Student standards and assessments are the critical components of an educational system that will enable all students to achieve at high levels. That is the cry heard in many educational circles today. However, there seems to be one element missing from this equation for success, and that is professional development for teachers and other educators. The current need for professional development in light of standards-driven student reform is a paradox. As stated by Suzanne Wilson and Deborah Ball:

Little will change unless teachers change it. . . . What they do is what they know, what they have learned. Yet these [standards-based] reforms require that teachers teach content they have never learned in ways that they have never seen.¹

Although many practicing teachers will retire in the next decade, there remain a huge number of teachers in public schools who need retraining, new learning, and even some unlearning. When retirements are compounded by increasing student populations, American schools face hiring two million new teachers in the next ten years.² There is, therefore, a great need for improved teacher preparation programs. Training cannot be left solely to pre-service teacher education, however. To impact the current system, professional development needs to be reconceptualized into a continuous system of learning for teachers from pre-service through licensure, and in-service through retirement. The missions of the Interstate New Teacher Assessment and Support Consortium (INTASC), the National Board for Professional Teaching Standards (NBPTS), the National Council for Accreditation of Teacher Education (NCATE), and many other professional organizations intersect at the critical point of standards-based professional development and licensure.

Linda Wurzbach is Senior Project Associate for the Interstate New Teacher Assessment and Support Consortium and Council of Chief State School Officers.
Some may ask what is wrong with the current delivery system of pre-service and in-service training of educators. Teachers themselves are the first to condemn many of the training sessions in which they have participated as being useless because the training did not relate to their work with their students. Teachers have been subjected to ineffective one-shot, make-and-take workshops which have had minimal, if any, follow-through.

Current professional development approaches often fail to achieve the desired effects because of their piecemeal nature. Teachers encounter widely differing expectations at various points in their careers or on different campuses, districts, and states in which they work. Not only do such expectations vary widely, but they are often unstated. Without clearly articulated expectations, standards, and related indicators, few means exist to measure the quality of the current delivery system's offerings. There is little systematic data collection on the effectiveness of the modes of pre-service and in-service training currently in use. We are left with only anecdotal evidence and the all-too-frequent reports of poor student test scores as the only measures of teacher professional development systems.

One organization that seeks to address these issues is the Interstate New Teacher Assessment and Support Consortium (INTASC). What is INTASC, and what is its role in this overwhelming charge of reconceptualizing professional development? INTASC is a multistate effort to implement model standards for teachers' professional development in order to achieve the intents of the student standards reform. INTASC members are representatives of state education agencies, such as state departments of education and independent standards boards, which are responsible for teacher preparation and licensing. INTASC began when two states met in the mid-1980s to explore their common challenge of implementing legislated teacher testing. The group had the foresight to know that talking about assessment alone was not enough, that support of beginning teachers was a critical part of the dialogue. In 1990, INTASC came under the umbrella of the Council of Chief State School Officers (CCSSO) because of the state role in providing public education and public assurance of its quality.
Since then, INTASC has grown from the two original states to thirty states and territories, with nine other states who network with the group but are not full participants. Additionally, ten professional associations participate in INTASC's work. INTASC has a grassroots feel to it: it is a multistate, yet not a national, effort. INTASC does not prescribe one policy to be implemented in all states but generates stimuli for discussion within each state, so that each state can design a licensure and professional development system that works for the teachers and students of that state. However, INTASC has focused not just on developing stimuli for policy statements, but on providing support to states in implementing reform policies.

What follows is an overview of ten components of a standards-based professional development system. In this paradigm, teacher standards serve as an organizer for all of a state's professional development efforts. Inherent in this movement is teacher empowerment—top-down support for bottom-up reform. Although these ten components segment a teacher's career and are presented in a list, it is perhaps more accurate to imagine them as stages along a developmental continuum. This continuum helps frame INTASC's work to date in a larger context in which all components must be addressed to implement a successful reform.
Components of a Standards-Based Professional Development System

- A well-publicized, professionally accepted set of **standards** that form a consistent set of expectations throughout a teacher's career from pre-service through retirement (As a teacher gains experience, increasing levels of sophistication and proficiency are expected.)

- Teacher preparation **programs based on quality program guidelines**, possibly structured as professional development schools that provide pre-service preparation with multiple field experiences and ongoing performance assessment

- An **initial license** based on completion of an approved preparation program and tests of subject matter and teaching knowledge

- **Licensing categories** based on teacher and student standards

- Teacher **recruiting and hiring procedures** based on the professional standards

- New teacher **induction programs** that include 1–2 years of early career mentoring and evaluation

- A **continuing license** based on INTASC performance-based assessments, including evidence of a teacher's work and his/her students' work

- **Ongoing professional development** in and out of the classroom

- Standards-based performance **evaluation and relicensure**

- **Advanced certification** based on NBPTS performance assessments and examinations
INTASC’s Core Principles

INTASC has adopted a set of core principles that are intended to stimulate states' efforts to articulate their own set of principles to guide their professional development programs. The core principles were developed by representatives of the INTASC member states in 1991 and serve as the basis for all of INTASC's work. The principles link to standards that these states were using as the basis for entry into the teaching profession as well as to the five major propositions of the National Board for Professional Teaching Standards. They are written in terms of knowledge, dispositions, and performances. They are not really new; rather, they describe the behaviors of what we have for a long time considered reflective of good teachers. Those teachers whom we have considered "the best" meet today's standards of being learner- and learning-centered.

Model Standards for Beginning Teacher Licensing and Development

Principle #1: The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.

Principle #2: The teacher understands how children learn and develop and can provide learning opportunities that support their intellectual, social, and personal development.

Principle #3: The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.

Principle #4: The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.
Principle #5: The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

Principle #6: The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

Principle #7: The teacher plans instruction based upon knowledge of subject matter, students, the community, and curriculum goals.

Principle #8: The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.

Principle #9: The teacher 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) and who actively seeks out opportunities to grow professionally.

Principle #10: The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support students' learning and well-being.  

Educators have rated each principle at 4.5 or higher on a 5-point Likert scale, indicating the importance of each standard to the responsible practice of a beginning teacher. Twenty-three states and many teacher preparation programs have adopted or adapted the INTASC standards.
However, adopting a set of teacher standards is just the beginning. Ideally, after a state has identified student standards, the process of developing teacher standards follows. States need to ask themselves, "In order for students to achieve these standards, what must teachers know and be able to do?" To successfully raise the level of performance of all students, it is necessary to keep focus and concentration on these teacher and related student standards at all times as a supporting professional development system is designed and implemented.

Teacher Preparation Programs

A state's adoption of teacher standards certainly has great implications for its teacher preparation programs and program approval standards. Programs can no longer assume that the traditional approach of exposing candidates to theoretical and practical knowledge adequately prepares them to use that knowledge to promote learning for all students in the classroom. States can no longer assume the adequacy of licensing regulations that focus on such requirements as course counting, credit hour requirements, and multiple-choice tests. Instead teacher education programs must be designed to ensure that all candidates have a strong foundation of content and pedagogical knowledge, can apply this knowledge in practice, and have habituated the professional behaviors specified by the standards. In order to address the paradox stated earlier, teacher candidates must experience as learners the pedagogies they will be expected to demonstrate as teachers.

Also, the state decision to license must rely on evidence that the knowledge is demonstrated with all students consistently and over time. How does a state acquire enough relevant evidence to decide that a person may be licensed to teach? The kind of teacher preparation program described in the draft INTASC principles below could provide adequate evidence of habitual practice.
## Principles for Quality Teacher Preparation Programs

**Principle #1:** The program maintains a system of recruitment and admissions that seeks to build a pool of entering students that is representative of America's diverse, pluralistic society and is characterized by commitments to high levels of student learning and human caring.

**Principle #2:** The program ensures that candidates pursue coherent educational studies that are grounded in research consistent with effective teaching practice and provides continuous opportunities for candidates to demonstrate the relationship between sound teaching practice and its theoretical counterparts.

**Principle #3:** The program requires candidates to demonstrate a deep understanding of their subjects and underlying disciplines, so that prospective teachers develop the ability to 1) select meaningful content; 2) devise powerful learning tasks consistent with high standards of learning; and 3) engage all students in developmentally appropriate learning experiences that lead to continuous achievement.

**Principle #4:** The program gives candidates opportunities to develop cultural competence in concert with their emerging understanding of educational knowledge and practice through sustained experience in cultural settings and school/community environments distinct from their personal backgrounds.
Principle #5: The program provides candidates with opportunities to develop and use effective verbal and nonverbal communication and to use technology to foster student learning and maintain constructive communication with students, their families, colleagues, and community members.

Principle #6: The program gives candidates opportunities to develop and use habits of reflection and inquiry to continually evaluate the effects of their professional choices and actions on students' learning and on the broader school/community welfare.

Principle #7: The program develops and maintains a performance assessment system that tracks progress toward complex and difficult program goals and documents the reliability of the candidates' teaching competence over time. When necessary, the program provides multiple, additional, and diverse opportunities for growth.

Principle #8: The program provides candidates with continuing opportunities to learn from faculty who are themselves good models of professional teaching, including: 1) faculty who demonstrate unceasing commitment to their students' learning; 2) faculty who are good colleagues to their peers in the program; and 3) faculty who engage in continuous inquiry and improvement of their professional competence.

Principle #9: The program gives candidates opportunities to learn from their student colleagues in the program through cooperative-learning tasks, sustained interactions that call for teamwork, the exchange of positive and negative feedback, and shared ordeals that socialize them into the education profession.
Principle #10: The program ensures that candidates have opportunities to learn their practice in designated high-quality practicum sites, where the faculty and community explore the boundaries of effective educational practice, accept responsibility for educating educators, and collectively seek better ways of educating all students.7

These guidelines are based on the INTASC core principles and are intended to serve as a resource for state discussion on guidelines for approval of teacher preparation programs and to promote state consideration about the kinds of pre-service experiences that will prepare teachers for the classrooms of the next century. For those programs interested in pursuing NCATE accreditation, these program guidelines are closely aligned with the NCATE standards.

Initial Licensure

At the point of initial licensure, the standards should be no surprise to teacher candidates if their preparation programs are aligned with these standards. It is at this point that INTASC envisions an initial state assessment based on the standards. These on-demand assessments would require teachers to demonstrate their knowledge of content, their students, learning theories, and best instructional practices. Some INTASC states have expressed an interest in developing prototype performance-based, content-knowledge assessments.

Thirteen states and the MacArthur Foundation have formed a collaborative to develop a test of teaching knowledge that will assess a beginning teacher's professional knowledge and skills in areas such as child development, theories of teaching and learning, and the role of student background in the learning process. The first step in the development of this assessment has been to convene a national advisory group of expert teachers and teacher educators who have begun to design the architecture of the test and its corresponding item types. Initial thinking is that the assessment will include paper-and-pencil, oral, and/or demonstration activities that reflect a balance of
theoretical knowledge and practical applications. The next step will be to involve the participating states at two levels—the policy group, which consists of the state representatives to INTASC, and expert educators who will work with the advisory committee to further elaborate the test design.

New Teacher Induction

An integral part of the INTASC process is the provision of support for the beginning teacher, for learner success in the classroom as facilitated by the completion of a portfolio. INTASC’s performance assessment development work includes identifying effective means of supporting beginning teachers and working with states to develop policies that institutionalize such support. These efforts start with building a teaching culture or community that values both performance assessment and reflective practice. INTASC is finding that effective support can be provided in a number of ways, including school-site or university-based mentors, university-based courses, and state-sponsored seminars.

Support personnel provide good role modeling and offer the one-on-one guidance and mentoring necessary for beginning teachers to become competent experienced teachers. To be effective, mentors need to know how to teach adults as well as children. In this type of relationship, mentors help beginning teachers diagnose their own strengths and weaknesses and make recommendations for improvement. To help the beginning teacher demonstrate the standards in their portfolios and in their teaching, support personnel must have a firm grasp of the content, the students being taught, and the appropriate content-specific pedagogy. They must be able to ask the questions that will prompt beginning teachers to reflect on, improve in, and maintain enthusiasm about their practice.8 Many states and school districts compensate school-site mentors through stipends; release time for observations, meetings, and planning; and credit toward license renewal.

Another type of support is provided through group meetings. In some states that are field testing the INTASC assessments, the state agency, universities, and public schools have formed collaboratives to provide support to beginning teachers. In these
cases, university faculty hold seminars in which the teachers find support, not only from university faculty members, but also from one another. In this type of arrangement, universities offer three hours of graduate credit for completing the portfolio, and the state education agency gives continuing education credit. As a result, the beginning teachers are often encouraged to continue their graduate studies.

Another model of group support sessions is one sponsored by a state education department. For example, the Connecticut State Department of Education has implemented content-based support sessions, conducted by the teacher-in-residence at the state agency. Beginning teachers and their mentors meet several times during the first two years of teaching to build a common understanding of teacher and student standards. During the second year, sessions are designed to focus on supporting the beginning teachers as they complete the portfolios required for professional licensure.

Continuing Licensure Based on Performance Assessment

Standards come alive when they are assessed through performance-based means such as portfolios. INTASC has developed content-specific standards in mathematics and English language arts and is developing prototype assessments for secondary teachers who would most likely complete them in the first or second year of teaching. The basis of the mathematics assessment is beginning-mathematics-teacher standards that are tied closely to the INTASC core principles, the National Council for Teachers of Mathematics (NCTM) standards, and the NBPTS standards. Principle #1 of the core standards describes a beginning teacher's requisite knowledge of mathematics. The mathematics standards elaborate on Principle #1 as follows.
The teacher of mathematics understands mathematical ideas from the following areas:

- Number Systems and Number Theory
- Geometry and Measurement
- Statistics and Probability
- Functions, Algebra, and Concepts of Calculus
- Discrete Mathematics

The teacher of mathematics develops a knowledge of mathematics through the following critical processes:

- Problem Solving in Mathematics
- Communication in Mathematics
- Reasoning in Mathematics
- Mathematical Connections

The teacher of mathematics develops the following mathematical perspectives:

- The History of Mathematics
- Mathematical World Views
- Mathematical Structures
- The Role of Technology and Concrete Models in Mathematics

Although the assessments cover only middle and high school, the standards address K–12 education. Elaborations and vignettes in the standards delineate the extent of knowledge and the types of pedagogical practices necessary for teaching students at various developmental levels.

Committees with two representatives from each of eleven states work with a lead developer to design and field test the assessments, as well as to provide support to candidates. These same committees, which consist predominantly of experienced teachers and teacher educators, also develop and try out the evaluation system for the portfolios. Committee input is reflected in documents, such as a handbook, support notebook, and evaluation manual, that are drafted by a lead developer. We use a consensus model guided by a policy board, as described previously in the Initial Licensure section which discussed the Test for Teaching Knowledge. A multidisciplinary technical advisory group that includes lawyers and testing specialists reviews the work of the lead developers and development
subcommittees. An equity review panel will soon begin reviewing the entire assessment system.

Each portfolio reflects the integrity of its discipline in both the design and scoring system. The mathematics portfolio, for example, requires:

- a description of the teaching context,
- plans for a series of lessons and commentary,
- two highlighted lessons,
- an evaluation of student learning, and
- an analysis of teaching and professional growth.

The system for evaluating the portfolios is based on a paired-reader model. After training, two experienced teachers independently review portfolios and take notes. The readers then come together to engage in a dialogue about the performance. The conversation is structured by guiding questions that lead the pair to write descriptive statements that summarize patterns evident in the performance. Only after this descriptive summary is written does the pair refer to a scoring framework and benchmark performances to assign a score to the portfolio. Such an evaluation system allows not only for a thorough evaluation of the portfolio but also provides extensive growth opportunities for the experienced teachers serving as readers.

While beginning teachers most frequently remark on the amount of time required to complete the portfolio, they also give some very insightful comments about what the portfolio assessment process was like for them.

- "It has helped me see the broad picture of teaching—that the many facets of language arts really are interconnected, and it is up to the teacher to invite students to see the relationships between reading, writing, speaking, and listening for themselves. . . ."

- "The curriculum fits well (with the kinds of teaching that I was asked to document); however, in practice most English teachers in my district would see this teaching as very different."
Continuing Professional Development In and Out of the Classroom

That last comment leads us into the issue of really reconceptualizing professional development for in-service teachers. As Linda Darling-Hammond and Milbrey McLaughlin state:

The success of this [reform] agenda ultimately turns on teachers' success in accomplishing the serious and difficult tasks of learning the skills and perspectives assumed by new visions of practice and unlearning the practices and beliefs about students and instruction that have dominated their professional lives to date.¹⁰

We talked at the beginning about what professional development should not be. What should it be instead? It should reflect the best of what we know of teaching and learning for adults. For example, it should be:

- long-term,
- part of teachers' work days,
- facilitated by teachers,
- in a context that is directly related to the teachers' work, and
- a partnership with learning in which the learning is facilitated and self-directed and includes individual goal-setting and self-assessment.

As previously mentioned, teachers find the portfolio evaluation process to be a very effective means of professional development. In interviews following a summer scoring session, experienced teachers who served as reviewers consistently reported that they had learned something valuable that they will take back to their school communities. The benefits mentioned included using the evaluation framework to evaluate and improve their own teaching, discovering new ideas for classroom practice, and feeling empowered to begin discussions with colleagues based on the standards being assessed.
Getting Started

How does one begin to establish a system of professional development that includes aligned standards and teacher assessments? Ask the following questions:

- What do we want students in our state to know and be able to do?
- In order for our students to know and do these things, what must their teachers know and be able to do?
- How are pre-service and in-service teachers educated to demonstrate these standards?
- How can state assessments for teachers be aligned with teacher standards?
- How can we work with education stakeholders (e.g., teacher unions, teacher educators, parents, the business community) to build support for standards?
- How can resources be reallocated to support performance-based professional development (e.g., restructuring the school day, staffing patterns)?
- What current policies and practices are incompatible with these views of teaching and learning (e.g., state-mandated curriculum, textbooks, student testing programs)?
- How will we know when we have arrived (e.g., accountability, student success)?

The type of system outlined here requires fundamental rethinking of professional development. No one component by itself, or professional development reforms without corresponding public school reforms, will be adequate. Just as learning for students should be standards based, learner centered, learning centered, and lifelong, so must teacher professional development be. This is one area in which policy can become practice.
References


