

Hilary Loeb
Ana M. Elfers
Margaret L. Plecki

Possibilities and Potential for Improving Instructional Leadership: Examining the Views of National Board Teachers

The expectation for schools to continually improve outcomes for students underscores the importance of tapping teacher leaders' contributions in school improvement and renewal efforts. As National Board (NB) certification has become

a common feature of state and district policies to improve teaching and learning, it is worthwhile to explore how this effort has shaped the context and contributions of teacher leadership. Both recent research and a statewide survey of National Board Certified Teachers (NBCTs) suggest that NBCTs may be in a strong position to help support school improvement initiatives. Echoing other studies, findings indicate that NBCTs bring considerable leadership experience to their work and are willing to be engaged in activities necessary to improve teaching and learning. The authors discuss perceived barriers in assuming leadership roles and conclude with approaches that schools, districts, and the National Board for Professional Teaching Standards may take to better tap the leadership potential of accomplished teachers.

Hilary Loeb is the Director of Research and Evaluation at the College Success Foundation; Ana M. Elfers is a research assistant professor in the College of Education and Margaret L. Plecki is an associate professor in the College of Education, both at the University of Washington, Seattle.

Correspondence should be addressed to Hilary Loeb, Director of Research and Evaluation, College Success Foundation, 1605 NW Sammamish Road, Suite 200, Issaquah, WA 98027. E-mail: hloeb@collegesuccessfoundation.org

PUBLIC SCHOOLS ACROSS THE United States have been grappling with heightened expectations to continually improve educational outcomes for all students. This pressure underscores the importance of tapping the contributions of teacher leaders in school improvement efforts. National Board (NB) certification, perhaps the largest development in teacher policy over the past 20 years (Goldhaber, 2006), may play a useful role in cultivating such leadership. Over 82,000 teachers have earned certification through the National Board for Professional Teaching Standards (NBPTS) since 1994, more than doubling in the past 5 years (NBPTS, 2009a). The assessment of accomplished teaching has become a common feature of state and district policies to improve teaching and learning. Many teachers have also claimed that NB certification provides high quality professional development (Lustick & Sykes, 2006; Place & Coskie, 2006; Rotberg, Futrell, & Holmes, 2000).

Teacher leadership is widely regarded to be a critical element of school improvement (Lieberman & Miller, 2004; Murphy, 2005). Smylie, Conley, and Marks (2002) explained that the concept is rooted in both the movement to professionalize teaching and the recognition that school administrators need teacher leaders to effectively implement educational reforms. Despite teacher leadership's importance, defining this concept has been challenging (Murphy, 2005; York-Barr & Duke, 2004). This is due in part to the numerous ways in which the work of teacher leaders is depicted in research and practice. Nonetheless, two recent definitions of teacher leadership provide useful categories for making sense of how accomplished teachers such as National Board Certified Teachers (NBCTs) engage in leadership. York-Barr and Duke (2004) described teacher leadership as a process in which teachers influence their colleagues and other members in school communities to improve teaching and learning practices with the aim of increased student learning and achievement. Lieberman and Miller (2004) defined specific roles for these teacher leader activities, including researcher, scholar, and mentor. They described how these roles can be developed and sustained through professional networks of teachers.

NB certification's growth over the last two decades raises the need to explore how this effort, as well as others focused on teacher leadership, have contributed to school improvement. The blueprint for the NBPTS, *A Nation Prepared: Teachers for the 21st Century*, linked the renewal of the teaching profession with promoting educational reform (Carnegie Task Force, 1986). The NBPTS sought to develop the knowledge base for teaching and to encourage the creation of more challenging teacher education and professional development. NBCTs would also be expected to demonstrate their capacity to enhance student learning by fulfilling the National Board's five core propositions.¹ The fifth proposition specifically addresses several dimensions of teacher leadership:

Proposition 5: Teachers are Members of Learning Communities.

- NBCTs collaborate with others to improve student learning.
- They are leaders and actively know how to seek and build partnerships with community groups and businesses.
- They work with other professionals on instructional policy, curriculum development and staff development.
- They can evaluate school progress and the allocation of resources in order to meet state and local education objectives.
- They know how to work collaboratively with parents to engage them productively in the work of the school (NBPTS, 1989, p. 4).

To successfully earn certification, NB candidates are prompted to reflect on how their work fulfills criteria in the Documented Accomplishments portfolio entry that attends to how teachers view their work outside of the classroom with students' families, colleagues, and local community members (NBPTS, 2009b).

NBCTs as a Learning and Leadership Resource

Scholarship about NBCTs highlights the potential of the NB certification process to serve

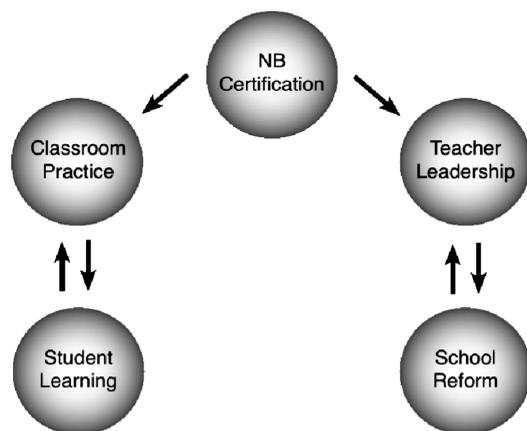


Figure 1. Influences of NB Certification

as a key resource for school improvement, and provides insights into how the leadership may be better tapped in schools and districts. By providing a broad overview of the connections within two primary strands of research on NBCTs, Figure 1 serves as an organizer for the emerging evidence about the influences of NB certification. It indicates that NB certification influences teacher practice and leadership directly, which, in turn, affects student learning. Although our understanding of the combined impact of accomplished practice and leadership activities needs further investigation, the figure reflects our assumption that the combined impact of these contributions carry more weight than when independent of one another.

In its synthesis of student achievement studies, the National Research Council concluded that NBCTs make contributions to student learning above and beyond those without certification (Hakel, Koenig, & Elliot, 2008). Studies of the effects of NB certification on teacher knowledge and practice explore how aspects of the assessment process lead to learning gains, identifying changes in science (Lustick & Sykes, 2006) and literacy instruction (Coskie & Place, 2008; Place & Coskie, 2006), and student assessment (Lustick & Sykes, 2006; Sato, Wei, & Darling-Hammond, 2008). Researchers have also investigated how National Board standards have been used as tools in teachers' work as leaders, particularly in discussions of curricular improvement

and teaching practices among colleagues (Koppich, Humphrey & Hough, 2006; Sato, Hyler & Monte-Sano, 2002).

Recent research suggests that both the linkages between successful participation in the NB certification process and increased teacher leadership, and names challenges in tapping NBCTs' leadership. NBCTs attributed changes in leadership activities, decision making about leadership, and approaches to leadership responsibilities to their participation in NB certification (Sato et al., 2002). Frank et al. (2008) pursued the question of whether NB certification affects the number of colleagues an NBCT helps in a school, and found that NBCTs assist other teachers approximately 0.6 more than their uncertified colleagues with comparable background and experience. In a study comparing NBCTs with teachers without the certification, Elfers and Plecki (2006) found that NBCTs reported greater confidence of their ability to teach the official curriculum, prepare students for state assessments, and manage diverse learning needs. Both a survey of over 1,000 NBCTs and case studies of NBCTs in nine low-performing schools provide a comprehensive picture of how accomplished teaching is regarded as a resource in school improvement (Koppich et al., 2006). A recurrent theme in Koppich and her colleagues' findings is the number of barriers to tapping teachers' expertise in school improvement efforts. Nonetheless, Koppich et al. highlight other evidence that shows the potential of school and district approaches in drawing from the leadership of NBCTs.

The recent scholarship described above illustrates both the promise of NBCTs to be tapped as a leadership resource, and the challenges in engaging them in school improvement. Our study of the views of NBCTs in Washington state offer another case that supports and extends evidence about the ways that NBCTs are inclined toward teacher leadership. In this article, we first discuss the policy context and survey methodology for gathering data about NBCTs in Washington. We then integrate our findings with previous evidence documenting both the range of leadership roles and the key supports and barriers associated with accessing the leadership of accomplished teachers. We conclude with

a discussion of how scholarship about NBCTs and other accomplished teachers can provide strategies for making better use of accomplished teachers. We also consider how this evidence may inform broader conversations about how to better tap teacher leadership for school improvement.

Teacher Leadership Among NBCTs in Washington State

Like other states, Washington launched a deliberate effort to introduce NB certification and represents a supportive context for the reform effort. In 2009, there were close to 4,000 NBCTs in Washington, ranking it fifth in the United States in total NBCTs (NBPTS, 2009c). This growth was cultivated through the Washington Initiative for National Board Teacher Certification. The Washington Initiative was a public-private partnership launched in 2001 to recruit and support teachers through the process of NB certification that was subsequently continued by the state department of education in 2004. A key legislative reform beginning in the 2007–2008 school year increased NBCTs' stipends above their salary to \$5,000 from \$3,500. Teachers with the NB Certificate in "challenging schools"² (Office of the Superintendent of Public Instruction, 2008, p. 1) receive an additional \$5,000.

Data from this study came from a survey of Washington NBCTs (Loeb, Elfers, Plecki, Ford, & Knapp, 2006) that sought to explore how participation in NB certification influenced leadership and instructional practices. Development of the 117-item instrument included original questions and items from other surveys of NBCTs.³ Drawing from the literature on both teacher leadership and NB certification, the survey included questions about teachers' professional background, roles and responsibilities, and assignment. Nine hundred NBCTs were registered in Washington State at the time of survey administration, and the instrument was successfully deployed in a Web-based format to 831⁴ potential participants, with a return rate of 48%. Linking survey data to state teacher personnel records gave us confidence that the responses

were closely representative of the state NBCT workforce. Content analysis of two open-ended questions helped us elucidate themes that were emerging from the analysis of the forced choice survey items.

NBCTs and Leadership Roles: Support for School Improvement

Evidence from Washington echoes previous findings that indicate NBCTs may be in a strong position to support school improvement initiatives. Studies by Koppich et al. (2006), and Sato et al. (2002) confirm that NBCTs bring considerable leadership experience to their work and are willing to be engaged in activities necessary to improve teaching and learning. However, this research also points to challenges and barriers in assuming leadership roles in the service of school improvement, and suggest that NBCTs cannot be viewed as a "stand-alone school-reform strategy," apart from other factors such as working conditions, effective school leadership, and supportive collegial relationships (Koppich et al., 2006, p. 9).

NBCTs cite the possibility of pursuing leadership opportunities as one reason they decided to seek NB certification. Among the Washington teachers surveyed, 69% indicated that the opportunity for leadership was a moderate or strong reason to become Board certified. Similarly, 44% of the teachers surveyed in the Koppich et al. (2006) study reported "the opportunity to influence change at my school" as a reason for pursuing NB certification (p. 15). From both their survey and case study work, the researchers found that NBCTs were often actively involved in improving their schools.

Leadership Activities of NBCTs

As part of the NB process, candidates are prompted to reflect on their teaching experience and leadership, as well as their contributions to colleagues' work and their professional community. This may include collaborating and

engaging with other professionals on instructional policy, curriculum, staff development, and the evaluation of school progress. The Washington survey findings reveal that the kinds of school level leadership roles that NBCTs often assume include developing and facilitating professional development, leading the implementation of instructional approaches or curricula, and mentoring new teachers. Prior to certification, nearly all (94%) of NBCTs had been involved in developing and facilitating professional development activities for other teachers in their school. After NB certification, 55% indicated they had increased their involvement in leading the implementation of instructional approaches or curricula for their school as a result of NB status, and 40% indicated higher levels of participation in mentoring or coaching new teachers.

School improvement efforts call for the ability to systematically collect and analyze data to make judgments that guide decisions and actions for continuous improvement (Means, Padilla, DeBarger, & Bakia, 2009; Sato et al., 2008). Discussing classroom instruction, Sato and her colleagues explain that the degree to which teachers infuse formative assessment has been found to be associated with improvements in student achievement. From multiple sources of data, the researchers confirmed an increase in formative assessment practices for NB candidates during the NB certification process compared to a similar group of teachers, and that they largely maintained these practices into the subsequent year (Sato et al., 2008). In the Washington study, NBCTs directly attributed improvements in assessing students to the certification process. As a result of becoming an NBCT, 64% of respondents reported a very positive impact on working with students in evaluating individual needs and 66% reported this outcome with regard to the use of assessments to inform instruction. In addition, NBCTs also indicated a very positive impact in working with students in the use of multiple strategies (57%).

Teacher leaders may bring expertise in communication and collaboration (Murphy, 2005), skills that are valuable in school improvement efforts. Among the Washington respondents, over

three-quarters (77%) indicated that becoming an NBCT had a somewhat or very positive impact on developing professional relationships with colleagues both inside their school and within their district. In addition, 83% indicated that becoming an NBCT either somewhat or very positively impacted how they contributed to the quality of their professional community.

Changes in Leadership Roles as a Result of Becoming an NBCT

Changes in leadership participation following NB certification offer some evidence about how these teachers are seen and utilized as a professional resource across educational settings. These leadership changes took place most frequently at the district level where over half of Washington respondents (56%) indicated greater involvement as a result of their NB status. Likewise, at the school level where nearly all had held some type of leadership role prior to NB certification, an almost even proportion reported either no change (45%) or increasing participation in leadership activities (48%; see Table 1). Despite increased involvement in leadership, NBCTs generally exercised leadership roles from their positions as classroom teachers. Over three-fourths of NBCTs were identified as classroom teachers prior to NB certification, and few changed positions.

Supports and Barriers to Service as a Teacher Leader

Teachers' working conditions can support or diminish the effectiveness of their leadership efforts and the school improvement initiatives to which they contribute (Smylie, 1997). Despite considerable interest in leadership roles and responsibilities, evidence from the Washington study and similar research suggests that lack of opportunity, competing commitments, and limited resources may prove to be a hindrance to their participation.

As we have seen, NBCTs are engaged in a variety of leadership activities, and many indicate

Table 1
Changes in Involvement in Leadership Roles as a Result of NBCT Status

	No Change	Somewhat More Involved	A Great Deal More Involved
Playing a leadership role at the school level (e.g., grade-level or department chair)	45%	33%	15%
Playing a leadership role at the district level	35%	37%	19%
Playing a leadership role at the state level (e.g., subject-area leadership teams)	34%	20%	12%

Note. *N* = 391 NBCTs. Other possible responses include *never been involved* and *somewhat less involved*.

Table 2
Support for Participation in Leadership Activities

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
My immediate colleagues support my role as a leader	47%	41%	9%	3%
My immediate supervisor supports my role as a leader	60%	28%	8%	4%
My building does a good job of tapping my leadership skills	26%	34%	25%	16%
My district does a good job of tapping my leadership skills	22%	32%	22%	24%

Note. *N* = 391 NBCTs.

a considerable degree of support from others to participate. This is important as the ability to gain the respect and trust of colleagues is a key factor in the effectiveness of teacher leaders (York-Barr & Duke, 2004). At the building level, over 87% of the Washington teachers reported that their immediate colleagues and supervisor supported their role as a leader. However, Koppich et al. (2006) found that when assessing the broader school culture, NBCTs reported considerable resistance by colleagues in assuming even modest leadership roles. These researchers suggest that a longstanding school culture of individualism and egalitarianism may prevent teachers from moving into nontraditional roles.

It follows that a portion of NBCTs in these studies believed that their school or district did not do a good job of tapping their leadership skills. Forty-one and 46% of Washington NBCTs, respectively, did not agree that their building or district did a good job of utilizing their

leadership skills (see Table 2). One respondent from the Washington study commented: "I feel that the administrators in my new building have not taken the time or opportunity to become aware of the skills and capacities that I have worked hard to acquire." Another indicated, "My own district doesn't seem to recognize the talents that we have already right here in our own backyard."

The underutilization of NBCTs is corroborated by Koppich et al. (2006), who suggested that school leaders "do not know how to strategically take advantage of NBCTs' knowledge and skills to further school improvement" (p. 16). Smylie's (1997) summary of research on teacher leadership indicates that new roles also can create tension and conflict among teacher leaders, administrators, and other teachers, explaining that "the success of these roles depends importantly on the active support of principals and district administrators" (p. 575).

Competing Commitments

Time, proximity, and the nature of teacher leadership opportunities reflect other obstacles to participation in teacher leadership. Sixty-two percent of the teachers surveyed in the Washington study indicated that they did not have enough time to honor their professional responsibilities, and a similar proportion indicated they did not want to take time away from the classroom to assume other leadership roles. A strong and recurring theme among these teachers' responses was the concern that leadership opportunities would pull them away from their work with students. One teacher explained, "I pursue some [leadership activities] because they energize me and strengthen my teaching. I decline others because the students in my class are my top priority." Time may also be a factor for teachers' experience and expertise to be recognized and utilized in new ways within schools and districts. Nearly 70% of those who had held NB certification for at least 4 years reported that they frequently had to turn down leadership opportunities, compared with only 32% of those newly certified. This suggests that the length of time respondents have held their NB certificate may impact how teachers are viewed as a leadership resource.

Although time was reported as a barrier, teachers were more willing to reduce their classroom teaching duties in order to pursue leadership opportunities if they were located in their own school or at the district level. Eighty-four percent of the Washington respondents indicated that they would be willing to reduce their teaching responsibilities in order to pursue leadership opportunities at their current school, and 79% would do so at the district level. However, a smaller proportion (65%) indicated that they would reduce their teaching responsibilities to pursue leadership opportunities at another school. As one teacher explained, "Much depends on my teaching responsibilities, but if I can tie leadership tasks into teaching tasks, then I will pursue the leadership roles." Another indicated, "I tend to pursue leadership opportunities that I see will have the greatest effect 'close to home' within my school and district."

This is consistent with findings from other studies, which indicate that teachers are attracted to leadership roles that have connections to their work with students and are congruent with existing professional activities (Smylie, 1997). However, not all NBCTs choose to be involved in leadership activities. One teacher explained, "NB certification is about being a good teacher, which I am, and I prefer to keep my energies in my classroom. I collaborate with my fellow teachers, but I do not wish to take on additional responsibilities."

Resources Tied to Leadership

Another challenge to leadership participation may be the school or district's lack of resources for release time or financial support. For example, nearly two-thirds of respondents (65%) expressed that they had sufficient access to substitute teachers to be away from the classroom. In addition, a majority (55%) felt inadequately compensated for their participation in leadership efforts. Evidence from this and other studies suggest that the school context and culture can have a substantial influence on the opportunities and outcomes for teacher leadership (Murphy, 2005). In Washington, NBCTs in less racially and ethnically diverse schools reported greater access to certain resources than those in more diverse settings. More than two-fifths (41%) of teachers serving greater proportions of students of color (41–100%) indicated that they did not have sufficient access to substitutes, compared with 29% of teachers serving mostly White students (20% or fewer students of color).

Tapping the Potential of Teacher Leadership for School Improvement Efforts

Emerging scholarship indicates that NBCTs may be in a strong position to support school improvement initiatives and offers insights into efforts that encourage and sustain teacher leadership. A common thread across studies is that NBCTs are no strangers to various leadership

responsibilities as nearly all played some type of leadership role both prior to and following NB certification. A sizable proportion of NBCTs reported increased engagement in some leadership activities subsequent to earning the accomplished teaching certificate. Yet findings echo other evidence that there are noteworthy barriers to tapping the expertise of teacher leaders. Table 3 provides approaches that schools, districts, and states may employ to enhance the roles and contributions of teacher leaders.

Because schools and districts appear to be the most common sites of teacher leadership activities, how can they better access the leadership potential of NBCTs and other accomplished teachers? A first step for school and district leaders would be to recognize the skills and expertise that NBCTs may offer in support of instructional improvement. Any deliberate teacher leadership effort should take into account the diversity of preferences of accomplished teachers. Studies identified varied leadership roles, with a common theme of their close ties to student learning. These include leading the implementation of instructional approaches or curricula, developing and facilitating professional development, and mentoring new teachers. NBCTs' identified strengths in areas of student assessment could be used as a resource to support school improvement efforts. As the NBPTS standards offer rich descriptions of instruction, they may be promising tools in discussions of instructional improvement. However, some teachers across studies articulated their reluctance to assume formal leadership roles. Their hesitation may stem from an inability to see connections between leadership activities and their daily work with students.

A second step is to consider the organizational context of schools in order to best support teacher leadership in school improvement initiatives. School and district leaders may work with teachers to identify and address the local obstacles to teacher leadership that surfaced in the multiple studies. The lack of time available for NBCTs to take on new leadership roles may require a rethinking of school organizational structures to allow teachers to work with others on instructional improvement. Schools and dis-

Table 3
Strategies for Developing and Supporting Teacher Leadership to Enhance School Improvement Efforts

Recognize the preferences, skills, and strengths that NBCTs offer as teacher leaders
Create roles for NBCTs to contribute to improvements in curriculum, instruction, and assessment
Tap NBCTs for mentoring, professional development, and facilitating instructional improvement efforts
Employ the National Board teaching standards in discussions of curricular improvement and teaching practices
Consider the organizational context of schools in order to best support teacher leadership
Explore strategies to increase time for teacher leadership activities
Allocate financial resources dedicated to teacher leaders' work
Target time and resources to classrooms that might need teacher leaders the most

tricts must decide how budgets may be dedicated to these functions. Because our findings suggest that teachers serving higher proportions of students of color may be further disadvantaged in assuming leadership roles, districts can explore incentives to support and develop these activities in high minority or high poverty schools.

Encouraging and supporting teacher leadership has the potential to contribute to sustained school improvement efforts. Recent studies have emphasized the importance of expanding and distributing school-based instructional leadership as a means for improving learning outcomes for students (DeVita, Colvin, Darling-Hammond, & Haycock, 2007; Portin et al., 2009). The NBPTS can play a role in supporting local efforts to harness and develop teacher leadership in service of education reform and renewal. This organization signals to teachers the great value of teacher leadership through the Board certification process and its policies. As the National Research Council (Hakel, Koenig, & Elliott, 2008) concluded that there is not yet sufficient evidence to document the systemic impact of

Board certification on the teaching field and education system, the NBPTS can encourage and support research about NBCTs' effects on school improvement efforts. The large and steady growth of NBCTs indicates that a critical mass of NBCTs may soon be present in some schools and districts. The lessons learned from exploring the effects of teams of accomplished teachers can offer important lessons for both the design of state and district policy and the NBPTS's teacher leadership strategy.

Notes

1. The propositions include:
 - Teachers are committed to students and their learning.
 - Teachers know the subjects they teach and how to teach those subjects to students.
 - Teachers are responsible for managing and monitoring student learning.
 - Teachers think systematically about their practice and learn from experience.
 - Teachers are members of learning communities (NBPTS, 1989, pp. 3–4).
2. *Challenging schools* in Washington are defined as elementary, middle, and high schools with, respectively, at least 50%, 60%, and 70% of the students receiving free or reduced price lunch.
3. Surveys were provided by SRI (from the Impact of National Board Certified Teachers on Low-Performing Schools project) and Inverness Research Associates (from the evaluation of the Washington Initiative for National Board Teacher Certification).
4. Participants only included teachers who were working in the education system in Washington state. Respondents who were either retired or working in other states were excluded from the final data set. The full report with survey methodology and demographic and professional characteristics of NBCTs may be found at <http://depts.washington.edu/ctpmail/PDFs/NBCTinWA.pdf>

References

Carnegie Forum on Education and the Economy. (1986). *A nation prepared: Teachers for the 21st*

century, the report of the Task Force on Teaching as a Profession. Washington, DC: Author.

- Coskie, T. L., & Place, N. A. (2008). The National Board certification process as professional development: The potential for changed literacy practice. *Teaching and Teacher Education, 24*, 1893–1906.
- DeVita, C., Colvin, R., Darling-Hammond, L., & Haycock, K. (2007). *Educational leadership: A bridge to school reform*. New York: Wallace Foundation. Retrieved August 31, 2009 from <http://www.wallacefoundation.org/knowledgecenter/Pages/default.aspx>
- Elfers, A. M., & Plecki, M. L. (2006, March). *National Board certified teachers in the Washington workforce: Views of teaching*. Paper presented at the annual meeting of the American Educational Finance Association, Denver, CO.
- Frank, K. A., Sykes, G., Anagnostopoulos, D., Cannata, M., Chard, L., Krause, A., et al. (2008). Does NBPTS certification affect the number of colleagues a teacher helps with instructional matters? *Educational Evaluation and Policy Analysis, 30*, 3–30.
- Goldhaber, D. (2006). National Board teachers are more effective, but are they in the classrooms where they're needed the most? *Education Finance and Policy, 1*, 372–382.
- Hakel, M. D., Koenig, J. A., & Elliott, S.W. (Eds.). (2008). *Committee on Evaluation of Teacher Certification by the National Board for Professional Teaching Standards, assessing accomplished teaching: Advanced-level certification programs*. Washington, DC: National Research Council.
- Koppich, J. E., Humphrey, D. C., & Hough, H. J. (2006). Making use of what teachers know and can do: Policy, practice, and National Board certification. *Education Policy Analysis Archives, 15*(7). Retrieved May 12, 2007 from <http://epaa.asu.edu/epaa/v15n7/>
- Lieberman, A., & Miller, L. (2004). *Teacher leadership*. San Francisco: John Wiley & Sons.
- Loeb, H., Elfers, A., Plecki, M., Ford, B., & Knapp, M. (2006). *National Board Certified Teachers in Washington state: Impact on professional practice and leadership opportunities*. Seattle, WA: University of Washington Center for the Study of Teaching and Policy.
- Lustick, D., & Sykes, G. (2006). National Board certification as professional development: What are teachers learning? *Education Policy Analysis Archives, 14*(5). Retrieved February 12, 2009 from <http://epaa.asu.edu/epaa/v14n5/>

- Means, B., Padilla, C., DeBarger, A., & Bakia, M. (2009). *Implementing data-informed decision making in schools—Teacher access, supports and use* (Report prepared for U.S. Department of Education, Office of Planning, Evaluation and Policy Development). Menlo Park, CA: SRI International.
- Murphy, J. (2005). *Connecting teacher leadership and school improvement*. Thousand Oaks, CA: Corwin.
- National Board for Professional Teaching Standards. (1989). *What teachers should know and be able to do*. Arlington, VA: Author. Retrieved April 1, 2009 from http://www.nbpts.org/UserFiles/File/what_teachers.pdf
- National Board for Professional Teaching Standards. (2009a). *2009 class of National Board Certified Teachers advances nation's school reform movement*. Arlington, VA: Author. Retrieved January 14, 2010 from <http://www.nbpts.org/>
- National Board for Professional Teaching Standards. (2009b). *Part 1: General portfolio instructions*. Arlington, VA: Author. Retrieved June 11, 2009 from http://www.nbpts.org/userfiles/File/Part1_general_portfolio_instructions.pdf
- National Board for Professional Teaching Standards. (2009c). *2009 Class of National Board Certified Teachers advances Washington's school reform movement: State ranks 2nd nationally in 2009 results*. Arlington, VA: Author. Retrieved January 14, 2010, from [http://www.nbpts.org/userfiles/File/2009CertificationDay_Washington\(1\).pdf](http://www.nbpts.org/userfiles/File/2009CertificationDay_Washington(1).pdf)
- Office of the Superintendent of Public Instruction. (2008). *Updates on NBPTS Web page*. Retrieved June 12, 2009 from <http://www.k12.wa.us/Certification/NBPTS/Updates.aspx#2008impact>
- Place, N. A., & Coskie, T. L. (2006). Learning from the National Board portfolio process: What teachers discovered about literacy teaching and learning. *New Educator*, 2, 227–246.
- Portin, B. S., Knapp, M. S., Feldman, S., Daroff, S., Russell-Atesoglu, F., Samuelson, C., et al. (2009). *Leadership for learning improvement in urban schools*. Seattle, WA: Center for the Study of Teaching and Policy, University of Washington.
- Rotberg, I. C., Futrell, M. A., & Holmes, A. E. (2000). Increasing access to National Board certification. *Phi Delta Kappan*, 81, 379–82.
- Sato, M., Hylar, M. E., & Monte-Sano, C. (2002, April). *The National Board certification process and its impact on teacher leadership*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Sato, M., Wei, R. C., & Darling-Hammond, L. (2008). Improving teachers' assessment practices through professional development: The case of National Board certification. *American Educational Research Journal*, 45, 669–700.
- Smylie, M. A. (1997). Research on teacher leadership: Assessing the state of the art. In B. J. Biddle, T. L. Good, & I. F. Goodson (Eds.), *International handbook of teachers and teaching* (Vol. 1, pp. 521–592). Dordrecht, The Netherlands: Kluwer.
- Smylie, M. A., Conley, S., & Marks, H. M. (2002). Exploring new approaches to teacher leadership for school improvement. In J. Murphy (Ed.), *The educational leadership challenge: Redefining leadership for the 21st century* (102nd Yearbook of the National Society for the Study of Education, Part II, pp. 162–188). Chicago: National Society for the Study of Education.
- York-Barr, J., & Duke, K. (2004). What do we know about teacher leadership? Findings from two decades of scholarship. *Review of Education Research*, 74, 255–316.

Copyright of Theory Into Practice is the property of Taylor & Francis Ltd and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.