

Teacher Education at Purdue University Conceptual Framework Synopsis Overview

Shared Vision

A shared vision of Teacher Education at Purdue University was developed in collaboration with colleagues among six academic colleges, colleagues in P-12 education, and other stakeholders. This shared vision is rooted in the land grant and research extensive mission of Purdue University and in the mission of Teacher Education at Purdue to serve the citizens of Indiana, the United States, and the world through discovery, learning, and engagement. The large scales of these visions and missions reflect the scale of the university and its teacher education program. As illustrated in its Model for Professional Preparation, the teacher education program is dedicated to the development of education professionals who are intellectual leaders; who are prepared to participate in professional, social, and technological change; who are collaborative with P-12 education colleagues and others who are committed to improving learner outcomes; who promote the advancement of the field through ongoing professional development, the use of evidence-based practices, the confidence to question and use innovative instructional strategies, and the skill to assess their impact on student learning; who advocate on behalf of all learners and the education profession; and who are education leaders in their classroom, school, and community.

Coherence

Because teacher education at Purdue University is a large, complex, and strategic enterprise, the dean of the College of Education is administratively responsible for the preparation of all candidates in teacher education. Although much of the responsibility for teacher education is vested in the faculty of the College of Education, who have a primary mission to prepare teacher professionals, teacher preparation also is a function of five other academic colleges: Agriculture; Health and Human Sciences; Liberal Arts; Science; and the Purdue Polytechnic Institute, as well as our P-12 partners. A campus-wide entity known as the Teacher Education Council (TEC) serves as the curriculum review authority for all programs leading to licensure and as a policy advisory board to the College of Education dean. In addition, coordinated articulation of foundational and related courses provides for their orderly arrangement in a logical manner; thus coherence.

Professional Commitments and Dispositions

Teacher education programs at Purdue view schools as complex social, political, cultural, and interpersonal organizations and teaching as a highly complex activity in which teachers apply knowledge to develop curriculum, carry out instruction, and assess learning. Prospective teachers must develop subject matter knowledge, a core strength of teacher education at Purdue, pedagogical knowledge, and knowledge of context. From this foundation, they can form pedagogical content knowledge, the knowledge about how to teach specific subject matter (Harris & Hofer, 2014). Together, these competencies distinguish teachers from subject matter specialists (e.g., Darling-Hammond & Bransford, 2005). An inquiry-oriented approach to teacher education, where teaching is made problematic and students of teaching engage in reflection

to develop their understandings of teaching and learning, characterizes Purdue's programs (e.g., Calderhead, 2012; Savery, 2015). In addition to developing theoretical and practical knowledge, we expect that candidates will develop the dispositions to be caring and dedicated education professionals who are sensitive to community and cultural norms, demonstrate willingness to work with others, take responsibility for establishing a positive climate, respect students as individuals, treat students fairly, show concern for students' well-being, and demonstrate appropriate professional practice (e.g., Kea, Campbell-Whatley, & Richards, 2006; Nelson, 2014). We also expect our candidates to be responsive to education issues related to social justice and diversity and integrated STEM education and skillfully integrate critical content in their instruction. These commitments and dispositions are reflected in institutional, state, and professional standards by which candidates are informed and assessed (e.g., CAEP, 2013; InTASC, 2013; NBPTS, 1989; IDOE, 2010). The Model for Professional Preparation embodies Teacher Education at Purdue University's commitment to these principles.

Two key themes are woven across programs and guide teacher education at Purdue:

- **Social Justice and Diversity** involves promoting and advocating for equity in access and opportunity for education through discovery, learning, and engagement. This includes a commitment to educating students, faculty, staff, and community members in the recognition of power, privilege, and social/political dynamics. Further, diversity includes individuals from different groups, including, but not limited to, race/ethnicity, sex/gender, LGBTQ, disability, religion, age, nationality, and immigration status. We embrace, respect, value, and support all people.
- **K-12 STEM Education** involves high impact initiatives and practices that integrate science, technology, engineering, and mathematics into innovative educational reform efforts and the ability to transform schools. Our focus is on the four disciplines because they are integrated into a cohesive learning paradigm that is essential for student success in the real world.

Four key strands are integrated throughout programs and guide teacher education at Purdue:

- **Innovation** is a central strand of teacher education and includes preparing our candidates to participate in professional, social, and technological change as continuous learners and to use a variety of educational technologies and evidence-based research for teaching and learning (e.g., Keys & Bryan, 2001; Stolk, Jong, Bulte, & Pilot, 2011).
- **Collaboration** is the cornerstone of our teacher education program. Our partnerships with P-12 education colleagues foster collaborative planning and experiences for future and current teachers (CAEP, 2013, Standard 2) and education leaders. This collaboration extends to include research and professional development with our P-12 partners to improve learner outcomes.
- **Advancement** ensures that our candidates engage in reflective practices and continuously seek to improve their skills as education professionals. This may include a commitment to ongoing professional development, the use of evidence-based practices, the confidence to question and use innovative instructional strategies, and the skill to assess their impact on student learning.

- **Leadership** development prepares our candidates not only to serve as leaders in their classroom, but also their school and across a global community as they advocate for their students and the profession.

Alignment with State and Professional Standards

Initial teacher preparation programs are based on performance-based standards including the Interstate Teacher Assessment and Support Consortium (InTASC) standards that form the basis of the Indiana Department of Education (IDOE) content and developmental standards for educators. Initial teacher preparation programs provide an articulated sequence of experiences, including frequent field experiences that emphasize the links between subject matter knowledge and teaching. In addition to these standards, faculty of the various program areas use professional standards in the development of the specific program, such as those included as Specialized Professional Associations (SPAs), the Council for the Accreditation of Educator Preparation (CAEP), the National Board for Professional Teaching Standards (NBPTS), and the Professional Standards for Educational Leaders (PSEL).

Model for Professional Preparation

In addition to the key programmatic features, the emphases of the professional preparation programs are depicted in a graphic Model for Professional Preparation, which illustrates how key features and programmatic emphases interrelate. The bridge between initial and advanced preparation is permeable rather than sharply defined. Distinctions between the groupings of competencies are based more on the emphasis in coverage and application, rather than whether or not they are included. All of the components of the model link to professional, state, and institutional standards.

The Core of Professional Preparation. Academic content and evidence-based-practice are depicted as the core of professional preparation:

Initial (Undergraduate) Preparation. In addition to the core principles, nine areas of competency are emphasized during the initial preparation programs:

- **Understands learner development, learning differences, and learning environments:** The candidate understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas and designs and implements developmentally appropriate and challenging learning experiences (InTASC, 2013, Standard #1). The candidate uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards (InTASC, 2013, Standard #2). The candidate works with others to create environments that support individual and collaborative learning and that encourage positive social interaction, active engagement in learning, and self-motivation (InTASC, 2013, Standard #3).
- **Focus on the learner and assess growth and outcomes:** The candidate understands and uses multiple methods of assessment to engage learners in their own growth, to

monitor learner progress, and to guide the teacher's and learner's decision making (InTASC, 2013, Standard #6).

- **Teach effectively by integrating content and pedagogy:** The candidate understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues (InTASC, 2013, Standard #5). The candidate understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways (InTASC, 2013, Standard #8).
- **Adapt instruction to diverse learners:** The candidate engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner (InTASC, 2013, Standard #9). The candidate uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards (InTASC 2013, Standard #2).
- **Apply current and emerging technologies:** The candidate effectively applies relevant technologies to enhance students' learning experiences, and actively seeks out opportunities to capitalize on emerging technologies (InTASC, 2013, Standards 3g, 3m, 4g, 5l, 6i, 7k, 8g, 9d, 9f, 10g).
- **Engage in early and articulated field experiences:** The candidate is actively engaged in early and articulated field experiences throughout key elements of the program (CAEP 2013, Standard #2).
- **Collaborate with teachers, parents and community:** The candidate seeks opportunities to take responsibility for student learning and development, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession (InTASC 2013, Standard #10).
- **Commit to diversity:** The candidate understands how learner diversity can affect communication and knows how to communicate effectively in differing environments (InTASC, 2013, Standard 3[i]). The teacher understands learning theory, human development, cultural diversity, and individual differences and how these impact ongoing planning (InTASC, 2013, Standard 7[i]).
- **Think critically and reflectively:** The candidate is a reflective practitioner who continually evaluates the effects of his/her choices and actions on others (students, parents, and other professionals in the learning community). (InTASC, 2013, Standard #4; NBPTS, 1989, Proposition #4)

Advanced (Graduate) Preparation.

Developed in the context of Purdue as a research extensive university, advanced programs are designed to help experienced practitioners move beyond the basic mastery of content and practice that characterizes initial licensure to develop deeper understandings, more sophisticated practice, and the knowledge and dispositions that characterize leaders in the educational community. Upon completion of an advanced program of study, candidates are

accomplished educators whose practices are consistent with the standards of professional organizations and the National Board for Professional Teaching Standards. Advanced preparation extends initial preparation and emphasizes five more areas:

- **Communicate knowledge:** The candidate speaks, writes, and employs relevant media to effectively communicate knowledge on substantive topics to others (InTASC, 2013, Standards 3, 5, 6, 8, and 10).
- **Synthesize knowledge:** The candidate integrates knowledge from multiple sources to address pertinent questions and issues (InTASC, 2013, Standard #8).
- **Create and discover knowledge:** The candidate creates and discovers knowledge to further the state of the art and science of education (InTASC, 2013, Standard #10).
- **Engage in professional development:** The candidate actively seeks out learning opportunities to grow professionally (InTASC, 2013, Standard #9).
- **Participate actively in the profession:** The candidate actively participates in the profession through such means as communicating scholarly discoveries, offering learning opportunities to others, and engaging in efforts to promote social justice and equity in education (InTASC, 2013, Standard #10; NBPTS, 1989, Proposition #5).

References

- Calderhead, J. (2012). The contribution of research on teachers' thinking to the professional development of teachers. *Research on teacher thinking: understanding professional development*. London, 11-18.
- Council for the Accreditation of Educator Preparation (CAEP) (2013). CAEP accreditation standards and evidence: Aspirations for educator preparation. Washington, D.C.: Council for the Accreditation of Educator Preparation.
- Harris, J. B., & Hofer, M. J. (2014). Technological pedagogical content knowledge (TPACK) in action: A descriptive study of secondary teachers' curriculum-based, technology-related instructional planning. *Journal of Research on Technology in Education*, 43(4), 211-229.
- Indiana Department of Education (IDOE), (2010). *REPA Educator Standards*. Indianapolis, IN. Retrieved from <http://www.doe.in.gov/licensing/rep-educator-standards>
- Indiana Department of Education (IDOE; 2010). *Indiana developmental and content standards for educators: Final report*. Indiana Department of Education, Indianapolis: Pearson.
- Interstate Teacher Assessment and Support Consortium (InTASC) (2013). *Model core teaching standards and learning progressions for teachers 1.0*. Washington, D. C.: Council of Chief State School Officers.
- Kea, C., Campbell-Whatley, G. D., & Richards, H. V. (2006). *Becoming culturally responsive educators: Rethinking teacher education pedagogy. Practitioner brief*. Tempe, AZ: National Center for Culturally Responsive Educational Systems. Retrieved from <http://www.nccrest.org/>.
- Keys, C. W., & Bryan, L. (2001). Co-constructing inquiry-based science with teachers: Essential research for lasting reform. *Journal of Research in Science Teaching*, 38, 631-654.
- National Board for Professional Teaching Standards (NBPTS). (1989). *What teachers should know and be able to do*. Washington, D. C.
- Nelsen, P. J. (2014). Intelligent Dispositions Dewey, Habits and Inquiry in Teacher Education. *Journal of Teacher Education*, 0022487114535267.
- Savery, J. R. (2015). Overview of problem-based learning: Definitions and distinctions. *Essential Readings in Problem-Based Learning: Exploring and Extending the Legacy of Howard S. Barrows*, 5.
- Stolk, M. J., Jong, O. D., Bulte, A. M. W., & Pilot, A. (2011). Exploring a framework for professional development in curriculum innovation: Empowering teachers for designing context-based chemistry education. *Research in Science Education*, 41(3), 369-388.