

## A Framework for Practice-Based Teacher Education

The model shown on the next page represents a synthesis of the recent literature on practice-based teacher education, with a particular eye toward what learning experiences best support preservice teachers' development as practitioners. The four levels of this nested framework should be read from the bottom up:

- (1) "21<sup>st</sup> century" student learning in STEM is the overarching goal; to foster this, teachers must be nimble and improvisational at facilitating students' complex learning.
- (2) Thus, teaching should be viewed as a professional practice that is responsive in real time to the classroom environment and the learners within it.
- (3) Preparing preservice teachers to engage in this sophisticated work requires that they engage in learning activities that allow them to decompose and approximate the practices of high-quality teaching; the literature has variously referred to these as "core practices" or "high-leverage practices."
- (4) Teacher preparation programs (inclusive of coursework, clinical experiences, and mentoring) can be intentionally scaffolded with pedagogies that help preservice teachers achieve facility with core practices.

While this framework is helpful for thinking about productive ways to structure preservice teachers' learning activities, it is not meant to be all-encompassing of the needs of teacher education. For example, critics of core practices have noted that it neglects a critical justice lens. However, core practices can also promote *inclusive* practices in the classroom and can serve as a bridge to thinking intentionally about equity and inclusion.

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## Clinical Practice Research-based Framework



Practice-based teacher education  
pedagogies

Practice-based teacher preparation

Teaching as professional practice

21st-century student learning

- **Pedagogy learning cycle** (Grossman, Hammerness, and McDonald, 2009; Lampert and Graziani, 2009; Lampert et al, 2013; McDonald et al, 2013)
- **Core practices** (Forzani, 2014; Grossman et al, 2009; Lampert, Beasley, Ghouseini, Kazemi, and Franke, 2010)
- **Disciplinary core practices** (Kloser, 2014; NCTM Mathematical Teaching Practices, 2014; Windschitl, Thompson, Braaten, & Stroupe, 2012)
- **High leverage practices** (Ball, 2009; Hollins, 2011)
- **Teaching as interactive work** (Barnhart & van Es, 2015); Darling-Hammond, 2014)
- **Ambitious Science Teaching** (Windschitl, Thompson, & Braaten, 2018)
- **Disciplinary understanding, complex communication skills, systems thinking, culturally responsive practice, problem-solving** (deSilva, Gleditsch, Job, Jesme, Urness, & Hunter, 2018; Windschitl, 2009)
- **Standards frameworks** (NGSS, 2013; CCSSM, 2010)

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