

MAKING LECTURES MORE INTERACTIVE: ADDRESSING THRESHOLD CONCEPTS

Top 5 Teaching Challenges

Academic Technologies & UW Teaching Academy

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A **threshold concept** (TC) can be considered as akin to a portal, opening up a new and previously inaccessible ways of thinking about something. In brief, threshold concepts are ideas students need to learn if they are to get any further in a particular subject area; not because someone says they have to learn them, but because the subject itself demands it. Students have to fully *understand* these concepts. They have to “*get*” them. If students *get* a threshold concept, other parts of the subject or topic make much more sense. So TCs are often where students get *stuck*. But if we leave them stuck there, and just plow on regardless, the most they’ll ever do is to mimic or fake understanding. Threshold concepts are typically: **transformative, irreversible, integrative, and disciplinary.**

The learning of threshold concepts is often not greeted with open arms by students however. TCs can embody what David Perkins has called *troublesome knowledge*. Hence, students may engage only tentatively with the ideas—because asking them to engage with a TC may be asking them to change their rituals, think about alien ideas, or discuss conceptually difficult material. Prior to crossing the threshold, many students exist in a state of **liminality** where they oscillate, feel confused, engage in mimicry, regress, feel stuck. Hence, providing the support to go all the way across the threshold, may well call for a new approach to teaching.

Blended learning, or what Trigwell calls Variation Theory, is the combination of a number of pedagogic approaches, irrespective of the learning technology in use, necessary for true learning to occur. Implicit in this theory is an approach that is not wholly instructor-led, but combines learner self-direction with traditional instruction.

7 WAYS TO ADDRESS THRESHOLD CONCEPTS IN YOUR CLASSROOM

1. **Misunderstandings:** ask students to identify a concept from class that they had difficulty understanding – can collect index cards from students as they leave class, you can have them post on the course website or blog.
2. **Reality Check:** ask students if they understood what you just taught – you can do this anonymously with clickers or with a quick online survey as most students don’t want to reveal their lack of understanding to the rest of the class.
3. **Explain Yourself:** have students explain a concept to someone else. This can be someone familiar with the topic, e.g., the person sitting next to them in class, or someone unfamiliar with the material, e.g., their grandmother.
4. **Concept Application Questions:** class questions that ask students to apply the concept – this can be via clickers or a show of hands.

5. **Best Answer:** get students to vote on which of several correct answers to a question best explain the concept and then ask students to justify their choice.
6. **Improve an Explanation:** give students one or more incomplete or inaccurate essay answers that explain your concept and then ask them to work with classmate(s) to make them better.
7. **Self-Reflection:** ask students to spend a minute or two writing down what they understand of a concept after which you share your answer and have them evaluate the completeness of their answers (by themselves or with a classmate).

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Overview and references from Renee Meyers and Katina Lazerides, [UWS Leadership Site](#)