

Classroom influencer



By **Fraser Scott** | 8 September 2022

Use these simple tips to capture students' attention and direct it to key material

Successful teaching requires a complicated assortment of knowledge and skills. Not just subject-specific skills, but other things like behaviour management, too. Delivering effective explanations of curriculum content is also important. And verbal and behavioural cues from teachers can affect cognitive and emotional responses in students.

Researchers from China have recently explored the influence of teacher enthusiasm on chemistry learning during prerecorded instructional videos. A teacher's enthusiasm during lessons can improve the self-efficacy of their students. **Self-efficacy** is believing in your own ability to successfully perform a task, and so is likely to increase a student's engagement in a lesson.

However, too much teacher enthusiasm could be distracting and lead to a high **cognitive load** for students trying to understand the lesson. **Cognitive load** should not be too high or learning becomes difficult.

These concerns could be more problematic for teaching delivered via prerecorded instructional videos since there is no opportunity to modify the teaching 'live'. Until the recent study by Qian Huangfu and colleagues, little research had been conducted on how teacher enthusiasm in video lectures affects students' learning .



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Step up your enthusiasm levels in class to ensure maximum engagement

Teaching tips

- Ensure you teach enthusiastically – although this is so simple, it can have a positive effect on a student's self-efficacy.
- Use enthusiasm to harness your students' attention and guide it to key learning material to reduce the cognitive load of the learning experience.
- Don't be so enthusiastic that it becomes a distraction, instead practise how to appear appropriately enthusiastic.

Enthuse your learners

The research team delivered an hour-long, prerecorded introductory chemistry lesson to 70 high school students. The students had limited chemistry backgrounds. The researchers split them into two groups that received different versions of an instructional video – the teacher was enthusiastic in one version, and not in the other. In the videos, the teacher's enthusiasm levels could be seen in their varied facial expressions, gestures, intonation and humour.

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The study included pre- and post-tests to measure learning performance, a self-efficacy questionnaire and a cognitive load questionnaire. The researchers also used eye-tracking cameras to measure the students' levels of attention, and what they were paying attention to.

Being enthusiastic about what you are teaching appears to be very important

Students who watched the enthusiastic video possessed higher self-efficacy, were more attentive and experienced lower cognitive load. As a result, this group also performed better in their learning. So, being enthusiastic about what you are teaching appears to be very important.

The researchers found that students in the high teacher enthusiasm group paid more attention to the teacher's behaviour than the chemistry content on the slide. It was the opposite for those in

the low teacher enthusiasm group. The [split-attention effect](#) suggests that the teacher's behaviour could distract students from their learning. However, this study revealed that the attention directed at the teacher can be guided to the phrase or diagram most pertinent to the explanation. The researchers were able to evidence this through the eye-tracking system.

References

Qian Huangfu *et al.*, *Chem. Educ. Res. Pract.*, 2022, DOI: [10.1039/d2rp00095d](https://doi.org/10.1039/d2rp00095d)