Learning Science

# **Learning Objectives** and Assessments





Evidence-Based Recommendations for Optimal Efficacy

## What are Learning Objectives and **Assessments?**

Learning objectives & assessments are effective tools to measure learning and ensure that students have grasped and acquired the intended concepts. Educators rely on observable behaviors as indicators of students' skills, knowledge, and dispositions. Observable behaviors might include taking a test, creating a concept map, demonstrating suturing skills, or communicating compassionately with patients. If a student could not successfully do these before instruction and can after, it is presumed learning has occurred. These desired observable behaviors are defined and communicated in learning objectives. Learning objectives are short statements of what a learner will be able to do as an outcome of instruction.

## The Learning **Science Team**

is pleased to share this summary information from our recent seminar "Learning Objectives and Assessments: Evidence-Based Recommendations for Optimal Efficacy" 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.



to consider: level and type of assessment



Elements to consider: ABCD



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



Qualities to consider: Attainable and Focused



Alignment to consider: Horizontal and Vertical Alignment

Affective, Psychomotor, and Cognitive

Domains to consider:

#### **Data**

# Where do the participants of the learning objectives & assessments seminar come from?



Europe

13.0%

South America & Caribbean

23.0% Asia & Pacific

14.0%

Africa

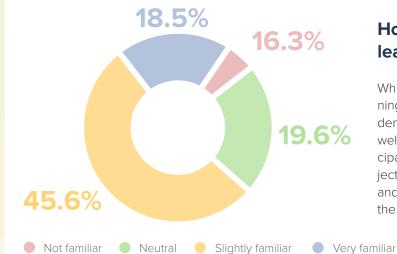
32.0% North America

12.0%

Middle East



Source: Zoom poll



# How familiar are our participants with learning objectives & assessments?

While many educators are familiar with aspects of learning objectives, they may not be familiar with some evidence-based principles and models that help develop well-defined learning objectives. A majority of our participants (57%) reported some familiarity with learning objectives and assessments prior to the start of the seminar and around 23% 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 classes going forward?

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



#### How can the principles participants learned affect their courses in the future?

Participants plan to implement learning objectives models and principles in planning for their courses by aiming at a variety of necessary outcomes. The responses were grouped into three major categories:

- Ensuring alignment between learning objectives and assessments: Participants aim at developing well-defined learning objectives that potentially align with different forms of assessments.
- Facilitating students' learning experiences: Participants will ensure that students are provided with well-written learning objectives that help learners plan their studies.
- Differentiating between terminal and enabling objectives: Participants will distinguish between terminal and enabling objectives which will help them better plan and deliver course material.

37.0%	Alignment between objectives and assessments
27.0%	Facilitate students' learning experience
18.0%	Distinguish between terminal and enabling objectives
18.0%	Other effects

# What challenges do you face in developing and implementing well-defined learning objectives?

Implementing evidence-based principles to develop well-defined learning objectives and aligned assessments can be challenging for faculty without institutional support since most have not been formally trained in the process and might therefore face an abundance of challenges. Our participants shared their biggest barriers to creating well-written learning objectives and corresponding assessments for their courses, departments, and/or institutions. The most commonly cited issues were time, issues with implementation, lack of resources, and students' resistance. Some also reported issues like lack of knowledge and/or support. Finally, a few participants have reported that no challenges were faced in developing and aligning learning objectives in their courses.

17.0%	Time
E 00/	
5.0%	Resistance to change
32.0%	Issues with implementation
<b>32.0</b> 70	issues with implementation
17.0%	Lack of knowledge and/or support
9.0%	Technology/lack of resources
10.0%	Student resistance/motivation
40.00/	N. I. and a H. and a superior
10.0%	No challenges

#### Resources

#### **Seminars**

- Online seminar library for health professions educators >
- Educational webinars for health professions students >



#### **Articles**

- ullet Learning Objectives and Assessments: Evidence-Based Recommendations for Optimal Efficacy ullet
- Effective Presentations: Optimize the learning experience with evidence-based multimedia principles >
- Instructional Design: How Best to Optimize the Learning Process >