The Teaching for Robust Understanding (TRU) Framework

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My colleagues and I have been working for some years on a framework, "Teaching for Robust Understanding" – TRU – to characterize productive learning environments (classrooms, schools, and organizations). The framework is getting some significant traction as a unifying lens for looking at learning. I lay it out here in very condensed form.

Fundamentally, TRU is a framework for characterizing powerful learning environments in crisp and actionable ways. It provides a straightforward and accessible language for discussing what happens (and should happen) in classrooms, in professional preparation and professional Development (PD), and, potentially, in every context where learning happens. TRU is *not* a specific set of tools or guidelines, although it could guide their development; it does *not* offer radically new ideas or "fixes"; it *is* consistent with what we know to be good practice; and it focuses classroom and administrative attention on what counts in learning. What that means in particular is that high quality instruction and PD will be consistent with TRU – and that if we adopt this framework and language, parallels in instruction across disciplines will be clear, and PD and administrative attention can be focused on what counts. Research foci too.

An argument for TRU:

First, we know what makes for powerful classrooms. There are 5 central dimensions of classroom activity. Classrooms that do well on these 5 dimensions produce students who are powerful thinkers.

The Five Dimensions of Powerful Classrooms

The Content	Cognitive Demand	Equitable Access to Content	Agency, Authority, and Identity	Uses of Assessment
The extent to which the content students engage with represents our best current disciplinary understandings (as in CCSS, NGSS, etc.). Students should have opportunities to learn important content and practices, and to develop productive disciplinary habits of mind.	The extent to which classroom interactions create and maintain an environment of productive intellectual challenge conducive to students' disciplinary development. There is a happy medium between spoon-feeding content in bite-sized pieces and having the challenges so large that students are lost at sea.	The extent to which classroom activity structures invite and support the active engagement of all of the students in the classroom with the core content being addressed by the class. No matter how rich the content being discussed, a classroom in which a small number of students get most of the "air time" is not equitable.	The extent to which students have opportunities to "walk the walk and talk the talk," building on each other's ideas, in ways that contribute to their development of agency (the capacity and willingness to engage) and authority (recognition for being a good thinker), resulting in positive identities as thinkers and learners.	The extent to which the teacher solicits student thinking and subsequent instruction responds to those ideas, by building on productive beginnings or addressing emerging misunderstandings. Powerful instruction "meets students where they are" and gives them opportunities to move forward.

I invite you to do the thought experiment, to see if you agree with the argument. Thus far those who have tried it say it's a good fit with their experience.

Second, it follows that PD and administrative structures at the department, school, and district level should help to support classrooms that do well along those 5 dimensions. Broadening further: if you think in terms of learning environments for adults, TRU at the learning environment level looks like this:

Five Dimensions of Powerful Sites for Professional Growth				
The Content (Professionalism)	Cognitive Demand (Room to Grow)	Equitable Access to Professional Growth	Agency, Authority, and Identity	Uses of Assessment
The extent to which the adults in the environment are supported in practices that build their capacity to create rich learning environments for their students.	*The extent to which adults at the site are coached and supported in ways that meet them where they are, and help them work on problems of practice that support their growth.*	*The extent to which support and accountability structures enfranchise all adults in the environment and help them grow.*	*The extent to which adults in the environment develop confidence and pride in their accomplishment as professionals, taking increasing responsibility for their growth and performance.*	*The extent to which accountability structures identify strengths and weaknesses, and help to support professional growth.*

Again, I invite you to think about the learning environments you know and love; the district structures that work well (or not); your own programs and organization. If you buy the notion that these are what should count, the result is two sets of framing questions for making progress:

1. Re classrooms: To what degree are the following taking place?

   A. Engagement with rich content
   B. Productive struggle and sense making
   C. Equitable access to the content, for all students
   D. Opportunities to build positive identities, both within disciplines and as learners
   E. Instruction that "meets the students where they are" (formative assessment)

2. Re organizations, including your own: To what degree are we administratively and professionally organized to support the following?

   A. Professional growth that results in enhanced research and practice

B. Learning grounded in practice, productive struggle, and sense making
C. Equitable access to growth for all
D. Positive and productive professional and personal identities for all involved - teachers and administrators in school districts, faculty and staff, etc.
E. An appropriately responsive system for focusing on and supporting professional growth.

I truly believe the following:

I. Given that the TRU framework is comprehensive and encapsulates good practice, it should not be difficult for us, as individuals, to frame our efforts in ways compatible with it, without either deforming them or constraining them. Isn't all fundamental research on thinking, teaching, and learning aimed at understanding the five dimensions in the two figures? Aren't professional programs aimed at addressing the issues listed above?

II. Any learning organization that aligns itself with this fundamental perspective and acts accordingly will see itself more focused on what counts, and will improve (by any reasonable measure of improvement).

I welcome comments and reactions.

Substantial elaboration of these ideas can be found in these two papers:

Schoenfeld, A. H. (2014, November). What makes for powerful classrooms, and how can we support teachers in creating them? *Educational Researcher, 43(8),* 404-412. DOI: 10.3102/0013189X1455

Schoenfeld, A.H. (2015). Thoughts on scale. *ZDM, the international journal of mathematics education*, in press.

and tools and further documentation for mathematics can be found at

<http://map.mathshell.org/materials/trumath.php>

and the tools page of <http://ats.berkeley.edu/>.

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