

An Introduction to the Teaching for Robust Understanding (TRU) Framework

Overview

This document introduces the Teaching for Robust Understanding (TRU) framework. TRU provides a research-based response to the question,

“What are the attributes of equitable and robust learning environments – environments in which all students are supported in becoming knowledgeable, flexible, and resourceful disciplinary thinkers?”

The answer, which resonates with what we know as teachers and researchers, appears in distilled form in Figure 1. The quality of a learning environment depends on the extent to which it provides opportunities for students along the following five dimensions:

- (1) The richness of disciplinary concepts and practices (“the content”) available for learning;
- (2) Student sense-making and “productive struggle”;
- (3) Meaningful and equitable access to concepts and practices for *all* students;
- (4) Means for constructing positive disciplinary identities through presenting, discussing and refining ideas; and
- (5) The responsiveness of the environment to student thinking.

The Five Dimensions of Powerful Classrooms				
The Content	Cognitive Demand	Equitable Access to Content	Agency, Ownership, and Identity	Formative Assessment
<i>The extent to which classroom activity structures provide opportunities for students to become knowledgeable, flexible, and resourceful disciplinary thinkers. Discussions are focused and coherent, providing opportunities to learn disciplinary ideas, techniques, and perspectives, make connections, and develop productive disciplinary habits of mind.</i>	<i>The extent to which students have opportunities to grapple with and make sense of important disciplinary ideas and their use. Students learn best when they are challenged in ways that provide room and support for growth, with task difficulty ranging from moderate to demanding. The level of challenge should be conducive to what has been called “productive struggle.”</i>	<i>The extent to which classroom activity structures invite and support the active engagement of all of the students in the classroom with the core disciplinary content being addressed by the class. Classrooms in which a small number of students get most of the “air time” are not equitable, no matter how rich the content: all students need to be involved in meaningful ways.</i>	<i>The extent to which students are provided opportunities to “walk the walk and talk the talk” – to contribute to conversations about disciplinary ideas, to build on others’ ideas and have others build on theirs – in ways that contribute to their development of agency (the willingness to engage), their ownership over the content, and the development of positive identities as thinkers and learners.</i>	<i>The extent to which classroom activities elicit student thinking and subsequent interactions respond to those ideas, building on productive beginnings and addressing emerging misunderstandings. Powerful instruction “meets students where they are” and gives them opportunities to deepen their understandings.</i>

Figure 1. The five dimensions of powerful classrooms.