A Case Study of NT3 Implementation in Four Pilot Districts

OCTOBER 2018

Scott Houghton | Natalya Gnedko-Berry | David Gorsky | Shannon Keuter | Suzette Chavez
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# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>vi</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Methods</td>
<td>2</td>
</tr>
<tr>
<td>Participants</td>
<td>2</td>
</tr>
<tr>
<td>Data Sources</td>
<td>3</td>
</tr>
<tr>
<td>Analysis</td>
<td>5</td>
</tr>
<tr>
<td>Findings</td>
<td>6</td>
</tr>
<tr>
<td>District A</td>
<td>9</td>
</tr>
<tr>
<td>Setting</td>
<td>9</td>
</tr>
<tr>
<td>Process for Choosing Change Ideas</td>
<td>10</td>
</tr>
<tr>
<td>Specific Change Ideas and Activities</td>
<td>11</td>
</tr>
<tr>
<td>Implementation</td>
<td>20</td>
</tr>
<tr>
<td>Successes and Challenges of Implementation</td>
<td>21</td>
</tr>
<tr>
<td>Teacher Experience of NT3</td>
<td>22</td>
</tr>
<tr>
<td>Conclusion</td>
<td>26</td>
</tr>
<tr>
<td>District B</td>
<td>28</td>
</tr>
<tr>
<td>Setting</td>
<td>28</td>
</tr>
<tr>
<td>Process for Choosing Change Ideas</td>
<td>28</td>
</tr>
<tr>
<td>Specific Change Ideas and Activities</td>
<td>29</td>
</tr>
<tr>
<td>Implementation</td>
<td>35</td>
</tr>
<tr>
<td>Successes and Challenges of Implementation</td>
<td>35</td>
</tr>
<tr>
<td>Teacher Experience of NT3</td>
<td>37</td>
</tr>
<tr>
<td>Conclusion</td>
<td>41</td>
</tr>
<tr>
<td>District C</td>
<td>42</td>
</tr>
<tr>
<td>Setting</td>
<td>42</td>
</tr>
</tbody>
</table>
A Case Study of NT3 Implementation in Four Pilot Districts

Process for Choosing Change Ideas ................................................................. 43
Specific Change Ideas and Activities .............................................................. 43
Implementation ............................................................................................... 49
Successes and Challenges of Implementation .................................................. 49
Teacher Experience of NT3 ............................................................................. 51
Conclusion ......................................................................................................... 54

District D ............................................................................................................. 56
Setting .................................................................................................................. 56
Process for Choosing Change Ideas ................................................................. 56
Specific Change Ideas and Activities .............................................................. 57
Implementation ............................................................................................... 65
Successes and Challenges of Implementation .................................................. 66
Teacher Experience of NT3 ............................................................................. 66
Conclusion ......................................................................................................... 69

Appendix A: Cross-District Summary of Change Ideas and Activities .......... 71
Appendix B: Elements of the BoK That Affected Teachers’ Growth .......... 73

Tables

Table 1. Demographic and Size Details of Four Case Study Districts ................. 3
Table 2. Data Sources Across Case Study Districts ........................................... 4
Table 3. NT3 Driver Diagram and the Drivers From Which Change Ideas Were Chosen Across Districts and Schools ......................................................... 7
Table 4. Summary of Reasons for Choosing Change Ideas and Activities .......... 12
Table 5. Reasons for Dropping Change Ideas Across Schools ........................... 19
Table 6. Do You Feel Your Engagement With the National Board’s Accomplished Teaching Body of Knowledge Has Had an Impact on Your Professional Growth as an Educator? ................................................................. 23
Table 7. Themes of Professional Growth by Element of the BoK Identified .......... 23
Table 8. Do You Intend to Pursue National Board Certification? ....................... 25
Table 9. Summary of Reasons for Choosing Change Ideas and Activities .................................................. 30
Table 10. Do You Feel Your Engagement With the National Board’s Accomplished Teaching Body of Knowledge Has Had an Impact on Your Professional Growth as an Educator? ......................................................................................................................................................................................... 38
Table 11. Themes of Professional Growth by Element of the BoK Identified ........................................... 38
Table 12. Do You Intend to Pursue National Board Certification? .............................................................. 40
Table 13. Summary of Reasons for Choosing Change Ideas and Activities .............................................. 44
Table 14. Do You Feel Your Engagement With the National Board’s Accomplished Teaching Body of Knowledge Has Had an Impact on Your Professional Growth as an Educator? ......................................................................................................................................................................................... 51
Table 15. Themes of Professional Growth by Element of the BoK Identified ........................................... 51
Table 16. Do You Intend to Pursue National Board Certification? .............................................................. 53
Table 17. Summary of Reasons for Choosing Change Ideas and Activities .............................................. 58
Table 18. Reasons for Dropping Change Ideas Across Schools ............................................................... 65
Table 19. Do You Feel Your Engagement With the National Board’s Accomplished Teaching Body of Knowledge Has Had an Impact on Your Professional Growth as an Educator? ......................................................................................................................................................................................... 67
Table 20. Themes of Professional Growth by Element of the BoK Identified ........................................... 67
Table 21. Do You Intend to Pursue National Board Certification? .............................................................. 68
Executive Summary

In 2013, the National Board for Professional Teaching Standards (NBPTS, or National Board) launched the Network to Transform Teaching (NT3), which currently includes a consortium of 11 sites (nine states and two school districts). NT3 seeks to improve students’ learning outcomes by increasing their access to accomplished teachers. It advances this goal by:

- Increasing the number of educators pursuing National Board certification.
- Increasing the number of National Board Certified Teachers (NBCTs) in instructional leadership roles.
- Increasing the number of novice teachers developing into accomplished teachers.

NT3 is implemented in two ways in participating sites: a systems-level approach, in which state and district stakeholders work to advance structures, policies, and practices to accomplish NT3 aims; and a school- and district-level approach, in which participating sites pilot this work through pilot districts and schools (50 districts, 130 schools). This report focuses on the school- and district-level approach.

To facilitate sites’ ability to implement the school- and district-level approach, NBPTS provides a menu of policy and practice change ideas in a document called the NT3 driver diagram (presented in Table 3 on pages 7-8). This document identifies broad primary drivers, or high-level goals, each of which contains more specific secondary drivers. Change ideas are organized into these secondary drivers. NT3 participants can choose which change ideas to implement, based on the needs of their pilot schools and districts. The change ideas have two overarching goals: (1) establish the National Board’s Accomplished Teaching Body of Knowledge (BoK) as the guide for professional development (PD), and (2) incorporate pursuit of National Board certification and leadership by NBCTs as expected steps along the professional continuum.

To deepen NBPTS’s understanding of how pilot schools and districts are carrying out the NT3 work, American Institutes for Research (AIR) conducted a case study of select participants in four districts (named Districts A–D for the sake of anonymity). NBPTS and AIR purposely selected these districts to represent a range of settings, varying by location, district size, and student demographics. In these districts, 21 schools implemented NT3. AIR conducted interviews and surveys with teachers and administrators at participating schools and districts. We used these data to explore how participants selected change ideas, what implementation activities they chose, the perceived successes and challenges of the initiative, and participants’
views about the BoK and the pursuit of National Board certification. In the following sections, we present the main findings that emerged from the study.

**NT3 Strategy and Implementation**

**Selecting change ideas.** All four districts reported that their approach to selecting change ideas was to align NT3 strategy with existing district or school initiatives. The purpose of this approach was to minimize the amount of new initiatives for teachers to manage, enhance existing practices while infusing them with the BoK, and take what they are already pursuing “to a deeper level.”

**Specific change ideas and activities.** District and pilot school reasons for selecting change ideas—and the activities associated with these change ideas—are summarized within each district study and summarized across districts in Appendix A. In short, pilot districts and schools:

- Aimed to establish an expectation of accomplished teaching by aligning existing district frameworks and state standards with the BoK, and by providing support for pursuing National Board certification.
- Facilitated “public teaching practice” goals by instituting peer and ATLAS (Accomplished Teaching, Learning and Schools) observations and taking measures to regularly examine student work with peers.
- Promoted teacher leadership by creating instructional leadership teams, leadership development opportunities, and leadership pathways.
- Incorporated the BoK into PD opportunities and ensured teachers had time to collaborate.

**Implementation Successes and Challenges**

**Experience of the Networked Improvement Community (NIC).** Participation in NT3 includes participation in a NIC, the purpose of which is to foster learning across sites. All four districts included in the case study found that the NIC helped with implementing the pilot work by allowing them to learn from other sites. They reported that they valued hearing about other sites’ strategies, speaking with other districts pursuing similar strategies, learning about mistakes to avoid, talking through shared challenges, and seeing how other sites were applying and using the NT3 funds. Representatives from Districts A and B noted that differences in district characteristics (e.g., size) made applying lessons across sites more challenging.

**NT3 successes from the district perspective.** Leaders from Districts A and B shared that NT3 helped set an expectation that all teachers would become accomplished and provided “an
aspirational vision of where we want to be as a profession.” A leader from District A explained that this vision inspired a system of activities that centered around accomplished teaching and promoted the pursuit of National Board certification, which they believed had increased the number of teachers pursuing certification.

District representatives further explained that the initiative helped to establish a common language or focus across sites (Districts A, B, and D), which helped to promote productive dialogue across schools. Representatives also frequently described ways in which NT3 enhanced existing initiatives in their districts (A, C, and D). For example, they found that the initiative “catapulted” their school improvement work, strengthened their PD framework (Instructional Core), and helped to align the BoK with K–12 science content standards, which improved instructional practices.

**NT3 successes from the school perspective.** District and school representatives mentioned several ways in which NT3 provided value to schools:

- Representatives from schools in each district (A, B, C, and D) reported observing improvement in instruction, such as more reflective teaching, implementation of accomplished teaching practices, learning to observe a classroom objectively, using data to design instruction, examining student data more regularly, trying new instructional practices, and using more effective interventions.

- Representatives from schools in each district (A, B, C, and D) cited either more frequent or improved collaboration in the pilot schools, including more meaningful opportunities for teachers to observe and analyze accomplished teaching, leading to department cultures that feel like a community.

- Representatives from each district (A, B, C, and D) described engagement with the BoK in pilot schools as a success. Teachers embedded accomplished teaching into instructional practices, engaged with the BoK through collaboration and observation, and used BoK resources (e.g., Five Core Propositions). This reportedly improved instruction and gave teachers confidence in their readiness to pursue certification.

- Two districts (A and B) reported improved PD in their schools, including more meaningful meetings, as well as opportunities to reflect, ask questions, gain confidence, and grow.

- Two districts (B and D) said that NT3 grant funding supported NT3 implementation.

**Challenges implementing NT3.** District and school representatives from three districts (A, B, and C) indicated that it was challenging to get NT3 started. For example, three schools (from
District C) and a district that joined the initiative at least a year later than its counterparts (District A) found that it was difficult playing catch-up or understanding where to begin. Representatives also reported getting started as a challenge, because it was difficult to know how to measure success (District B), start working on change ideas (Districts A and B), or feel comfortable in a new NT3 role (District A). Faced with competing demands, school representatives frequently mentioned that it was challenging for teachers to find time for the initiative (Districts A, B, and D), including finding time for the NT3 school team to meet and plan together, as well as time for other teachers to meet to examine student data and develop units of study. Two districts (B and C) experienced challenges with teacher buy-in, as some teachers were wary of engaging in what they perceived to be “another initiative” among many. Some also reacted skeptically to the National Board because of the perception that they might be pressured to pursue candidacy.

Teacher Experience of NT3

In addition to learning about the implementation of NT3 strategies from the perspective of NT3 teams, we were interested to understand teachers’ experience of the initiative in pilot schools.

**Engagement with the BoK and professional growth.** Across districts, teachers who engaged with the BoK most frequently reported that this engagement had an impact on their professional growth (42–80%), including a majority in three of four districts (with N/A representing 39% in the fourth district). We asked the teachers who reported professional growth to identify the specific elements of the BoK that affected their growth. They most frequently cited collaboration with colleagues (frequent in Districts A, B, C, and D)—including professional learning communities (PLCs), observations, co-teaching, or instructional rounds—as well as the Five Core Propositions (frequently cited in Districts A and D). Teachers often explained that engaging with the BoK:

- Helped them to be more attuned to their students’ specific needs (e.g., adjusting instruction based on individual needs).
- Supported instructional growth by offering specific instructional strategies and promoting reflective practice.
- Enhanced teacher collaboration and the opportunity to learn from their colleagues.

**Reasons for pursuing or not pursuing certification.** NBCTs and teachers pursuing certification (active candidates) generally said that they chose to pursue certification for professional growth reasons, such as “improving their practice.” Those who reported that they intend to pursue
certification in the future similarly mentioned opportunities for professional growth as an incentive; a smaller number cited salary increases. Teachers who reported that they do not intend to pursue certification, or that they intend to delay certification, most frequently cited the time commitment as a barrier, often noting family or teaching obligations. Some teachers cited cost and others cited imminent retirement as reasons for not pursuing certification.

**Pursuing certification and professional growth.** Nearly all NBCTs and active candidates indicated that participation in the certification process had affected their professional growth. Respondents from each district reported that the experience helped them to be more reflective in their practice, as the certification process supported them to be more thoughtful about lesson planning, employ data-driven practices, and think more deeply about students’ needs.
Introduction

In 2013, the National Board for Professional Teaching Standards (NBPTS, or National Board) launched the Network to Transform Teaching (NT3). This began as a consortium of six sites (four states and two public school districts) and grew to 11 sites (nine states and two public school districts): Alabama, Arizona, Illinois, Kentucky, Nevada, North Carolina, New Mexico, New York, Washington, Clark County School District, and San Francisco Unified School District.

The goal of NT3 is to improve student access to accomplished teachers by:

- Increasing the number of educators pursuing National Board certification.
- Increasing the number of National Board Certified Teachers (NBCTs) in instructional leadership roles.
- Increasing the number of novice teachers developing into accomplished teachers.

Participating sites also engage in shared learning through a Networked Improvement Community (NIC).

NT3 is implemented through two approaches in participating sites: a systems-level approach, in which state and district stakeholders work to advance structures, policies, and practices to accomplish NT3 aims; and a school- and district-level approach, in which sites pilot the work through pilot districts and schools (50 districts, 130 schools; some have participated in the initiative for 2 years, others for 1 year). Participating sites were instructed to select pilot districts with stable leadership, labor/management cooperation, positive working environments for both teachers and principals, individuals excited about change, and a demonstrated interest in incorporating National Board certification into teachers’ work. They were instructed to select at least one district that serves a significant proportion of high-need students. This report focuses on the school- and district-level approach.

Each pilot district has a district-level team that focuses on district strategy and implementation and each pilot school has a team that focuses on school-level strategy and implementation. To enhance implementation practices, pilot district team leaders are required to attend two annual learning sessions on NT3 practices and strategies, as well as virtual network meetings with other states and districts, and meetings approximately every 6 weeks with NT3 hub staff and other districts in their state to report on progress and share lessons learned.
To facilitate strategy development within pilot district and school teams, the National Board provides a menu of policy and practice change ideas in a document called the NT3 driver diagram (presented in Table 3 on pages 7-8). The document identifies broad primary drivers, or high-level goals, each of which contains more specific secondary drivers. Change ideas are organized into these secondary drivers. NT3 participants can choose which change ideas to implement, based on their school and district needs. The change ideas have two overarching goals: (1) establish the National Board’s Accomplished Teaching Body of Knowledge (BoK) as the guide for professional development (PD), and (2) incorporate pursuit of National Board certification and leadership by NBCTs as expected steps along the professional continuum. The school driver diagram was initially presented to pilot schools in 2016–17 and refined in September 2017, when some change ideas were dropped, revised, or condensed. We use the language and structure of the 2017–18 driver diagram in this report, unless otherwise specified.

To deepen NBPTS’s understanding of how pilot schools and districts are carrying out the NT3 work, American Institutes for Research (AIR) conducted an implementation study, which included an in-depth case study of pilot districts and schools. This report summarizes the results of this study, following a section on the study’s methodology.

**Methods**

AIR used a case study approach to capture how schools and districts make choices to pursue certain types of policy and practice changes at the local level using the NT3 driver diagram, and to identify contextual factors that interacted with their decision making. The case study focuses on a group of schools and districts participating in NT3, the selection of which is described in the following section on participants.

**Participants**

AIR and the National Board purposefully selected 21 schools within four districts for the study to examine implementation across a range of settings. Selection was based on achieving variation in geographic location, district size, and student demographics, as shown in Table 1.
Table 1. Demographic and Size Details of Four Case Study Districts

<table>
<thead>
<tr>
<th>District</th>
<th>Region</th>
<th>District Size</th>
<th>District Student Demographics</th>
<th>Pilot Schools</th>
</tr>
</thead>
</table>
| A        | Southeast  | 7 schools 211 teachers | • 48% White, 13% African American, 6% Asian, 26% Hispanic, 7% Other  
 • 13% students with disabilities  
 • 9% limited English proficiency | • 3 elementary schools  
 • 6 NBCTs  
 • 5 active candidates |
| B        | West Coast | 136 schools 3,582 teachers | • 35% Asian, 27% Latino, 15% White, 7% African American, 5% Filipino  
 • 11% students in special education  
 • 29% English language learners  
 • 55% socioeconomically disadvantaged | • 2 elementary schools, 1 K–8 school, 3 middle schools  
 • 18 NBCTs  
 • 23 active candidates |
| C        | Southwest  | 358 schools 18,967 teachers | • 46% Hispanic, 25% White, 14% African American, 7% Multiracial, 6% Asian  
 • 25% English language learners  
 • 12% students in special education  
 • 64% eligible for free and reduced-price lunch | • 2 elementary schools, 3 middle schools, 2 high schools, 1 career/technical school  
 • 9 NBCTs  
 • 61 active candidates |
| D        | Midwest    | 9 schools 355 teachers | • 49% African American, 29% Hispanic, 20% White, 4% Other  
 • 12% students with disabilities  
 • 14% limited English proficiency | • 3 primary schools, 1 elementary school  
 • 0 NBCTs  
 • 10 active candidates |

Note: An “active candidate” is a teacher who is actively pursuing certification. Pilot school NBCT and active candidate numbers are taken from the 2017–18 roster data.

Data Sources

Interviews with NT3 teams. To understand how NT3 teams selected and implemented NT3 strategies, we conducted interviews with (and in some cases collected email responses from)
district and pilot school NT3 team representatives. Prior to the interviews, we collected documents to inform our understanding of each site’s approach, including driver diagrams, which provided a list of each team’s change ideas. The interviews were conducted by phone, typically lasted an hour, and were semi-structured, with a portion of the interview devoted to discussing each individual change idea. We generally interviewed the district sponsor and improvement lead to understand implementation at the district level, as well as the principals in each pilot school, who represented the school-level NT3 teams. If we needed more information, we followed up with other pilot school team members.

**Documents.** We requested documents that provided insight into the activities being implemented in the pilot school districts or schools. We collected these documents to inform our interview protocols as well as our case study more generally. Documents we received included meeting agendas, observation templates, and PD PowerPoint presentations.

**Teacher data.** To understand teacher perspectives, we collected and analyzed open-ended responses to questions from the implementation survey about reasons for pursuing or not pursuing National Board certification, and about teachers’ professional growth in relation to engagement with the BoK and the pursuit of National Board certification. The overall survey response rate was roughly 60%. We also conducted short, semi-structured interviews with teachers across sites (with some responses submitted by email where necessary) about professional growth and reasons for pursuing or not pursuing National Board certification. AIR identified two samples of teachers and conducted repeated outreach (three times over three weeks), but interview response rates were relatively low (15%). While data from interviews are included in this analysis, the majority of the analysis is based on survey data.

**Table 2. Data Sources Across Case Study Districts**

<table>
<thead>
<tr>
<th>District</th>
<th>Interviews With NT3 Teams</th>
<th>Documents</th>
<th>Teacher Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>January–February 2018:</td>
<td>District:</td>
<td>April–June 2018:</td>
</tr>
<tr>
<td></td>
<td>• District sponsor</td>
<td>Related to: PD, observations,</td>
<td>• 3 interviews</td>
</tr>
<tr>
<td></td>
<td>• Improvement lead</td>
<td>leadership development and</td>
<td>(1 by email)</td>
</tr>
<tr>
<td></td>
<td>• 3 school principals</td>
<td>mentor training, and activities</td>
<td>• 74 open-</td>
</tr>
<tr>
<td></td>
<td>• School team member (by email)</td>
<td>promoting NBCTs</td>
<td>ended survey</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Including: PowerPoint</td>
<td>responses</td>
</tr>
</tbody>
</table>
### Analysis

#### Interviews with NT3 teams
For each district, we looked across the schools and district to identify themes within the broader structure of primary and secondary drivers. We used NVivo to analyze data and identify themes within each interview question. For details about each change idea, we generally summarized responses at the secondary driver level based on the conceptual fit, and to provide a broader synthesis of findings.

#### Documents
We reviewed district-level documents to ask informed questions about district and school approaches to implementation. We also reviewed the documents to incorporate examples about implementation strategies discussed by interviewees.

#### Teacher data
In our analysis of open-ended responses about pursuit of National Board certification and professional growth, we typically examined the data by respondent type: current NBCT; active candidate (in pursuit of certification); early career teacher (in the first 3 years of teaching); or non-candidate/non-certified teacher (not an NBCT, active candidate, or
early career teacher). We coded the open-ended responses in Excel by theme within these respondent type categories. We also coded interview responses from teachers and incorporated them within the themes that emerged from the open-ended survey analysis.

Findings

In the following sections, we summarize results for all four case studies (Districts A–D). In each case study, we describe the district’s NT3 experience across six primary sections:

- **Setting** – Describes NT3 district and school teams and how they selected change ideas.
- **Change Ideas and Activities** – Provides a summary of the reasons for choosing change ideas and implementation activities, followed by further description of the activities.¹
- **Implementation** – Includes sub-sections that describe changes in implementation across years, the use of improvement science, and experiences of the NIC.
- **Successes and Challenges** – Describes district- and school-level successes and challenges.
- **Teacher Experience of NT3** – Includes sub-sections that describe teachers’ engagement with the BoK, intentions to pursue National Board certification, and professional growth associated with pursuing certification.
- **Conclusion** – Summarizes the case study.

Throughout each case study, we examine change ideas based on the primary and secondary drivers in the 2017-18 driver diagram. While we use this as an organizing structure, note that participants also discussed the 2016–17 change ideas at various points during the interviews. Table 3 presents the driver diagram, along with a column indicating which case study district and schools selected change ideas that fall under the corresponding secondary driver.

¹ Given that a large number of change ideas needed to be discussed in a limited amount of time in interviews, Districts B, C, and D primarily described the activities implemented, without as much discussion of the perceived results. District A provided more of this discussion. Each district, however, discussed the successes and challenges of implementation more broadly.
<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Change Ideas</th>
<th>Districts Choosing Change Ideas</th>
</tr>
</thead>
</table>
| 1. High Professional Teaching Standards | (A) Integration of Accomplished Teaching | 1A1: Develop a plan for school where accomplished teaching, becoming Board certified, and continuously improving are the norm. 1A2: Create and introduce crosswalk between the accomplished teaching body of knowledge and local/state teaching framework(s). | A: D, S1, S2, S3  
B: D, S1  
C: D, S1, S2, S3, S4, S5, S6, S7, S8  
D: D, S1, S2, S3 |
| | (B) Pursuit of Board Certification | 1B1: Encourage current instructional leaders to pursue Board certification in relevant certificate areas. 1B2: Anchor professional growth plans in pursuit of accomplished teaching and Board certification. 1B3: Candidates use collaborative professional learning time to work on pursuit of Board certification. | A: D, S2  
B: D, S1, S2  
C: D, S1, S2, S3, S5, S6, S7, S8  
D: D, S1, S2 |
| 2. Public Teaching Practice | (A) Observation and Analysis of Teaching | 2A1: Observe accomplished teaching via video cases (ATLAS). 2A2: Observe teaching of peers (lesson study, instructional rounds) to understand the features of accomplished teaching. 2A3: Use tools anchored in the accomplished teaching body of knowledge to analyze observations. | A: None  
B: D, S1, S2, S3, S4, S5, S6  
C: S1, S2, S3, S4, S5, S6, S7, S8  
D: S1, S2, S3, S4 |
| | (B) Evidence of Student Learning | 2B1: Develop routines for examining student work in professional learning communities and department/grade-level meetings. 2B2: Use protocols for examining student work that are aligned with the accomplished teaching body of knowledge. | A: None  
B: D, S1, S2, S3, S4, S5, S6  
C: S1, S2, S5, S7  
D: S1, S2, S4 |
| 3. Distributed and Shared Ownership | (A) Instructional Leadership Processes | 3A1: Create a schoolwide instructional leadership team. 3A2: Create a schoolwide professional learning plan aligned with student learning goals. | A: None  
B: D, S5  
C: S1, S2, S4, S6, S7  
D: S4 |
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<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Change Ideas</th>
<th>Districts Choosing Change Ideas</th>
</tr>
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</table>
| (B) Accomplished Teachers Supported to Become Skillful Leaders | (A) Professional Learning Anchored in the Body of Knowledge                     | 3B1: Leverage the expertise of accomplished teachers to lead professional development.  
3B2: Provide ongoing, role-specific, skills-based professional learning for instructional leaders.  
3B3: Develop feedback processes for professional growth of instructional leaders.  
3B4: Incorporate Board certification as a selection criterion for instructional leadership roles. | A: D, S1  
B: D, S3, S4  
C: D, S1, S2, S3, S5, S6, S7, S8  
D: S1, S2, S4 |
| (B) Job-Embedded Collaborative Learning     | (B) Culture of Learning/Risk Taking                                               | 4B1: Develop and apply norms to support learning and risk taking.  
4B2: Develop and use protocols to foster and reflect upon collaboration. | A: None  
B: D, S1, S2, S3, S4, S5, S6  
C: S1, S2, S5, S7, S8  
D: S1, S4 |
| (C) Dedicated Learning Time                |                                                                                  | 4C1: Structure opportunities for candidates to collaborate on their pursuit with school/district peers.  
4C2: Create time in a school day for teachers to collaborate.  
4C3: Professional learning schedule used for teacher collaboration. | A: S1  
B: S1, S2, S4, S5  
C: S1, S5, S6, S7, S8  
D: S1, S2, S4 |

Note: In the “Districts Choosing Change Ideas” column, for each district (A–D), a “D” indicates that the district chose change ideas within this secondary driver, and any schools that did so are listed by number (e.g., “S1” for school 1, “S2” for school 2).
District A

Setting

District A is a district with seven schools, including three pilot schools. District A selected three elementary schools as NT3 pilot sites for two main reasons. First, the implementation lead was an instructional coach in one school and worked with the instructional coaches in two other schools, and district leadership reasoned that this relationship might enhance these schools’ receptivity to implementing NT3 strategies. Second, these schools were selected because fewer teachers in the elementary schools were NBCTs; through the NT3 pilot, District A intended to inspire more teachers in all elementary schools to pursue National Board certification.

District A began work on the NT3 initiative in February 2017—over a year after other pilot schools. To begin NT3 work, the district sponsor, improvement lead, and each pilot school NT3 team received 2 days of training from the NBPTS NT3 team. They began implementing the initiative after the October learning session, at which they gained a deeper sense of their roles.

NT3 District and School-Based Teams

District team. The district-level NT3 team consists of four members: the district sponsor, the improvement lead, and two additional members. The district sponsor serves as chief academic officer for the district and oversees all K–12 curricular programs. In her role as district sponsor for NT3, she handles the grant’s budget, works with the improvement lead to choose the district change ideas, and communicates with district leadership to receive feedback on the selected change ideas. She has also been involved in district-level implementation, including leading the mentor trainings and teacher leadership cohort.

The improvement lead is an instructional coach in a pilot school, where she supports teachers to implement the curriculum. In her role as improvement lead, she works with the district sponsor to develop and implement district strategy, identify supporting resources, and discuss pilot school implementation. She works closely with pilot schools through two types of meetings: (1) regular strategy meetings with each school’s NT3 team, in which she discusses change ideas, makes school-level plans, guides the implementation process, assists with surveys, asks how the district can support the work, and shares ideas from other pilot schools; and (2) weekly “vertical meetings” with all instructional coaches, focused on professional learning community (PLC) planning, including practices and resources aligned with the BoK.
Two other district staff support NT3 implementation. The district’s assistant director of exceptional children leads National Board candidate support for the district and helps to encourage teachers to pursue certification. The director of K–8 curriculum instruction supports the team as a thought partner.

**Pilot school teams.** Each pilot school has an NT3 team that helps to select change ideas and implement the corresponding activities in the school. Each team consists of three members: the school’s principal and two teachers who are either NBCTs or teachers identified by the administration as strong candidates to pursue National Board certification. They meet monthly with the improvement lead to discuss change idea progress and plan ongoing activities. They also meet at the beginning and end of each school year across pilot schools to share ideas.

In all three pilot schools, the principals explained that their role is to be a member of the NT3 planning team, and to then carry out the activities that are assigned to them, which may draw on their capacity as an instructional leader in the school. Principals’ tasks included leading the Instructional Core trainings in their school, coordinating co-teaching opportunities, organizing the master schedule, or ensuring teachers have time to implement NT3 activities. In one pilot school, the principal joined the school in 2017–18 so has mostly focused on learning about the change ideas and strategies taking place in the school.

**Process for Choosing Change Ideas**

**Choosing district change ideas.** To select the district-level change ideas, the district sponsor and improvement lead started by examining the district’s improvement plan and strategic plan, as well as their gaps in achieving them, to help determine the strategies they wanted to pursue. In some cases, they chose to enhance existing practices while infusing them with a focus on accomplished teaching. In other cases, they selected new activities. The district used the 2016–17 school driver diagram to guide their change ideas in both the 2016–17 and 2017–18 school years. A representative said they had chosen their change ideas for the 2016–17 school year in April 2017, which informed principals’ planning with staff over the summer. They largely kept these same change ideas in the 2017–18 school year, rather than switch to the new diagram.

**Choosing pilot school change ideas.** Upon receiving the grant in 2016–17, the district sponsor, improvement lead, and each pilot school NT3 team participated in a 2-day training with NBPTS in which they reviewed the Five Core Propositions and identified the change ideas they hoped to pursue over the next year. To identify priorities, the improvement lead provided schools with a rubric to rate where they stood as a school on different indicators. Schools prioritized their strategy based on school needs, leveraging existing practices and aligning with their school’s
improvement plan. After implementing the 2016–17 strategies for part of a year, each pilot school team engaged in a planning day in which they determined which change ideas to continue, remove, or add for 2017–18. The improvement lead guided each team through a process of reflecting on progress. One school (school 1, or S1), for example, decided to adjust their expectations and focus on what they could realistically accomplish in the second year. The improvement lead continues to review school progress reports with school leads and meets with each school monthly to continue discussions about progress.

District and Pilot School Alignment

The main district goal in its NT3 work is to build “awareness, understanding, and common language” about accomplished teaching in all schools in the district. For example, the district has integrated the BoK into the Instructional Core Framework, which is presented to all schools in the district. The pilot schools have taken a “much deeper dive” into understanding accomplished teaching than other schools in the district, with a stronger emphasis on observing accomplished teaching. The district has driven much of the NT3 strategy in which the pilot schools participate, and the relatively small size of the district has helped support strategic alignment. The district transmits strategies to pilot schools through “vertical meetings” that align professional learning with the BoK, as well as through strategy meetings between the improvement lead and pilot NT3 teams. The pilot school NT3 teams also develop their own strategies in some cases and implement district-level strategies in different ways, depending on the school’s instructional focus. Principals from all three schools praised the support provided by the district for NT3 and did not identify any areas in which they could use more support.

Specific Change Ideas and Activities

In this section, we explore why the district and pilot schools selected their chosen change ideas, as well as the related activities that they pursued. We examine these change ideas and activities based on the 2017–18 driver diagram structure. Because District A only used the 2016–17 change ideas, we conceptually fit these change ideas into the 2017–18 driver diagram structure. Table 4 summarizes the reasons for choosing change ideas within each driver and the activities that are associated with these change ideas and drivers.
## Table 4. Summary of Reasons for Choosing Change Ideas and Activities

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Reasons for Choosing Change Ideas</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. High Professional Teaching Standards</strong></td>
<td>(A) <strong>Integration of Accomplished Teaching</strong></td>
<td>• Ensure accomplished teaching is the expectation for all.</td>
<td>• Incorporate the BoK into <a href="#">Instructional Core Framework</a> and training.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Believe accomplished teaching is good teaching regardless of pursuing certification.</td>
<td>• Create <a href="#">districtwide planning days</a> for teachers to plan for the year with attention to the BoK.</td>
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<td></td>
<td></td>
<td>• Aligned with school improvement plan.</td>
<td>• <strong>PLCs</strong> focused on accomplished teaching.</td>
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<td></td>
<td></td>
<td>• Clarify how closely related BoK is with what already doing, promote buy-in.</td>
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<td></td>
<td>(B) <strong>Pursuit of Board Certification</strong></td>
<td>• Celebrate NBCTs and support candidates as they pursue certification.</td>
<td>• Promote NBCTs and certification through the <a href="#">Staff of the Year Banquet</a> and posters.</td>
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<td></td>
<td></td>
<td>• Encourage accomplished teachers to demonstrate proficiency through certification.</td>
<td>• Support the pursuit of certification through <strong>financial and mentor support</strong>.</td>
</tr>
<tr>
<td><strong>2. Public Teaching Practice</strong></td>
<td>(A) <strong>Observation and Analysis of Teaching</strong></td>
<td>• Provide opportunities for teachers to see models of accomplished teaching.</td>
<td>• <strong>Instructional rounds</strong> and conversations grounded in the BoK.</td>
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<td></td>
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<td></td>
<td>• <strong>Co-teaching</strong> with accomplished teachers.</td>
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<td>• <strong>ATLAS observations</strong> and discussions in PLCs.</td>
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<td></td>
<td>• <strong>Recording own teaching</strong> to analyze and discuss.</td>
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<td></td>
<td></td>
<td></td>
<td>• <strong>Beginning teacher modules</strong> focused on accomplished teaching.</td>
</tr>
<tr>
<td>Primary Driver</td>
<td>Secondary Driver</td>
<td>Reasons for Choosing Change Ideas</td>
<td>Activities</td>
</tr>
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<tr>
<td>3. Distributed and Shared Ownership</td>
<td>(B) Accomplished Teachers Supported to Become Skillful Leaders</td>
<td>• Cultivate teacher leadership and train mentors in the language of accomplished teaching.</td>
<td>• <strong>Teacher leadership cohort</strong> centered around the BoK.</td>
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<td></td>
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<td></td>
<td>• <strong>Mentor training</strong> with an emphasis on accomplished teaching.</td>
</tr>
<tr>
<td>4. Job-Embedded Collaborative Learning</td>
<td>(A) Professional Learning Anchored in the Body of Knowledge</td>
<td>• Develop deep understanding of accomplished teaching.</td>
<td>• Incorporate the BoK into <strong>Instructional Core Framework</strong> and training.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Young school staff needed focused instructional support.</td>
<td>• Create <strong>districtwide planning days</strong> for teachers to plan for the year with attention to the BoK.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Could strengthen existing activities and use them to incorporate accomplished teaching.</td>
<td>• <strong>PLCs</strong> focused on accomplished teaching.</td>
</tr>
<tr>
<td></td>
<td>(C) Dedicated Learning Time</td>
<td>• Make scheduling a priority because teacher collaboration is so valued.</td>
<td>• Incorporated <strong>common planning time</strong> and NT3/leadership meetings into master schedule.</td>
</tr>
</tbody>
</table>
Activities Pursued After Choosing Change Ideas

Below, we describe the implementation of the above activities, organized by secondary driver.

1A. Integration of accomplished teaching. All three schools and the district selected change ideas related to the integration of accomplished teaching. This inspired integration of the BoK into the Instructional Core Framework and training, districtwide planning days, and PLCs.

Instructional Core Framework and training. The district is in the second year of a 3-year districtwide implementation of the Instructional Core Framework—a PD on instructional strategies and structures. Instructional Core trainings take place monthly and are implemented through a train-the-trainer model, in which the district sponsor presents to lead teachers, principals, assistant principals, and instructional coaches, who present to teachers.

Following the introduction of the NT3 initiative, the training presentation now defines accomplished teaching, presents the Five Core Propositions, and explores the intersection between the Instructional Core Framework and the Architecture of Accomplished Teaching (AAT). To start the second year of NT3, the district added an additional presentation for teachers focused on accomplished teaching and the Instructional Core.

District representatives said that integrating the Instructional Core and the BoK:

- Helped teachers understand how they are already practicing accomplished teaching.
- Increased teachers’ understanding of the Instructional Core and the BoK.
- Helped lead teachers to grow as teacher leaders.
- Contributed to more teachers pursuing National Board certification (from three to 18 candidates in 1 year).
- May have contributed to substantial increases in test scores in the district.

Districtwide planning days. Launched as an NT3 strategy, all elementary teachers from the three pilot schools participated in a districtwide planning day centered around the Five Core Propositions. Instructional coaches helped to facilitate as all teachers from one grade level convened to learn together. In the first year, district leaders provided teachers with PD around the Five Core Propositions, including “What are they?” and “What do accomplished teachers do?” Teachers then moved into planning with grade-level teams, keeping in mind what they learned about the Five Core. In the second year, they provided teachers an opportunity to analyze their teaching in relation to accomplished teaching, and then plan instructional goals.
Pilot school representatives across all three schools reported that planning days provided them the opportunity to reflect upon the similarities and differences between the Instructional Core, the state evaluation tool, and the BoK. District representatives valued the opportunity for teachers to collaborate and analyze teaching.

**PLCs.** While elementary instructional coaches have historically met to plan PLCs in vertical meetings, the NT3 initiative introduced the BoK into these meetings. The improvement lead presents BoK practices and tools to instructional coaches in vertical meetings, who relay them to their school through PLCs.

Pilot school representatives described how they have incorporated the BoK into PLCs, including:

- Regularly referencing the crosswalk of the BoK and state teaching standards (S1).
- Creating BoK-aligned tools (S2).
- Referencing accomplished teaching practices and using BoK tools in teacher-led trainings, with plans to infuse BoK language into an existing look-for document (S3).

Due to these strategies, two pilot school representatives described “aha” moments where teachers saw how the BoK fits with district and state teaching expectations.

**1B. Pursuit of Board certification.** The district and one school (S2) selected change ideas related to the *pursuit of Board certification*, which led to promoting NBCTs and certification, and supporting the pursuit of certification.

**Promoting NBCTs and certification.** To celebrate NBCTs, the district began inviting all NBCTs to the Staff of the Year Banquet, which honors the teacher of the year and principal of the year. The district sponsor gave a speech honoring each NBCT and discussing the benefits of certification. District staff reported that teachers at the event expressed interest in certification and are now pursuing it. The district has also honored NBCTs by creating life-sized posters of each NBCT, showcased in schools and at recruiting events. One school (S2) encourages instructional leaders to pursue certification during conferences or PLCs.

**Supporting the pursuit of certification.** The district provides up to $1,000 in scholarships for teachers to pursue National Board certification (through an endowment) and up to $450 in reimbursement upon completion of the certification process (through Title II funds). It also pays candidate support mentors a stipend through Title II funds. In addition to financial support, the district developed a platform to house candidate support materials, including the dates of sessions, materials, etc. It hired someone to lead candidate support efforts (who trains
candidate support mentors) and developed a year-long plan for support meetings. One school (S2) has set aside scheduled time for candidates to collaborate on their components and reports that four teachers have decided to pursue certification since the start of NT3.

2A. Observation and analysis of teaching. The district and all three schools selected ideas related to the observation and analysis of teaching, which led to BoK-aligned instructional rounds, co-teaching, ATLAS, recording instruction, and beginning teacher modules.

Instructional rounds. The district has implemented instructional rounds districtwide to “spotlight high-quality teaching and coach novice and marginal teachers.” It created a template that helps the observing teachers reflect on their own instruction, then discuss with a group how to implement the strategies they observed. The district expects all principals and teachers to engage in these instructional rounds. The director of K–8 attended an NT3 training on learning walks to inform the district approach.

The pilot schools have implemented instructional rounds on a more consistent (monthly) basis than non-pilot schools. This may be attributable to the existence of instructional coaches in elementary schools, whose job is to focus on curriculum and instruction, facilitate PLCs, and meet weekly to plan PD. Conversations that take place in PLCs include discussion of the completed template and are centered around the Five Core Propositions and an instructional focus (e.g., differentiation). One pilot school representative (S1) said their feedback is now more focused on instances of accomplished teaching. The feedback process “gives observing teachers ideas, and observed teachers feedback.”

Co-teaching. For teachers who need additional instructional support, co-teaching provides an opportunity to observe accomplished teaching, and to incorporate new strategies with continued support from the accomplished teacher. The district’s improvement lead is in the process of creating protocols and procedures for co-teaching, and two schools are in the early stages of implementation. In one pilot school (S2), the accomplished teacher observes the novice teacher during a lesson. They discuss the observation and then co-teach. Another school (S3) leaves it up to the novice teachers to decide if they want the accomplished teacher to observe their lesson or to model a lesson for them. All of these novice teachers have chosen a combination of the two.

One school representative (S3) reported that novice teachers are implementing the instructional practices they are learning, and teachers have reported fruitful ongoing collaboration after observations. The challenge of co-teaching is that it takes accomplished
teachers out of the classroom, requires substitute teachers, and causes accomplished teachers to spend more time planning.

**ATLAS.** All three pilot schools chose to observe accomplished teaching through ATLAS videos. One school (S1) was initially interested in using ATLAS but chose to instead focus on instructional rounds when they did not receive the necessary access information to use the videos. The other two schools (S2 and S3) have been viewing ATLAS videos and discussing their observations in PLCs, with one (S2) using the instructional rounds feedback template to guide the observations. School 2 described early success with ATLAS and School 3 plans to use specific videos to match the needs of specific teachers moving forward.

A district representative shared that ATLAS has helped teachers reflect on and implement strategies in the videos. However, they have had challenges finding videos that match their needs, in terms of both fitting the Common Core Standards and aligning with specific elements of the Five Core Propositions.

**Recording instruction.** The district has encouraged schools to record and observe instruction using Swivls. In 2016–17, schools used this approach to record accomplished teaching and then discuss the videos in a PLC. For example, one school (S1) aimed to create a bank of videos of accomplished teaching through teachers’ recordings. However, the school dropped this strategy when few teachers volunteered to record videos.

In 2017–18, district leaders requested that each teacher in each pilot school record their teaching, and provided guidelines and a template for analyzing the instruction. Each teacher shares their video with their instructional coach and engages in a discussion centered around accomplished teaching. One school (S2) described plans to share and discuss videos in a PLC. The district’s directive to record instruction took this strategy “to the next level” in 2017–18, according to one school representative (S1).

**Beginning teacher modules.** The district is creating modules on accomplished teaching for second- or third-year teachers, which they will introduce next year. This self-paced PD opportunity will supplement the Instructional Core training and demonstrate to teachers how district initiatives and resources are aligned with accomplished teaching. The district hired three NBCTs to develop the modules. The first module introduces the first three core propositions, the second focuses on analyzing teaching, and the third will provide third-year teachers an opportunity to analyze their teaching through the lens of the BoK. The district views these modules as a first step toward a Beginner-to-Board program.
3B. Accomplished teachers are supported to become skillful leaders. The district chose to pursue 2016–17 change ideas related to “engaging school leaders in professional learning” and “training mentors to use the BoK.” These are conceptually related to supporting accomplished teachers to become skillful leaders (a 2017–18 driver). These change ideas inspired a teacher leadership cohort and mentor training.

Teacher leadership cohort. Borne out of a sense that many teachers do not receive enough quality leadership and policy training, the district created a teacher leadership cohort that consists of two accomplished teachers from each school in the district (including NBCTs, active candidates, and those who the district will encourage to pursue certification). The stated vision for the cohort is “to provide teacher leaders with the opportunity to reflect on their leadership styles, serve as a sounding board for district decisions, and discover ways they can use their skills to address institutional concerns.”

Professional learning in the cohort is centered around the BoK. Teacher leaders study the Architecture of Accomplished Teaching (AAT) and the National Board’s teacher leadership competencies, and discuss a crosswalk between those competencies, the Five Core Propositions, and the state’s teacher evaluation. They participate in a week-long teacher leadership institute that helps teachers to “develop a deep understanding of the qualities of accomplished teaching,” among other things. They also engage in a book study on accomplished teaching and participate in a project in which they select a problem of practice in their school, work with administrators, develop an action plan, and present their solution.

A district representative reported that the cohort is one of the most successful things they have done, and that the NT3 grant “has been a huge catalyst” in developing a culture of teacher leadership. For example, the representative reported that teacher leaders “feel more empowered to have voice for other teachers and feel more comfortable reaching out to district leaders for support.” The district is in the process of adding a second cohort.

Mentor training. Sparked by NT3, the district began leading 2 days of mentor training. School leaders from each school selected roughly three accomplished teachers (or those showing growth) to participate. Beginning teachers participated in an orientation on the same day and had opportunities to interact with mentors during meals and team building. The NT3 improvement lead led half the training, covering the Five Core Propositions, accomplished teaching, and how to grow young teachers. Beginning teachers also learned about accomplished teaching in their orientation. In surveys, both accomplished and beginning teachers expressed appreciation for the training.
4A. Professional learning anchored in the BoK. The district and all three schools selected change ideas associated with *professional learning anchored in the BoK*. This driver, along with *integration of accomplished teaching*, inspired the same activities, which include the Instructional Core, districtwide planning days, and PLCs (described in the “Integration” section).

4C. Dedicated learning time. In 2017–18, School 1 added “professional learning schedule used for teacher collaboration” (change idea 4C3), which led to master schedule adjustments.

Master schedule adjustments. School 1 formally incorporated grade-level common planning time into the master schedule and now schedules after-school professional learning sessions for the full year so that teachers can free their schedule. The school also decided to ensure scheduled time for the school’s leadership and NT3 teams to meet regularly to align strategies.

Dropped Change Ideas

As the pilot schools transitioned from 2016–17 to 2017–18, they decided which change ideas to add or drop. Two schools (S1 and S2) dropped a total of five change ideas, primarily when they felt they had accomplished them. Table 5 summarizes the reasons for dropping change ideas.

Table 5. Reasons for Dropping Change Ideas Across Schools

<table>
<thead>
<tr>
<th>Primary</th>
<th>Secondary</th>
<th>Change Idea (Summary)</th>
<th>School</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. High Professional Teaching Standards</td>
<td>(A) Integration of Accomplished Teaching</td>
<td>1A1: Create vision where accomplished teaching and certification is the norm.</td>
<td>S2</td>
<td>The vision was already “in motion” and taking shape districtwide.</td>
</tr>
<tr>
<td></td>
<td>(B) Pursuit of Board Certification</td>
<td>2B1: Encourage instructional leaders to pursue certification.</td>
<td>S2</td>
<td>This encouragement was already taking place.</td>
</tr>
<tr>
<td>2. Public Teaching Practice</td>
<td>(A) Observation and Analysis of Teaching</td>
<td>1B4: Incorporate observing accomplished teaching via ATLAS, instructional rounds.</td>
<td>S1</td>
<td>Did not receive necessary access information to use videos so did not continue to pursue the idea.</td>
</tr>
<tr>
<td>4. Job-Embedded Collaborative Learning</td>
<td>(A) Professional Learning Anchored in the Body of Knowledge</td>
<td>1B5: Develop protocols and tools anchored in the BoK.</td>
<td>S1, S2</td>
<td>Already created tools and protocols so did not need to prioritize moving forward.</td>
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<td></td>
<td></td>
<td>2D2: Provide training and tools grounded in the BoK.</td>
<td>S2</td>
<td>Felt that it was already in place.</td>
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</tbody>
</table>
Implementation

In addition to exploring the change ideas and activities that the district and schools pursued, we were interested to learn how they approached implementing the NT3 initiative more broadly. We wanted to learn how their approach to implementation changed over time (from Year 1 to Year 2), the extent to which they engaged in improvement science (which is the prescribed mode of implementation for the NT3 initiative), and the benefits of participating in an NIC.

Changes in Implementation in Year 2

We asked district and school representatives if they changed the way in which they worked toward their change ideas heading into the second year of NT3 (2017–18). After a late start in 2016–17, the district had developed a deeper understanding of the initiative by 2017–18 and was just getting into second iterations of Plan-Do-Study-Act (PDSA) cycles. A district representative explained that the biggest difference in 2017–18 was that they were more seamlessly integrating the language of the BoK into everything they did, so that the BoK was “not a separate thing” and accomplished teaching was part of “who they are culturally.”

After taking the lead on all activities in all three pilot schools in 2016–17, the improvement lead has allowed schools to take greater ownership of the work in 2017–18 (though the extent to which they have done so varies). The schools have increased their understanding of NT3 over time, with one principal (S1) describing a shift from “trying to figure things out” in the first year to following through on plans and participating in monthly strategy meetings in the second.

Improvement Science

The district team has embraced improvement science and used PDSAs for the implementation of the teacher cohort and Instructional Core training. For example, each month, they present the Instructional Core training to the curriculum council, take suggestions, and make tweaks before presenting it to the principals. The pilot schools are not currently making decisions based on improvement science. While schools collected data at the beginning of the year, they have not consistently studied activities throughout the year. The improvement lead plans to emphasize improvement science moving forward and may institute separate meetings to work through PDSAs, given the limited time in the regular meetings.

Networked Improvement Community

When we asked district representatives about the support provided by the NIC, they highlighted the benefits of the learning sessions. The first session “put things in perspective,
and ... led [them] in the right direction,” and the second provided an opportunity to create and share documents. They gained ideas from other districts through gallery walks and informal discussions at the learning sessions, as well as weekly NBPTS emails. The district partners with other NT3 districts in their state in other capacities. For example, they have participated in joint trainings with other districts in the state, including a workshop on Marzano’s Model of Teacher Effectiveness. The improvement lead reported richer conversations in statewide NT3 meetings as more districts and improvement leads began participating in 2017–18. Representatives suggested that learning sessions include more differentiated content based on districts’ experience—for example, break-out sessions with introductory information for new districts.

Successes and Challenges of Implementation

Successes

District successes. District representatives expressed pride about what they had accomplished in less than 2 years on the NT3 grant. First, they felt that the district had clearly communicated an expectation that all teachers would become accomplished teachers. Second, NT3 has strengthened the Instructional Core Framework and established a common language across sites, which has promoted productive dialogue. Third, they have created a system of NT3 activities that are centered around accomplished teaching and promote the pursuit of National Board certification. One district representative described the effect of this system:

Because we are beginning to have mentors who are ingrained in the idea of how to coach and support beginning teachers and share a common language about accomplished teaching, because we have this Instructional Core that is grounded in the BoK ... and quality teaching. And because we have programs like [the teacher leadership cohort], because beginning teachers go through their first 3 years and have coaching and trainings, [teachers] will see these direct links, which they are starting to articulate, and say, “Oh my gosh, I’m ready for Board certification.”

Fourth, through the teacher leadership cohort and mentor training, the initiative has facilitated a teacher leadership pathway, which has opened communication channels between teachers and school and district administrators. Finally, NBPTS has effectively underscored the importance of sustainability throughout the process.

The district team reports that increasing numbers of teachers are pursuing National Board certification, which they attribute to explicit efforts to promote and support certification, as well as strategies to promote accomplished teaching more broadly. A representative explained that four early career teachers have been attending National Board certification information
sessions before they are eligible so that they can pursue certification as soon as they qualify, which is unprecedented in their district.

**Pilot school successes.** District and pilot school representatives reported that the initiative has provided meaningful opportunities for teachers in pilot schools to observe and analyze accomplished teaching (e.g., through planning days, instructional rounds, and ATLAS). This has promoted instructional growth, reflective teaching, and the implementation of accomplished teaching practices. Teachers have embedded accomplished teaching tenets into existing instructional practices and frameworks, which has given teachers confidence that they are “closer to being accomplished teachers than they thought” and therefore are ready to pursue certification. Teachers have reportedly appreciated NT3 because they enjoy the opportunity to reflect, ask questions, gain confidence, tweak practices, and grow as teachers.

**Challenges**

District representatives identified the release of the new driver diagram in September 2017 as a planning barrier. Because improvement science calls for several iterations of implementation before abandoning a strategy, they found that the introduction of a second driver diagram interrupted this process.

Pilot school representatives described a few modest challenges while implementing NT3. One described initial confusion about the team’s role and how to get started, though found that their understanding improved over time. Another representative said it was challenging to find time for their NT3 team to plan together. A third leader predicted that it will be a challenge to transition from teachers understanding accomplished teaching to effectively implementing it.

**Teacher Experience of NT3**

In addition to learning about the implementation of NT3 strategies from the perspective of NT3 teams, we were interested in teachers’ experience of the initiative. We asked a series of open-ended questions on the implementation survey about teachers’ engagement with the BoK, its impact on professional growth, factors that influenced teachers’ decision to pursue or not pursue certification, and the impact of pursuing certification on professional growth.

**Engagement With the BoK**

Of the teachers who reported on the implementation survey that they had engaged with the BoK, 80% indicated that engagement had an impact on their professional growth (Table 6).
A Case Study of NT3 Implementation in Four Pilot Districts

Table 6. Do You Feel Your Engagement With the National Board’s Accomplished Teaching Body of Knowledge Has Had an Impact on Your Professional Growth as an Educator?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Yes</td>
<td>41</td>
<td>80%</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>10%</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>5</td>
<td>10%</td>
</tr>
</tbody>
</table>

We asked the teachers who reported that engagement with the BoK had affected their professional growth (n=41) to identify the specific elements that affected their growth and describe the impact of these elements. Thirty-one teachers responded. Teachers most frequently reported that the Five Core Propositions (n=15) and collaboration (n=14)—including PLCs, observations, co-teaching, or instructional rounds—had affected their growth. Table 7 shows the relationship between specific BoK elements and areas of growth (described below the table). It shows, for example, that engagement with the Five Core Propositions and the BoK helped teachers become attuned to student needs (n=5 and n=4, respectively), and that opportunities for collaboration helped teachers to learn from colleagues (n=8).

Table 7. Themes of Professional Growth by Element of the BoK Identified

<table>
<thead>
<tr>
<th>Impact Themes</th>
<th>Five Core Propositions</th>
<th>NB Standards</th>
<th>AAT</th>
<th>Collaboration With Colleagues</th>
<th>BoK (General)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attuned to student needs</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Specific strategies</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Improvement (generally)</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Learning from colleagues</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Reflective practice</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Teachers identified multiple elements and impacts, so table counts represent instances of when the element was mentioned with an impact rather than the number of teachers who mentioned it. However, the counts in the body of the report represent the number of teachers who mentioned each theme (regardless of element).

Appendix B illustrates the BoK elements by respondent type, including NBCTs, active candidates, early career teachers, etc.
Attuned to specific student needs. Teachers frequently explained that engagement with the BoK had influenced them to be more attuned to the specific needs of their students (n=10). For example, teachers reported improved monitoring of student progress and that they were using better assessments, following data to determine students’ gaps in knowledge, and making instructional adjustments. Teachers also aimed to meet students’ individual needs and ensure students were engaged and challenged.

Improving instructional practices (improvement, specific strategies, and reflective practice). Many teachers described general improvement in their instruction (n=7), such as growing as a teacher and becoming a more well-rounded teacher. One teacher explained that the Five Core Propositions align with the state teaching standards, so engagement with the propositions has led to higher marks on their observations and summative reports. Other teachers specified that engagement with the BoK had helped them to learn new strategies (n=8)—for example, to use new resources or plan effective assessments or lessons. Several teachers (n=5) said that engagement with the BoK had caused them to be more reflective in their teaching practice. One of these teachers reported that the BoK had caused them to evaluate their instruction “and then reorganize it so that instruction was student-focused.”

Learning from colleagues. Teachers found that collaborative elements of the BoK, particularly observations and PLCs, helped them to collaborate effectively (n=7). Some teachers said these practices helped them to learn how to collaborate, citing increased comfort with observations and confidence in sharing practices with other teachers. One teacher found that the AAT provided a framework that facilitated conversations in co-teaching and reduced the sense that these practices were evaluative. Teachers said PLCs provided an opportunity to share successful practices and student data, and observations helped teachers to learn new strategies from peers. The three interviewed teachers also described growing professionally by gaining a better understanding of the Five Core Propositions (often via districtwide planning days), reflecting on instruction, planning with teachers, and discussing “what makes a teacher a good teacher.”

Intentions to Pursue National Board Certification

We asked surveyed teachers if they intend to pursue National Board certification. Over half (51%) intended to pursue certification sometime in the future (combining two response options) and 41% did not intend to pursue certification (Table 8).
Table 8. Do You Intend to Pursue National Board Certification?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am already a National Board Certified Teacher.</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>I am currently in the process of pursuing Board certification.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>I intend to begin pursuing Board certification this summer or during the next school year (2018–19).</td>
<td>3</td>
<td>6%</td>
</tr>
<tr>
<td>I may consider pursuing Board certification sometime in the future after the 2018–19 school year.</td>
<td>23</td>
<td>45%</td>
</tr>
<tr>
<td>No, I do not intend to pursue certification.</td>
<td>21</td>
<td>41%</td>
</tr>
</tbody>
</table>

Based on their response, we asked participants to describe the factors that had been most influential in their decision to pursue or not pursue certification. Three NBCTs explained that they chose to pursue certification to “increase salary” and “reflect on practice,” and because they had a sense they were “in a place where they were ready to grow.” Teachers interested in pursuing certification in the future cited NT3-related reasons, including district support (n=1) and confidence from engaging with the BoK (n=2):

Having exposure to the Five Core Propositions, the NB Standards, the upward spiral of accomplished teaching and the district support, I feel well prepared to apply for [National Board certification]. Seeing that I am doing most of what [an NBCT] does already makes me feel that I should at least apply.

The time commitment was the most cited barrier (n=16) for those indicating either that they did not intend to pursue certification, or that they would delay pursuing certification until after the 2018–19 school year. These respondents often mentioned that their time was limited due to family or teaching obligations, after-school leadership roles, or changing to a new teaching role. Teachers also said that the cost was a barrier (n=6), including one who suggested that teachers encouraged to pursue certification should not have to pay for certification. Three teachers were soon leaving teaching or retiring, and two were deterred by the fact that passing is not guaranteed, noting that they have “seen a lot of good teachers not [pass].”

Two interview respondents indicated that they had been interested in pursuing certification, including one who said that it seemed less daunting now due to NT3 activities and a network of people pursuing certification together. These respondents have not yet pursued certification due to personal circumstances. A third teacher explained that they did not pursue certification
because the district provided compensation for their master’s degree (via tuition support and a salary increase) at a time when grants for pursuing certification were not available. Two interviewees said that NT3 activities seem to be inspiring more teachers to pursue certification.

**Pursuing Certification and Professional Growth**

We asked the teachers who were already certified if they felt their participation in certification had affected their professional growth. All four respondents reported that their participation led to professional growth, and three reported that pursuing certification caused them to be more reflective in their practice. The NBCTs also reported “relying more on shared ideas,” “differentiating as much as possible,” and “having a better understanding of how [their] students learn.” One teacher added: “My students’ growth is consistent and I attribute that to the training I went through with National Boards.”

**Conclusion**

Using the driver diagram as a guide, pilot school and district teams in District A collaboratively chose a strategic path to increase the number of educators pursuing National Board certification, the number of NBCTs in instructional leadership roles, and the number of novice teachers who become accomplished teachers. The district and pilot schools integrated accomplished teaching into the Instructional Core Framework, the districtwide planning days, and PLCs. This integration reportedly helped teachers see the ways in which they are already practicing accomplished teaching, as well as the connections between the BoK, the Instructional Core, and the state evaluation tool. To promote accomplished teaching, they created opportunities for observing and analyzing accomplished teaching through instructional rounds, co-teaching, ATLAS, and beginning teacher modules. The district developed a template to facilitate observations and the related feedback process helped teachers gain ideas and reflect on their practice. Finally, district leaders reported that the NT3 initiative helped create a culture of teacher leadership through mentor training and a teacher leadership cohort.

As a result of these efforts, district representatives felt that the district had established an expectation of accomplished teaching, a common language across sites, and a system of activities that promoted accomplished teaching and, ultimately, National Board certification. Most of the surveyed teachers (80%) from the pilot schools reported that this engagement with the BoK had an impact on their professional growth, frequently citing greater attentiveness to specific student needs, improved instruction, more reflective practice, improved teacher collaboration, and shared learning. Over half of the teachers reported that they intend to
pursue National Board certification sometime in the future. Roughly 40% of teachers indicated that they had no such plans, citing time and cost as the primary barriers.
District B

Setting

Six schools are participating in the NT3 pilot in District B. One school has two departments participating in NT3 as independent entities, so for the purposes of this report these departments are counted as two separate schools: School 3 and School 4. They have their own sets of change ideas, their own NT3 teams, and their own planning structures. Five of the six schools (S1, S2, S3, S5, and S6) became NT3 pilot schools because the district NT3 lead knew the eventual NT3 school lead through the latter’s pursuit of National Board candidacy. In most cases, the district lead approached this person to become the school lead.

NT3 District and School-Based Teams

District team. The district NT3 team includes staff from the professional learning and beginning teacher departments, as well as two induction leaders. Several teachers facilitate workshops on the BoK and a teacher on special assignment works with the district lead.

Pilot school NT3 teams. The school NT3 teams consist of between one and four people. Most schools have just one or two people leading the NT3 work, in roles that include instructional reform facilitators, department heads, literacy coaches, intervention teachers, and classroom teachers. School-level teams meet once or twice per month with the district lead, who recommends resources and helps to collect and share ideas across schools.

Process for Choosing Change Ideas

Choosing district change ideas. While the district already had some ideas for what needed to change in the schools, the ideas were not fully fleshed out. The National Board’s driver diagram helped the team realize that the BoK could help them interrupt the “status quo of inequitable student outcomes at [their] schools.” With a focus on student equity, the team created a vision statement on why the BoK would work for their district:

In order to interrupt the status quo of inequitable student outcomes and to ensure every student in [District B] has the knowledge, skills, and dispositions to compete in the 21st century, we will: (1) use the BoK to have accomplished teaching as a through-line in professional learning and coaching to build coherence across the teaching continuum from pre-service to late career, and (2) integrate the self-examination of how our own identity and the skin we’re in and the biases impact teaching and learning into professional learning and coaching supports for educators.
With regard to choosing specific change ideas, the district lead used this vision to create a draft plan of change ideas. They brought this draft to the NT3 learning session, where the team came together and worked on finalizing which change ideas made the most sense for the district.

**Choosing pilot school change ideas.** The pilot schools primarily described choosing ideas that could be realistically accomplished, that matched what they were already doing or working on, and that aligned with “what [the school] needed the most.” Five of the six pilot schools (S1, S2, S3, S4, and S6) mentioned that they worked in collaboration with the district lead when choosing their schools’ change ideas, which they reported was helpful. For example, she asked questions to guide their thinking about appropriate change ideas for their school’s particular context (S3) and helped “connect the things we already do and figure out where the connections are [with] National Board principles.”

For the most part, pilot school teams realized in Year 2 that their Year 1 goals were “too lofty.” Teams gathered before the start of Year 2 to determine which change ideas to keep and which to drop, strategically choosing ideas that seemed achievable. For example, one school shifted its goal to ensuring that all teachers were exposed to the AAT, rather than the initial goal of 50% of teachers pursuing National Board certification.

**Specific Change Ideas and Activities**

In this section we explore why the district and pilot schools chose the change ideas that they did, as well as the activities that they pursued as a result. Table 9 summarizes the reasons for choosing change ideas within each driver and the activities that are associated with these change ideas and drivers.
## Table 9. Summary of Reasons for Choosing Change Ideas and Activities

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Reasons for Choosing Change Ideas</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. High Professional Teaching Standards</td>
<td>(A) Integration of Accomplished Teaching</td>
<td>• Cement the notion that the Five Core Propositions are linked with good teaching.</td>
<td>• Efforts to show connections between the BoK and existing state standards.</td>
</tr>
<tr>
<td></td>
<td>(B) Pursuit of Board Certification</td>
<td>• Raise the caliber of the teaching profession at the school.</td>
<td>• Financial support for teachers pursuing certification.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Facilitate a National Board cohort.</td>
</tr>
<tr>
<td>2. Public Teaching Practice</td>
<td>(A) Observation and Analysis of Teaching</td>
<td>• Increase the percentage of teachers who regularly analyze videos of themselves and their peers.</td>
<td>• Conduct instructional rounds.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Break down the existing isolation between different pathways and tracks at the school.</td>
<td>• Conduct lesson studies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bring teachers into each other’s classrooms.</td>
<td>• Use ATLAS videos.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Create tools that would allow a framework and common language for discussing teaching.</td>
<td>• Conduct peer observations.</td>
</tr>
<tr>
<td></td>
<td>(B) Evidence of Student Learning</td>
<td>• Find a way to bring student work to staff meetings to guide conversations about needs.</td>
<td>• Develop rubrics to analyze observations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Expand examining student work to the entire school.</td>
<td>• Use probing questions from AAT.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reveal areas where teaching may not match the needs of students.</td>
<td>• Establish a districtwide video pilot.</td>
</tr>
<tr>
<td>3. Distributed Ownership</td>
<td>(A) Instructional Leader Process</td>
<td>• Increase focus on creating instructional leaders, with feedback and support from the district.</td>
<td>• Develop protocols to examine student work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Hold regular meetings to examine student work together.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Embed examination of student work into currently existing structures.</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Reasons for Choosing Change Ideas</th>
<th>Activities</th>
</tr>
</thead>
</table>
| 4. Job-Employee Learning Collaborative Learning | (A) Professional Learning Anchored in the Body of Knowledge | • Be more intentional with the BoK.  
• Have protocols aligned with the National Board at all meetings.  
• Make professional learning more meaningful.  
• Make sure teachers feel supported no matter what level they are at. | • Conduct a “Core Proposition Jigsaw.”  
• Conduct in-depth trainings (e.g., examine student work).  
• Create a reflection template matching the AAT.  
• Present principles from the AAT at staff meetings.  
• Post a collage of the Five Core Propositions in the departmental office.  
• Create protocols to support improving practice.  
**Incorporate the BoK** in every PD session.  
• Use the AAT in one-on-one coaching. |
|                                    | (B) Culture of Learning/Risk Taking                   | • Establish norms so teachers are comfortable taking risks.  
• Teachers are not currently comfortable sharing.  
• Bring in student work, use video to analyze observations, foster a culture of learning. | • Create seating charts for PD sessions.  
• Develop a video analysis protocol with critical and positive feedback.  
• Host **team-building activities** (e.g., Four Corners). |
|                                    | (C) Dedicated Learning Time                           | • Increase grade-level collaboration.  
• Increase teacher-to-teacher collaboration/reflection.  
• Determine how to use professional learning wisely. | • Provide **collaborative time** for the National Board cohort.  
• Organize PLCs into configurations of teachers who come together by choice.  
• Provide early release days. |
Activities Pursued After Choosing Change Ideas

Table 11 provided a summary of the activities that the pilot schools and district pursued. Below, we describe the implementation of these activities in more depth, organized by driver.³

1A. Integration of accomplished teaching body of knowledge. One school (S1) and the district chose change ideas related to the *integration of the accomplished teaching body of knowledge*.

Efforts to show the connection between the BoK and state standards. The school (S1) worked to show teachers that the Five Core Propositions are connected with good teaching, and that the BoK is remarkably similar to state standards (as opposed to an entirely new approach). They developed a crosswalk connecting National Board principles with their school’s PD plan to further highlight the connection between the BoK and existing documents.

1B. Pursuit of Board certification. Two schools (S1 and S2) and the district chose change ideas related to the *pursuit of Board certification*, which led to financial support and National Board cohorts.

Financial support and National Board cohorts. To promote certification and elevate the standards of the teaching profession, one school (S1) began a fund for teachers who were pursuing certification to pay for their components. The school also established a National Board cohort (consisting of candidates pursuing certification together), put in place by the district lead in collaboration with the school lead and several of the candidates.

2A. Observation and analysis of teaching. Three schools (S1, S5, and S6) and the district chose ideas related to *observation and analysis*, which led to peer and ATLAS observations.

Observations, observation rubrics, and ATLAS. Pilot schools chose to implement a combination of observation approaches. One school (S6) reported implementing instructional rounds—in which teachers observe classroom teaching and then analyze and discuss what was observed in a group—as well as voluntary individual peer observations, which take place three times per year. Another school (S5) implemented peer observations and chose to develop rubrics to analyze observations and guide discussion to mitigate teachers’ fears about observing and being observed by other teachers. They also chose to implement ATLAS observations but had to

³ Given the large number of schools in this district and the large volume of change ideas and activities to discuss (within a limited amount of time), we decided to focus on asking about the reasons for choosing change ideas and related activities, rather than asking about the change ideas that were dropped in a systematic fashion in this district. For this reason, we do not include a table of the reasons for dropping change ideas, like we do for Districts A and D.
drop it given time constraints. The third school (S1) implemented instructional rounds, lesson studies (i.e., working together to identify areas of growth in their students’ learning), and ATLAS observations beginning in Year 2.

Districtwide video pilot. The idea for a districtwide pilot of video analysis came out of one of the first NT3 meetings after hearing another district describe using video for reflection. With the help of a mentor, teachers are asked to videotape their own classrooms and then reflect upon their teaching practice with an eye toward accomplished teaching and the BoK. Three times a year, mentor teachers involved with implementing the district video pilot are invited to the district to discuss connecting instructional practice with the BoK.

2B. Evidence of student learning. All six schools and the district chose change ideas related to evidence of student learning, which inspired a push for teachers to examine student work.

Examining student work. The pilot schools reported that they have focused on examining student work in a structured format to ensure they are meeting student needs. After a delay in implementing this work, four out of six schools reported that they began examining student work together in Year 2. Two schools (S1 and S3) are using protocols that they created to examine student work. Another school (S6) has embedded examining student work into meetings that were already taking place, rather than using an optional PLC as they had previously done. This school’s representative reported that this approach has been successful. Two schools (S4 and S5) struggled to implement these change ideas because they “have not had an opportunity to develop the protocol” (S5), or because they discovered that it was too challenging to incorporate examining student work into department meetings without someone managing it.

3A and 3B. Instructional leadership processes and supporting accomplished teachers to become leaders. Three schools (S3, S4, and S5) and the district chose change ideas related to instructional leadership processes or supporting accomplished teachers to become leaders.

Instructional leadership team and teacher collaboration. Three pilot schools focused efforts on providing leadership opportunities for teachers. One school (S5) created an instructional leadership team that meets twice per month to collect data, analyze feedback, look at student work, and visit classrooms. Two schools (S3 and S4) paired novice teachers with accomplished teacher mentors, which provides the mentor teachers an opportunity to lead and promotes accomplished teaching early in a teacher’s career. Because it was challenging to convince teachers to put in the time for this activity, school 3 chose to instead focus their efforts on creating time for teacher to collaborate.
4A. Professional learning anchored in the accomplished teaching body of knowledge. All six pilot schools and the district chose change ideas related to professional learning anchored in the BoK, which inspired various approaches to incorporating the BoK into PD.

Incorporating the BoK into professional learning opportunities. School teams listed several activities that they have undertaken to enhance professional learning. One school (S1) conducts a “Core Propositions Jigsaw” at the end of every PD unit, in which they look in depth at the Five Core Propositions. They also hold trainings that take an in-depth look at key instructional practices, such as examining student work or knowing your students. The school’s NT3 team has presented to the whole school staff six times on National Board principles.

Another school (S2) created a reflection template aligned with the AAT, which is used by teachers in every third all-staff meeting. In these meetings, the NT3 team poses challenging questions based on the AAT and teachers are asked to present to the group how they would apply that principle in their classroom. Teachers also present to other staff how they determined high, worthwhile, and appropriate goals for students.

School 5 reported using the BoK in every PD session and the AAT in all of their one-on-one coaching relationships. Other school activities included making a collage of the Five Core Propositions and hanging it on the wall in the department as a daily reminder to teachers (S4) and creating observation protocols to support improving practice (S6).

4B. Culture of learning and risk taking. All six pilot schools and the district chose change ideas related to developing a culture of learning and risk taking, which resulted in various approaches to team building.

Approaches to team building. Pilot schools attempted a few approaches to increasing trust and risk taking among teachers during professional learning opportunities. For example, one school (S1) instituted a strategic seating chart for PD sessions in which they re-arranged the room to enhance participation and sat “negative people with positive people” and paraprofessionals with teacher leaders. To promote teacher sharing, one school (S3) used team-building exercises and created a set of norms for professional learning to which teachers contributed. This has reportedly created a different energy and “people are more willing to share.”

Other schools similarly attempted to bolster professional learning through PLC “protocols that support stronger reflective habits and help participants feel safer” (S5) or a protocol for video analysis that included time for both critical and positive feedback so that teachers felt less vulnerable to share their practice (S2).
4C. Dedicated learning time. Four schools (S1, S2, S4, and S5) chose change ideas associated with *dedicated learning time*, which resulted in collaborative learning approaches.

Collaborative learning opportunities. Pilot schools primarily chose to focus on enhancing existing collaborative efforts. For example, one school (S4) decided to focus on ensuring their existing professional learning time was used more strategically and another school (S2) used their existing grade-level collaboration to focus more on examining student work and using video observation. A third school (S5) decided to organize their PLCs into configurations of teachers who came together by choice and centered professional learning on the AAT. They also provided release days for teachers to work with a university reading and writing project.

**Implementation**

We also wanted to learn how schools and districts approached implementing the NT3 initiative, including gaining NT3 members thoughts on the benefits of participating in a NIC and the successes and challenges of implementing the initiative overall.

*Networked Improvement Communities*

When asked about their experience with the NIC, all three district representatives reported that they had enjoyed the experience and believed it to be useful. They appreciated the opportunity to hear what other sites were doing or to learn about mistakes to avoid, for example, learning from another district how to avoid the challenges they faced when implementing a similar approach to video observations. Representatives also mentioned that having to share what their site was doing helped them reflect on the work.

District leaders shared that the varying sizes and urbanicity of the participating NIC sites made shared learning and application more challenging. As one of the first districts involved in the initiative, they also found getting the work started to be a challenge.

**Successes and Challenges of Implementation**

**Successes**

District successes. Reflecting on the initiative overall, district representatives were pleased with the outcomes of the initiative. One representative explained that NT3 provided schools with an “aspirational vision of where we want to be as a profession” and another added that NT3 had given pilot schools something larger to coalesce around. Two representatives mentioned the
success of the districtwide video pilot, which helped teachers become more reflective practitioners and has inspired induction teams to make video use a requirement.

**Pilot school successes.** School representatives reported several successes of the NT3 initiative.

**Culture of collaboration.** Two thirds of the NT3 pilot schools (S1, S2, S3, and S6) reported that one of the benefits of the NT3 work is an improved culture of collaboration. Because of NT3, one school representative (S3) reported that their department now feels like a community where people want to work together.

**Culture of professional learning.** Half of the six pilot schools in the district (S1, S2, and S3) also reported improvements in their culture of professional learning. For example, one representative (S3) said that “department meetings feel more meaningful ... [and] people are participating more” and another representative (S1) described their school’s cultural shift:

> The professional learning culture here has drastically improved. It has to do with really strategic structures we’ve put in place. Last year, we met once a week—in departments or faculty, or PD, they felt like one-and-done. This year we started with a strong PD plan that we’ve stayed consistent on. We do assigned seating in our PDs, we have a process check, we review our norms, we have a template, we start and end on time. The structure has improved our overall professional learning culture at our school.

**Engaging with National Board principles.** The third major success mentioned by NT3 pilot schools (S2, S5, and S6) was evidence that teachers were engaging more with the BoK, including while examining student work in meetings and participating in video observation and analysis.

**Other benefits and successes.** Respondents also mentioned the following as benefits of participating in NT3:

- Getting the chance to work with the district lead, who they found to be highly effective (Schools 2 and 6).
- Being compensated to do the work and receiving substitute teachers for travel or meetings (Schools 1 and 3).
- Having the opportunity to learn from other schools, and to be a part of the larger community of educators doing similar work (Schools 1 and 6).
- Perceived decrease in teacher turnover (S3) and increasing student scores (S3 and S6).
Challenges

District challenges. When asked about challenges faced during the NT3 work, two district representatives each mentioned a different issue:

• The difficulty of proving the initiative’s impact, given the competing initiatives in a large institution.

• The challenge of planning PDSAs due to forgetfulness or limited time.

Pilot school challenges. School representatives from five schools (S1, S2, S3, S4, and S6) reported challenges related to getting buy-in from the school community and a lack of clarity around what the NT3 work means (e.g., whether it means that teachers are encouraged to pursue National Board certification). A common theme was that teachers reacted negatively when school leads would approach them about getting involved in NT3 work because they assumed they would be pressured to pursue candidacy.

Representatives (S1 and S5) also reported difficulty getting started with the work because they did not know how to “jump in to some of the change ideas” or how to obtain the necessary data to measure success, difficulty maintaining the work because teachers had too much on their plate (S4 and S5), and uncertainty about how to continue the work next year without NT3 funding and the strong support from the district lead (S1 and S6).

Individual schools also reported the following challenges:

• Making adult learning time more cohesive and meaningful (S4).

• Meshing the purpose of NT3 with the vision of the school administration (S5).

• Understanding how to use PDSA cycles (S1).

• Finding a school with enough in common for “the conversation to be helpful to us” (S2).

Teacher Experience of NT3

In addition to the perspective of NT3 team members, we were interested in teachers’ experience of the NT3 initiative. We asked a series of open-ended questions on the implementation survey about teachers’ engagement with the BoK, its impact on their professional growth, factors that influenced teachers’ decision to pursue certification or not, and the impact of certification on professional growth. We also conducted seven interviews with teachers on these topics, five of whom were candidates pursuing certification.
Engagement With the BoK

Of the teachers who reported on the implementation survey that they had engaged with the BoK, 65% indicated that engagement had an impact on their professional growth (Table 10).

Table 10. Do You Feel Your Engagement With the National Board’s Accomplished Teaching Body of Knowledge Has Had an Impact on Your Professional Growth as an Educator?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>70</td>
<td>65%</td>
</tr>
<tr>
<td>No</td>
<td>25</td>
<td>23%</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>13</td>
<td>12%</td>
</tr>
</tbody>
</table>

We asked the teachers who reported that engagement with the BoK had affected their professional growth (n=70) to identify the specific elements that affected their growth and describe the impact of these elements. Forty-eight teachers responded. Teachers most frequently reported that collaboration with colleagues—including PLCs, observations, co-teaching, or instructional rounds (n=28)—had affected their professional growth. They also discussed the impact of the BoK generally (n=18), the Five Core Propositions (n=7), and the AAT (n=24).

Table 11 shows the relationship between specific BoK elements and areas of growth (described below the table). It shows that engagement with the National Board Standards helped teachers to learn specific instructional strategies (n=13), and that opportunities for collaboration helped teachers to learn from their colleagues (n=24), including specific instructional strategies (n=16).

Table 11. Themes of Professional Growth by Element of the BoK Identified

<table>
<thead>
<tr>
<th>Impact Themes</th>
<th>Five Core Propositions</th>
<th>NB Standards</th>
<th>AAT</th>
<th>Collaboration With Colleagues</th>
<th>BoK (General)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attuned to student needs</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Learning from colleagues</td>
<td>3</td>
<td>4</td>
<td>9</td>
<td>24</td>
<td>3</td>
</tr>
<tr>
<td>Specific strategies</td>
<td>5</td>
<td>13</td>
<td>4</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>Improvement (generally)</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Reflective practice</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Assessments</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Appendix B illustrates the BoK elements by respondent type, including NBCTs, active candidates, early career teachers, etc.
Note: Teachers identified multiple elements and impacts, so table counts represent instances of when the element was mentioned with an impact rather than the number of teachers who mentioned it. However, the counts in the body of the report represent the number of teachers who mentioned each theme (regardless of element).

**Attuned to specific student needs.** Teachers frequently explained that engagement with the BoK influenced them to be more attuned to the specific needs of their students (n=9). For example, teachers reported increased knowledge of how to use student work and lesson planning to meet their students’ needs more effectively. Teachers also reported using the AAT as a lens to review data to adjust instruction, support goal setting and differentiate instruction. One teacher explained that a combination of the BoK elements presented in their PD sessions encouraged them to reflect on whether their teaching goals were student-centered.

**Assessments.** Teachers described learning how to incorporate assessment data into their lesson planning and individualized instruction (n=5). Two teachers described learning how to use the AAT to review student work and assessments in order to adjust learning outcomes for the class. Teachers also described assessing student work during collaborative periods.

**Improving instructional practices (improvement, specific strategies, and reflective practice).** Many teachers described general improvement in their instruction (n=14), including raising expectations for students and being more intentional about how they design lessons to both engage their students in the curriculum and meet the diverse needs of their students. Teachers also specified that engagement with the BoK helped them to learn new strategies (n=24), including planning effective lessons and creating learning goals. Several teachers (n=9) said that engagement with the BoK caused them to be more reflective with regard to student engagement and reviewing student work.

**Learning from colleagues.** Teachers found that elements of the BoK, particularly observations and PLCs, helped them improve their practice through more systemic collaboration with and feedback from their peers (n=29). Many teachers described participation in PLCs as invaluable opportunities to learn from one another, share best practices, unpack student data, discuss student work, and receive specific feedback on their instructional practices. Teachers reported that PLC activities facilitated by the AAT helped them improve their lesson planning. With more collaborative opportunities, some teachers reported feeling more comfortable with receiving and providing feedback, including greater comfort with “taking risks” and allowing teachers to help analyze their practice.

Of the 25 teachers (23%) who reported that their engagement with the BoK had not resulted in professional growth, 11 answered a follow-up question and explained why this was the case.
They said that the PD sessions about the BoK were not effective (n=3), describing the sessions as not engaging, and lacking depth and quality instruction. Two non-candidates/non-NBCTs also indicated that the information was not new for experienced teachers.

**Intentions to Pursue National Board Certification**

We asked surveyed teachers if they intended to pursue National Board certification. Sixteen percent of respondents were NBCTs, 12% were active candidates, 45% intended to pursue certification sometime in the future (next school year or beyond), and 26% did not intend to pursue certification (Table 12).

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am already a National Board Certified Teacher.</td>
<td>17</td>
<td>16%</td>
</tr>
<tr>
<td>I am currently in the process of pursuing Board certification.</td>
<td>13</td>
<td>12%</td>
</tr>
<tr>
<td>I intend to begin pursuing Board certification this summer or during the next school year (2018–19).</td>
<td>7</td>
<td>7%</td>
</tr>
<tr>
<td>I may consider pursuing Board certification sometime in the future after the 2018–19 school year.</td>
<td>40</td>
<td>38%</td>
</tr>
<tr>
<td>No, I do not intend to pursue certification.</td>
<td>28</td>
<td>26%</td>
</tr>
</tbody>
</table>

Based on their response, we asked participants to describe the factors that had been most influential in their decision to pursue or not pursue certification. NBCTs (n=7), active candidates (n=7), and those who intended to pursue National Board certification in the future (sooner or later) primarily explained that they chose (or planned) to pursue certification for the sake of professional growth. For example, teachers wanted to “look deeply into their practice” or “grow as a teacher.” One early career teacher reported feeling more confident to pursue certification due to engagement with the National Board Standards over the course of the year. Two NBCTs explained that they pursued certification to increase their salaries.

Five of the seven teachers interviewed reported that they thought the NT3 activities would lead to more teachers pursuing certification because the work “spreads the word” about the National Board, or because it “facilitates the thinking necessary to do the components.”

The teachers who reported that they did not intend to pursue certification, or were delaying certification, mostly cited the time commitment as the reason for their decision, often noting family or teaching obligations. Two teachers cited cost as a barrier to pursuing certification.
Three of the five active candidates who were interviewed had recently decided to stop pursuing certification, listing reasons such as moving out of state, financial difficulties, and being involved in other time-consuming projects.

**Pursuing Certification and Professional Growth**

We asked the teachers who were pursuing certification or were already certified if they felt their participation in certification had affected their professional growth. All respondents (13 NBCTs and 14 active candidates) reported that their participation had led to professional growth. All active candidates and six NBCTs said that pursuing certification caused them to be more reflective in their practice, including thinking more deeply about lesson planning and implementing “more systematic, reflective, data-driven” practices. One NBCT described the impact on the way she approaches teaching in the following way: “It helped me start with knowledge of students and plan based on their strengths and needs. It created a sustainable way of thinking about teaching that is student- and assessment-based that continues to inform my teaching daily.”

**Conclusion**

District B’s six NT3 pilot schools chose change ideas in every area of the National Board’s driver diagram, most frequently related to evidence of student learning, professional learning anchored in the BoK, and establishing a culture of learning and risk-taking. To ensure they are meeting students’ needs, schools have focused on examining student work in a structured way, including the use of protocols in their analysis. They have incorporated the BoK into trainings, meeting reflection templates, and one-on-one coaching, and implemented a districtwide video pilot to encourage teachers to examine their own teaching and increase self-reflection. All six pilot schools have aimed to support risk-taking through team-building activities and purposeful professional learning, which has resulted in an improved culture of collaboration.

Pilot schools faced challenges getting started with NT3, gaining teacher buy-in, and maintaining teacher focus on the NT3 work. However, they described several successes of NT3, including drastic improvements in the professional learning culture, perceived student improvement, and shared learning in the NIC. More than half of the surveyed teachers (65%) reported that engagement with the BoK had an impact on their professional growth, as they learned new instructional approaches and collaborated with their colleagues. Nearly half of the teachers reported that they either intended to pursue certification (7%) or may consider it in the future (38%), while one quarter (26%) indicated that they had no such plans. Teachers were generally discouraged from pursuing certification by the time commitment and motivated to pursue certification by the opportunity for professional growth.
District C

Setting

District C consists of eight NT3 pilot schools. These schools—a combination of high-need and high-performing schools now working together in the NIC—were largely hand-picked by the district improvement lead for inclusion in the pilot. Six pilot schools either had a National Board cohort or a group of teachers forming one, representing some potential interest in NT3.

NT3 District and School-Based Teams

District team. The district-level NT3 team experienced some evolution of its members, but eventually consisted of six people: a district employee, a private consultant, two principals, and two teachers. The teachers and principals on the district-level team were also involved in their school NT3 teams. The district leads’ roles focused on choosing change ideas and implementing them at the district level. The role of the private consultant was to work directly in schools as “field director” with the school NT3 teams, working with them on strategies for gaining buy-in and working with teachers on the NT3 efforts.

The district improvement lead holds monthly webinars for all pilot schools to attend, in which they share updates about the work across schools and the district. The extent of informal communication with the district team varies across schools.

Pilot school teams. Pilot school teams generally consist of a school lead (a teacher, department chair, or in some cases a principal or assistant principal) plus one to four other team members. In some schools the school lead is an NBCT, and in some cases the entire NT3 team is pursuing candidacy. Some teams were carefully selected to include “teachers across the gamut of content” (e.g., a history teacher, the social studies department chair, a math teacher, and a special education teacher), while others were built more on finding the one or two people in the building who were willing to do it.

The school NT3 teams varied in the frequency of their strategy meetings. Two schools (S1 and S8) meet approximately once per month to report on their work. Four school teams (S3, S4, S6, and S7) meet at least once per week, either during PLC time (S3), or more informally (S6 and S7). One school (S7) team meets every other day to “discuss, plan, [and] adjust.”
Process for Choosing Change Ideas

Choosing district change ideas. In Year 1, selecting the district-level change ideas was a collaborative effort in which they chose change ideas based on their perception of where it would be possible to have an impact. In Year 2, a different person was leading the effort. With a team of six people in total, they chose change ideas based on what was achievable; the team identified which ideas from the prior year they wanted to continue and selected some new ideas that were related to goals for that year.

Choosing pilot school change ideas. Of the eight pilot schools in the district, only three were part of the NT3 pilot in Year 1 (S1, S5, and S8). The other five schools (S2, S3, S4, S6, and S7) were added in Year 2. Overall, the pilot schools had a similar process for choosing change ideas across schools. The improvement lead helped teams to understand the driver diagram and get started, and then teams would discuss and choose change ideas that would most benefit their schools. In general, pilot schools chose change ideas that were applicable to their school’s context and aligned with existing activities in the school to minimize the amount of new work to add to teachers’ plates. Three schools (S1, S3, and S7) mentioned wanting to align their NT3 goals with their school’s current goals or improvement plan.

After working on the 2016–17 strategies, the pilot school teams from the three continuing schools re-evaluated their change ideas for the next year, identifying which had been completed, needed another year of work, or were out of their scope. Then they fine-tuned their change ideas and related activities. For example, one school (S8) realized that they were too ambitious in Year 1, so narrowed their focus to just the most important change ideas in Year 2.

Specific Change Ideas and Activities

In this section we explore why the district and pilot schools chose the change ideas that they did, as well as the activities that they pursued as a result. Table 13 summarizes the reasons for choosing change ideas within each driver and the activities that are associated with these change ideas and drivers.
### Table 13. Summary of Reasons for Choosing Change Ideas and Activities

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Reasons for Choosing Change Ideas</th>
<th>Activities</th>
</tr>
</thead>
</table>
| 1. High Professional Teaching Standards | (A) Integration of Accomplished Teaching | • Support every teacher to become an accomplished teacher.  
• Incorporate the BoK into classrooms as a way to serve as a “broader umbrella by which to make everything we’re doing relevant.” | • Created a crosswalk to align the state teacher evaluation framework to the Five Core Propositions.  
• Hold spring summit, recognize schools for NT3 work, hold monthly calls for all school teams. |
|                | (B) Pursuit of Board Certification | • Encourage more teachers to become Board certified.  
• School was already doing activities to encourage Board certification, such as National Board cohorts. | • Use Title I/II funding to support certification.  
• Establish and participate in National Board cohorts.  
• Provide candidate support facilitators.  
• Teacher growth plans which encourage certification through earning contract units that lead to raises. |
| 2. Public Teaching Practice | (A) Observation and Analysis of Teaching | • Align school improvement goals with National Board principles.  
• Ideas seemed straightforward to implement.  
• To expose teachers to NB standards.  
• School was already doing observations.  
• Use NT3 money for collaborative analysis. | • View and analyze ATLAS videos.  
• Participate in instructional rounds.  
• Use reflection sheets, take self-reflection survey.  
• Participate in lesson studies. |
|                | (B) Evidence of Student Learning | • To expand analyzing assessments to include project work. | • Examine student work in PLCs or department meetings.  
• Training for inter-rater reliability to examine student work. |
### 3. Distributed and Shared Ownership

**Primary Driver:** Distributed and Shared Ownership

**Secondary Driver:** (A) Instructional Leadership Processes

- **Reasons for Choosing Change Ideas:**
  - Ideas seemed tangible, could develop into the future.
  - An ILT would help foster peer observations.

**Secondary Driver:** (B) Accomplished Teachers Supported to Become Skillful Leaders

- **Reasons for Choosing Change Ideas:**
  - Current PD was not engaging, so the school wanted to grow their own leaders to present PD sessions.
  - Create pathway for teacher leadership, promote teacher input, and create instructional leaders.
  - Ensure new teachers come in with support.
  - Provide candidates with more leadership opportunities.

**Activities:**
- Create and participate in an Instructional Leadership Team.
- Leverage NBCTs and NB candidates to facilitate PD sessions in schools.
- Pair novice teachers with mentors who receive coaching about mentoring practice
- Participate in ATLAS training if an administrator or mentor.
- Pathway toward leadership roles and instructional leadership.

### 4. Job-Embedded Collaborative Learning

**Primary Driver:** Job-Embedded Collaborative Learning

**Secondary Driver:** (A) Professional Learning Anchored in BoK

- **Reasons for Choosing Change Ideas:**
  - Aligns to school’s fundamental philosophy.
  - Professional learning about PLCs, observations, reflection, and using videos are school priorities.
  - PD was lacking and not anchored in the BoK.

**Secondary Driver:** (C) Dedicated Learning Time

- **Reasons for Choosing Change Ideas:**
  - School already had dedicated time to collaborate within departments but wanted to expand it.
  - To provide a full planning day for teachers.

**Activities:**
- Ground professional learning in the BoK.
- Highlight connections in trainings between school programs, state evaluation framework, and NB principles.
- Facilitate collaboration with other practitioners.
- Participate in weekly PD sessions.
Activities Pursued After Choosing Change Ideas

Below we describe the implementation of these activities in more depth, organized by driver.5

1A. Integration of accomplished teaching body of knowledge. All eight pilot schools and the district chose change ideas related to integrating the BoK into their schools’ teaching standards and classroom practice. These change ideas led to the district and pilot schools distributing a crosswalk of the state evaluation framework and Five Core Propositions, and a Spring Summit.

Crosswalk aligning the state’s evaluation framework with the Five Core Propositions. To ensure teachers were advancing toward a standard of accomplished teaching, the district NT3 team worked to make sure schools had access to a crosswalk of the state evaluation framework and Five Core Propositions. Pilot schools disseminated these crosswalks so that teachers understood this connection, and then shared this vision of accomplished teaching with the school community at large, including parents.

Spring Summit recognizing NT3 efforts. To foster a culture where accomplished teaching is at the core of schools’ improvement goals, the district convened NT3 pilot schools for a summit to recognize them for their NT3 efforts.

1B. Pursuit of Board certification. Seven pilot schools (S1, S2, S3, S5, S6, S7, S8) and the district chose change ideas related to pursuing Board certification. These change ideas inspired financial incentives for pursuing certification and the creation of National Board cohorts.

Funding – financial incentives for pursuing certification. To encourage teachers to pursue National Board certification, the district NT3 team instructed principals that they could allocate their Title I or Title II money to support teachers pursuing certification. The district also ensured a financial incentive in the professional growth plan: teachers can earn contract units for going through the NBCT process, allowing them to move up a salary column—a $10,000 raise.

Helping create National Board cohorts. To further support efforts to pursue certification, the district committed to helping schools organize National Board cohorts, which are led by a candidate support facilitator and consist of a group of candidates working together on pursuing certification. An example of district support is helping one school (S7) combine with another

5 Given the large number of schools in this district and large volume of change ideas and activities to discuss (within a limited amount of time), we decided to focus on asking about the reasons for choosing change ideas and related activities, rather than asking about the change ideas that were dropped in a systematic fashion in this district. For this reason, we do not include a table of the reasons for dropping change ideas, like we did for Districts A and D.
school to meet the minimum number of interested teachers required for a cohort. Three pilot schools (S1, S6, and S8) already had a National Board cohort, including one pilot school (S8) whose principal actively supported the time by providing a sub day once each semester for candidates working on National Board submissions. Three other pilot schools (S3, S4, and S7) were in the process of forming National Board cohorts for the next year.

While all but one pilot school pursued activities related to pursuing certification, they tried to ensure that they did not push certification, and believed it was important to incorporate accomplished teaching in schools even if teachers were not on the path to becoming certified.

2A. Observation and analysis of teaching. All eight pilot schools chose change ideas related to the observation and analysis of accomplished teaching. This choice led to viewing and analyzing ATLAS videos and conducting instructional rounds.

Viewing and analyzing ATLAS videos. All eight pilot schools implemented viewing and analyzing ATLAS. They used planning protocols and a reflection guide, plus a rubric to help them evaluate certain aspects of the videos. At times, pilot schools would use ATLAS videos to observe and analyze just one particular strategy or standard at a time—for example: “We gave teachers a standard, read through it, found key phrases of what accomplished teaching looks like, and then identified them in videos.”

One school (S4) aimed to observe in a non-evaluative way, rather than evaluating what they think a teacher should be doing. The schools in higher-need areas of the district (e.g., S3) mentioned that they struggled with using ATLAS videos because the students in the videos “don’t look like our students.” The NT3 co-leads (S3) addressed this challenge by videotaping themselves to use for analysis in a group.

Instructional rounds. Six pilot schools used instructional rounds to allow teachers to observe their colleagues’ instruction with the goal of analyzing accomplished teaching. In one school (S4), the instructional leadership team observed teachers, took notes, and analyzed the instruction within a framework of the five school standards. Some schools struggled with making time for teachers to observe their colleagues, and one (S2) reported working to overcome this challenge by changing the bell schedules to allow time for teachers to observe.

Two schools (S2 and S4) reported that getting teachers on board with being observed was a challenge, however, two schools (S1 and S7) described positive cultural shifts related to instructional rounds. One school lead (S7) explained that the school already practiced observations but the NT3 initiative fostered a greater commitment to debriefing. Another lead
(S1) added that observations had become so central to their school culture through NT3 that the school asked questions about it during interviews with potential new teachers.

2B. Evidence of student learning. Four pilot schools (S1, S2, S5, and S7) chose change ideas related to evidence of student learning, resulting in a focus on examining student work.

Examining student work in PLCs and grade-level meetings. Three schools began examining student work collectively in teacher groups, while a fourth had plans to implement this the next year. Learning to examine student work in this way required substantial training. One school (S7) spent nearly a full semester learning to examine formative assessments in grade-level PLCs, and another (S5) participated in a training on inter-rater reliability for examining student work.

3A. Instructional leadership processes. Five schools (S1, S2, S4, S6, and S7) chose change ideas related to instructional leadership processes, which led to the creation of leadership teams.

Creation of instructional leadership teams. Two schools (S2 and S7) created instructional leadership teams—teams of teachers gathered from different departments who help guide decisions about curriculum and strategic direction. School representatives counted the teams among their greatest successes, saying: “It was, without a doubt, the best idea that came from this [NT3 work].” School 4 did not end up pursuing this activity because they ran out of time.

3B. Accomplished teachers are supported to become skillful leaders. Seven schools (S1, S2, S3, S5, S6, S7, S8) and the district chose ideas related to supporting teachers to become leaders, which led to leveraging NBCTs to facilitate PD and pairing novice teachers with mentors.

Leveraging NBCTs to facilitate PD sessions. At the district level, NBCTs and active candidates were tapped to conduct professional learning sessions aimed at encouraging National Board certification and promoting the NT3 efforts. One school lead (S7) explained that the prior PD was not engaging, so they “needed [their] own people to present [the PD sessions].”

Pairing novice teachers with mentors. In two schools (S1, S8), NT3 teams paired novice teachers with mentors who could provide ongoing instructional support to both support novice teachers and create “more instructional leaders” (S8). The mentors were provided instructional coaches to help support leadership pathways and awarded a stipend in one school (S1) while the mentorship was more informal and focused on pursuing certification in another (S8).

4A. Professional learning anchored in the accomplished teaching body of knowledge. All eight pilot schools and the district chose ideas related to professional learning anchored in the BoK.
**Professional learning grounded in the BoK.** Five pilot schools (S1, S3, S4, S6, S8) described implementing training grounded in the BoK. For example, one school (S6) centered each PD session on a particular aspect of the BoK, such as the AAT, and another (S4) anchored their all-staff meetings in the BoK.

**4B and 4C. Dedicated learning time and a culture of learning and risk taking.** Six pilot schools (S1, S2, S5, S6, S7, S8) chose change ideas related to providing dedicated learning time and fostering a culture of learning and risk taking, which led to facilitating collaboration.

**Facilitating collaboration.** Pilot schools aimed to facilitate collaboration to ensure a culture of learning and risk taking. For example, one school (S1) developed a protocol for teachers to use during PLCs to direct the focus of the meeting and establish a collaborative structure. Another school (S7) reported overhauling their school schedules to dedicate time during the school day for teachers to collaborate, to show teachers that the culture of learning together is highly valuable and is not considered “extra.”

**Implementation**

To further understand the district and schools’ NT3 implementation, we asked district leaders about their experience participating in the NIC, as well as the successes and challenges of NT3.

**Networked Improvement Communities**

District representatives shared that the NIC is a helpful structure. They appreciated the chance to interact with others facing the same challenges and working on the same strategies. After feeling discouraged about their initial progress, one leader said that attending learning sessions and speaking with other districts helped them to feel better about their progress.

**Successes and Challenges of Implementation**

**Successes**

**District successes.** The improvement leads from both years spoke highly of the initiative’s value. One lead (Year 1) said that NT3 had been a catalyst that had “catapulted” the school improvement work and the other improvement lead (Year 2) reported that “the work is going forward [without] bogging down” and they are learning something from each school. For example, one school—which included the reduction of achievement gaps as part of its focus—presented data showing that their students of color had made great gains in math between the first year of NT3 and the second year.
Pilot school successes. A few themes emerged when pilot school representatives were asked about the successes of the NT3 initiative.

Resources. Several school representatives (S1, S2, S3, and S8) shared that the resources provided by NT3 were useful. For example, two school leads (S1, S8) found that engaging with BoK materials (e.g. Five Core Propositions) was valuable to teachers regardless of their intention to pursue certification.

Collaboration and planning time. Four representatives (S1, S3, S7, and S8) expressed appreciation for the collaborative approach of the NT3 work. For example, a representative (S7) said that the NT3 work helped their school to value planning time, beyond the NT3 initiative. Despite reporting the challenge of joining the initiative late, the representative (S7) also valued learning from schools (via webinar) who had already been working on NT3 for a year. This allowed her team to bypass some struggles of other schools by learning from their mistakes.

Instructional practice. A third success was the improvement in instructional practice (S4, S8). For example, one school leader (S4) said that the initiative helped teachers to open their minds to a different approach and another (S8) reported that more teachers understand the BoK and are starting to integrate it into their instruction, which has raised the quality of instruction.

Challenges

District challenges. When asked about challenges faced during the NT3 work, the improvement lead described three primary issues:

- The initial challenge to feel comfortable in her new role, which has improved over time.
- Pushback from teachers about being observed.
- A “culture of rejecting professional learning” from teachers who felt that “nobody [else] understands their context,” which took a long time for the NT3 team to overcome.

Pilot school challenges. Representatives from five pilot schools (S1, S2, S3, S4, and S8) reported challenges getting teacher buy-in around the NT3 initiative. Some teachers felt that “another thing” was being pushed onto them (S3), some were uncomfortable being observed (S1), and others resisted the sense of NT3 pushing certification (S1). It was also challenging to convince teachers “to give up more time” to implement this initiative given their busy schedules (S8).
Leaders from four schools (S3, S6, S7, and S8) cited funding-related challenges associated with the NT3 grant, including understanding the funding details or waiting to find out whether NT3 would be funded for a third year. Three of the five schools that came on in Year 2 (S3, S4, and S7) cited starting late and playing catch-up as challenges for getting started on the initiative.

**Teacher Experience of NT3**

To gauge teachers’ experience of NT3, we asked a series of open-ended questions on the implementation survey about teachers’ engagement with the BoK.

**Engagement With the BoK**

Of the teachers reporting on the implementation survey that they had engaged with the BoK, 42% indicated that this engagement had an impact on their professional growth (Table 14).

**Table 14. Do You Feel Your Engagement With the National Board’s Accomplished Teaching Body of Knowledge Has Had an Impact on Your Professional Growth as an Educator?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>133</td>
<td>42%</td>
</tr>
<tr>
<td>No</td>
<td>63</td>
<td>20%</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>124</td>
<td>39%</td>
</tr>
</tbody>
</table>

We asked the teachers reporting that the BoK had affected professional growth (n=133) to identify the BoK elements and describe the impact on their growth (76 responded). Teachers often reported that collaboration with colleagues, including PLCs and observations (n=47), had affected their growth. Table 15 presents the relationship between BoK elements and areas of growth and shows that collaboration with colleagues facilitated learning from colleagues.

**Table 15. Themes of Professional Growth by Element of the BoK Identified**

<table>
<thead>
<tr>
<th>Impact Themes</th>
<th>Five Core Propositions</th>
<th>NB Standards</th>
<th>Architecture of Teaching</th>
<th>Collaboration With Colleagues</th>
<th>BoK (General)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attuned to student needs</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Learning from colleagues</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>25</td>
<td>5</td>
</tr>
</tbody>
</table>

6 Appendix B illustrates the BoK elements by respondent type, including NBCTs, active candidates, early career teachers, etc.
### Impact Themes

<table>
<thead>
<tr>
<th>Impact Themes</th>
<th>Five Core Propositions</th>
<th>NB Standards</th>
<th>Architecture of Teaching</th>
<th>Collaboration With Colleagues</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Specific strategies</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>11</td>
<td>7</td>
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<td>General improvement</td>
<td>0</td>
<td>3</td>
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<tr>
<td>Reflective practice</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Assessments</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Teachers identified multiple elements and impacts, so table counts represent instances of when the element was mentioned with an impact rather than the number of teachers who mentioned it. However, the counts in the body of the report represent the number of teachers who mentioned each theme (regardless of element).

#### Attuned to specific student needs.
Teachers frequently explained that engagement with the BoK had influenced them to be more attuned to the specific needs of their students (n=12). For example, teachers reported increased awareness of their students’ social-emotional development and individual learning needs and using this awareness to adjust instruction. Teachers also reported using data more often to adjust instruction and to support goal setting and differentiating means and modes of instruction.

#### Assessments.
Several teachers reported that exposure to the BoK had helped them utilize assessments to modify instruction (n=7). Five teachers reported incorporating assessment results to modify instruction. Two of these teachers also cited using the AAT to support their use of assessment in their instruction. One teacher described shifting from traditional assessments to rubric-based assessments because of exposure to the BoK.

#### Improving instructional practice.
Many teachers described general improvement in their instruction (n=13), such as being more engaged with best practices and improving instruction using the BoK. Other teachers specified that engagement with the BoK had helped them to learn new strategies (n=26), such as using new resources, planning effective assessments or lessons, being more intentional about how they analyze and design lessons, and learning how to use data to design instruction and interventions. Two teachers described using the AAT to help them be more engaged with best practices in teaching, assessing, and goal-setting for their students. Several teachers also reported more self-reflective practices because of engaging with the BoK. For example, two teachers explained that viewing ATLAS videos had helped them reflect more on their practice and notice areas that need to be refined.

#### Learning from colleagues.
Teachers found that elements of the BoK, particularly observations and PLCs, had helped them improve their practice through collaboration with and feedback from their peers (n=29). Many teachers described participation in PLCs as spaces to collaborate,
engage, and learn from one another, “knowing they are there to improve [their] teaching collectively.” Several teachers also reported that these PLCs and observations provided them with specific feedback on how to improve their instructional practice and the opportunity to refine their skills. For example, one teacher described using the observations to learn new strategies for incorporating metacognition, one of the Five Core Propositions, in their practice.

Of the 63 teachers (20%) who reported that engagement with the BoK had not led to growth, 31 explained why this was the case in a follow-up question. They shared that they had already learned the practices described in the BoK from other sources (n=31) or reported no substantive collaboration in PLCs or classroom support to implement the strategies (n=5).

**Intentions to Pursue National Board Certification**

We asked teachers on the survey if they intended to pursue National Board certification. Two percent of respondents were NBCTs, 15% were active candidates, 23% intended to pursue certification sometime in the future, 37% may consider pursuing certification after the 2018–19 school year, and 21% did not intend to pursue certification (Table 16).

**Table 16. Do You Intend to Pursue National Board Certification?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Freq.</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am already a National Board Certified Teacher.</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td>I am currently in the process of pursuing Board certification.</td>
<td>47</td>
<td>15%</td>
</tr>
<tr>
<td>I intend to begin pursuing Board certification this summer or during next school year (2018–19).</td>
<td>72</td>
<td>23%</td>
</tr>
<tr>
<td>I may consider pursuing Board certification sometime in the future after the 2018–19 school year.</td>
<td>118</td>
<td>37%</td>
</tr>
<tr>
<td>No, I do not intend to pursue certification.</td>
<td>67</td>
<td>21%</td>
</tr>
</tbody>
</table>

Based on their response, we asked participants to describe what factors had been most influential in their decision to pursue or not to pursue certification. Two NBCTs and 25 active candidates said that they pursued certification to grow professionally, including some that mentioned collaboration with a National Board cohort as a key driver for pursuing certification:

Our cohort was most important. Having mentors and colleagues to gain understanding and insight into this process was crucial. I know not all teachers in the district receive this kind of support. I feel fortunate to work at a school that sets us up for success!
Teachers that planned to pursue certification, either within or after the next school year, also cited professional growth as an incentive (n=11), along with salary increase (n=9), and the fact that certification exempts teachers from recredentialing if they move to another state (n=4).

Teachers not pursuing certification until after the next school year, or not pursuing certification at all, frequently cited the time commitment as the reason for not pursuing certification (n=35). Others said that the cost of certification was a barrier (n=15), as some found that the professional and financial benefit of certification did not outweigh the cost of pursuing.

**Pursuing Certification and Professional Growth**

We asked the teachers that were pursuing certification or already certified if they felt their participation in certification had affected their professional growth. Thirty respondents (four NBCTs and 26 active candidates) reported that their participation led to professional growth, including twenty-two teachers (two NBCTs and 20 active candidates) who said that pursuing certification caused them to be more reflective in their practice. They also reported “feel[ing] more comfortable with differentiation” and “creating student-led lessons practices.” One candidate described the impact in the way she approaches teaching:

> It has taught me to dig deeper to get a complete picture of my students. I ask my colleagues more questions about our students to gain a richer perspective on their needs and strengths. The positive feedback I have received from my cohort and administrators has increased my confidence in my teaching.

Three candidates reported no professional growth, including one who said the process decreased their motivation to proceed because they had received low component scores.

**Conclusion**

Schools in District C chose to pursue and implement change ideas under every secondary driver in the driver diagram. They prioritized incorporating the BoK into teaching practice and increasing the number of teachers pursuing National Board certification through a district financial incentive and the formation of National Board cohorts. All eight pilot schools implemented ATLAS analysis, which reportedly fostered a strong culture of observing and discussing teacher practice. With a goal to support teachers to become leaders in their schools, school representatives considered their instructional leadership teams one of the best ideas to come out of their NT3 work. NT3 teams from District C faced challenges related to gaining teacher buy-in around the initiative, but were encouraged by their successes in instructional practice, collaboration, and bolstering existing initiatives and school improvement work.
Nearly half of teachers (42%) surveyed reported that engagement with the BoK had an impact on their professional growth, often citing opportunities to learn from colleagues and gain new instructional strategies. The teachers who reported no professional growth (20%) primarily said that they had already learned the practices described in the BoK, and some explained that their school did not provide enough support to implement the strategies. Professional growth and salary increase were the primary reasons for pursuing certification while time and cost were the primary barriers.
District D

Setting
District D consists of nine schools, including four that are involved in the pilot. Prior to the 2016–17 school year, District D turned the primary schools into “grade level centers,” meaning that one school contains all K–1 students, one second-grade students, and one the third-grade students. These grade-level centers have served as the pilot schools since 2016-17. The district chose to add an elementary school in 2017-18 because the school was having difficulty establishing a PLC process and the district thought participation in NT3 could assist them. All pilot schools participated in an onboarding workshop the first year they were involved in NT3.

NT3 District and School-Based Teams

District team. The district-level NT3 team consists of two members, the improvement lead and an NBCT advisor. The improvement lead coaches the pilot schools on their school-level NT3 projects, implements the district-level NT3 projects, and serves as the director of district improvement. The NBCT advisor is an NBCT primarily focused on integrating Next Generation Science Standards (NGSS)—K–12 science content standards developed by a consortium of states and science associations—into District D’s priorities and NT3 aims. She also provides coaching to school leadership and teachers to assist with this integration.

Pilot school team. Each pilot school has an NT3 team that helps to select and implement change ideas. Teams vary in size across the four pilot schools, from a team of two to the entire school staff (10 people). The frequency of meetings ranges from once every 2 weeks to once a month across schools. Principals in all four schools lead the direction of the NT3 work at their schools. For example, in one school (S3), the principal drives the school’s NT3 strategies and develops the agenda for NT3 team meetings.

Process for Choosing Change Ideas

Choosing district change ideas. To select the district’s change ideas, the improvement lead and NBCT advisor took inventory of existing district initiatives and prioritized change ideas that complemented them. Rather than adding an initiative that is disconnected to their existing work, one district representative reported, “We want the NT3 grant to support, enhance, and to take what we're doing to a deeper level.”

Choosing school change ideas. The pilot schools also selected change ideas with existing initiatives in mind. For example, they chose change ideas that:
• Would strengthen school priorities and represent the most “bang for the buck” (S1)
• Aligned with their school improvement plan (S4)
• Represented an opportunity to be the most effective (S2)

District and Pilot School Implementation and Alignment

While each pilot school chose their own change ideas, there is some alignment between the work at the district and school levels. The district develops the high-level approach for implementing the NGSS and BoK, which is then disseminated to the school level via PLCs. Representatives from each pilot school praised the district’s support for the NT3 initiative. The district helps to brainstorm how to align activities with change ideas, reviews school-level NT3 documents, and conducts monthly check-ins with each pilot school.

Specific Change Ideas and Activities

In this section we explore why the district and pilot schools chose the change ideas that they did, as well as the activities that they pursued as a result. Table 17 summarizes the reasons for choosing change ideas within each driver and the activities that are associated with these change ideas and drivers.
Table 17. Summary of Reasons for Choosing Change Ideas and Activities

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Reasons for choosing change ideas</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. High Professional Teaching Standards</td>
<td>(A) Integration of Accomplished Teaching</td>
<td>• Embed NT3 language into school culture.</td>
<td>• Created a <strong>handbook</strong> embedded with NT3 language distributed to all teachers and parents.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Develop continuous improvement cycles.</td>
<td>• Incorporated NT3 language/concepts into Instructional Leadership Teams (ILTs).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Use expertise of NBCTs to familiarize school, community with certification and core propositions.</td>
<td>• Select NBCTs serve as <strong>District Ambassadors</strong>, work with school leadership and NB cohorts to <strong>show connections</strong> between NT3 and Danielson Framework.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improve communication about the district vision and importance of NT3 work.</td>
<td>• District leadership team meets monthly to work on <strong>aligning NT3 work with work around NGSS</strong>.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Help teachers see link between NT3 work and Danielson framework.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• NB Standards natural fit with NGSS.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(B) Pursuit of Board Certification</td>
<td>• Encourage teachers to pursue Board certification.</td>
<td>• <strong>District early release days</strong> for teachers to work on Board certification components.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Continue district’s existing work around supporting Board certification.</td>
<td>• Time for NBCTs/candidates to work on components.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Incorporate BoK into <strong>growth plans</strong>.</td>
</tr>
<tr>
<td>2. Public Teaching Practice</td>
<td>(A) Observation and Analysis of Teaching</td>
<td>• To see examples of accomplished teaching.</td>
<td>• <strong>Peer observation.</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ideas aligned with School Improvement Plan (SIP) goals to increase math, reading outcomes.</td>
<td>• <strong>ATLAS</strong> or other <strong>video observation.</strong></td>
</tr>
<tr>
<td></td>
<td>(B) Evidence of Student Learning</td>
<td>• Show more options for using data than tests.</td>
<td>• Change approaches to <strong>discussing student work.</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Create procedures for examining student data.</td>
<td>• <strong>Protocol</strong> for examining, discussing student data.</td>
</tr>
</tbody>
</table>
## Primary Driver

<table>
<thead>
<tr>
<th>3. Distributed and Shared Ownership</th>
<th>(A) Instructional Leader Processes</th>
<th>• Aligns to School Improvement Plan (SIP) math and reading achievement goals.</th>
<th>• ILT helps teachers to implement MTSS process.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(B) Accomplished Teachers Supported to Become Leaders</td>
<td>• Ensure teacher leaders have PD, sufficient compensation, and platform to share expertise.</td>
<td>• PD to support teacher leadership.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Aligns with SIP goals to increase math, reading achievement.</td>
<td>• <strong>Create leadership pathways</strong> for teachers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• <strong>Teacher-led opportunities</strong> to work on leadership.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Use <strong>ILT</strong> to support teacher leaders.</td>
</tr>
</tbody>
</table>

## Secondary Driver

<table>
<thead>
<tr>
<th>4. Job-Embedded Collaborative Learning</th>
<th>(A) Professional Learning Anchored in the Body of Knowledge</th>
<th>• Improve instruction through introduction of new tools or leveraging existing tools.</th>
<th>• Restructure <strong>PLCs</strong>.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Create structures and strong SLTs or PLCs.</td>
<td>• Incorporate <strong>technology</strong> into the classroom.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Natural fit between NB standards and NGSS.</td>
<td>• <strong>PD</strong> grounded in the BoK.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improve instruction through introduction of new tools or leveraging existing tools.</td>
<td>• <strong>Reference documents</strong> with key NT3 principles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Natural fit between NB standards and NGSS.</td>
<td>• Experienced teachers provide <strong>mentoring, support.</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Natural fit between NB standards and NGSS.</td>
<td>• NBCT connects NT3 and NGSS.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Natural fit between NB standards and NGSS.</td>
<td>• <strong>Principal</strong> models <strong>risk taking</strong> during faculty meetings.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Natural fit between NB standards and NGSS.</td>
<td>• <strong>Protocol</strong> for examining, discussing student data.</td>
</tr>
</tbody>
</table>

| (B) Culture of Learning/Risk Taking | • Risk taking is a priority of the school. | • Principal models **risk taking** during faculty meetings. |
|                                    | • Discuss student work in faculty meetings. | • **Protocol** for examining, discussing student data. |

| (C) Dedicated Learning Time | • Promote collaboration. | • Create time for teacher **collaboration** during the school day. |
|                            | • Aligns to SIP math and reading outcomes goals. | • **Create time for teacher collaboration** during the school day. |
Activities Pursued After Choosing Change Ideas

Table 23 provided a summary of the activities that the pilot schools and districts pursued. Below, we describe the implementation of these activities in more depth, organized by driver.

1A. Integration of accomplished teaching and professional learning anchored in the BoK.

Three of the four schools (S1, S2, and S3) and the district selected change ideas related to the integration of accomplished teaching, which inspired the integration of the BoK into a school handbook and ILTs, the creation of district ambassadors, and the alignment of NT3 and NGSS.

Handbook. To familiarize teachers with the BoK, one school (S3) created a handbook that outlined school procedures and academic goals and incorporated NT3 concepts, such as the AAT and Five Core Propositions. While the school had previously wanted to create such a document, the NT3 initiative provided a spark to follow through with the idea. They distributed the handbook to all teachers and parents in the school.

ILT. Two schools (S1 and S2) incorporated NT3 concepts into their ILTs “to create shared definitions across the school.” For example, in one school (S2), ILT members discussed their interpretation of accomplished teaching and best practices before creating shared definitions and a common understanding of BoK goals. These monthly ILT meetings continued to be centered around NT3 principles as a continual reminder of their goals.

District ambassadors. To promote NT3 across schools, the district selected NBCTs to serve as district ambassadors. With at least one assigned to each school team, these ambassadors worked to show the connection between NT3 and existing district priorities so that pursuing certification would feel relevant and worth the investment for teachers. For example, one ambassador worked with the district NT3 team to align the Five Core Propositions and the Danielson evaluation model, and then worked with school leadership and NT3 teams in pilot schools to help them present these connections to teachers via grade-level or staff meetings.

Aligning standards. A district leadership team, led by the improvement lead and an NBCT ambassador, worked with other teachers and school leaders on aligning the NGSS with their work on NT3. They created a scope and sequence and identified how instructional practices would need to change for this alignment to take place. The NBCT ambassador is also providing PD for teams of teacher leaders on the relationship between the NGSS and the BoK.
1B. Pursuit of Board certification. The district and two pilot schools (S1 and S2) selected change ideas related to the pursuit of Board certification, which led to promoting NBCTs/certification and incorporating accomplished teaching practices into teacher growth plans.

District early release days and other monthly meetings. Once a month, on early release days, the district provides time for teachers pursuing certification to work on their components alongside other candidates, and an information session on National Board certification for teachers interested in pursuing. One school (S2) provides additional time once a month for active candidates to work with NBCTs on their components.

Professional growth plans. To promote National Board certification, two schools incorporated accomplished teaching into teachers’ professional growth plans. One school (S1) grounded professional growth expectations in the National Board Standards and school evaluation model. The other school (S2) required all teachers to be involved in ILTs to develop systems that focus on monitoring teacher and student growth, including one team based on a common interest in pursuing National Board certification. Within this group, active candidates shared the areas in which they needed to improve instruction to achieve certification, and then received feedback and suggestions from the group. This process supported teachers to achieve certification while helping the rest of the school to learn these best practices.

Mentor teachers. One school (S3) is utilizing NBCTs and active candidates to share experiences in pursuing certification with teachers in the building who were considering certification.

2A. Observation and analysis of teaching. All four schools selected change ideas related to observation and analysis of teaching, which led to peer, video, and ATLAS observations.

Peer observations. In all four pilot schools, teachers engaged in peer observations. Schools largely conducted observations to learn strategies from other teachers and then discussed best practices in a group. One school (S4) provided PD to help teachers conduct observations with a focus on understanding accomplished teaching. In another school (S3) teachers interested in certification shadowed active candidates to better understand the certification process and benefits to their teaching practice. Based on principal walkthroughs using a district tool, a principal reported that student engagement was rated more highly in classrooms of teachers from the PLC that conducted peer observations relative to other classrooms.

ATLAS and recording instruction. Three pilot schools (S2, S3, and S4) viewed videos in teacher groups (School Leadership Teams (SLTs) or SIP teams) to observe accomplished teaching practices, including approaches to collaboration in grade-level teams, analysis of student work,
examining student data, and planning instruction based on assessments. In addition to viewing ATLAS videos (S3), one school (S2) encouraged teachers to record themselves to discuss with the SLT—a practice that then spread throughout the school (after the principal recorded herself for the team to analyze) and became a monthly agenda item in SLT meetings.

2B. Evidence of student learning. Three pilot schools (S1, S2, and S4) selected change ideas related to evidence of student learning, which led to changes in approaches to discussing student work and development of a student work and data protocol template.

Discussing student work. As part of their NT3 strategy, three schools (S1, S2, and S4) changed their approach to discussing student work in teacher meetings. For example, these discussions now included examining student work to identify missing skills and plan for incorporating these into future lessons, reflecting on how student data drives instructional decision-making, and looking at data beyond student test scores. One school (S2) used NT3 money to pay for substitute teachers so that teachers could engage in “data days” in which teachers review data and identify which students need further assistance. In another school (S4), the ILT presented to teachers about student work and a data protocol that detailed the process of examining and discussing student work, to be used during grade-level and school improvement meetings.

3A. Instructional leadership processes. One school (S4) selected change ideas related to instructional leadership processes, which they integrated into their ILT.

ILT. This school (S4) leveraged the ILT to present to teachers during faculty and school improvement meetings on how to use Multi-Tiered Systems of Support (MTSS) groups to provide support to students in need of skill development in reading and math. ILT members further met with teachers individually during school improvement meetings to discuss the process for systematically implementing MTSS small group interventions.

3B. Accomplished teachers are supported to become skillful leaders. Three pilot schools (S1, S2, and S4) selected change ideas related to the secondary driver, accomplished teachers are supported to become skillful leaders. They pursued this driver by providing leadership opportunities through PD, leadership pathways, and teacher-led opportunities.

Professional development. In two schools (S1 and S2) teachers were given the opportunity to lead PD for other teachers after receiving external training. For example, one school (S2) learned instructional strategies from consultants and then trained other teachers in the school. PD teacher leaders also led after-school collaboration and schoolwide PD (S1) and presented math approaches to the district after attending a national conference (S2).
Development of leadership pathways. Two schools created leadership pathways for teachers to assume leadership roles. To show that National Board certification provides opportunities for leadership, one school (S1) selected NBCTs or active candidates to participate in the SLT. In the other school (S2), teachers were selected for instructional leadership roles through a pathway in which they were trained by consultants in the subject area in which they teach to share their expertise with other teachers in the school.

Teacher-led opportunities. Two schools (S1 and S2) provided opportunities for teachers to practice leadership. One school (S2) provided summer writing days (three per summer) in which teachers led unit development, and another (S1) provided NT3-compensated time during and after school for teachers to collaborate and develop best practices.

4A. Professional learning anchored in the accomplished teaching body of knowledge. All four pilot schools (S1, S2, S3, and S4) and the district selected change ideas associated with professional learning anchored in the BoK, which inspired BoK-focused PD, the creation of reference documents, restructuring PLCs, and the use of mentor teachers.

Professional development. The district and three schools (S1, S2, and S4) were pursuing PD activities grounded in the BoK, including aligning lesson studies to the BoK and making connections between the Five Core Propositions and NGSS. In one pilot school (S4), the ILT presented to other teachers on the Five Core Propositions and AAT during faculty and school improvement meetings. Another school (S1) introduced teacher institute days, in which teachers shared approaches to project-based learning via gallery walks. Teachers in this school were also offered opportunities to collaborate with other teachers about lesson plans, how to address certain standards, and effective strategies and tools.

Reference documents. Two schools (S3 and S4) created reference documents for teachers that incorporated key NT3 principles, including an instructional handbook that incorporated the BoK (S3) (discussed in more detail in the High Professional Teaching Standards section) and a laminated placemat of the Five Core Propositions and the AAT for teachers to reference during grade-level team meetings, observations, and other PD activities led by the ILT.

Restructuring PLCs. Two schools (S1 and S2) restructured their PLCs to group teachers by subject matter. One school (S2) explained that this restructuring turned the meeting focus to developing pre-tests, post-tests, and re-teach tests, which allowed teachers to identify what students know and differentiate instruction accordingly, and the other (S1) adjusted these groupings so that content experts could lead meetings about that content area.
Technology in the classroom. Two schools (S1 and S2) focused professional learning on implementing technology use in the classroom. One school (S1) conducted a training on how to effectively use online resources in their efforts to use more digital resources in the classroom. Another school (S2) included “becoming better with technology” into their improvement plan. To effectively use technology, teachers engaged in a lot of training on how to use the programs.

Mentor teachers. One school (S1) mentioned pairing novice teachers with mentors and district-level instructional coaches, who attend NT3 trainings and can therefore provide instructional support grounded in the BoK.

4B. Culture of learning and risk taking. Two schools (S1 and S4) selected a change idea around the culture of learning and risk taking, which led to modeling risk-taking and the development of a protocol template for discussing student data (which was previously described).

Model risk-taking. One principal (S1) described modeling risk taking during faculty meetings with the hope that teachers would take that behavior into ILTs and collaborative meetings. This risk-taking behavior can come in the form of trying a new project that’s not readily available or tweaking curriculum to meet the diverse learner needs of the students in their classrooms.

4C. Dedicated learning time. Three pilot schools (S1, S2, and S4) chose change ideas related to dedicated learning time, which led to the creation of scheduled times for collaboration.

Collaboration opportunities. All three schools created scheduled time for collaboration during the school day. For example, two schools provided full collaboration days, including monthly “data days” in which teachers collaborate around student data as substitute teachers cover their classrooms (S2) and NT3-funded “school improvement days” in which teachers collaborate around vocabulary instruction, MTSS interventions, and data analysis (S4). Another school (S1) established time during the school day for teachers to meet with their peers who had previously not been afforded that opportunity (specialist teachers and dual language teachers).

Dropped Change Ideas

As the pilot schools transitioned from 2016–17 to 2017–18, they reflected upon which change ideas to add or drop. Two pilot schools (S1 and S2) dropped a total of five change ideas. Table 18 summarizes the reasons for dropping these change ideas.
Table 18. Reasons for Dropping Change Ideas Across Schools

<table>
<thead>
<tr>
<th>Primary</th>
<th>Secondary</th>
<th>Change Idea (Summary)</th>
<th>School</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. High Professional Teaching Standards</td>
<td>(A) Integration of Accomplished Teaching</td>
<td>1A1: Create vision where accomplished teaching and certification is the norm.</td>
<td>S2</td>
<td>Vision already established; wanted to focus on pedagogy.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1A2: Create a crosswalk between the BoK and local teaching frameworks.</td>
<td>S2</td>
<td>Wanted to focus on pedagogy.</td>
</tr>
<tr>
<td></td>
<td>(B) Pursuit of Board Certification</td>
<td>1B2. Anchor professional growth plans in pursuit of accomplished teaching and Board certification.</td>
<td>S2</td>
<td>Wanted to move on to a more systematic plan for development.</td>
</tr>
<tr>
<td>3. Distributed and Shared Ownership</td>
<td>(B) Accomplished Teachers Supported to Become Skillful Leaders</td>
<td>3B2: Provide ongoing, role-specific, skills-based professional learning for instructional leaders.</td>
<td>S1</td>
<td>Already in place.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3B4. Incorporate Board certification as a selection criterion for instructional leadership roles.</td>
<td>S2</td>
<td>To focus on developing PD for all, instead of just teacher leaders</td>
</tr>
</tbody>
</table>

Implementation

In addition to exploring the strategies that the district and schools pursued, we were interested to learn about their experience with improvement science and the NIC.

Improvement Science

District D found the use of improvement science useful. A district representative said that improvement science fosters a growth mindset, emphasizes the process, and promotes effective problem solving in the face of barriers. The challenges associated with improvement science, as identified by district representatives, were primarily the time it takes to implement and achieving buy-in from teachers around the practice. District representatives reported that improvement science is used occasionally at the school level—primarily during NT3 leadership team meetings in which the team analyzes and monitors implementation effectiveness.

Networked Improvement Community

A district representative explained that the NIC provided an opportunity to hear other districts’ strategies and approaches to utilizing the NT3 funds. The biggest challenge of participating in
the NIC was finding the time for everyone to meet. Additionally, a representative shared they would like to receive more feedback from others on the work they are doing in their district.

**Successes and Challenges of Implementation**

**Successes**

**District successes.** District representatives said that the initiative provided a common focus and framework across schools, an opportunity to work on district needs, and strategic efforts to achieve accomplished teaching, along with funds to ensure strong implementation. They also reported implementation successes, including the successful alignment of the BoK and NGSS, which has resulted in perceived instructional changes in the classroom, such as enhanced use of classroom discussion. They also noted that teachers have successfully extended these instructional changes (based on work with the science-focused NGSS) to other subject areas.

**School successes.** All four pilot schools reported successes associated with NT3. School representatives primarily cited the ways in which the initiative helps to improve instruction in their schools, including prompting teachers to look at data and make instructional adjustments, using resources associated with accomplished teaching, trying new instructional practices, and engaging in collaborative discussions more frequently. Two schools (S1 and S4) reported increases in collaboration between teachers, which has increased shared learning. For example, teachers have shared with one another how they are implementing vocabulary practices and how students have responded. Due to NT3, school leaders reported that more teachers were examining student data more regularly (S4) and using data to design instruction (S2).

**Challenges**

The biggest challenge at the district level is ensuring that people commit sufficient time and effort to the initiative. Similarly, two schools reported that finding time for NT3 implementation was the biggest challenge, including the time for teacher teams to examine student data or discuss student work (S4), teachers to develop units of study (S2), and NT3 teams to plan NT3 strategies (S2). Another challenge was convincing veteran teachers to pursue certification since they have witnessed the amount of work it requires (S3).

**Teacher Experience of NT3**

In addition to learning about the implementation of NT3 strategies from the perspective of NT3 teams, we sought to understand teachers’ experiences of the NT3 via survey questions.
**Engagement With the BoK**

Of the teachers reporting on the implementation survey that they had engaged with the BoK, 69% indicated that this engagement had an impact on their professional growth (Table 19).

**Table 19. Do You Feel Your Engagement With the National Board’s Accomplished Teaching Body of Knowledge Has Had an Impact on Your Professional Growth as an Educator?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31</td>
<td>69%</td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>9%</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>10</td>
<td>22%</td>
</tr>
</tbody>
</table>

We asked the teachers reporting that engagement with the BoK had affected their professional growth (n=45) to identify the BoK elements and describe their impact on professional growth (18 responded). Teachers frequently reported that the Five Core Propositions (n=6) and collaboration with colleagues (n=6), including PLCs and observations, affected growth. Table 20 shows the relationship between BoK elements and areas of growth (described below the table).

**Table 20. Themes of Professional Growth by Element of the BoK Identified**

<table>
<thead>
<tr>
<th>Impact Themes</th>
<th>Five Core Propositions</th>
<th>NB Standards</th>
<th>AAT</th>
<th>Collaboration With Colleagues</th>
<th>ATLAS</th>
<th>BoK (General)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attuned to student needs</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Learning from colleagues</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Improvement (generally)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Specific Strategies</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reflective Practice</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Teachers identified multiple elements and impacts, so table counts represent instances of when the element was mentioned with an impact rather than the number of teachers who mentioned it. However, the counts in the body of the report represent the number of teachers who mentioned each theme (regardless of element).

**Improving instructional practices (improvement, specific strategies, and reflective practice).** Teachers described general improvement in their instruction (n=3) due to engagement with the BoK, as well as the learning of specific strategies (n=3), such as learning best practices around

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7 Appendix B illustrates the BoK elements by respondent type, including NBCTs, active candidates, early career teachers, etc.
vocabulary and reading instruction from peers in PLCs. Teachers also reported that engagement with the BoK helped them more effectively reflect on their own practice (n=3), including two that specifically noted that engagement with the Five Core Propositions inspired reflection.

Attuned to student needs. Teachers (n=4) reported that engagement with various elements of the BoK helped them meet the needs of their learners. For example, one teacher reported that engagement with the AAT made individualized instruction more manageable, while another reported that the Five Core Propositions and National Board Standards “created a more purposeful thought process when providing or designing educational practices, as well as [when] dealing with individual students who have been more difficult to engage previously.”

Learning from colleagues. Teachers reported that engagement with the BoK helped them collaborate with and learn from colleagues (n=3). For example, one teacher reported that participating in PLCs had “brought us closer as a staff and has boosted morale, as well as helping us all learn new strategies, technologies, and curriculum to help us become better teachers,” while another said that observing other teachers “lessened any anxiety about having someone else observe and discuss our work.” Two teachers responding to interview questions described growing through discussion about how to improve teaching (n=2).

The teachers reporting that engagement with the BoK had not resulted in professional growth, primarily said that they were not familiar enough with the BoK to comment.

Intentions to Pursue National Board Certification

We asked teachers on the survey if they intended to pursue National Board certification. The results showed that 16% were in the process of pursuing certification. Of those not already certified, 16% reported that they may consider pursuing certification sometime in the future, after the 2018–19 school year, and 67% do not intend to pursue certification (Table 21).

Table 21. Do You Intend to Pursue National Board Certification?

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am already a National Board Certified Teacher.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>I am currently in the process of pursuing Board certification.</td>
<td>7</td>
<td>16%</td>
</tr>
<tr>
<td>I intend to begin pursuing Board certification this summer or during next school year (2018–19).</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Response</td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>I may consider pursuing Board certification sometime in the future after the 2018–19 school year.</td>
<td>7</td>
<td>16%</td>
</tr>
<tr>
<td>No, I do not intend to pursue certification.</td>
<td>30</td>
<td>67%</td>
</tr>
</tbody>
</table>

Based on their response, we asked teachers to describe what factors have been most influential in their decisions about certification. Four candidates chose to pursue certification for professional growth reasons—for example, “hoping to best meet the needs of [their] learners.”

Eight teachers considering certification after the next school year or indicating no intention to pursue certification explained that time was the primary challenge, including “time involved versus the length of time certification is valid.” Six teachers reported being close to retirement and three said they already had a master’s degree or were already planning on pursuing a higher degree (n=3). All three teachers who emailed responses said they were not interested in pursuing certification due to lack of time, having a master’s degree, and retirement.

**Pursuing Certification and Professional Growth**

We asked the teachers currently in the process of pursuing certification if they felt their participation in certification had affected their professional growth. Five of the six teachers reported experiencing professional growth. Three said that pursuing certification helped them to be more reflective and aware of more instructional practices. One teacher reported “immense growth” due to collaborating with other teachers and learning new strategies.

**Conclusion**

With the driver diagram as a guide, pilot school and district teams in District D selected change ideas to complement strategic goals at both the school and district level. With the goal of improving instruction, the district team incorporated the BoK into their implementation of the NGSS and school teams integrated the BoK into ILTs and a school handbook. The district supported National Board certification by providing time on early release days for active candidates to work together on their components, and two schools incorporated accomplished teaching into teachers’ professional growth plans. Pilot schools created opportunities for teachers to observe and analyze accomplished teaching through peer observations and ATLAS. They also offered more opportunities for teachers to examine student work collaboratively, engage in PD grounded in the BoK, and seek leadership opportunities.
Resulting from these efforts, district and school representatives reported witnessing successful alignment of the BoK and NGSS and improved classroom instruction, including teachers trying new instructional practices, using data effectively, and collaborating with colleagues. Most teachers (69%) similarly indicated that engaging with the BoK affected their professional growth and resulted in more reflective practice that is better attuned to students’ needs. However, a majority of teachers (67%) reported they did not intend to pursue National Board certification, as the time commitment posed a challenge.
## Appendix A: Cross-District Summary of Change Ideas and Activities

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Reasons for choosing change ideas</th>
<th>Activities</th>
</tr>
</thead>
</table>
| 1. High Professional Teaching Standards | (A) Integration of Accomplished Teaching | • Incorporate the BoK into the school culture and ensure accomplished teaching is the expectation.  
• Because the BoK represents good teaching.  
• Show the link between the BoK and existing initiatives, standards, frameworks, improvement plan. | • Embed the BoK into documents or frameworks: PD framework, school handbook, content standards.  
• Efforts to show connection between the BoK and state standards and evaluation framework.  
• Incorporate the BoK into PLCs and ILTs. |
| | (B) Pursuit of Board Certification | • Encourage teachers to pursue Board certification.  
• Continue existing activities that support certification, such as National Board cohorts. | • Financial support for teachers pursuing.  
• Support for pursuing, e.g., mentors, cohorts, support facilitators, time to work on components.  
• Promoting NBCTs through recognition, growth plans. |
| 2. Public Teaching Practice | (A) Observation and Analysis of Teaching | • Opportunity to see accomplished teaching.  
• The ideas aligned with the school improvement plan.  
• Increase collaboration and analysis of teaching. | • Peer observations, instructional rounds.  
• ATLAS observations.  
• Teachers recording own instruction. |
<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Reasons for choosing change ideas</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(B) Evidence of Student Learning</strong></td>
<td></td>
<td>• Establish procedures for examining student work and expanding to the whole school. • Expand analyzing student work beyond assessments.</td>
<td>• Develop protocols to examine student work. • Examine student work in regular meetings.</td>
</tr>
<tr>
<td><strong>3. Distributed and Shared Ownership</strong></td>
<td><strong>(A) Instructional Leader Processes</strong></td>
<td>• Increase focus on creating instructional leaders who could help foster peer observations.</td>
<td>• Create and participate in instructional leadership teams.</td>
</tr>
<tr>
<td></td>
<td><strong>(B) Accomplished Teachers Supported to Become Leaders</strong></td>
<td>• Cultivate teacher leadership through PD, compensation, and a leadership pathway.</td>
<td>• Leadership professional development. • Training or coaching for mentor teachers. • Leadership pathways.</td>
</tr>
<tr>
<td><strong>4. Job-Embedded Collaborative Learning</strong></td>
<td><strong>(A) Professional Learning Anchored in the BoK</strong></td>
<td>• Strengthen existing PD, make it more meaningful and aligned with the BoK. • Improve instruction through new or existing tools.</td>
<td>• Incorporate the BoK into PD, PD framework, PLCs. • Create documents aligned to the BoK.</td>
</tr>
<tr>
<td></td>
<td><strong>(B) Culture of Learning/Risk Taking</strong></td>
<td>• Establish norms so teachers are more comfortable with taking risks, observations and analysis.</td>
<td>• Develop protocols for analyzing videos or student data.</td>
</tr>
<tr>
<td></td>
<td><strong>(C) Dedicated Learning Time</strong></td>
<td>• Increase collaboration opportunities.</td>
<td>• Creating time for teachers to collaborate for the sake of common planning time or NB cohort work.</td>
</tr>
</tbody>
</table>

Note: Reasons for choosing change ideas and activities were included if they were mentioned in at least two case study districts.
Appendix B: Elements of the BoK That Affected Teachers’ Growth

### District A

<table>
<thead>
<tr>
<th>Respondent Type</th>
<th>Five Core</th>
<th>NB Standards</th>
<th>AAT</th>
<th>Collaboration</th>
<th>BoK (General)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBCTs</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Early Career</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Non-Active/Non-NBCT</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>3</td>
<td>5</td>
<td>14</td>
<td>7</td>
</tr>
</tbody>
</table>

### District B

<table>
<thead>
<tr>
<th>Respondent Type</th>
<th>Five Core</th>
<th>NB Standards</th>
<th>AAT</th>
<th>Collaboration</th>
<th>BoK (General)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBCTs</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Active Candidate</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>Early Career</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Non-Active/Non-NBCT</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>10</td>
<td>24</td>
<td>28</td>
<td>18</td>
</tr>
</tbody>
</table>

### District C

<table>
<thead>
<tr>
<th>Respondent Type</th>
<th>Five Core</th>
<th>NB Standards</th>
<th>AAT</th>
<th>Collaboration</th>
<th>BoK (General)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBCTs</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Active Candidate</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Early Career</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Non-Active/Non-NBCT</td>
<td>3</td>
<td>7</td>
<td>0</td>
<td>33</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>15</td>
<td>6</td>
<td>47</td>
<td>13</td>
</tr>
</tbody>
</table>

### District D

<table>
<thead>
<tr>
<th>Respondent Type</th>
<th>Five Core</th>
<th>NB Standards</th>
<th>AAT</th>
<th>Collaboration</th>
<th>ATLAS</th>
<th>BoK (General)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Candidates</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Early Career</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Non-Active/Non-NBCT</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>2</td>
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<td>3</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>
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