Structuring presentations

Foundations for Teaching in Higher Education

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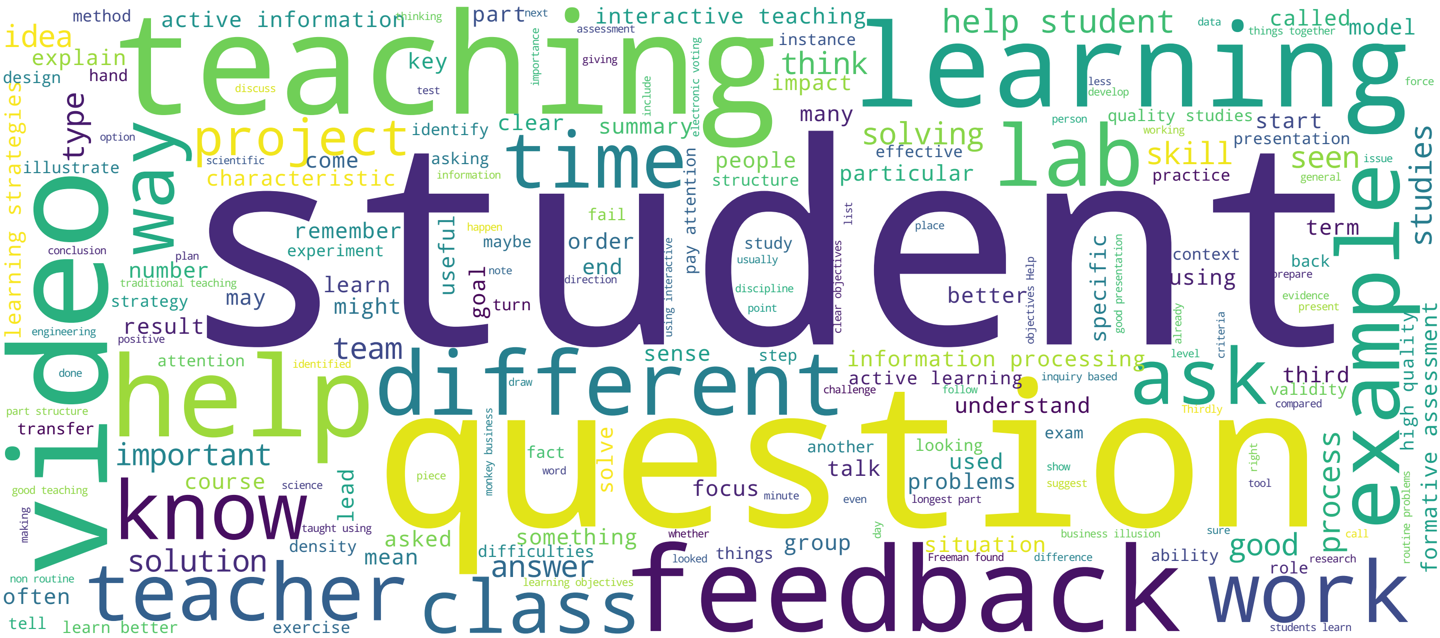

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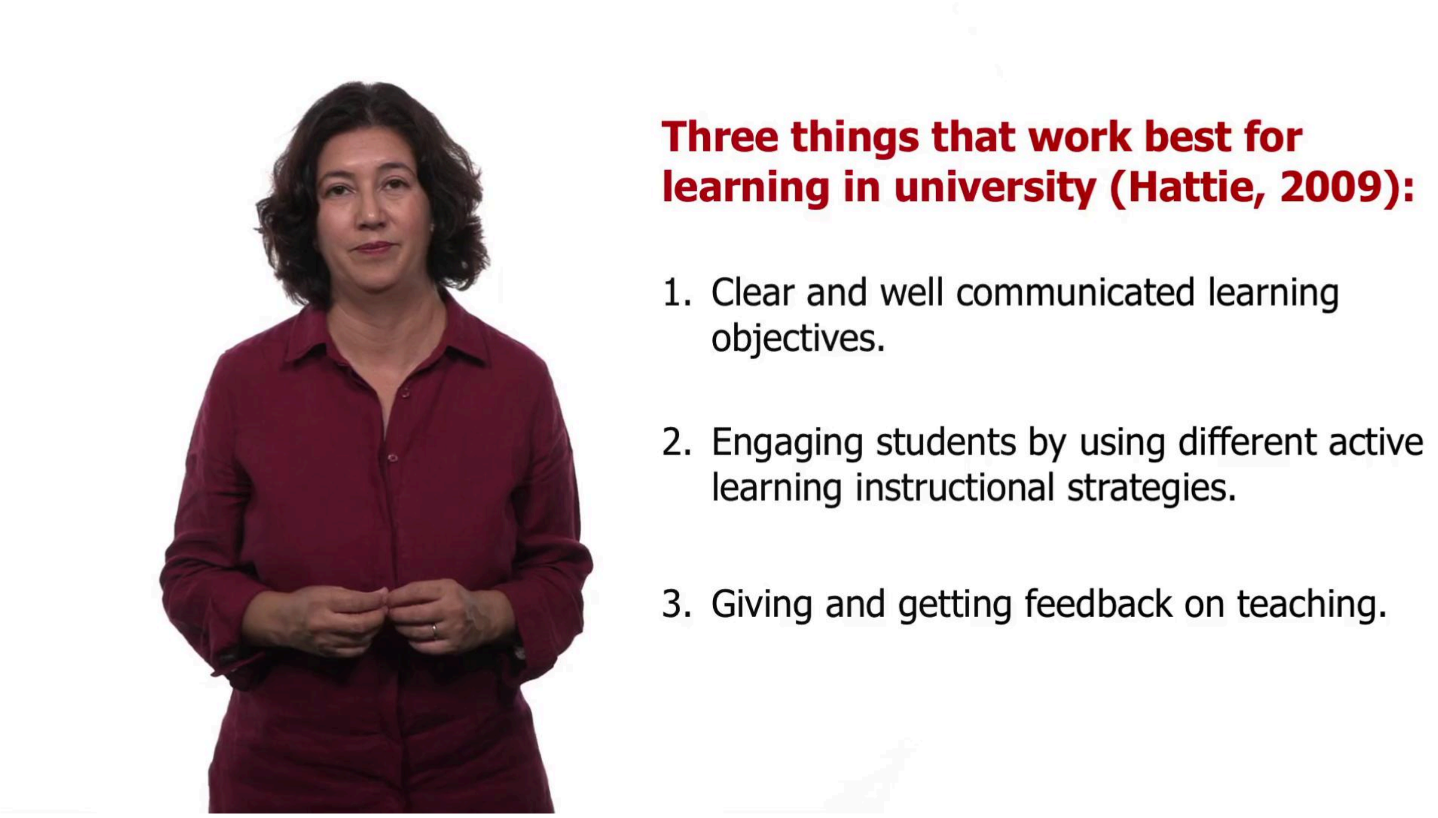
Video

EPFL



In this video, I'm going to discuss how to make a good presentation by using a five-part structure. Hattie's groundbreaking research on what works for learning highlighted three things that help students learn better at a higher education level. The first thing is having clear and well-communicated learning objectives so students know where to focus their attention when you're teaching. Second characteristic is using a variety of instructional strategies that help students engage in learning. The third characteristic is finding ways to collect and to give feedback to your students on how the teaching is evolving and how well they're learning.

Notes

Summary

0m 04s

Image created by Freepik

Remember the best presenter you've seen.

Take two minutes to write down :

What are the characteristics of a *good* presentation?

I'm going to ask you to remember the best presenter you've seen; take two minutes to write down and think. What are the characteristics of a good presentation?

Notes

Summary

1m 00s

Structured teaching help students learn better

L-O-A-F-S structure has five parts

Now, you probably wrote down that a teaching that is well-structured is good because it is coherent, because it has a beginning and an end, because it flows, because it tells a story. Structuring teaching helps student learn better and in this video I'm going to suggest you to structure your teaching in five parts, what I called a LOAFS structure.

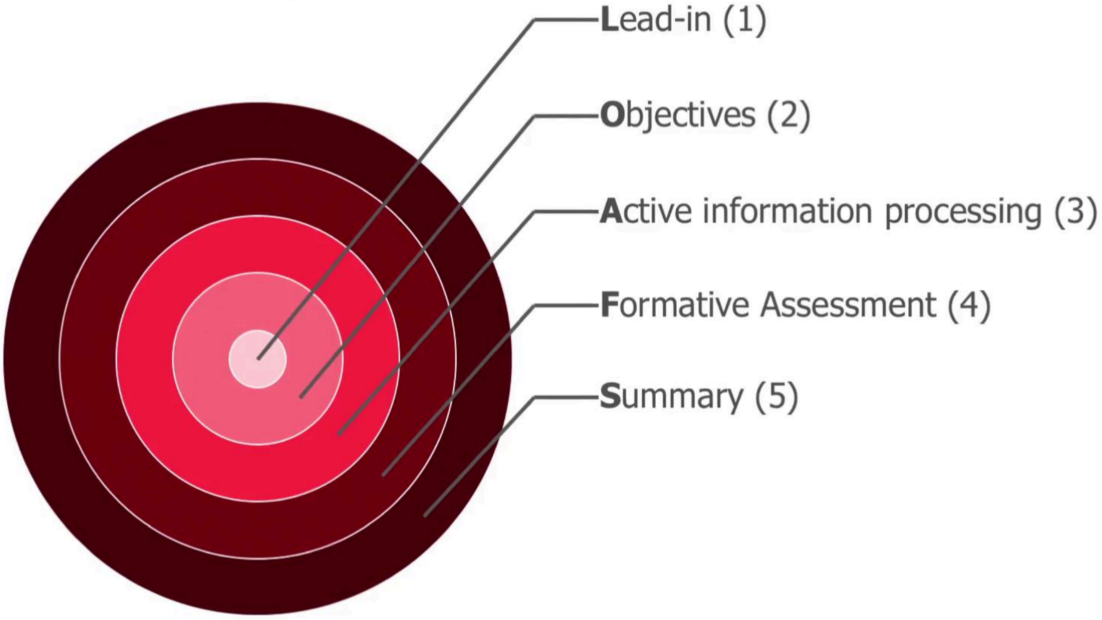
Notes

Summary

1m 12s

Structured teaching help students learn better

L-O-A-F-S structure has five parts



What is LOAFS? LOAFS has five parts; the first is the lead-in, the second is the objectives, as Hattie suggests clear and well communicated. The third is the active information processing which is the longest part of the teaching. The fourth is the formative assessment and lastly, the summary. Let's look at each part of this presentation structure.

Notes

Summary

1m 43s

The lead-in; get your audience ready to pay attention.

Notes

Summary

2m 14s

Enact prior knowledge to

- Make sense
- Get students interested

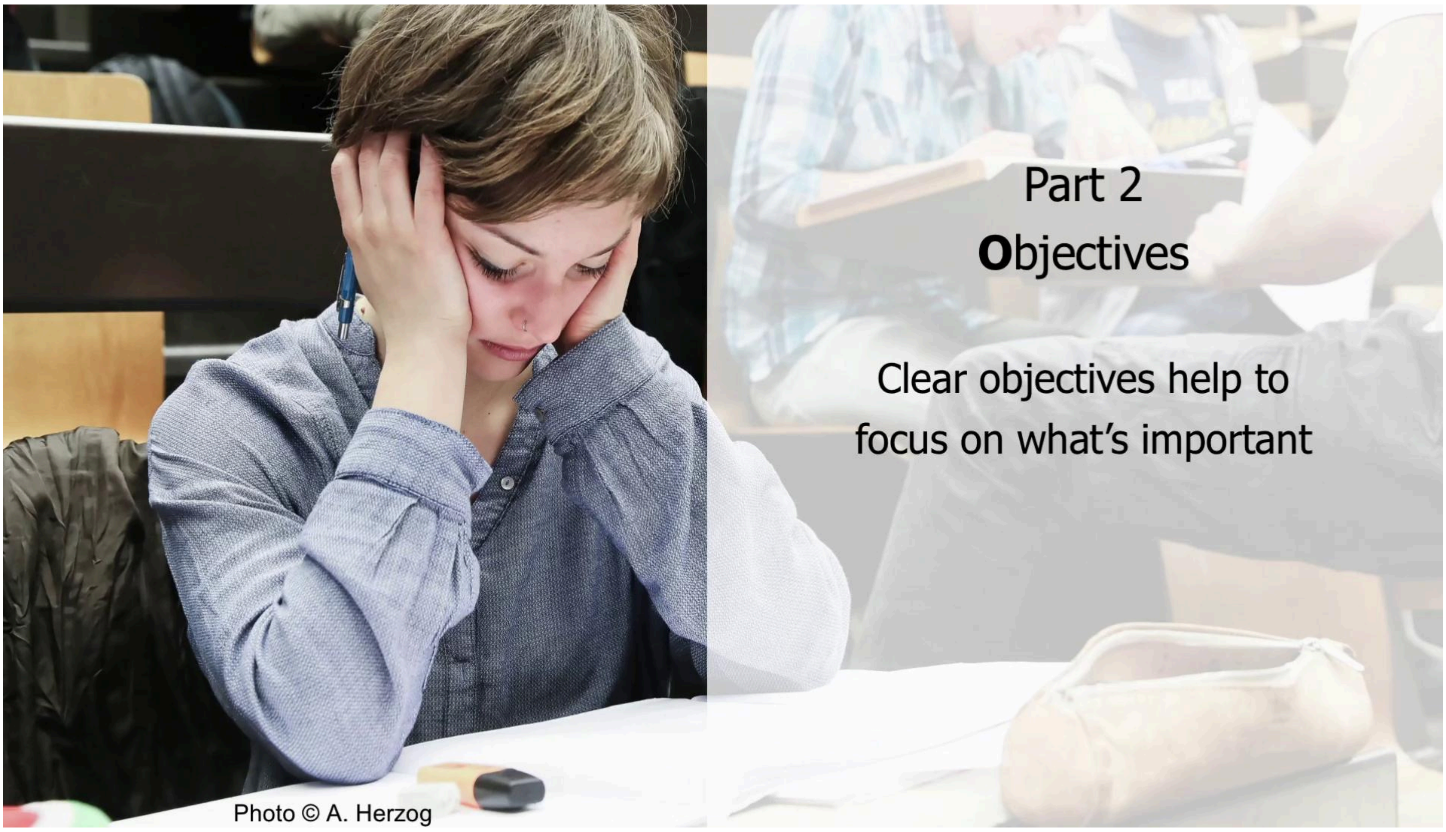
‘What makes a good teacher?’, word cloud of participants’ answers during a workshop by the Teaching Support Center-EPFL.

An audience needs to hear something familiar to get interested in a talk. For your teaching, you do this by enacting your students prior knowledge. By remembering the best teacher or presenter you've had, I intended to hook you in to my presentation about good teaching. Now that I led you into my presentation, you will be ready to follow my talk. You have switched on the corresponding knowledge about good teaching that will help you make sense of what will be presented.

Notes

Summary

2m 18s



Part 2: objectives. Help students focus on what's important.

Notes

Summary

3m 01s

https://www.youtube.com/watch?v=IGQmdoK_ZfY

To illustrate the importance for communicating clearly the objectives for a class I will ask you to pause this video and watch the "monkey business illusion", the link is on the page for this course. Click back to this video after watching the "monkey business illusion".

Notes

Summary

3m 07s

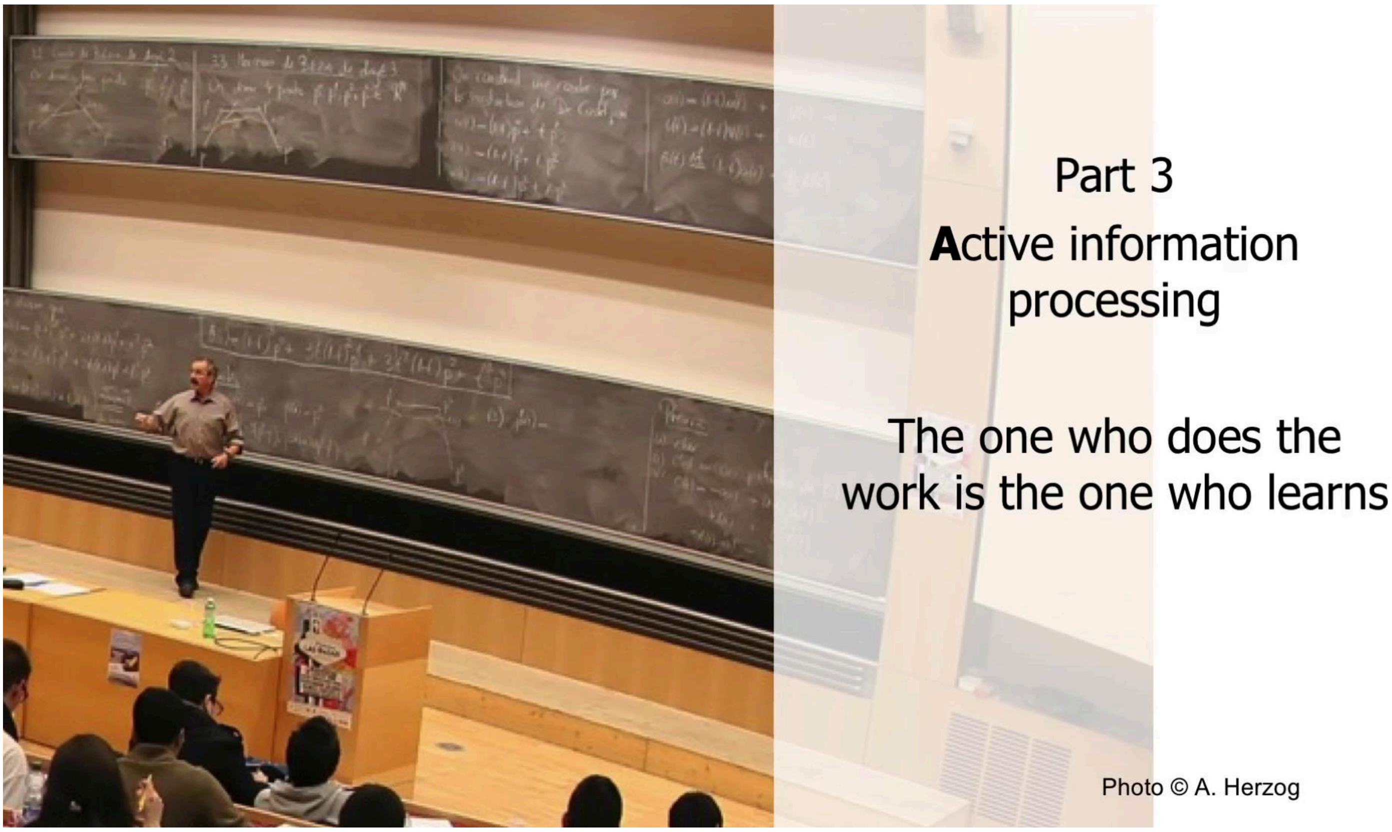
- Objectives help learners pay attention to the right things
- Without focus, we miss important information (inattentional blindness in Simons, 2010).

Welcome back, in the video you just watched Daniel Simons succeeds to illustrate how having clear objectives helps learners pay attention to the right things. The video also shows that because of inattentional blindness, without focus, we miss important information. To sum up, by communicating clear objectives to your students for the class you will lead them to the right information that will help them learn.

Notes

Summary

3m 26s



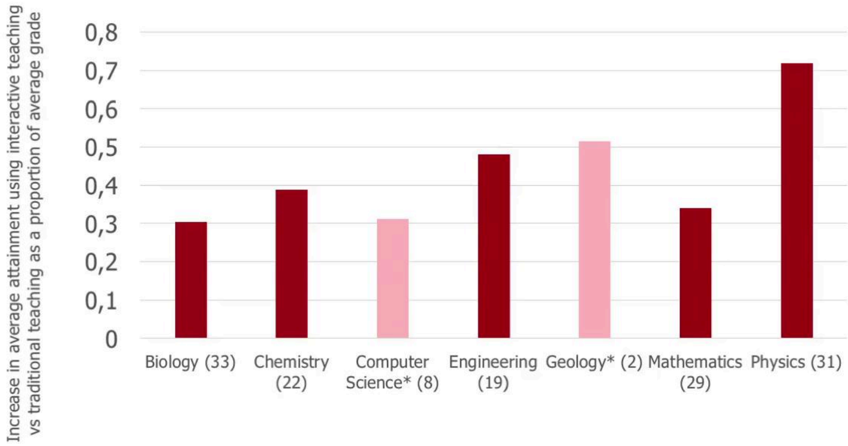
Active information processing. The one who does the work, does the learning. This motto summarizes active information processing.

Notes

Summary

4m 00s

When students work they learn more



Active learning increases student performance in science, engineering, and mathematics. Scott Freeman et al. *Proceedings of the National Academy of Sciences,111, 23: 8410-8415*

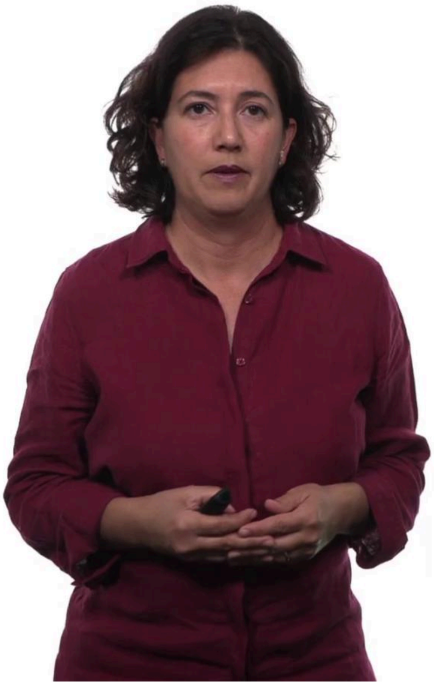
In the structure of your teaching active information processing calls for active learning strategies, putting into place these strategies takes the longest part of your teaching. Think-pair-share, electronic voting and small group discussions are some active learning strategies that you can use. You can look at other videos to get to know them better. Now let's look at some evidence confirming that engaging students using active learning strategies increases learning. Scott Freeman and colleagues looked for studies comparing student results in learning in courses that are taught in a lecture - passive mode - against the same courses taught using interactive learning strategies. Freeman found thousands of studies and chose only those, which he called ‘high-quality studies’. These are studies for variables other than the type of teaching are identical; same teachers same content, same exam. So Freeman selected those studies where conditions were the same other than the type of teaching. So on the one hand, you had traditional lecture teaching and on the other hand interactive teaching such as electronic voting and discussions. So here are the results that Freeman and his colleagues presented at the National Academy of Sciences.

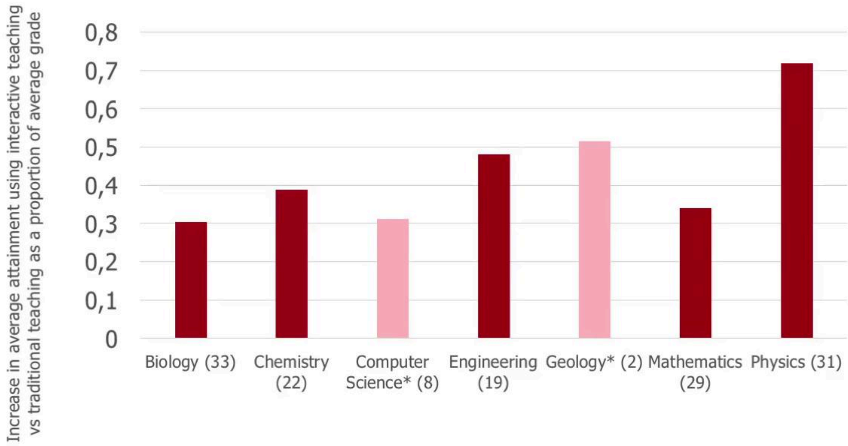
Notes

Summary

4m 10s

When students work they learn more





Active learning increases student performance in science, engineering, and mathematics. Scott Freeman et al. *Proceedings of the National Academy of Sciences,111, 23: 8410-8415*

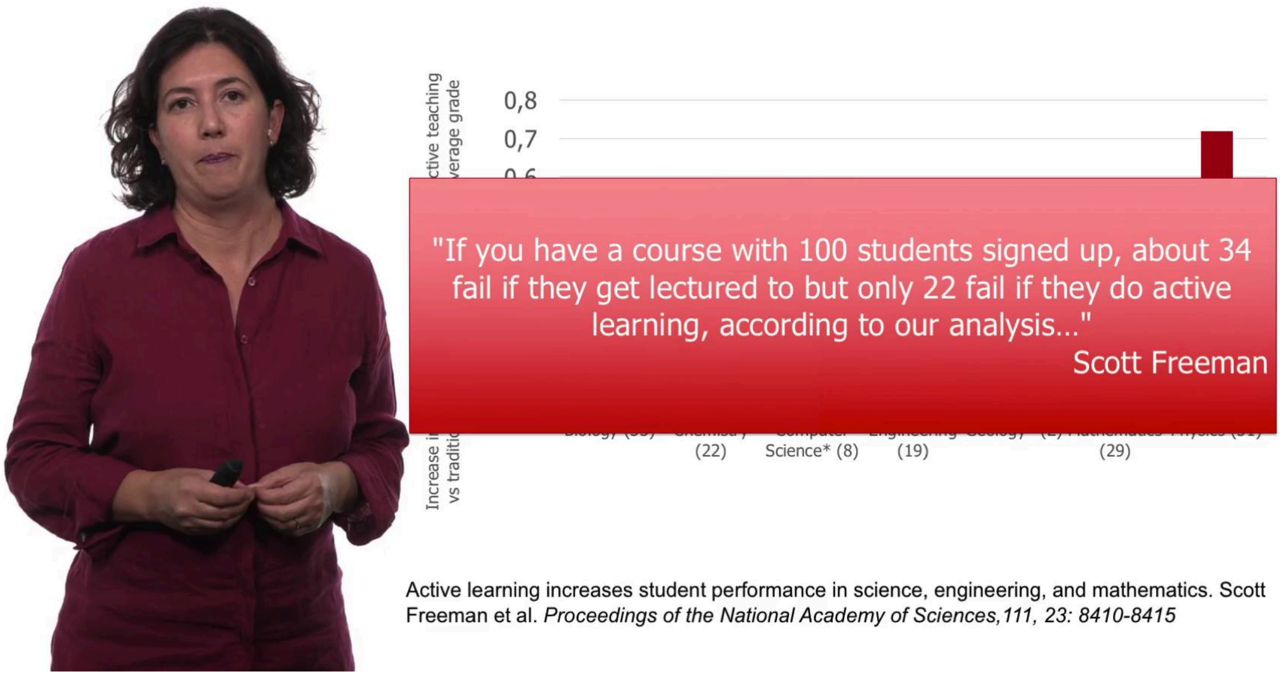
Freeman found 225 high-quality studies. This graph shows only 158 of those studies. Here we can see that interactive teaching consistently shows attainment gains over the traditional teaching across a wider range of science disciplines. In weaker red, are studies with no statistical significance due to the low number of studies found, like computer science and geology. But in disciplines with larger number of high-quality studies, the difference is statistically significant. For example, physics 31 studies, mathematics with 29 and engineering with 19. Differences confirmed that teaching interactively - asking students questions or asking them to share an output or to reflect upon things and then do an activity - well, this type of teaching has a positive impact on student learning as compared to traditional teaching.

Notes

Summary

5m 36s

When students work they learn more



Active learning increases student performance in science, engineering, and mathematics. Scott Freeman et al. *Proceedings of the National Academy of Sciences,111, 23: 8410-8415*

Now how positive is this impact? Well in terms of a general figure, Freeman identified that if you take a hundred students and are taught traditionally like in a lecture mode about a third would fail. If you use interactive teaching the effect size is the only 22 would fail if taught using interactive teaching. Now this is important.

Notes

Summary

6m 37s

Part 4
Formative Assessment

Give and get feedback on how much they learned

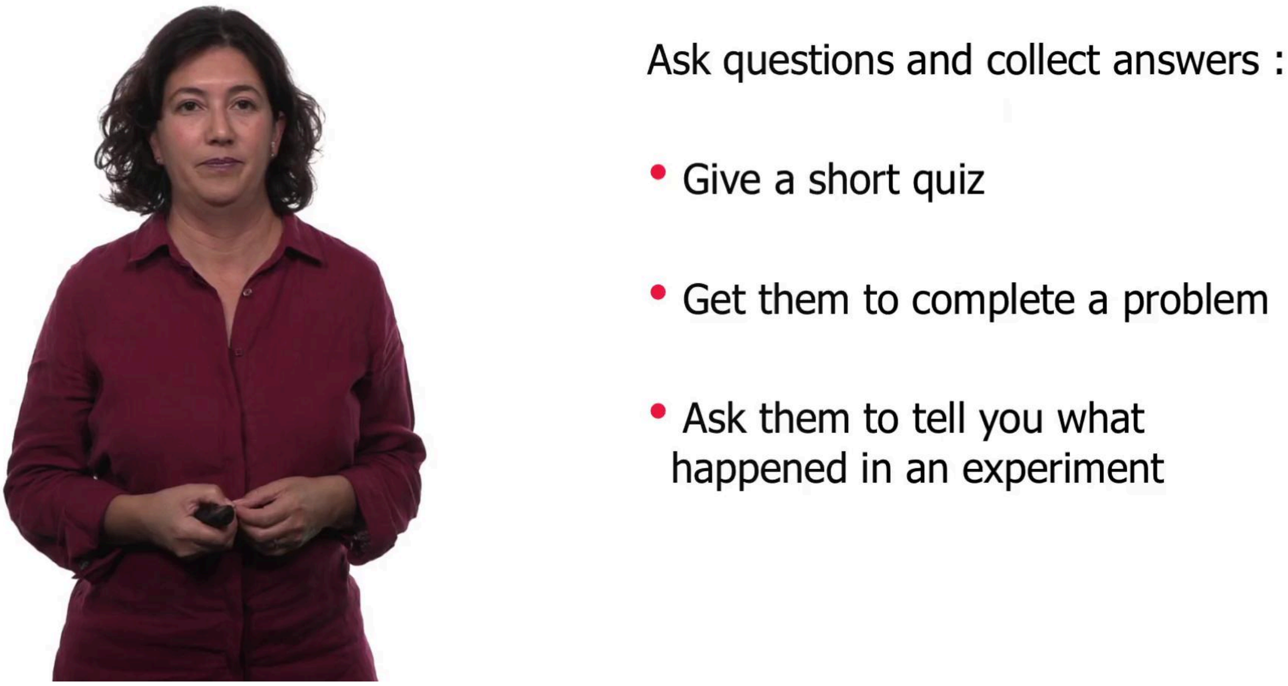
Part four is formative assessment. Thise refers to the information which will help you assess if your students reach the learning objectives. Formative assessment can also be called feedback.

Notes

Summary

7m 02s

Assess if students are actively processing information



Now you can get feedback on your teaching and on your students learning in different ways. Let me give you a few examples; you can ask questions and collect answers by asking your students or giving them a short quiz or to get them to complete a problem or ask them to tell you what happened in an experiment.

Notes

Summary

7m 14s

Part 5
Summary

Bring it together

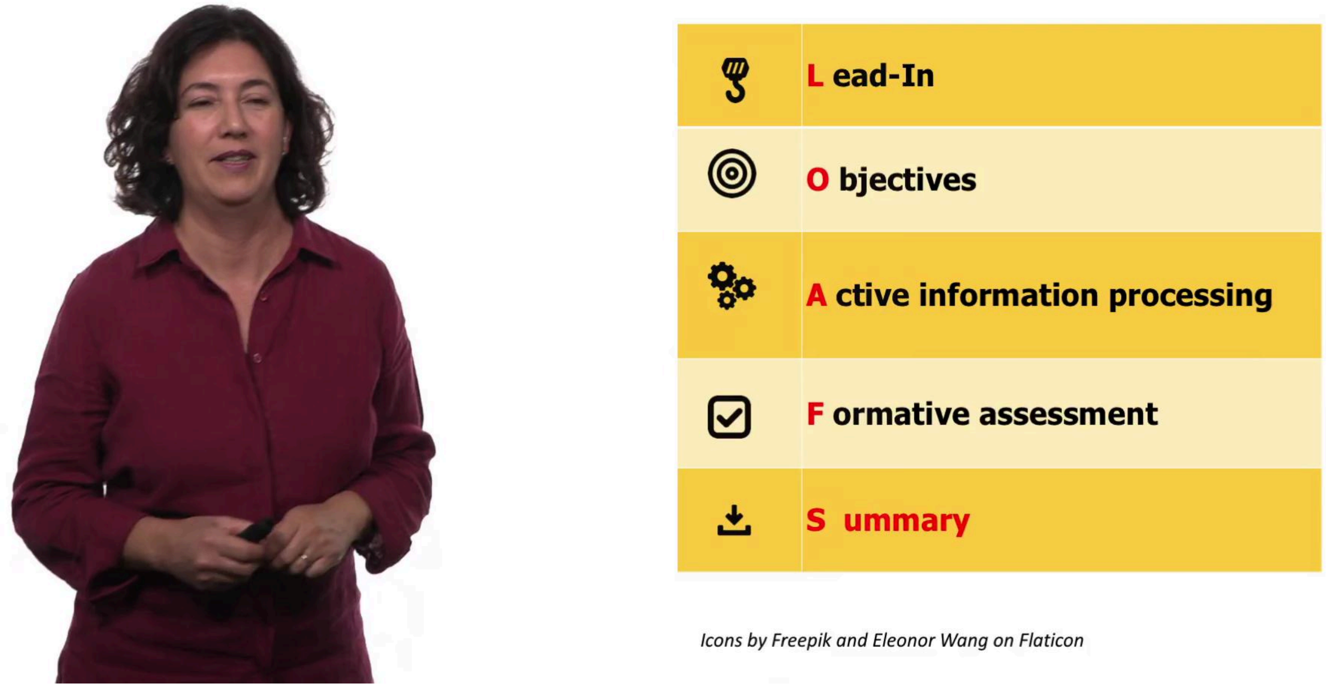
Part five is the summary. The summary is a roundup of what has been seen during your class and these will help students bring things together. Bringing things together at the end of a class helps students consolidate new learning.

Notes

Summary

7m 37s

SUMMARY of L-O-A-F-S presentation



In this module, I proposed you to structure your teaching using LOAFS, which stands; for lead-in, objectives, active information processing, formative assessment and finally the summary And now you have a five part structure to prepare for teaching.

Notes

Summary

7m 55s