Learning Science
Effective Presentations

Optimize the learning experience with evidence-based multimedia principles

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What are Effective Presentations?

Effective Presentations have a set of key qualities: they are appealing, engaging, informative, and concise. Effective presentations gain attention and captivate the audience, but most importantly, they convey information and ideas memorably. Using evidence-based principles in educational multimedia can ensure the development of high-quality learning experiences. In fact, effective presentations have a set of core principles, a host of learner benefits, and a solid foundation in cognitive science. They also have a set of real-world implementations and practical application methods that educators everywhere can use to develop effective presentations in their classrooms.
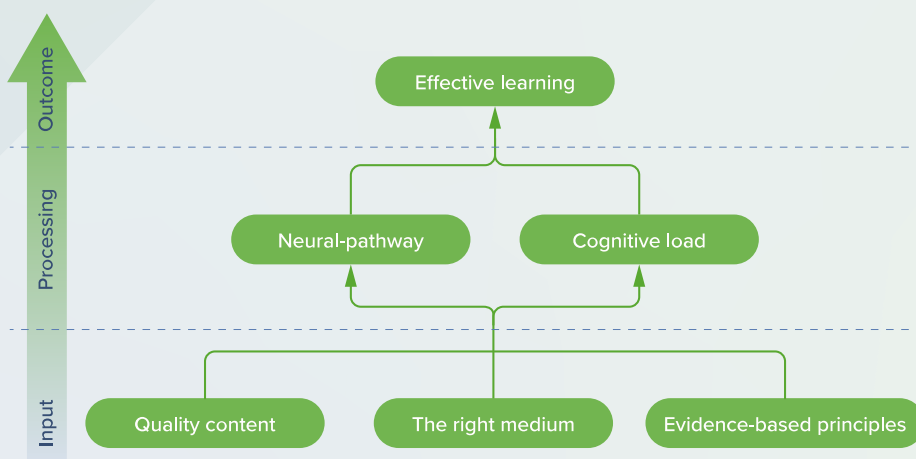
The Learning Science Team

is pleased to share this summary information from our recent seminar **"Effective Presentations: Optimize the learning experience with evidence-based multimedia principles"** with our international educator community. We hope that by reading this material you will be inspired and better equipped to implement these helpful learning methods in your teaching practices.

Peter Horneffer, M.D.
Director of Medical Education
at Lecturio.com

Outcome / Processing / Input

Effective learning

Neural-pathway — Cognitive load

Quality content — The right medium — Evidence-based principles

Data

Where do the participants of the Effective Presentations seminar come from?

11.4%
Europe

12.2%
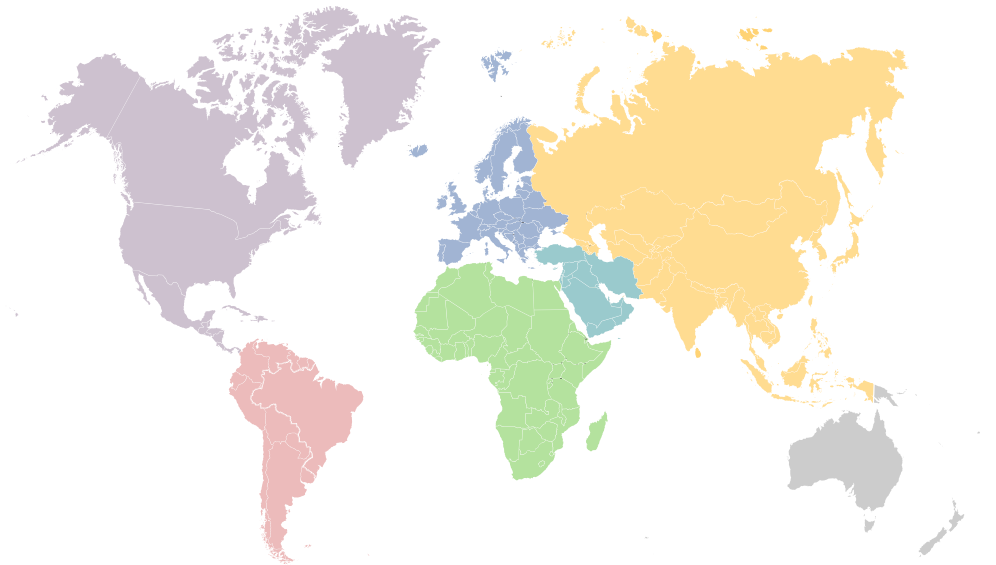South America & Caribbean
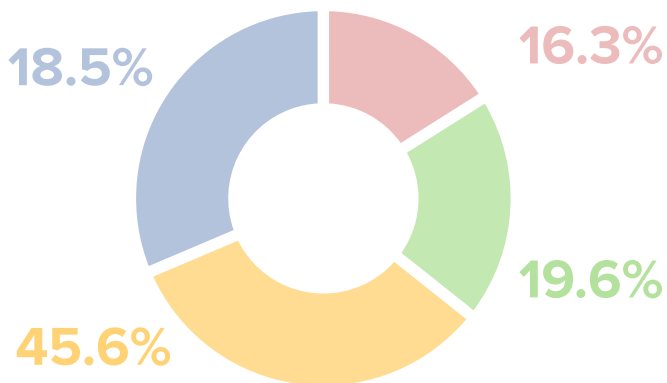
18.9%
Asia & Pacific

19.5%
Africa

32.4%
North America

5.4%
Middle East

Source: Zoom poll

18.5%

16.3%

19.6%

45.6%

- Not familiar
- Neutral
- Slightly familiar
- Very familiar

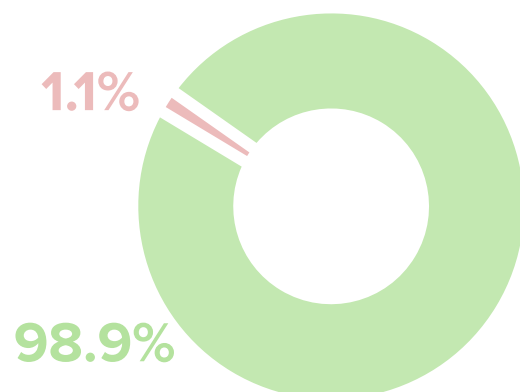## How familiar are our participants with Effective Presentations?

While many educators are familiar with aspects of effective presentations, they may not be familiar with most evidence-based multimedia principles that help develop those presentations. A majority of our participants (64.12%) reported some familiarity with effective presentations prior to the start of the seminar and around 35.88% of participants were not very familiar with the concepts presented during the event.

Source: Survey

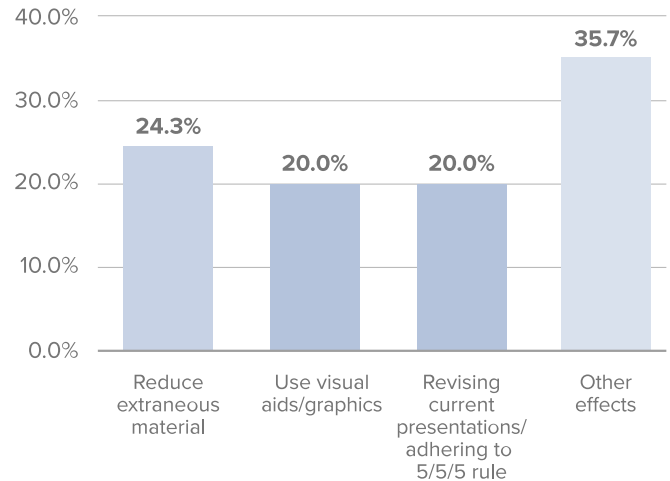## Do our participants plan to implement any of the strategies they have learned in their presentations going forward?

- I plan to implement the strategies in my presentations
- I do not plan to implement the strategies in my presentations

1.1%

98.9%

How can the multimedia principles participants learned affect their presentations in the future?

Participants plan to implement multimedia principles in developing their presentations by aiming at a variety of necessary outcomes. The responses were grouped into three major categories:

- **Reducing extraneous material:** Participants aim at developing presentations that take into account the cognitive load theory. This can happen by eliminating extraneous material to reduce extraneous processing in order to avoid cognitive overload.

- **Using visual aids/graphics:** Participants will heavily rely on visual aids and graphics in order to reduce text included in their presentations.

- **Revising current presentations and adhering to the 5/5/5 rule:** Current presentations and resources will be revised (see worksheet) in order to amend what is already available. Many participants will adhere to the 5/5/5 rule to reduce the text they have included in their presentations.

What challenges do you face in implementing multimedia principles in your courses?

Implementing evidence-based multimedia principles to develop effective presentations can be challenging for faculty without institutional support since most have not been formally trained in the process and might therefore face a bundle of challenges (see diagram below). Our participants shared their biggest barriers to creating effective presentations for their courses, departments, and/or institutions. The most commonly cited issues were time, issues with implementation, and lack of resources. Some also reported issues like lack of knowledge and/or support. Finally, a few participants have reported that no challenges were faced in implementing multimedia principles in their courses (11.14%).

25.0% Time

2.8% Resistance to change

26.4% Issues with implementation

6.9% Lack of knowledge and/or support

23.6% Technology/lack of resources

4.2% Student resistance/motivation

11.1% No challenges

Resources

Seminars
- Online seminar library for health professions educators ▶
- Educational webinars for health professions students ▶

Articles
- Effective Presentations: Optimize the learning experience with evidence-based multimedia principles ▶
- Instructional Design: How Best to Optimize the Learning Process ▶
- Metacognition: Do you really know what you think you know? ▶

Lecturio platform demo request ▶