Redesigning National Board Certification: The Advancement of Accomplished Teaching
About This Report:
The following brief summarizes recent work completed to redesign the certification process for accomplished preK-12 educators. The National Board for Professional Teaching Standards® gathered educational specialists within five committees and engaged approximately 3,000 practitioners and pedagogical experts to analyze and improve the measurement of preK-12 teaching practices and learning outcomes.¹

The assembly of these individuals and the development of this publication took place in whole and in part based on a grant from the Bill & Melinda Gates Foundation. Please note that the contents of this report do not necessarily represent the policies of the Bill & Melinda Gates Foundation, nor do they reflect an endorsement made by this foundation.

About National Board Certification:
Grounded in the National Board’s Five Core Propositions (see figure below) that describe what teachers should know and be able to do, the certification process is designed to collect standards-based evidence of accomplished practice. In all 25 certificate areas, candidates are required to complete four components. An assessment overview containing additional details can be found at http://boardcertifiedteachers.org/about-certification.

The Five Core Propositions

1. Teachers are committed to students and their learning.
2. Teachers know the subjects they teach and how to teach those subjects to students.
3. Teachers are responsible for managing and monitoring student learning.
4. Teachers think systematically about their practice and learn from experience.
5. Teachers are members of learning communities.
From its inception, National Board Certification has been designed by teachers, for teachers. This principle holds true today.

The newly redesigned assessment ushers in many changes to the certification process while reaffirming the professional authority of accomplished educators. Anchored within the Five Core Propositions and informed by National Board Standards in 25 certificate areas, the peer-reviewed assessment asks teachers to demonstrate their practice by showing what they know and do. As always, the assessment challenges preK-12 teachers to analyze their strategies, explore their techniques, and discover the best ways to promote student learning.

The fundamental purpose of the assessment remains the same, its goals and objectives strengthened by updates in structure and methodology. Attentive to current research, the National Board for Professional Teaching Standards served as the catalyst for these developments. The educational specialists, technical advisors, and National Board Certified Teachers (NBCTs) who collaborated throughout this project represent the agents of innovation.

What is new about the assessment?

The certification assessment continues to evaluate teaching practice in a psychometrically rigorous manner while more closely examining the agile transitions that teachers make between action and reflection. These are the moments that lend accomplished teaching its structure and form. Focusing on them illuminates teacher performance, yielding a finer appreciation of pedagogical choices to cast a brighter light on student learning. A series of changes sharpened this lens:

- **Component 1: Content Knowledge** now includes selected-response questions, with fewer prompts for constructed response. The shift extends the depth and breadth of content coverage, increasing validity and reliability while supporting operational efficiency. With NBCTs continuing to review and approve all items, the enhancements provided a strong basis for reimagining other components.
- **Component 2: Differentiation in Instruction** largely remains the same as the previous portfolio entry, directing attention to student growth as demonstrated through individual work. Component requirements were clarified to stress the analysis of strengths and needs for the purpose of designing instruction that will enable all students to learn.
- **Component 3: Teaching Practice and Learning Environment** underwent notable changes. Two video-based portfolio entries, similar in design, were consolidated to form one streamlined unit. Concise videos and succinct commentary require careful attention to details. By targeting significant aspects of teaching practice in different contexts, the updated component asks teachers to concentrate on the impact of their instructional methods. Performance descriptions embedded within the holistic scoring rubric draw attention to directly observable features of teaching practice.
- **Component 4: Effective and Reflective Practitioner** replaces the previous portfolio entry, Documented Accomplishments. The new component centers on the use of assessment data and other forms of information to advance student and teacher growth. It evaluates classroom instruction, professional learning, and stakeholder collaboration, examining the role that assessment and data literacy play in student learning. With the addition of Component 4, the certification process provides a comprehensive measure of accomplished teaching that reflects current trends in educational research while examining the full range of instructional and assessment practices envisioned by National Board Standards.
How were these changes made?

To redesign the certification process, the National Board proposed the ambitious plan of gathering specialists from across the educational field. The Bill & Melinda Gates Foundation provided the financial support necessary to make this plan a reality.

The National Board thus convened five groups possessing the technical and pedagogical expertise to make substantive recommendations on the measurement of preK-12 teaching practices and learning outcomes. NBCTs served in these groups and conducted stakeholder reviews to maintain the assessment’s fidelity with the Five Core Propositions and Standards. In total, approximately 3,000 NBCTs participated in the project, a number that can inspire professional pride among teachers and confidence in those pursuing National Board Certification.

The first set of committees discussed promising research on teacher evaluation. Each committee focused on one of three areas:

- the integration of student learning and achievement data
- the use of student perception data
- the measurement of video-recorded instruction

The committees deliberated at length regarding research trends and their potential application to the certification assessment. They considered issues related to the collection and analysis of meaningful evidence, and they made design recommendations. An assessment review panel studied these suggestions based on operational requirements and real-world demands. The panel proposed a series of changes to the certification assessment and called for an additional committee to help define a new testing component.

Work performed by the expert groups was vetted with partners and stakeholders throughout the educational community. To ensure the creation of a well-balanced instrument, the National Board organized multiple rounds of review with diverse parties. The National Board collaborated with Pearson on the assessment framework, asked stakeholders to provide feedback on draft designs, and met with its Technical Advisory Group (TAG) to monitor development. This standing committee discussed the psychometric implications of design proposals and methods to bolster the ongoing validity and reliability of the assessment. All changes made were supported by the TAG, in adherence with criteria established by the Standards for Educational and Psychological Testing, and were approved by the National Board’s Certification Council and Board of Directors.

A wide range of participants have offered their insights to enhance the long-standing strength of the National Board’s certification process. Their contributions will promote greater interest in accomplished practice and encourage its proliferation among educators, which will impact student learning in significant and lasting ways.

Why were these changes made?

Taking a closer look at each research investigation performed by the expert committees will demonstrate the rationale behind specific changes made during the redesign initiative.

STUDENT LEARNING AND ACHIEVEMENT

The committee focusing on student achievement asked which evidence best captures the impact that teachers have on student learning and growth. Two questions framed the committee’s approach to reconceptualizing this component. First, what constitutes stronger evidence of student achievement? Is it more evidence, better evidence, or further differentiated evidence? Second, how could the evidence be used to gain a fuller appreciation of the instructional influence that teachers have on students?

With an eye on current research, the committee examined value-added modeling (VAM), probing its strengths as well as its scientific and technical limitations in relation to other measures of achievement within the certification assessment. Proponents of VAM view it as an objective measure of student learning that conveys instructional impact with greater precision than other
methods and stimulates further growth. Critics argue that VAM cannot isolate teacher instruction from other influences on student learning and offers no insight on factors determining teacher effectiveness. Further, VAM cannot quantify the impact that teachers have on the social, emotional, and psychological growth of their students. Finally, VAM scores appear to fluctuate based on demographic and academic profiles, with low scores frequently reported for teachers of low-income students, English language learners, and students with exceptional needs.

While weighing the pros and the cons of integrating VAM within the certification assessment, the committee contemplated two critical issues: First, the accuracy, validity, and reliability of VAM is strongly influenced by the psychometric properties of the standardized test used to determine its estimates. Second, utilizing VAM as a universal measure poses a considerable challenge when fewer than 25% of preK-12 teachers work within grade levels and subject areas that institute mandatory standardized testing. Based on these factors and the full breadth of their deliberations, the committee outlined several possible designs for expanding the measurement of student achievement within the assessment.

The design process answered the committee’s initial queries by asserting that multiple measures provide a more complex appreciation of student achievement and its relationship to teacher effectiveness. Furthermore, to explore all aspects of effectiveness, the role that teachers play within the assessment process must be addressed. Assessment data characterizes student achievement and thus reveals the potential for future growth when analyzed by accomplished educators.

Both the committee and the assessment review panel concluded that a portfolio entry evaluating the assessment and data literacy of teachers would strengthen the certification process while advancing the field’s understanding of how to measure teacher impact on student learning across all grade levels and subject areas. The resulting model reinforced the importance of focusing on dynamic learning rather than static achievement to determine student growth over time, an issue also discussed by the National Board’s Student Learning Student Achievement Task Force in 2010.4 The National Board concurred with the experts’ findings. NBCTs also confirmed that the design offered the highest correlation with the Five Core Propositions and Standards in all certificate areas, as it supported the fullest integration of assessment and teaching practices.

To initiate development of the new component, a second committee defined assessment and data literacy within the scope of National Board Certification by drafting a test construct—the measure of what teachers should know and be able to do—along with evidence requirements. NBCTs then mapped the relationship among all components of the redesigned assessment (1 through 3 and the draft design of 4) and the foundational documents of National Board Certification (the Five Core Propositions and the 25 Standards). This crosswalk guided subsequent work by ensuring that Component 4 remained well aligned with the tenets of accomplished teaching, complemented the structure and content of other components, and supported the comprehensive coverage of foundational documents across the certification assessment as a whole. Crosswalk interpretation by NBCTs revealed the need and opportunity to capture evidence of the ways in which teachers use professional interactions with colleagues, families, and local communities to inform their judgements about student learning. NBCTs from various certificate areas and grade levels subsequently worked with the National Board to finalize the construction of Component 4. The TAG provided valuable input throughout this process, asking clarifying questions about the design and making general recommendations regarding psychometrics. The group also supported the National Board’s formulation of a pilot testing plan that encouraged widespread participation among teachers while fostering final improvements to component requirements and scoring rubrics.

As released for operational administration, Component 4 measures how educators

- gather relevant information from various sources to build their knowledge and increase their understanding of student groups;
• base instructional decisions and assessment practices on their knowledge of students, collaboration with stakeholders, and adherence to sound assessment principles; and
• use their accumulated knowledge of students to reflect on their teaching practice, advance their professional learning, and promote student growth throughout their learning communities.

Contextualized within a thorough knowledge of students, the component is carefully constructed for candidates to demonstrate their integration of instructional and assessment practices with decision making related to professional learning and community collaboration. The portfolio entry takes a full range of teaching activities into consideration, delineating the collection, analysis, and utilization of data from different sources to augment student and teacher learning in classrooms and communities.

The work performed by expert committees and stakeholder groups has produced meaningful results. The new portfolio entry, Component 4: Effective and Reflective Practitioner, takes a major step forward by stressing the imperative for teachers to use carefully coordinated instructional and assessment practices so they can support the growth and development of their students, their colleagues, and themselves. The impact on the educational field will be significant, with teachers taking a more active role in the integration of instruction, assessment, professional learning, and student growth as they advocate for and advance the pedagogical goals and objectives of their communities.

STUDENT PERCEPTION

The committee focusing on student perception investigated the use of new measures to incorporate additional evidence of teaching and learning. The group studied the benefits and drawbacks of employing instruments such as student surveys to learn more about educational outcomes.

The committee began by exploring research into the insights that student voices offer. Only a small number of states and school districts currently include student perception measures within formal teacher evaluations. Yet, advocates report that survey responses exhibit high levels of validity and reliability when addressing teacher effectiveness. One group of researchers found the ratings of reading and mathematics students to be more closely correlated with achievement scores than educator ratings were. As compelling as these findings may be, other researchers urge caution, suggesting that more studies are needed to explore statistical results and methodological details at greater length. Among these critics, some wonder about differences across age groups—the ratings of secondary students appear to be as reliable as those of college students, but what about younger students?

The committee also considered the logistics of utilizing student perception measures within the certification assessment. Issues here included the construction of student surveys, from the clarity of instructions to the composition of questions and the accommodations required for younger children, English language learners, and students with exceptional needs. The National Board would need to decide between purchasing surveys off-the-shelf or having them customized. Other decision points addressed the collection and confidentiality of data, the sampling of evidence, and its relative weight within the certification assessment.

As a result of their deliberations, the committee developed two approaches for utilizing student perception data within the National Board assessment:

• Conduct a pilot study of student surveys before including survey administration and data analysis as an independent testing component or adding it to an existing component.

• Use post-lesson exit slips to collect student data for analysis and reflection as an independent testing component or a complement to Component 3.

The assessment review panel agreed that pilot testing would be necessary to study the effect of incorporating these instruments within the certification process. It also stated that the promotion of specific surveys would not be prudent for formal testing purposes.
The National Board consulted the TAG and reflected on the issues that each group raised. It noted that the selection of an existing survey would represent a commercial endorsement, though the creation, validation, and implementation of a new instrument would prove costly. Further, while the use of a single survey to collect information across all student groups would pose measurement problems, the incorporation of multiple surveys would introduce comparability issues. The limited use of surveys at this time also raised questions regarding their validity and reliability within the context of the certification assessment. Finally, the addition of student perception measures did not seem structurally viable at present – the video committee felt that the introduction of these measures to Component 3 would overburden candidates, and the student achievement committees were already undertaking dramatic changes to what would become Component 4.

In the short term, the National Board decided not to include the evaluation of student survey responses or exit slips within any testing component. Across the Standards, there is an explicit understanding that accomplished educators solicit student feedback and analyze the data to inform instruction. Opportunities to demonstrate this practice existed before the redesign process and will remain present within Components 2, 3, and 4.

While the formal inclusion of student perception measures would require additional study, committee proceedings initiated an important series of discussions at the National Board. An examination of the learning process from multiple perspectives could support a fruitful analysis of instructional dynamics, from the mechanics of effective communication to a rise in understanding that nurtures knowledge and imagination. Exploring this dialogue at greater length across the educational field may inspire future advancement among teaching professionals.

**VIDEO-RECORDED INSTRUCTION**

The committee focusing on video-recorded instruction helped to refine the examination of pedagogical strategies and techniques in action. During the redesign, the properties of two entries evaluating teachers with different student groups were combined within one new component of the certification assessment. The committee finalized this decision by investigating valuable sources of evidence for making valid inferences about teacher performance. This information would be integrated within component requirements so scorers could observe highly meaningful interactions vis-à-vis teacher effectiveness. The result would not only increase the efficiency of candidate submissions and scorer evaluations, but would also raise the reliability of the testing component, always a priority with observation-based assessments.

The committee began by reviewing current research and considering significant aspects of video evidence and scoring practices. The group discussed issues such as the number, length, and specific contexts of video submissions, as well as rater numbers and procedures. Following deliberation, it reached a set of general conclusions aimed at enhancing the content measurement, scoring reliability, and operational efficiency of Component 3:

- As a source of evidence, the video entry best demonstrates learning environments and instructional practices in relation to established goals. It addresses the social, emotional, and academic needs of learners, illustrating student engagement, classroom discourse, and cognitive challenges. The written commentary contextualizes the video entry by explaining instructional rationales and synthesizing learning outcomes.
- As a medium, video provides limited evidence regarding an educator's detailed understanding of student needs, interests, and abilities or in-depth knowledge of subject area content. The challenge here lies in the brief situational context and diverse forms of information required for the evaluation of these skills.
The cycle of planning, action, analysis, and reflection is critical to the evaluation of the video entry because it is based on the full range of teaching practice, a process described throughout the Standards. Yet, the scoring rubrics weighed the ability to plan, analyze, and reflect more heavily than the ability to act. The committee therefore recommended shifting the rubrics to focus more decisively on the implementation of instructional methods during exchanges and interactions.

While general guidelines are necessary to maintain a consistent set of requirements across certificate areas, subject-specific decisions should be made by content experts since close alignment with certificate-area Standards is imperative.

The committee’s full set of recommendations touched on test construct, component requirements, and scoring practices. The committee’s more specific recommendations included the following:

- Each candidate should submit two 10- to 15-minute video clips, with minimal editing. The clips should depict different lessons, units of instruction, and teaching occasions to maximize the range of practice presented for evaluation.

- Component requirements should be revised and strengthened in regards to the introduction of classroom context and the inclusion of learning outcomes which are social and psychological in nature.

- The candidate’s written commentary for each video clip should include a clear and focused description of the framework for instruction and the support provided to students. Commentaries could then be shortened to reduce candidate burden.

- Each video clip should be rated based on three defined traits, i.e., classroom organization, emotional support, and instructional practice. The analytic subscores for each clip could then be aggregated to produce a composite score for the entry.

The assessment review panel voiced two concerns. First, it worried that transitioning from a holistic to an analytic rubric would result in prescriptive scoring, with raters identifying discrete behaviors from a checklist rather than evaluating the educational impact of classroom exchanges as a whole. Holistic scoring could provide a valid measurement that analyzes the complexity of pedagogical practice without reducing its significance to the sum of so many parts. Second, the panel worried that reducing the length of written commentaries would decrease the raters’ ability to evaluate candidates as they plan and reflect on their teaching, two skills that the Standards describe as essential for accomplished teachers.

After consulting the TAG, the National Board reached these decisions:

- Revise the video specifications by having candidates submit two clips that demonstrate their teaching practice in different instructional contexts, shortening the length of each clip to 10–15 minutes, and allowing candidates to edit their videos minimally. The National Board determined that two shorter clips could provide scorers with a varied set of evidence for a richer, fuller evaluation of each candidate’s practice. Minor edits to reduce transitional or non-instructional time would focus attention on teacher performance. Revisions to assessment directions and scoring descriptions by NBCTs across certificate areas would ensure that candidates received specific guidance based on subject area demands.

- Change the commentary specifications by reducing the length and number of written submissions while maintaining the quality of evidence submitted. Component requirements and scoring rubrics would continue to describe the critical information that teachers should provide regarding the status of student learning and its position within a larger framework of educational goals, but targeted questions would now focus commentaries on
practice and reflection as they relate to instructional methods, student engagement, and the learning environment. The questions would help ensure that candidates contextualize their video clips more succinctly and hone their rationales for, and reflections on, instructional decisions with a sharper sense of purpose. Adjusting the weight of action and analysis in this way would strengthen the component’s focus on learning outcomes. These specifications were meant to address the assessment review panel’s desire to safeguard the content of the commentaries while achieving the balance of measured skills described by the video committee.

- Retain holistic scoring while ensuring that rubrics describe directly observable and measureable elements of performance.

Finally, creating a modified set of scoring guidelines—holistic, yet descriptive in terms of behavioral strategies—would maintain consistency in the assessment’s scoring model while further sharpening the careful observation of candidate performance.

With the help of experts and stakeholders, the National Board produced a finely tuned measurement for the evaluation of teaching practice as it impacts student learning. Adding precision to the collection of evidence will increase the efficiency of candidate submissions and scorer analysis while supporting the development of sound inferences and meaningful decisions about instructional strategies and techniques. The component will encourage educators to focus their time and attention on significant aspects of their teaching practice. The National Board believes that the redesigned structure of Component 3 will positively impact the rigor of the certification process and the quality of student instruction.

**Why are these changes important?**

The National Board looks to the future with excitement thanks to the improvements it has made in the multidimensional evaluation of teaching practices and the promise this holds for the professionalization of preK-12 teaching. It was the National Board’s aim to inform the precision with which the educational field measures effective classroom instruction while advancing the Standards written by accomplished teachers. Through the generous support of the Bill & Melinda Gates Foundation and the insightful contributions of experts and stakeholders, the National Board has achieved the primary goals of the redesign process: to incorporate new research, meet the professional needs of preK-12 educators, and increase participation in National Board Certification within schools and districts across our nation. While augmenting the quality and rigor of the assessment, the National Board has made the pursuit of certification as flexible and affordable as possible so teachers can participate in growing numbers. Earning Board certification inspires educators to improve their professional skills so they can foster student learning and achievement, it helps the field recognize teachers who serve as leaders and models of excellence, and it thereby promotes professional standards for the educational field as a whole. The National Board is dedicated to supporting educators in this critical mission.
Endnotes

1. The lead authors of this brief are Susan Lopez Bailey, PhD, Educational Writer at Sulobee Consulting, Inc.; Carol Ezzelle, PhD, Director, Psychometrics, at the National Board for Professional Teaching Standards; Kristin Hamilton, NBCT, Senior Director, Standards; Trey Clifton, Vice President, Assessment; and Lisa Stooksberry, EdD, Senior Vice President, Standards and Assessment.


4. In 2010, the National Board assembled leaders in education evaluation, research, and policy to build our understanding of how teachers are assessed in a new era of school improvement. This Student Learning, Student Achievement Task Force participated in a series of conversations, shared their collective knowledge, and recommended how the National Board could strengthen its work in this area while continuing to serve as a leading source of information for the field. The full report, “Student Learning, Student Achievement: How Do Teachers Measure Up?” can be found at http://files.eric.ed.gov/fulltext/ED517573.pdf.

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