

Strategies for Incorporating Research and Best Practices

Science of Learning

Best Practices for Teaching and Learning

As you might have guessed already, the pre-session readings are designed to give you a background on the concepts we will be covering in the session. It is important that you complete the pre-session readings, as they form an integral part of this course.

This session's pre-session readings highlight some key findings and principles that have profound implications for teaching. Mostly, they highlight the need to know and understand how learning takes place so we can design effective teaching practices.

In this session, we will highlight four questions that are critical to our understanding of student learning. To help our students learn, we need to know and understand how our students construct knowledge, what type of mental models they construct, and how they modify and adapt existing knowledge.

We also need to understand what our students know and do not know prior to taking our courses and how prior knowledge impacts how they learn in our classrooms. In addition, understanding students' mental models and how they differ from those of experts is key.

Last, we will look at how course design can affect whether students approach our courses through surface learning or through deep learning.

We will now take some time to explore each of these questions, mainly what the research tells us and what practical strategies we can use to translate these into classroom practices.