

# Explore motivation and self-esteem

Teachers' Guide by **BOLD** and **Frontiers for Young Minds**



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# Explore motivation and self-esteem

Quick overview of this [Teachers' Guide pack](#)



[BOLD](#) and [Frontiers for Young Minds](#) have partnered to bring you this collection of insights into the latest scientific thinking around motivation and self-esteem.

Included in this package, you will find:

1. Three articles from the BOLD network of researchers and writers, guiding you through the latest theory and science, with links to original research for further information.
2. Links to more resources to explore the topic further on BOLD, including a podcast episode.
3. Three relevant *Frontiers for Young Minds* articles that you can use to explore motivation and self-esteem with your class or other young learners.
4. Activities from the *Frontiers for Young Minds* team to try with your class to help them consolidate the ideas explored in the articles.

## Key terminology

- **Motivation:** A condition that energises behaviour.
- **Self-esteem:** A feeling of self-worth.
- **WEIRD countries:** Western, educated, industrialized, rich and democratic countries.

## Part 1

# BOLD articles: Learn the science

Three articles from the BOLD network of researchers and writers, guiding you through the latest theory and science, with links to original research for further information

Links to more resources to explore the topic further on BOLD, including a podcast episode

# What motivates students to learn?

The factors that encourage students to tackle an academic challenge.



When do students feel most motivated? What causes a student to pass up an opportunity to go out for ice cream with friends in favor of tackling an academic challenge? Why are some students more motivated than others to engage in school? These are questions many parents and teachers wrestle with, particularly when they see a child's motivation to achieve in school [declining over the school years](#).

This decline often becomes apparent during the transition from primary to middle school, usually around age 11. This is when school starts to become more focused on performance, putting more pressure on students, and this new environment is not always able to meet a student's needs. The transition to middle school may also affect [social relationships](#): Friendships are disrupted, parental influence decreases, and classes are bigger, which can have an adverse effect on the teacher-student relationship. At the same time, students are becoming more [interested in social relationships](#).

Recognizing that motivation often declines during this period, we wanted to identify the factors that are most closely related to academic motivation, so that we can help teachers and caregivers motivate students to live up to their full potential.

Over the past four decades, many studies have examined student motivation, both in and out of the classroom, using self-report measures. In [a systematic review](#) of this evidence, we found that researchers had already summarized data from over 5,000 studies, drawn from more than 25 million students between the ages of 4 and 20. Given the sheer number of such summaries (we

found 125!), it can be difficult to work through them and find answers to specific questions. Our first step, therefore, was to create a comprehensive map of all this knowledge. In this process, we found three factors that seem to be most important for academic motivation: learning opportunities, self-beliefs, and positive relationships.

### Three motivating factors

Good learning opportunities, such as high-quality instruction in science or reading, boost motivation. The more students learn, the more motivated they are to continue learning. Motivation, in turn, leads to more learning, [creating a feedback loop between learning and motivation](#).

High-quality instruction requires effective classroom management, including efficient use of lesson time and clarification of classroom rules. It also involves providing challenging tasks that encourage students to play an active role in their own learning, while at the same time supporting students as they seek to complete these tasks. [Learning opportunities should be in keeping with students' abilities](#).

Students who feel more competent in their academic skills appear to be more motivated. Indeed, students' perceptions of their own learning – their self-beliefs – may be just as important as the quality of the learning opportunities they enjoy. Teachers can help students feel competent and boost their motivation by [providing feedback](#), highlighting the ways each individual can make progress – which once again increases learning. Teachers can [create motivating goals](#) for their students, emphasizing the importance of continuing to learn and develop their own skills rather than competing with classmates.

The [student-teacher relationship](#) also has a significant impact on motivation: [Happy schools with positive relationships make for motivated learners](#). In adolescence, building social relationships outside of the family (especially with peers) [becomes increasingly important](#). Supportive learning environments – ones that meet students' emotional needs and provide a sense of belonging and connection to classmates and teachers – have a positive impact on motivation.

More research is still needed to determine whether some aspects of motivation matter more in certain contexts than in others. In our review, we were unable to take into account the interplay of various aspects of classroom learning that are important when looking at [individual classrooms, teachers, and students](#). For example, we don't know whether teaching methods may work differently for students from different backgrounds, and we know little about the relationship between the use of technology in the classroom and academic motivation.

However, our findings highlight the importance of fostering academic skills, [positive self-beliefs](#), and relationships in parallel. If students see that they are making progress, feel welcome in their schools and classrooms, and are connected to their teachers and peers, they might just be motivated enough to forgo the ice cream with friends in favor of tackling an academic challenge.

#### Written by

Jennifer Meyer and Thorben Jansen, Postdoctoral Researchers at the Leibniz Institute for Science and Mathematics Education in Kiel

# The delicate art of raising children's self-esteem

Reinforcing the three pillars of healthy self-esteem at home and at school.



In the 1960s, Western society began to embrace self-esteem as a critical foundation of children's development. Although certainly not a panacea, self-esteem – a feeling of self-worth – [brings modest benefits](#) to children's well-being, social relationships, and academic performance. If children feel worthy for who they are, they are better able to deal with the challenges life throws at them.

**"Praise is necessary. It is a must..."**

Unsurprisingly, then, parents and teachers are committed to raising children's self-esteem. A common belief is that one can raise children's self-esteem by lavishing them with praise. In fact, [many believe](#) that children need praise to feel good about themselves – just as plants need water and sunlight to grow. Many would agree with an [American mother who told](#) researchers: "Praise is necessary. It is a must... You cannot build up a child's self-esteem without telling them continuously about the good things that they're doing..."

Despite widespread belief in the benefits of praise, [decades of empirical research](#) show that praise is not invariably beneficial. Of course, children enjoy receiving praise when practicing a new skill, because it tells them what they are doing well. But in other cases, praise may not work as intended. As educator [Alfie Kohn says](#), "The most notable feature of a positive judgment isn't that it's positive, but that it's a judgment."

In the book *Between Parent and Child*, we read about 12-year-old Linda, who was praised by her father when she reached the third level of her video game. “You’re great,” he said, “you have perfect coordination! You’re an expert player.” She immediately lost interest in playing the game, thinking, “Dad thinks I’m a great player, but I’m no expert. I made the third level by luck. If I try again, I may not even make the second level. It is better to quit while I’m ahead.”

### Praise can backfire

In our research, my colleagues and I have put these ideas to the test. We’ve shown that when parents and teachers seek to raise children’s self-esteem, they often dole out *person praise*, which is about children’s personal qualities – “You’re so smart!” – and *inflated praise*, which is overly positive – “You did *incredibly* well!”

Although well intentioned, these types of praise can backfire. When children receive person praise, they may become *concerned about appearing smart to others*. This may lead them to seek out easy tasks, which allow them to demonstrate that they’re smart, and avoid challenging tasks, which might show that they aren’t so smart after all. They may *cheat to get ahead*. And when they struggle, they may *doubt their ability and give up*. Similarly, when children receive inflated praise, they may initially feel proud and elated: “Maybe I *am* incredible!” But over time, they may worry about not being able to live up to the praise. As they struggle or face setbacks, they may feel that they’re falling short of expectations and *develop low self-esteem*. A teacher told me about a boy in her class who had been lavished with praise at home for his drawing. One day, *the boy said*: “I’m not an amazing drawer... My mom tells me I am, but I know others are better than me.”

### Pillars of healthy self-esteem

How, then, can parents and teachers raise children’s self-esteem in a healthy and effective way? Based on research in developmental psychology and educational science, my colleagues and I have identified *three pillars of healthy self-esteem*, which can be reinforced at home and at school:

- Growth: Children have an intrinsic desire for self-improvement. *Helping them reflect on how much they’ve improved over time* can raise their self-esteem, boost their desire for learning, and give them a sense of progress and insight.
- Realism: To hone their skills and develop their self-esteem, children need realistic feedback on their performance, effort, and strategies. Especially when children are really good at something, they may *benefit more from constructive criticism than from indiscriminate praise*. When giving constructive criticism, we need to *set high standards and show that we believe that children are capable of meeting those standards*.
- Robustness: When children fail or make mistakes, they often worry that others won’t accept or value them anymore. By *conveying to children that we accept and value them unconditionally*, we can cultivate a robust sense of worth that does not crumble in the face of setbacks. When children fall short, we should not question their ability by saying, for example, “It’s ok – not everyone can be good at math.” Instead, we should continue to express our confidence in their potential for learning and frame their failure as *an opportunity for learning*.

### Conclusion: A delicate art

When we want children to feel happy with themselves, our reflex is to dole out praise. But praise might not be the most effective way to raise self-esteem. Before praising a child, we should take a step back and think carefully about the message we're sending. Do we want children to be concerned about our assessment of them? Or do we want them to become intrinsically curious learners who seek out challenges and persist in the face of setbacks?

#### Written by

Eddie Brummelman, Associate Professor, University of Amsterdam

## Interview: Which comes first, motivation or achievement?

What seems like a chicken-and-egg situation in children's learning is actually a feedback loop.



Looking more closely at how children learn and progress can demystify pathways in learning. Juanita Bawagan spoke with [Martijn Meeter](#) and TuongVan Vu, two experts in learning, about the evolving field of motivation theory.

**Juanita Bawagan:** How would you define motivation?

**TuongVan Vu:** That's harder than you might think. Even back in the '80s there were [more than 100 definitions of motivation](#). While the definition varies by theory, we define motivation as a condition that energises our behaviour, and our research focuses particularly on learning behaviour.

**JB:** Does motivation change as you go from learning as a child to learning as an adolescent?

**Martijn Meeter:** In most countries, young children are very motivated when they enter school, and then their motivation steadily declines [over the years](#). With every shift, for example from primary to secondary school, there is a small bubble of motivation. There's an illusion that 'now everything will be different and school will stop being boring', but instead the decline continues.

Also, the effect of prior performance becomes much bigger with age. Young children don't care or really know where they rank; all they know is that they can do more than they could previously, which makes them think that they're pretty good. Then in mid-primary school, they begin to measure themselves against their peers. If you rank high, you feel like you're the big fish, and that motivates you. If you rank lower, you may feel like you're forcing yourself to do something you're not good at. The older children are, the stronger the correlation between prior performance and motivation.

**JB:** Does motivation lead to achievement, or is it the other way around?

**TV:** Motivation affects achievement, but achievement also affects motivation. Over time it becomes a feedback loop. The question is: Where does it start? From our perspective, it's outside influences, such as quality of instruction, external pressure, and cultural and social influences, that keep this loop going.

I think the idea that academic self-concept influences academic achievement is really interesting. It means that the more you think of yourself as a good learner, the better you become at learning. It seems almost magical – because you think of yourself as a good student, you actually become better.

There are two pathways from motivation to achievement, with important differences. The first is grounded in self-esteem and self-efficacy, with what you think about yourself determining what you do. If you think of yourself as a good learner you will put in more effort, because that is in line with how you expect yourself to act. The second pathway is the value of motivation construct, whereby learning becomes more enjoyable and you put more effort into it because you see value in it.

**JB:** What role does culture play?

**MM:** There's probably a huge cultural component, but we don't really know because virtually all studies of motivation have been done in the so-called WEIRD countries – Western, educated, industrialized, rich and democratic. In some cultures, and at some stages, kids have a lot of freedom to choose how many hours they spend on schoolwork, so motivation is important. When it's mostly the system that determines how much time you spend studying, motivation plays a less significant role.

We have found that motivation isn't a major determinant in how you do in formal schooling. Other factors, like your background, genes, the quality of your school or how much your parents push you, probably affect your learning more than your motivation does.

**JB:** How do researchers study motivation?

**TV:** Motivation has been studied for 30 years, and at the beginning, researchers generally used cross-sectional data. This method was flawed because there are so many differences between kids. Nowadays, there has been a shift to longitudinal data, with a group of students followed over several years.

Researchers have been looking for more creative ways to study motivation – for example, creating a mobile phone app for experience sampling, or using online environments like [Maths Garden](#), which make it possible to observe motivation in real time without interrupting a learning activity.

In another shift, more attention is being paid to physiological measures. Researchers can measure electrical brain potentials or heart rate variability to determine how much a person is

concentrating on a given learning task or how much effort is being expended. This approach has potential for future research, but considerable validation work will be needed to show that the results actually reveal something about motivation.

**JB:** What is the future of this research?

**TV:** Researchers have been looking at motivation on the individual level, but are starting to address the environmental level as well. We believe that motivation is integral to a person, but recognize that school structure and the environment are also important factors in motivation. This is an area that future research should certainly explore.

#### **Interview by**

Juanita Bawagan, Science writer

#### **Interviewees**

Martijn Meeter, professor of education sciences at Vrije Universiteit Amsterdam, Netherlands

TuongVan Vu, postdoctoral researcher at the Lab of Learning, Department of Clinical, Neuro-, and Developmental Psychology at the Vrije Universiteit University Amsterdam

## Explore more on BOLD

On BOLD you can find more articles, interviews, and podcast episodes covering research, opinions and issues on this topic. If you're keen to explore more after reading this collection, we recommend starting with these.



### The importance of motivation and self-esteem in children's learning

An episode of Teachers' Voices podcast.

[Listen to the episode >](#)



### "It can be useful for kids to ignore their parents"

The importance of igniting an inner spark from a young age.

[Read the interview >](#)



### Parental involvement in children's schooling

Parents' interest affects their children's self-esteem and motivation to learn, among other things.

[Read the interview >](#)

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## Part 2

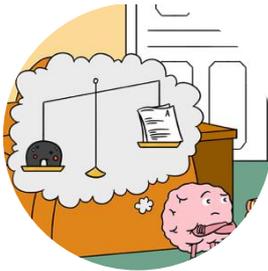
# Explore motivation and self-esteem with kids

Three relevant *Frontiers for Young Minds* articles that you can use to explore motivation and self-esteem with your class or other young learners

Activities from the *Frontiers for Young Minds* team to try with your class to help them consolidate the ideas explored in the articles

## Articles for kids

*Frontiers for Young Minds* have published articles about motivation and self-esteem, written by top researchers and peer-reviewed by kids aged 8-15 to be engaging and accessible. These are an excellent basis for class reading and discussion, as well as general interest reading for young people at home.



### Is It Worth It? How Your Brain Decides to Make an Effort

How do you decide to exert cognitive effort and what is happening in your brain while you make this decision? Understand the neuroscience of motivation and get tips to enhance it for study and more!

[Read the article >](#)



### What Motivates Young Athletes to Play Sport?

Using young sports players as an example, explore the two types of motivation: one related to the goals you want to achieve, and the other to your reasons for taking part. This can be extrapolated to all areas of kids' lives and interests!

[Read the article >](#)



### Using Self-Compassion to Manage Difficult Experiences

Self-compassion can reduce the negative thoughts and feelings we might have about ourselves, and can decrease fears we might have about failing. Through the lens of sports experiences, explore why self-compassion contributes to reaching our potential in life.

[Read the article >](#)

Get the latest science for kids with your class by following FYM on [Twitter](#), [Facebook](#), and [Instagram](#), and for more great stories from science, read the [FYM blog](#)!

## Class activities

After your class has read these FYM articles, explore motivation and self-esteem with them using these activities. Find answers to the questions at the end.



### Discussion

Challenge your class to a discussion using these questions:

- How would you define cognitive effort, and can you give an example? What is an example of something you think it's worth making cognitive effort for?
- Which is more motivating, wanting to win over other people or wanting to make your skills better – and why? Have you ever been forced to participate in a club or activity, and what effect did this have on you?
- Outside sport, where might we need self-compassion? How would you activate your self-compassion in this situation, using mindfulness, self-kindness and common humanity?



### Play

Give kids in your class three coloured pieces of paper they can vote with – **red** for cognitive effort, **yellow** for motivation, **blue** for self-compassion.

Read out the following sentences and ask them to vote by holding up the coloured paper that best represents the issue you are talking about.

- "I just couldn't do my homework last night, it wasn't interesting."
- "I'm really lucky that I'm good at badminton and I get to do it in the school club."
- "If I turn my phone off, I get my homework done twice as fast!"
- "I'm going to be captain of the basketball team next year because I love to win!"
- "I didn't get the best grade in the class, because I suck at this subject."
- "I want to go running after school to get fitter."



## Group work

Put the class into breakout groups and give them a set time to read and discuss one of the situations below. Groups must identify the issue, the emotion which arises from the situation, and a possible solution.

- Jack is a hard worker and gets mostly As and Bs in all subjects except math, which he really struggles to get excited about. He usually gets Cs in that class. What is happening in Jack's brain that makes it hard for him, and what could he do to engage more easily with his math homework?
- Noor is usually super-confident at school and with her friends, but after forgetting her lines in her first school play, she feels she is a terrible actor and will never go on stage again. Now she has to give a talk to the whole school about a project she has done, but she is afraid to fail again. What does Noor need to recognise has happened to her? How could she help herself, and how could her friends help?
- Abby is a really good gymnast and loves practising on the balancing beam and rings to get better – she hopes to compete some day! But her parents really want her to take dancing classes instead. Why is Abby more likely to succeed in gymnastics? How could she explain this to her parents?



## Creative writing

Ask your class to each write a response to one of these scenarios:

- Imagine your best friend is having trouble studying. Write them an email to try to help them, using your knowledge from these pieces.
- What if a family member enlisted you in a local club you didn't want to join? Write down what you might say to explain your motivation to do something else instead, using your knowledge from these pieces.

# Answers



## Discussion

### Cognitive effort

- It is the brain effort used to complete a complicated task, such as studying for school, or solving a complicated puzzle.
- It may be worth making an effort for homework in subjects you don't find so easy; studying or revising before a test; learning to support a key skill, like music theory if you play an instrument, or tactical moves if you play chess.

### Motivation

- Wanting to make your skills better (a mastery goal) is likely to be more motivating in the long term than winning over other people (a performance goal).
- This is because mastery makes you happy and proud of your efforts, while focusing on performance can cause worry and negative comparisons with others.

### Self-compassion

- Outside sport you might need self-compassion for other hobbies, games you play regularly, performance in a school subject, competitions you enter.
- Activate self-compassion through being mindful (recognising a difficult experience), taking time to apply self-kindness (not criticising yourself) and looking around for common humanity (realising the same thing happens to others).



## Play

### Red – cognitive effort

- "I just couldn't do my homework last night, it wasn't interesting."
- "If I turn my phone off, I get my homework done twice as fast!"

### Yellow – motivation

- "I'm going to be captain of the basketball team next year because I love to win!"
- "I want to go running after school to get fitter."

## Blue – self-compassion

- “I’m really lucky that I’m good at badminton and I get to do it in the school club.”
- “I didn’t get the best grade in the class, because I suck at this subject.”

## Group work

### Jack and his math problem

- Jack is struggling to use cognitive effort, the thinking effort you put in to achieve a complicated task.
- He dislikes having to think harder in math than in other subjects and may also not be studying at an optimal time of day for his brain.
- To engage more easily he could try putting away his phone and other distractions when doing homework; reward himself with a treat when he finishes the homework or gets a good grade; use a game to make it more fun or focus on the outcome he wants.

### Noor and her stage fright

- Noor had a difficult experience in the past, and has criticised herself harshly for it. She has not been kind to herself about what happened and it has caused a blocker in her mind for future performance.
- Noor should try using self-compassion techniques: mindfulness (recognising she had a difficult experience), self-kindness (forgiving herself) and common humanity (realising stage fright happens to lots of people). Her friends could help by talking to her about their fears and experiences, and showing her that they do not think she is a failure.

### Abby and her gymnastics hobby

- Abby is more likely to succeed at gymnastics because she has chosen it herself – it is fun for her and she loves it (intrinsic motivation).
- Taking dance classes to please her parents would be to avoid their disappointment or even punishment (negative extrinsic motivation).
- Abby could show how better motivation (intrinsic) comes from having autonomy, and is more likely to result in long-term commitment to, and success in, the activity (she could show her parents the article!).



## Creative writing

### An email to your friend who has trouble studying

- Express sympathy with the difficulty in making cognitive effort to study, and explain that this is common to a lot of people.
- Explain why it's usual for our brains to work this way.
- Suggestions for how to make studying easier could include: putting away their phone and removing all distractions when doing hard homework; rewarding themselves with a treat if they do all the homework or get a good grade; using a game to make it more fun or focusing on the outcome they want.

### A letter to a family member who enlisted you in a club

- Explain that you are more likely to succeed at something else you want to do because you've chosen it yourself – show why (it's fun, you love it, etc.). This is intrinsic motivation.
- Explain that taking dance classes to please someone else would be to avoid their disappointment or punishment. This is negative extrinsic motivation.
- Explain how better motivation (intrinsic) comes from having autonomy, and is more likely to result in long-term commitment to, and success in, the activity.

**Frontiers for Young Minds**  
Science for kids, edited by kids

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