

# Defining student deep learning

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## **How could student deep learning be defined in the context of the ILETC project?**

### **What were we looking for?**

The ILETC team collectively set out to define the notion of student deep learning through a literature-based reflection about the issues central to our project. The aim was to map out a common research landscape that the large multidisciplinary research team could navigate across, as well as to frame the study and provide a scope to respond to the project's key research question.

### **What did we find out?**

A variety of conceptualisations have been used to describe students' learning approaches and skills required for the 21<sup>st</sup> century. A simple characterisation of student learning approaches of surface versus deep has been found to be the most effective means for monitoring teaching and learning environments.

In the context of the ILETC project, student deep learning—as triangulated from data from a survey, workshops and literature—can be attained when students actively engage in critical learning. This is characterised by: critically applying new facts to existing knowledge, searching for (as opposed to accepting) meaning, being actively curious about new knowledge, and accepting that learning is a part of their personal development. This definition accepts that deep learning is rarely fully achieved, with students operating across a surface-to-deep learning continuum. Deep learning is often present when students display strong creativity, critical thinking, collaboration, and communication skills – the so-called '4C's'. These 21<sup>st</sup> century skills are foundational elements for students' success in a highly connected, knowledge-based and complex world.

### **What does this mean for the project?**

Surface and deep learning are not mutually exclusive. Most students operate across a continuum of surface to deep learning according to particular needs. ILETC must consider the spatial implications of different types of learners and of different learning goals. An innovative learning environment should be able to accommodate varied learning tasks that can contribute to intended learning outcomes.

*"Deep learning is rarely fully achieved, with students operating across a surface-to-deep learning continuum, depending on learning situations and contexts"*



*Marshland School, Stephenson & Turner Architects  
Paul McCredie Photography.*

For further information see the full report:

Mahat, M., Bradbeer, C., Byers, T. & Imms, W. (2018). Innovative Learning Environments and Teacher Change: Defining key concepts. Melbourne: University of Melbourne, LEaRN. Retrieved from: <http://www.ilet.com.au/publications/reports>



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Email Joann Cattlin: [info@ilet.com.au](mailto:info@ilet.com.au)

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