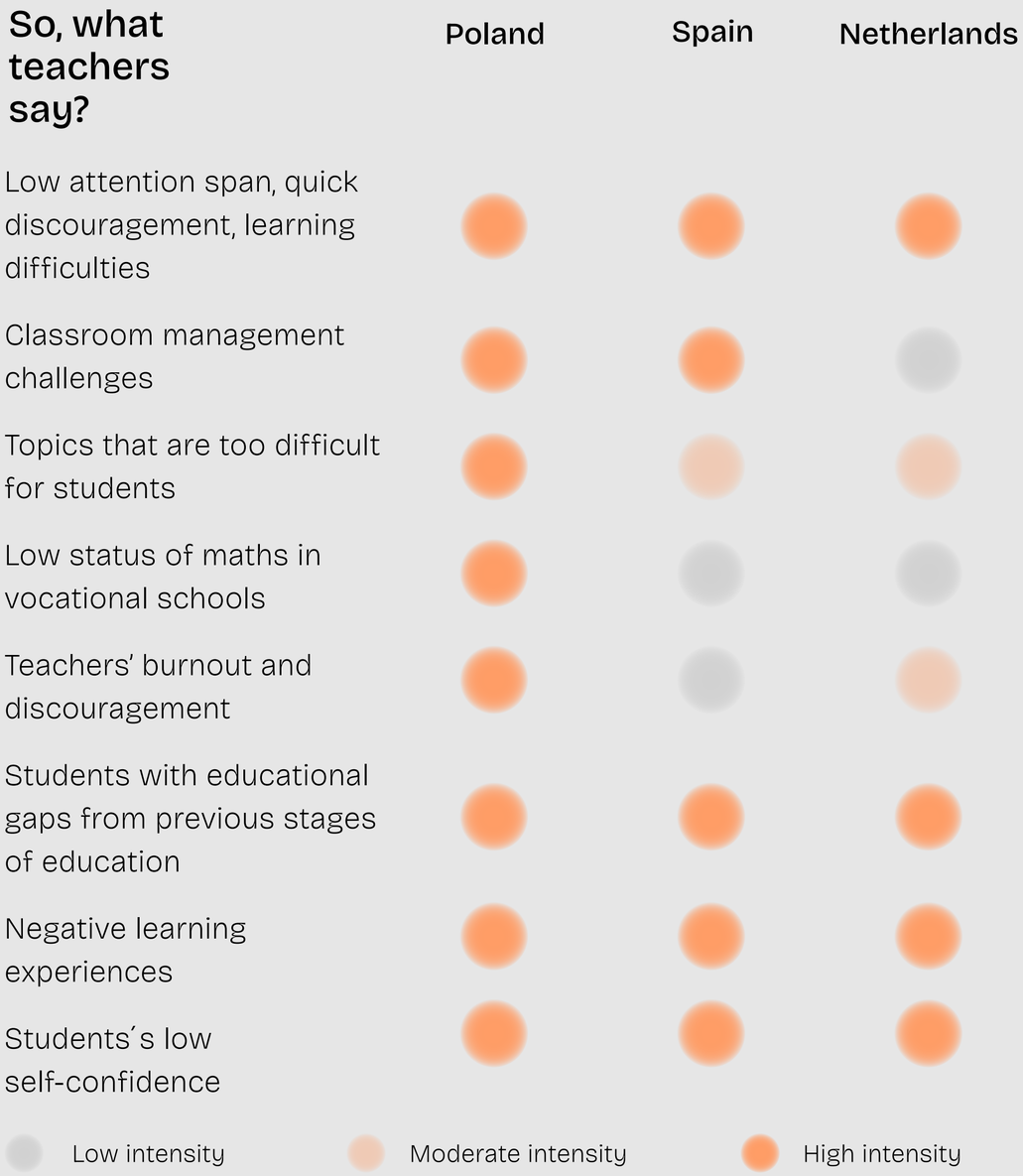
The **mathematical performance of 15-year-old** students in Europe has shown a **clear downward trend since 2003**, as evidenced by successive PISA measurements. This decline has **accelerated** significantly **since 2022**. At the same time, not only is the level of performance declining, but so is the **students' confidence in their own mathematical abilities**.

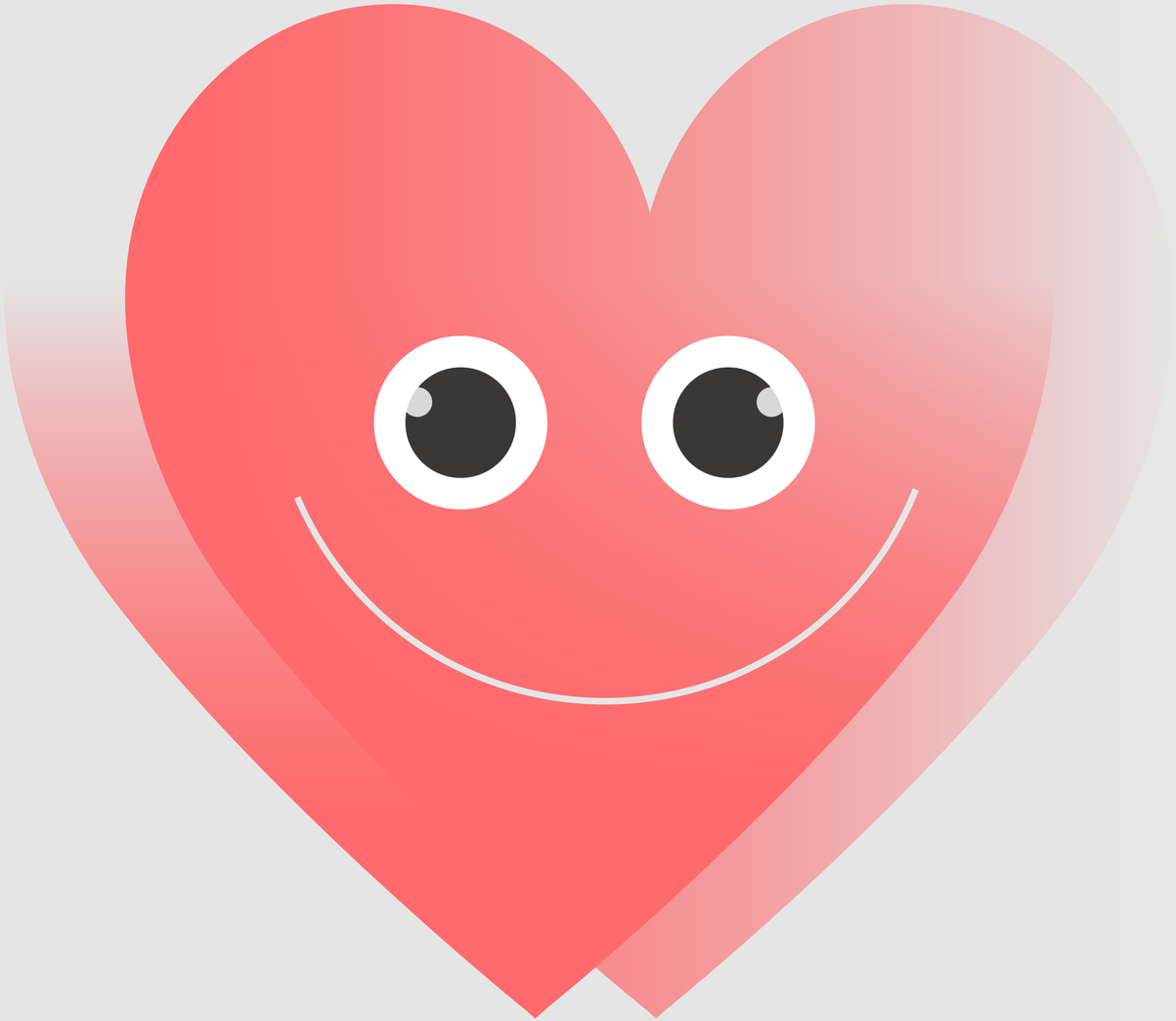
What are the reasons behind the struggle?

PISA results show a decline in maths performance in Poland, Spain, and the Netherlands. Falling PISA results go hand in hand with rising maths anxiety, lower motivation, and a growing mismatch between curricula and students' real needs. More students are performing below basic proficiency, while inequalities persist across school types, gender, and socio-economic groups. **Maths anxiety plays a key role** in this cycle, reducing motivation and leading to avoidance and weaker performance.

This is a shared challenge: students struggle with frustration and fear of failure, while teachers are expected to meet rigid curriculum demands and respond to diverse emotional needs — often without adequate support.

We spoke to teachers in technical and vocational schools in Poland, Spain, and the Netherlands to better understand the reasons behind the challenges





How can we stop the struggle?

Learning maths is not a solo fight!

Students and teachers struggle together — and that's why the relationship between them matters. A **safe, trusting connection** makes it possible to ask questions, make mistakes, and keep going when things get hard. Students' relationship with maths is shaped daily — through interactions with teachers, the type of tasks they face, and how success and failure are handled in the classroom.

Relationship — emotional safety

When students feel safe, they dare to try!

Celebrate small successes — progress matters more than speed

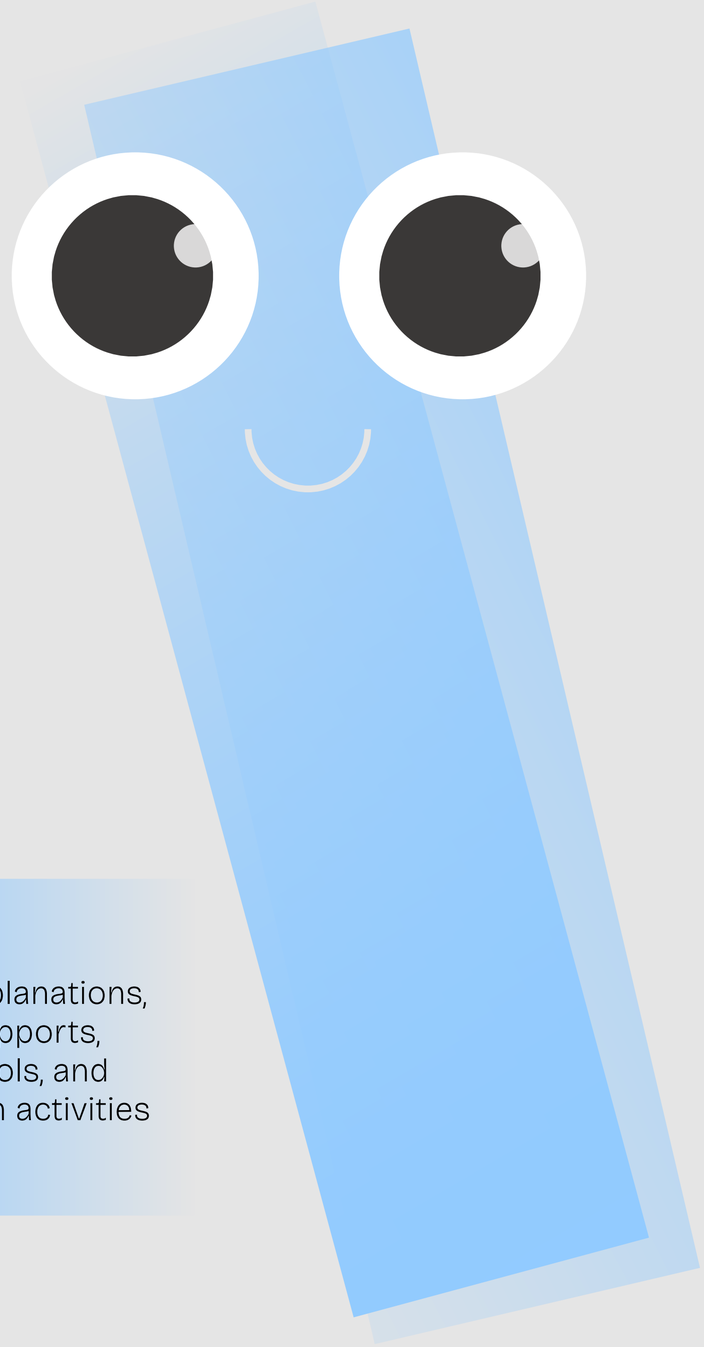
Fill learning gaps without shame

Go back to basics when needed

Use activities that build collaboration, confidence, and trust

Mistakes are not punished; they are part of learning

Before formulas, rebuild trust



Short, structured tasks instead of long explanations

Tools — support, not overload

Less overload, more clarity!

Clear explanations, visual supports, digital tools, and hands-on activities

Innovative methods: games, challenges, escape rooms

Ready-to-use materials that support teachers and save energy

Maths in context — rooted in real life

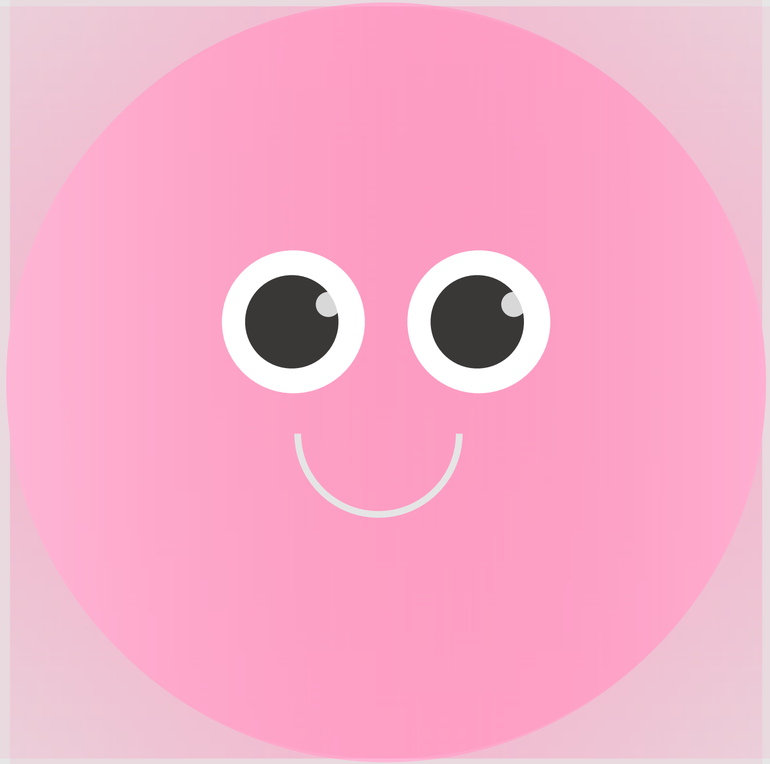
Maths works best when it makes sense!

Show how maths supports life skills — not just exams

Use real-life examples that feel relevant

Link maths to everyday life, future jobs, and real problems

Work with practical themes: money, work, everyday decisions



Based on Research Report:

“Unlocking Potential. Key barriers and opportunities in teaching math in technical and vocational schools”

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