NATIONAL BOARD TEACHER CERTIFICATION: A STUDY OF A COHORT OF FIVE CANDIDATES IN ONE ELEMENTARY SCHOOL

By

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To the Faculty of Washington State University:

The members of the Committee appointed to examine the dissertation of JANET FAWCETT find it satisfactory and recommend that it be accepted.

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I also wish to thank my dear friend and valued colleague, Dan K. Sakaue for reading, questioning, and challenging my thinking. His willingness to bare his own assumptions and challenge mine has been critical through this process. His critical thought and generous gift of time are deeply appreciated.
The purpose of this study was to determine if the National Board Teacher Certification (NBTC) process was an effective form of professional development for teachers that would result in changing teachers’ instructional practice resulting in improved student learning. The study also examined how a cohort of NBTC candidates impacted the non-NBTC teachers in a school and looked at how being part of a cohort impacted the NBTC candidates experience as they went through the process of NBTC. Data for this study were collected during the 2008-09 and 2009-10 school years at May Creek Elementary School in the Creekside School District. Interviews with the NBTC candidates, classroom observation data, a survey of all staff in the school, interviews with non-NBTC teachers, and student achievement data was collected and analyzed.

The NBTC process requires teachers to engage in activities that are aligned with effective professional development as described by Sato, Wei, & Darling-Hammond (2008), Cohen and Rice (2005), and Guskey and Yoon (2009). Results indicate that the NBTC is a quality professional development experience for the candidates. The NBTC candidates described how the process required them to reflect deeply and analyze student work and their own instructional practice in order to find evidence of accomplished teaching. The non-NBTC colleagues also
found that the NBTC candidates were focused on student learning targets, had knowledge about effective instructional practices, and contributed effectively to the professional collaborative experience for all teachers in the school.

An unexpected finding was the impact of being part of a cohort as they went through their learning process. The NBTC candidates felt that they would not have been as successful or benefited from the experience to the degree they did without being part of a cohort in the same school. While the findings about the impact of NBTC on student achievement were not conclusive, they lead the researcher to conclude that further investigation on a larger scale would be valuable and may indicate a positive impact.
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Dedication

This dissertation is dedicated to my father Eugene G. Fawcett, and to my mother Renee Fawcett, for their love, encouragement, and support. Their example of integrity, humility, and virtue shaped my life. I will be forever grateful for the wonderful life they gave me and their model of clear thinking and right living.

This is also dedicated to my children, Thomas Gunn, John Higginson, and Abigail Higginson Kidd. You are the “critical incidents” in my life. You have challenged my thinking, revealed my hidden assumptions, brought me to reflection (and prayer), and transformed my life. Each of you is beloved and cherished by me.
Chapter 1

Background and Research Questions

This study of a cohort of experienced teachers going through National Board Teacher Certification (NBTC) in the school I lead was a combination of action research and qualitative case study. I examined how I worked with them to support their progress toward NBTC and how their experience impacted the other teachers and their students in May Creek Elementary School. This study documents their experience as they went through the process of analyzing and reflecting on their own work and comparing their practice against standards established by the National Board of Professional Teaching Standards (NBPTS) to achieve NBTC.

My goal as a building principal was to create a powerful and positive learning organization for teachers. During my eight years as principal, I have looked for ways to move from my staff development approach into an embedded, professional growth model that would bring actual change and growth to teachers’ instructional practice. I believed that as the adults become more effective learners, students would become better learners as well. This study was conducted at May Creek Elementary School with five elementary teachers who went through NBTC. The research questions included: (a) Does NBTC provide an effective opportunity for a professional development experience that deepens teacher understanding of student learning needs, helping them become more reflective and intentional about their practice? (b) What is the impact of being part of a cohort on the professional development experience of the participants? (c) What is the impact of this particular cohort on the non-NBTC teachers who work with the NBTC candidates? (d) How does the principal’s attitude and support
staff professional development? (e) How does a teacher going through NBTC impact student achievement for the students in their class?

**NBTC Background**

The National Board of Professional Teaching Standards (NBPTS) came into existence in the mid-1980s following a call from Albert Shanker, president of the American Federation of Teachers. Shanker suggested a national standards and evaluation board be established to oversee the teaching profession. This organization would identify what accomplished teachers know and are able to do and a way to measure this knowledge would be developed. Shanker hoped this board would eventually be controlled by teachers (NBPTS, 2009). Soon, the Carnegie Foundation came forward with funding to support this board and the American Federation of Teachers (AFT), and the National Education Association (NEA) joined together to create the NBPTS (AFT & NEA, 2008).

The NBPTS is led by teachers and the focus, since its beginning, is on establishing policy and standards for teacher certification and recognizing the high quality teaching practice of accomplished teachers. To become recognized as a National Board Teacher, the candidate must demonstrate mastery of the content area they teach as well as a wide range of skills and strategies to help all student access learning and meet high standards (AFT & NEA, 2008). Candidates select the area for certification that most closely matches their professional work. For example, primary level elementary school teachers would most likely select the area of Early Childhood Generalist or a special education teacher may select Early Child and Young Adult Exceptional Needs (AFT & NEA, 2008).
Teacher practice for NBTC candidates is measured against a set of standards for their chosen certification area. The standards are specific for each area of certification and based upon the foundational beliefs of the NBPTS policy. These beliefs are called the “Five Core Propositions: (a) teachers are committed to students and learning; (b) teachers know the subjects they teach and how to teach those subjects to students; (c) teachers are responsible for managing and monitoring student learning; (d) teachers think systematically about their practice and learn from experience; and (e) teachers are members of learning communities” (NBPTS, 2008).

The number of teachers seeking NBTC is increasing in part due to the financial incentives being offered in a large number of states, including Washington, to teachers who successfully achieve NBTC. Another reason for increasing numbers is that more and more states see NBTC as a school improvement strategy. Also, teachers recognize the value of the hard work they do every day and to become recognized as a highly-skilled professional. (Kruse & Dvork, 2002, p.33; OSPI, 2010).

**Staff Development vs. Professional Development**

Over the past decade, post-service training has begun to shift for teachers in the public school system from traditional staff development (such as workshops and conferences) toward “embedded” professional development. Embedded professional development (Camburn, 2010) refers to professional development that is incorporated and actually part of the teacher’s daily work. Embedded professional development is focused on the needs of the current students and the skills the teacher needs right now in order to support student learning. This in contrast to traditional staff development that is typically delivered outside of the teacher’s work day and is may be completely unrelated to the immediate needs of the current students. Staff development often takes place in a workshop or class setting rather than in the teacher’s classroom. These
workshops are usually organized by an expert or staff development director and are presented to large groups of teachers on an in-service day. One distinction between embedded professional development and staff development is that teachers control their professional development, based on student learning needs and focused on student learning standards. A second feature of embedded professional development is the opportunity it provides for teachers to engage in collaborative inquiry about their daily work. Embedded professional development is currently viewed as a critical strategy for building teacher capacity to support school improvement. For the purposes of this dissertation, I have defined *staff development* as the traditional workshop-based form of teacher learning and *professional development* is defined as embedded, teacher-centered learning.

The reasons for the shift from staff development to professional development are important. As Baron (2008) concludes, “depending on outside experts to improve student learning has been a largely unsuccessful approach” (p. 56). The ineffectiveness is due to a variety of reasons, most of which fall into the category of lack of follow up. For example, teachers attend a conference and receive training in a research based practice designed to improve student learning. They are expected to return and share the information with their peers in a staff meeting. The notes from the training sit on a shelf. The administrator forgets a group of teachers even attended the training. Soon the training is a distant memory and has no impact on teacher practice. Or, teachers return from hearing an expert speak about a new technique. They attempt to implement the new strategy but there is no one to turn to for questions that naturally arise when translating new learning into practice. There is no time to work with other staff members on implementation of the new strategies. Soon they revert back to what they’ve always done and the staff development is long forgotten. “Decades of staff development have brought
about little change in practice because traditional staff development lacks the opportunities for teachers to engage in reflective discussions about implementation of new learning…” (Fullan, 1998; Goodlad & Keating, 1994; Hargreaves & Fullan, 2000 as quoted by Spencer & Logan, 2003, p. 52).

Not all traditional staff development is completely ineffective. Workshop style staff development, combined with professional development strategies for reflection, collaboration with colleagues, and implementation follow-up appear to be quite effective (Guskey, 2009). This observation is based on a study conducted by scholars from American Institutes for Research in which 1300 research studies on effective professional development and student learning outcomes were examined to understand the characteristics of effective professional development for teachers (Guskey, 2009). NBTC does involve candidates attending workshops to learn about the process and facilitated cohorts to get feedback on the portfolio entries, and NBTC is a prescribed and structured process. NBTC appears to fit into the definition of professional development because the NBTC process requires the teacher self-selects to engage in a process which requires analysis of student learning, reflection on professional practice, peer feedback, and a demonstration of a knowledge of standards based practices and student learning aligned with student learning targets.

The study also explored the influence of NBTC candidates on their peers’ professional growth; the influence of the school administrator on the NBTC experience; and a possible relationship between student achievement and NBTC. The opportunity to study a cohort of NBTC candidates at May Creek Elementary School allowed me as a principal and researcher and the staff at the school to explore and examine our beliefs about embedded professional development in the context of NBTC.
**Action Research and Qualitative Case Study**

Action Research as defined by Herr and Anderson (2005) is research done by or with members of the community in which the research is being conducted. The underlying assumption of action research is that expertise and knowledge needed to find solutions to problems exists within the organization. Issues can be discovered and new knowledge may be generated by using the expertise in the organization more effectively than drawing on generalized knowledge from outside research (Stringer, 2007). The purpose of action research is to enhance daily work, solve problems, and address local issues from within rather than seeking outside expertise or drawing on outside research that may not be of value to the community (Stringer, 2007).

Qualitative research is conducted in a naturalistic setting and is focused on understanding the meaning of an event or incident within the context of that setting (Merriam, 1988). Wiersma and Jurs (2005) state, “Qualitative research…should be conducted in the natural setting and that the meanings derived from research are specific to that setting and conditions” (p. 13). Merriam (1988) defines a qualitative case study as “an examination of a specific phenomenon such as a program, an event, a person…or a social group…” (p. 9).

Merriam (1988) also says this methodology is often selected when the researcher wants to gain insight or discovery about a specific phenomenon or process. The qualitative/action research approach is holistic and takes place in the context in which the event occurs. Researcher perceptions are an important part of the qualitative study and contribute to bringing meaning and understanding to the event.

This study was approached as a qualitative case study and action research. The researcher’s position as an insider, the representation of a variety of perspectives from the
participants, and the participants’ power to influence what is included in the study are action research strategies. This study may be best described as a hybrid of action research and qualitative case study focused on a specific event in an urban elementary school in Washington State. While the stakeholders did not design the study, they were given opportunity to shape the study through their responses and feedback about the data collected and how the data would be used. The entire school staff was informed of the purpose of the study and they were given opportunities to participate in the study through a survey, interviews, and feedback about how the study proceeded and its impact on their work.

Overview

Teachers are required to support and serve a student population with increasing socio-economic diversity, language diversity, and racial and cultural diversity. Students bring complex personal and social issues to class each day. Teachers are required to consider all of these issues as they plan instruction and design lessons to help each learner meet established standards of academic achievement. A teacher who understands each student engages them by providing relevant, interesting lessons, focused on the state and district learning targets. Educators have a professional responsibility and obligation to increase their professional skills and knowledge to meet students’ academic and learning needs.

Teachers who see themselves as learners will continually work to increase their capacity to meet such diverse student needs. Bluckert (2005) quotes, Witherspoon, and White (1996) who refer to increasing teacher learning capacity as developing learning agility. They define learning agility as the ability to learn from experience and feedback. Learning agility may be the key to increasing teacher capacity and responsiveness to individual student need. Adult learning theory, critical reflection, transformative learning, and collaborative inquiry provide a framework to
examine teacher learning. Implementing the principles of adult learning theory will help educators move to develop learning agility and expanded capacity to understand and support each student.

This study focuses on teachers engaged in a prolonged, embedded professional development experience as they go through NBTC. Teachers self-select to go through NBTC. The NBTC process requires teachers to reflect on their own practice and experience. They use data and feedback collected through video tapes, student work samples, and critiques from colleagues to more deeply understand the needs of their students and demonstrate evidence of effective instructional decision making and teaching practice. The NBTC process provides structure for teachers to examine and reflect on their own practice. They self-select the lessons they will include in their portfolio entries within the parameters set by NBPTS. They hold their work up for public scrutiny by their peers. They receive feedback from their peers during the process. Finally, their work is evaluated for quality by a panel of expert teachers working for the NBPTS.

The study began in the fall of 2008, just prior to school starting. Seven staff members at May Creek Elementary School had attended the Washington Education Association’s (WEA) Jump Start program to learn about the NBTC process. Five of the original seven candidates decided to move ahead and two of the candidates determined that they were not prepared at this time to make the commitment required to complete NBTC.

The teachers immediately began working on portfolio entry four which was about partnerships with families and community outreach. Entry four is also about their contributions to their peer educators. In the context of NBTC, the contributions for entry four include activities
such as mentoring other teachers, leading professional development, and taking leadership in developing parent and community partnerships. The teachers immediately set out to begin collecting evidence for this entry. The evidence collection involved documenting work they were already doing as members of our school community.

I was very interested in the NBTC process and at the same time I was studying professional development for teachers and realized that this was an opportunity for me to look at NBTC as a professional development activity. I spoke with them about my interest in studying this process and asked if they were willing to participate. They each expressed a willingness to be part of the study and contribute their observations about their experience.

Through the fall and winter of the 2008-09 school year all five of the candidates were engaged in collecting data, videotaping lessons, and reflecting on their work. They each attended cohort meetings with university cohorts or the district cohort of other NBTC candidates. At these cohort meetings, which met after school and on Saturdays, they worked with a facilitator who answered questions about the process, looked at their artifacts and documentation, and provided feedback and guidance. They also shared their artifacts with other candidates who provided insight and thinking to support their work.

During the fall they began planning their portfolio entries. Each certification area required 4 portfolio entries: one classroom-based entry with samples of student work; 2 videotaped lessons that show the interactions among students and teacher-student interactions; and one entry describing professional work outside of the classroom.

NBPTS gives very detailed directions about each portfolio entry and what was to be included. The detail about each area included prompts the candidates were to respond to. The
videos were probably the most technically challenging part of the portfolios. The candidates used a video camera we had at school. We purchased a very sensitive microphone for about $100 dollars capable of picking up student voices. During one taping session the video camera was accidentally broken and we purchased another one with some building funds to replace it.

Candidates worked most evenings and weekends on their portfolios, often staying very late at the building or working at home, planning, writing, reflecting, and analyzing their work. This went on for at least six months prior to the portfolio deadline.

The portfolio entries were to be mailed no later than March 31, 2009. They were required to collect the evidence in a prescribed manner and put it in a box provided by NBPTS for mailing. Each of them felt the pressure of this important deadline. During the final three months before turning in their portfolios, the candidates were given some released time from their classrooms through district and building resources to work on their portfolios. They usually met at May Creek School and worked together on their reflective essays and artifacts. On the release days they were able to offer assistance to each other or meet with other teachers from their cohort groups to work on their portfolio during their contracted work time.

Following the mailing of the portfolios to NBPTS assessment center, the candidates were scheduled to go to an assessment center and take the online assessment portion of the NBTC process. Each candidate took the assessment in May or June following the submission of the portfolio. The online assessment tests the teacher’s knowledge about their certification area.

The candidates received the results of their submission and online assessment in November of the following school year. The five candidates at May Creek Elementary School waited until November 2009. Four of the five candidates passed. The candidate who did not pass
was extremely close in her scoring and was only required to redo the portions of the portfolio and assessment she did not pass. There was considerable disappointment that not all five of the candidates passed. Truthfully, I was surprised that as many as four of the five did pass because NBPTS (2007) claims a first try pass rate of 40% of all candidates. The candidate who did not pass had two more years to complete the NBTC with a passing score.

**Study Methods**

The study included a series of three interviews with each participant and/or group interviews conducted immediately following the submission of the portfolios, prior to receiving the results, and about a year after the portfolio submissions. The purpose of these interviews was to collect data about the candidates’ perceptions of the process, their professional learning, and the impact of the NBTC process on their practice (see Appendix A). The researcher observed some of the participants in the facilitated support group conducted by a local university and collected data about two of these meetings. Multiple classroom observations were conducted over the 2009-10 school year.

The classroom observations were documented using a classroom walkthrough tool (CWT) developed by Teachscape (2009) and adopted by the Creekside School District as part of a district-wide improvement effort. The observations targeted specific research-based practices expected to be used all teachers in all classrooms (see Appendix B). The observation data, collected with the CWT tool, was used to examine the strategies employed in classrooms by NBTC candidates and all teachers at May Creek Elementary School. Data was also included from a survey given to all May Creek teachers in June of 2009 (See Appendix C), classroom observations of all staff, and interviews of some non-NBTC teachers who worked closely with the NBTC candidates (See Appendix D). This data was used to provide insight about the impact
of the NBTC candidates on other teachers’ practices. My notes and reflections about the NBTC process and informal classroom observations were also included in the data. I also examined the contributions I made to further the process such as released time from teaching to work on the portfolios, providing access to equipment and technology, and opportunities for candidates to engage in teacher leadership activities in the school and district.

All NBTC participants were given opportunities to review the transcripts for their respective interviews, providing further input or clarification of the data where necessary. Having the participants review the interview data also increased the validity of the data collected and ensured the perspectives of all participants were considered.

The responses from all interviews, CWT observations, my observations and reflections, and the staff survey were coded and major themes identified and examined. During the coding and analysis phase the NBTC participants and the school instructional coach were asked to offer their interpretations and analysis of the data collected.

The data and findings from this study were shared with the entire school staff, the National Board candidates, and the school district department of learning and teaching. The intention of this study was to inform and generate recommendations to the school and to the Creekside Department of Learning and Teaching for the purposes of planning future support to NBTC candidates and improving professional development at the school level and the district level.

**Study Limitations**

A major limitation to collecting data and artifacts about the NBTC process was the policy of the NBPTS which does not allow any of the papers, videos, and reflections of the teachers
going through this process to appear anywhere outside of the submitted portfolio. The policy states that if any items from a candidate’s portfolio are quoted or specifically described, the candidate loses the opportunity to become a National Board Certified Teacher for life. Consequently, there are no quotations, documents, videotapes, or data collected directly from the NBTC candidate portfolios. However changes observed in their teaching practices were noted.

Sample size was another limitation to generalizing or drawing broad conclusions about NBTC. This study uses a small sample size of five teachers going through NBTC and a total certificated staff of about 35 teachers in the school. Consequently, the findings were very specific to this school’s setting and staff members.

**Study Setting**

This study took place at May Creek Elementary School, a large, urban elementary school with about 600 students in Washington State. The school had Title I status and was therefore required under the federal No Child Left Behind (NCLB) policy to make adequately yearly progress (AYP) in reading and math as measured by the Washington Assessment of Student Learning (WASL). State and Federal regulations have identified what percentage of students must meet standard each year in order for a school to make AYP.

NCLB regulations requires each school and district to disaggregate the achievement data into specific sub groups of students by race, students receiving free and reduced lunch, special education services, and those identified as English language learners (ELL). To make AYP the category of “All Students” and all identified subgroups of students must meet the currently established percentage of students meeting standard in reading and math. For about five years May Creek School had not met AYP goals and was under NCLB sanctions. One sanction, as a
result of not making AYP, was directing 10% of the Title I budget for the school toward professional development in order to ensure staff quality. NBTC is a professional development strategy identified by many states, including Washington, to improve student learning and improve the quality of instruction in struggling schools. This allowed May Creek School and Creekside District to use Title I funds to support NBTC.

The student population at May Creek School was racially, linguistically, and socio-economically diverse. Approximately 73% of the students were identified as low-income. The racial mix of this student population was approximately: 20% White, 18% Asian, 12% Black, and 50% Hispanic with a highly diverse mix of cultures and languages. Approximately 50% of the students lived in homes where English was not the primary language and approximately 35% of the students were identified as English language learners. About a quarter of the students had recently exited the English as a Second Language (ESL) program or did not qualify for the ESL program and yet lacked the English skills necessary to be academically successful in a general education classroom. The student mobility rate was about 50%.

Figure 1 shows the shift in the percentage of students enrolled in special programs at May Creek Elementary School Oct. 2005 to Oct. 2008. Note the significant growth of the number of students enrolled in the Free and Reduced Lunch program over the 4 year period. May Creek has also seen large increase in the ESL population as identified by the transitional bilingual figures. Increasing socio-economic diversity, mobility, and language diversity are indicators of the increasing demands being placed on teachers at this school (OSPI, 2010).
Figure 2 shows a significant shift in the ethnic make up of the student population at May Creek Elementary over the past 4 years. Note the shift from the largest racial group from White to Hispanic. This illustrates the increasing diversity in the student population and the demand for teachers to increase their capacity to the changing student need (OSPI, 2010).
Study Participants

All of the teachers engaged in NBTC at May Creek School were white females who had been teaching between four and 15 years. Each of these participants were recognized by their peers and administrators in the school and district as leaders. Over the past five years, each of these individuals had engaged in professional growth opportunities in and out of the district. These activities included obtaining Master’s degrees in Education and facilitating professional development in a variety of content areas that included special education topics, ESL teaching strategies, technology courses, and mathematics.

Amy had about seven years of experience. Her NBTC specialty was Early Childhood Generalist. She began her career at May Creek as a fourth grade teacher. She successfully taught fourth grade for about four years. Three years prior to this study she had requested a change to first grade and was offered the opportunity to move to do so. She looped with her students from first to second grade during the study. She was with her students for two years. During her
NBTC year (2008-09) she was a first grade teacher. She had a Masters degree in education. She was a building leader in technology and the use of technology in the classroom. Teachers frequently turned to her for assistance in using the computers, document cameras, websites, and video libraries. She was an active participant as a grade level liaison on our school Instructional Leadership Team. Amy was also involved in our school-wide Positive Behavior Support leadership team and actively worked on creating structures and implementing practices intended to support positive behavior for all students.

Early Childhood Generalist was Karen’s certification area. She had about 15 years of experience. She held credentials in special education and general education. She taught two sessions of integrated kindergarten, a morning session and an afternoon session every day. Each session of integrated kindergarten included about five students with individualized education plans (IEPs) and 15 students who were general education students. She was highly skilled at differentiating instruction to meet the wide-range of learners in her classes because of her training and experience in special education. In addition to her teaching responsibilities, Karen was the facilitator of the Instructional Leadership Team in our school. For several years she chaired the literacy committee and acted as the team leader for the kindergarten grade level team. Other teachers in the school frequently consulted with her when concerned about possible learning disabilities or developmental delays in their students.

Callie’s NBTC area was also Early Childhood Generalist. She had about 5 years of teaching experience. She developed deep expertise and knowledge about the mathematics standards in Washington, as well as effective teaching strategies for helping students learn mathematics. Callie became a trainer for a national textbook publishing company to train teachers in an elementary math curriculum and had conducted trainings for this company.
throughout Washington State. She was also a Creekside District trainer and conducted trainings at May Creek for mathematics. Her teaching style was to have students engaged actively in learning – using hands-on materials, interactive games and activities, focused on conceptual development as well as skill development. She was the chair of the building math and science committee for several years and was an active participant in leading math curriculum activities in our school. She also served as a liaison to the district math committee.

Sarah taught ESL. Her area of NBTC was English as a New Language. She was the only ESL teacher in this school and serves about 230 ELLs. She approached her role in a variety of ways in order to meet the needs of so many students. For example, she would often co-teach or team-teach with classroom teachers on a weekly basis to deliver instruction to students in math, science, and/or social studies. Sarah taught a daily class of newcomer ELLs who were acquiring the most basic language skills in order to begin to be successful in English. She also acted as a consultant and trainer to other teachers. She provided training and modeled instructional practice in Sheltered Instruction Observation Protocol (SIOP) strategies. For the last five years Sarah organized and conducted ESL classes for the parents of our students in addition to her other teaching responsibilities. This included writing a grant, teaching the classes, and setting up childcare to support parent participation. She was actively involved in leading teams of teachers in developing cultural proficiency through book studies, home visits, and teaching strategies to support English Language Learners. Outside of her work at May Creek School, she taught courses at a local university as part of an ESL program for teachers seeking ESL credentials.

Becky taught special education resource room classes for the first 4 years of her career including the year she prepared her portfolio entries. She chose to do her certification in the area of Literacy: Reading and Language Arts. The year following completion of her portfolio, she
changed assignments and taught 4th grade general education. She was credentialed as a general education teacher and as a special education teacher. Becky’s expertise included using specially designed instruction and developing learning plans to support students receiving special education services. One of her great strengths was developing relationships with reluctant or resistant learners who needed encouragement and support to engage in learning. Becky was highly skilled at providing accommodations and modifications for struggling students. As a special education teacher she worked closely with the general education teachers and administrators to develop behavior intervention plans for students with behavior concerns. She knew her students and their parents well. For NBTC she chose to work on the area of literacy instead of special education.

I was the principal at May Creek School and had been the principal there for five years. I have been an elementary principal for a total of 8 years in the Creekside School District. My professional experience included 4.5 years as a general education teacher and 3.5 years as a special education teacher. My administrative career started with an assignment as a Teacher on Special Assignment to provide administrative support to a building principal while I completed my administrative internship. The year following my internship I was appointed by the superintendent to be an interim principal at Vale Elementary School in the Creekside District and was later hired permanently to that position. I have a Masters degree in Education with an emphasis in special education and an additional certification for school administration. I have also completed a superintendent certification program at Washington State University and an internship with the superintendent in the Creekside School District where this study takes place.

Research Ethics
This research study creates some complex challenges in confidentiality and ethics because of my role as an insider, evaluator, and colleague with the participants. This study was about real teachers in a real school. The data were part of the daily professional work of the research participants, including the researcher. The Washington State University Institutional Review Board issued an exemption for human subjects research because this was the case. No children were involved in the research and data collection. The challenge was to report the data accurately, quoting the participants (NBTC candidates and their peers) in a respectful way without compromising the confidential nature of some of the conversations. I was also obligated to use classroom walkthrough (CWT) data for classroom observations within the context of the agreements made between the teachers’ union and the district; specifically, the understanding between staff and the district was to use the CWT data to identify areas for professional growth and discuss classroom practice rather than for explicit comparisons of individuals or groups of teachers. The outcome data in this study was shared with all participants. Specific quotes, comments, and actions have been kept confidential in order to be respectful of the participants and honor the culture at May Creek Elementary School.

**Expected Outcomes and Researcher Positionality**

Through this study, I expected to learn more about how NBTC increases teacher capacity or learning agility through a process of analysis and reflection of their own practice. I hoped to see how teachers engaging in these practices influence the practice of other teachers in the school and impact student learning. Another outcome for this study was to gain insight about how principals and instructional leaders create an environment to support professional development that improves teacher learning and practice.
“Action research seeks to develop and maintain social and personal interactions that are nonexploitative” (Stringer, 2007, p. 27). Stringer goes on to describe the process as a “grassroots orientation,” done in collaboration with stakeholders in the organization with the power in the hands of the stakeholders (p. 27). Consequently, the researcher has a responsibility to clearly articulate their relationship with the participants in the study.

I was the principal of the building where the research was conducted. As such, I was responsible for supervising and evaluating all of the participants on an annual basis. I entered into this research process with clarity about my position as the evaluator and supervisor of these teachers. I carefully considered how my position would impact the research and how my relationship with these teachers may influence their willingness to participate.

During the five years I was the principal at this school, I worked to develop a high level of trust with my staff and to collaborate with them to solve problems and address issues. This was important because of the complex challenges our students bring to school. I intentionally practiced distributed and shared leadership in my work as the building principal by creating a culture where teachers saw themselves as instructional experts and leaders. Teachers actively participated in and took responsibility for many important decisions at May Creek School. The NBTC candidates were active participants in taking the instructional leadership roles during my tenure. I recognized the fact that ultimately, I was their evaluator. I approached them about participating in this study, acknowledged responsibility as their administrator to support their professional work and professional development. I made it clear that they could choose not to participate in this research with absolutely no consequences to their performance evaluation. All five teachers expressed an interest in participating in the study. I explained to them my purpose in this study was to use their experience to inform our school’s work in developing effective
collaborative, professional development. The teachers were willing to talk with me about their experience and the impact it had on their professional work. They were generous contributors of their knowledge and expertise to the work in our school. Prior to entering into NBTC these teachers were recognized by their peers as leaders. Their willingness to be part of and engage in discussing their NBTC experience with the goal of understanding the impact of NBTC on professional learning in our school was not a surprise to me.

I brought to this study my biases, frustrations, and beliefs about professional development based on nine years as a teacher and eight years as an administrator. I had observed the disappointing results as districts and schools entered into new staff development initiatives to train teachers with the latest promising strategies and practices for improving teacher work and student learning. And with rare exception, these new “cures” for improving practice were abandoned when the sponsoring leader left the district or when another “better” program surfaced and funding and time were funneled into the next “cure”. As a result of my experience I have come to believe that each educator engaging in embedded professional growth experiences based on the needs of their students, the community they work in, and their own strengths and needs holds greater promise for improving student achievement.
Chapter 2
Review of Literature

This action research study is supported by several strands of literature including adult learning theory, transformative learning, critical reflection and collaborative inquiry, NBTC, and research in effective professional development. Based on these research literature themes, NBTC will be examined as a vehicle for teacher learning and professional development; the impact of a cohort experience on a group of teachers engaged in an intense NBTC process; their influence on non-NBTC colleagues; and the role of leadership in supporting rigorous professional development such as NBTC.

Each of these strands of research literature discusses various aspects of high quality professional development. Adult learning theory addresses the motivations, life experiences, and practical needs of adult learners with a focus on learner-centered learning rather than on teacher centered learning. Transformative learning is easily intertwined or embedded in adult learning because as the adult learner comes across a problem or incident that challenges their thinking and skills, they may begin to reflect on and rethink think the underlying assumptions that drive their work. Through critical reflection and collaborative inquiry with colleagues, who may have diverse underlying assumptions, the adult learner begins to transform his thinking and behavior in order to meet the new challenges. NBTC is a process that requires the teacher (adult learner) to critically analyze and reflect deeply on their daily professional practice. NBTC candidates self-select to participate in this process of analysis and reflection. They examine their work against a set of recognized standards and may find themselves re-evaluating their assumptions and adapting their practice as a result of the reflective and analytical experience.
Adult Learning

In the late twentieth and early twenty-first centuries, the demands placed upon schools and public school systems are increasing due to the growing diversity of the student population. According to Kohler and Lazarin (2007) Latino children under the age of 18 are the fastest growing population in the public school system. The Vietnamese and Latino student population frequently includes a large number of English language learners and they are examples of the ever increasing language, culture, and racial diversity in public schools. Many students also bring the issues of poverty, racial diversity, religious diversity, and issues of gender identification with them to class each day. These issues increase the complexity of addressing learning for students as teachers plan instruction and design lessons. In addition to the individual student needs teachers are required to meet the demands of mandated, high stakes (and highly politicized) testing, the threat of sanctions and possible government takeover, and shrinking financial resources for school districts.

Strategies for increasing teacher capacity to address the learning needs of each student may be found in examining how adults learn. Engaging in activities that challenge teacher assumptions about student learning to improve practice is important for teachers to increase their capacity to meet student needs. Adult learning theory can inform our understanding of how this transformative learning occurs. Examining the difference between the definitions of adult learning and student learning it is useful to look a little more closely at andragogy and pedagogy.

Andragogy vs. Pedagogy

Andragogy is defined by Forrest and Peterson (2006) as the art and science of teaching adults. Andragogy fosters the application of knowledge to real life and it is based on the assumption the adult learner will draw on life experiences for further learning. The teacher acts
as a guide, facilitator, and mentor. The andragogical model is learner centered: 1) The learner needs to know something, or needs to learn a skill; 2) Adult learning is centered on life experience; 3) Life experiences are the source for adult learning; 4) There is a readiness to learn and the learner will be highly engaged in acquiring skills and knowledge they need to know; 5) Adults learn more effectively when the learning is application oriented and involves real-life situations; 6) There is an internal locus of control. The learners are self-directed and maintain control versus the teacher being in control of and directing the learning (Knowles, Holton, & Swanson, 1998).

Knowles, et al. (1998) reviewed the term andragogy and suggest the term andragogy developed out of the historical work of psycho-therapists like Freud, Jung, and Erickson. They identified Freud’s primary focus as the influence of the subconscious mind and its influence on human behavior. Jung believed the elements of emotion, intuition, and feelings help individuals create meaning out of their experiences. Erickson’s work on lifespan development contributed the idea that humans continue to learn and grow throughout their adult life.

Similarly, John Dewey’s belief that the most effective learning is experiential supports the assumption the richest source of learning for adults is based in real life experiences (Ostorga 2006). Clinical psychologists Maslow and Rogers (Knowles et al. 1998) influenced modern thinking significantly with the belief that in order for learning to take place a learner must feel safe and learning should be facilitated. They believed the learner only learns when he considers the learning relevant. Knowles (1998) proposed that Carl Rogers’ theory about learning contribute heavily to the idea learning is constructed by the learner and should be learner-centered rather than teacher-centered. The theoretical and philosophical foundations of
andragogy inform practitioners who wish to develop an environment conducive to transformative learning.

Pedagogy, in contrast to andragogy, is defined as a philosophy about learning that is teacher-centered and curriculum-centered rather than learner-centered (Forrest & Peterson, 2006). The teacher determines what is to be learned, how it is to be learned, and how the learning is to be assessed. The underlying assumption of pedagogy is that the learner does not have enough experience or that the learner’s experiences are not relevant to what is to be learned and therefore must be guided by the teacher. The focus is on content and outside sources for knowledge rather than dependent upon the learner as a source for learning.

The andragogical model informs professional development for educators because teachers face a daily series of demands and problems for which there are no “right answers” and which require them to “learn” new responses, new strategies, and gain new understanding in order to effectively support student learning. Love (2001) uses the term experiential andragogy to describe adult learning based on life experiences. Love’s model allows the learner and the teacher or facilitator to be equally responsible for the learner’s success and places high value on group interaction and dynamics.

**Transformative Learning**

“Transformative learning takes place when [we are led] to open up our frame of reference and . . . see alternatives and. . . act differently” (Mezirow as quoted by Cranton & King 2003, p.32). Transformative learning is a developmental process that moves the adult learner toward an increased capacity for change and centers squarely on the cognitive process of learning (Brown & Posner, 2001). Concepts of transformative learning include: 1) Critical
incidents or experiences that cause the learner to question and examine long held assumptions 
and beliefs; 2) Critical reflection about experiences, assumptions, processes, and beliefs; 3) 
Feelings and affective experiences that facilitate learning; 4) Supportive relationships for 

Transformative learning is a developmental process. The very definition of 
developmental is change over time (Mezirow, as quoted by Merriam, 2004) and this 
development leads to increased capacity to consider other perspectives, integrate new ideas and 
think meta-cognitively about one’s own thinking. Merriam (2004) argues, not only does 
transformative learning lead to increased development, it assumes a certain level of cognitive and 
emotional maturity. Listening to the ideas of others and reflectively considering another’s 
assumptions requires the adult learner to have a high level of self-awareness about his beliefs. It 
also requires the ability to engage in inquiry in order to construct new knowledge and develop a 
deeper, or broader understanding of an idea, or concept. This can lead to a transformation of both 
thought and practice.

The transformative process begins when the adult learner is in a situation or has a 
problem resulting in feelings of inadequacy, confusion, or failure. These situations may occur 
when a teacher is required to engage a student in learning whose experience or understanding 
challenges the teacher’s assumptions about the student’s knowledge or background. This 
situation challenges the teacher’s beliefs and assumptions, creating a dissonance, or emotional 
and cognitive discomfort for the teacher. For example, the teacher feels discomfort when a 
previously successful strategy fails to help students grasp a new concept or engage in learning. 
These situations are referred to as critical incidents because they bring the teacher to a moment 
of crisis as she becomes aware that his previous assumptions and beliefs don’t work, and she
does not have the skills or knowledge necessary to support the student (Brown, 2004). If the critical incident results in the teacher reflecting on her assumptions and practices, and recognizing the need to discard faulty assumptions and adapt his beliefs into more effective assumptions leading to a change in practice, then she has had a transformational learning experience. Essential to this process is the opportunity to engage in inquiry with trusted colleagues or a coach. Inquiry and dialogue allow the learner to incorporate new understandings in meaningful and useful ways.

Intentionally structuring critical incidents or identifying critical incidents in the learning experience can facilitate transformational learning (Sokol & Cranton 1998). An example of this may be a data carousel in which teachers examine student achievement data for students who are not meeting standard. Awareness that current instruction is not supporting student learning causes the teacher to become aware that a particular behavior or belief she carries is not helpful to student learning. This creates discomfort for the teacher, causing her to reexamine her beliefs and practice, opening an opportunity to make changes. Case studies, reflective questioning, and examination of student work with the use of protocols may create opportunities to trigger a “critical incident”.

Instructional leaders and coaches can facilitate transformative learning by providing regularly schedule times and places to create a space for teachers to engage in critical reflection and dialogue. Davis-Manigaulte, Yorks, and Kasl (2006) describe a case study in which transformative learning was very intentionally structured to help a group of young health educators reflect on their work in ways that connected them more holistically with their cognitive and intuitive processes. In this study the authors describe the use of “expressive ways of knowing” including guided visualization, visual art, movement, and music to help learners
reflect and express themselves. Setting a tone and mood, intentionally, proved to be a valuable strategy to creating an environment to foster and nurture reflection and dialogue.

**Critical Reflection**

A discussion of critical reflection is useful at this point because it is an essential element in transformative learning theory. Mezirow (1998) defines critical reflection or critical reflection of assumptions (CRA) as a critique or an impartial analysis of the basic premises or assumptions upon which the learner operates. Ideally, CRA is a principled reflection that is impartial and consistent. Mezirow (1998) ties transformative learning and CRA very closely together because he says transformative learning requires CRA and raises questions about the premise about the motivations and intentions of the adult learner. Another reason for the connection between CRA and transformative learning is because CRA involves reflection upon previous experiences. Through CRA an adult learner may be able to view previous experiences from a new perspective or with different assumptions. They can use these new assumptions to make future decisions. If Mezirow is correct in his thinking, then understanding mental models upon which the adult learner builds assumptions becomes even more essential. In fact, Mezirow (1998) argues CRA is an “emancipatory dimension of adult learning…that frees the learner from a frame of reference, paradigm or cultural cannon (frames of reference held in common). . . and that this freeing is essential in the world of work. . . and in making moral decisions” (p.190 ). Mezirow’s assumption is we are held captive by our own biases and that in order to recognize them we must recognize the dysfunction of our perspective. We can then begin to transform our perspective by understanding how dysfunctional biases impact our beliefs and feelings about the world (Mezirow, 1990 as cited by Brown, 2005).
Intentionally teaching the adult learner strategies for examining assumptions, strategies, and protocols for professional dialogue will facilitate the transformative learning process. Assumptions and mental models are typically unconscious beliefs about the world from which people operate (Ross, 1994). When adult learners become aware of the mental models they carry around in their heads, they may begin to confront their own behaviors and become more intentional about their behaviors (Cranton & King, 2003). For example, when a learner becomes aware of the mental model referred to as “the ladder of inference” she can begin to understand how her experiences and associations have shaped an assumption (Ross, 1994). She sees that she has experiences causing her to draw conclusions or develop beliefs and then act based on the beliefs. Often the actions reinforce the assumptions and beliefs and the cycle continues. As the learner examines this process in her thinking she can begin to critically reflect upon the validity of her assumptions and consciously choose to make changes that will change meaning and cause a shift in the beliefs and assumptions she has carried about.

Collaboration

Engaging in dialogue with others who share common goals and purposes facilitates heightened awareness of one’s own beliefs and encourages transformative learning. Researchers found that one of the primary benefits of participation in a collaborative cohort is to increase opportunity to develop reflective abilities. They also found through a study of cohorts that there is “some evidence that the cohort experience can influence [teachers’] . . . practices” (Barnett, Basom, Yerkes, & Norris, 2000, p. 259). This supports the premise that collaboration with colleagues is beneficial for learning to become transformative, bringing about change in teacher practice.
Dialogue with trusted colleagues allows the learner to reveal her thinking and makes it more visible to others (Ross, 1994). This creates an environment where the participants may begin to become more aware of their own mental models. As adult learners become more aware of their mental models they are able to take more control of their learning. This is where andragogical principles, transformative learning, and critical reflection intersect to become practical and useful for understanding adult learning and professional development.

Figure 3 illustrates how the principles of andragogy, critical reflection, and transformative learning, when applied in the context of collaborative inquiry, bring about professional learning. Research suggests these are the elements most likely to bring about improved teacher practice.
Praxis

One of the challenges of professional development is to find a balance between technical learning (strategies and practice) and the critical reflection so essential for transformative learning (Servage, 2006). Servage suggests that instead of the term “practice” to describe the work of educators, the term ‘teaching praxis’ be used to more specifically describe the work that combines technical practice and reflection.

Praxis is the cyclical process of “moving back and forth in a critical way between reflecting and acting on the world” (Brown, 2004, p. 96). The term praxis assumes teachers will be given the time they need and the structures they need to not only do the technical learning required to skillfully carry out their work but they will also be given the time to reflect. Such critical reflection is essential to effective teaching praxis. Opportunities for teachers to engage in and develop praxis are essential in order for them to understand more deeply how to employ effective strategies to facilitate learning for all students.

Figure 4 shows how Teaching Praxis is an ongoing cycle of teacher practice and reflection that leads to improved practice and increased teacher capacity if done in an environment of collaborative inquiry (Brown, 2004).
National Board Teacher Certification

Core Standards for Teaching

NBTC activities incorporate the concept of praxis by requiring the NBTC candidates to engage in a variety of activities. These activities include watching video recordings of their teaching, analyzing student work samples, and using assessment as a basis for instructional decision making. Through rigorous analysis and critical reflection they compare their work against standards identified by the NBPTS. The NBPTS standards are based upon Five Core Propositions that describe accomplished teachers: (1) Commitment to students; (2) Know subject and how to teach it; (3) Manages and monitors student learning; (4) Thinks about practice and learns from experience; (5) Is a member of learning communities (Jennings, Joseph, and Orlando, 2007 and NBPTS, 2009). These propositions are the foundation of accomplished teaching and the standards developed for each certification area rest on them. The specific standards for each certification area vary and are based on the best practices identified by the profession for each area. Examples of these standards include:

Generalist/Early Childhood:

Standard I: Accomplished early childhood teachers use their knowledge of child development and their relationships with children and families to understand children as individuals and to plan in response to their unique needs and potentials.

Standard II: Accomplished early childhood teachers model and teach behaviors appropriate in a diverse society by creating a safe, secure learning environment for all children; by showing appreciation of and respect for the individual
differences and unique needs of each member of the learning community; and by empowering children to treat others with, and to expect from others, equity, fairness, and dignity (NBPTS, 2010).

Early and Middle Childhood/Literacy: Reading-Language Arts:
Standard III: Accomplished early and middle Childhood/Literacy Reading–Language Arts

Teachers practice equity and fairness; they seek and capitalize on diversity and diverse perspectives. They encourage all students to know, value, and respect themselves and others in the classroom, school, and larger community (NBPTS, 2010).

One argument for becoming a National Board Certified Teacher (NBCT) is that the process itself is “one of professional development and reflective practice” (Burns, 2007, p. 38). One teacher explained it this way, “The most important thing I have come away with from the NBPTS process is the significance of reflective practice to improving my daily teaching. . . I think about my teaching in terms of the standards.” (Burns, 2007, p. 42).

Cohen and Rice (2005) “found the design of the process . . . aligns closely with common characteristics of high-quality professional development found in the literature” (p. 60). Characteristics for high-quality professional development include opportunities to:

- develop, refine and deepen content knowledge and pedagogy;
- examine beliefs and challenge institutional barriers that act as obstacles to equity for all students;
- work together to build expertise and develop leadership capacity;
• build a broad based support of professional development from all sectors of the organization and community and incorporate knowledge and skills to appropriately involve families and community members as learning partners and build commitment to continuous learning;
• evaluate competency based on evidence of improvements in student learning and teacher practice. . . provides data that informs professional learning plans (OSPI, 2005).

Sato, Wei, and Darling-Hammond (2008) found in a three-year mixed-methods case study that NBTC candidates were more likely to increase and improve the use of formative assessment in their daily instructional practice than non-NBTC teachers. The effect of participating in NBTC showed impact beyond the year the candidates participated in the NB process. While non-NBTC teachers in the study participated in other professional development that appeared to result in improvement in assessment practice, the change was not as significant as the changes the NBTC candidates showed.

NBTC candidates said their change in practice was the result of the focus on standards that defined in a practical sense what accomplished teaching looked like (Sato, et al. 2008, p. 691). The NBTC candidates also reported the standard for incorporating a variety of assessment strategies into their daily instructional practice, portfolio prompts requiring them to provide hard evidence of learning, and the requirements to include more parental involvement in student learning were responsible for improvement in practice (Sato, et al. 2008). They also reported that the collegial experiences of meeting with other candidates for support and critique of their own work was significant in changing their teaching practice (p. 693). Non-NBTC teachers who participated in professional development activities with similar design to the NBTC process also experienced improvement in practice, but not to the degree that the NBTC candidates did (p. 694).
NBTC as Effective Professional Development

Sato, et al. (2008) cites other researchers who have identified five basic components of effective professional development aligned with NBTC: 1) A definition and vision of good teaching; 2) A process for putting that definition into actual practice in the classroom; 3) Consistent and systematic opportunities for collaborative work with colleagues; 4) Prioritization of time in order to keep professional development in the forefront of teacher work; 5) The use of formative and summative assessments as accountability tools (Chittenden & Jones, 1997 as cited by Sato, et al.).

The NBPTS, with a grant from the U.S. Department of Education, undertook an extensive study of the NBTC process at 8 sites across the United States (Cohen & Rice, 2005). The study was designed to look at the costs of the NBTC process as a professional development activity, as well as the design of varying NBTC programs as a professional development process. This extensive study resulted in an analysis of cost comparisons of NBTC against other professional development initiatives, as well as the design and characteristics of NBTC programs as a professional development activity.

Cohen and Rice (2005), as did Sato, et al. discuss how the NBTC process aligns with and provides opportunities for professional development with the fact that a vision or framework for accomplished teaching is defined for the NBTC candidates. In order to achieve NBTC, the candidates must understand the standards for effective teaching in their certification area and this requires extensive and knowledge about the standards and what they mean. The development of the portfolio entries requires candidates to analyze, reflect on, write about, and explain their work. This results in teachers becoming more aware of their practice and how it impacts their students. Several candidates expressed the experience like this: “... it made me look at what I
did.” Another candidate said, “A highlight of the process was reflection—what is the meaning? What is the purpose? Instead of just teaching, making it worthwhile.” One candidate said, “[The process enabled me to] expand my professional library [and] fill areas in knowledge of teaching practice” (Cohen & Rice, 2005, p.20).

The Cohen and Rice (2005) study also identified attributes of high quality professional development that also characterize the elements of NBTC. And again, these characteristics included a vision or framework that defines accomplished teaching practice, a focus on content and pedagogy to provide a structure for putting theory into practice, opportunity for teachers to reflect on and examine their own practice, and participation in a learning community and collaborative work. Additionally, Cohen and Rice identified job-embedded professional development as an important component to NBTC programs.

Cohen and Rice (2005) conclude the NBTC processes align closely to the core principals and standards of high quality professional development commonly discussed in research literature. Programs including peer mentoring and small group support add value and opportunity for candidates’ professional growth.

An important component in NBTC professional development and to activating teacher knowledge and skill is the inclusion of collaborative inquiry. Cohen and Rice (2005) highlighted reports from NBTC candidates that collegial interaction was an important part of the NBTC process. Sato, et al. (2008) also identified opportunities for collaborative inquiry as a key component of effective professional development. Frequently, teachers attend staff development training or have new materials designed to improve student learning, but they are not necessarily able to translate this new knowledge or materials into their classroom practice. Collaborative discussion provides the opportunity for teachers to generate new ideas and systems for
implementing the new information. The possibility that teachers will put new learning into practice increases when they have the opportunity to reflect and generate deeper understanding of practice with their colleagues. We are reminded, “Transformative learning is not a private affair . . . it is interactive.” (Mezirow, 1990, p. 364 as quoted by Brown, 2005).

So how do school leaders develop a culture that encourages and nurtures reflective, transformational learners? Dewey believed nurturing and developing open-mindedness and active reflection was essential in developing lifelong learners and teachers who develop these qualities which also helps their students acquire these same traits (Meadows, 2006). The ability to be open-minded, to question and to continually examine and reflect on practice are traits that help teachers build the capacity to be change agents and create the types of learning experiences most beneficial for student growth. In order to help teachers acquire these traits they need to work in a professional environment that facilitates and nurtures transformational learning through critical reflection and inquiry.

Teacher study groups are one strategy to give teachers opportunities to engage in transformative learning and engage in inquiry and reflection in a professional learning community setting (Saavedra, 1996). The professional learning community setting is focused on a purpose. The members of the community collaboratively determine purpose, develop norms of operation, and determine the activities and studies that support their purpose and goal. The purpose of the learning community may vary over time as group members become more skilled at reflection, inquiry and dialogue. Initially “safe activities” such as a professional book study or examination of released items from the Washington Assessment of Student Learning (WASL) may be the focus with the intention of developing technical skills around teaching strategies. As the capacity for transformative learning increases, teachers may choose to present study papers
for examination, or invite a colleague to join in a critique of their classroom practice. Finally, the ability to ask hard questions around the issues of social justice, equity, with inquiry into the systems, behaviors, and beliefs around cultural proficiency may emerge as a result of the deep trust and the ability to reflect and dialogue.

Protocols for dialogue and inquiry may be agreed upon by the group and employed to give voice to each member of the group with equity, safety, and support. The protocols give structure to conversations and increase the probability that every voice is heard, reflection is practiced, and feedback is given in a manner that allow the listener to hear it and process it in a respectful manner. If dissonance is embraced when it arises from conflicting assumptions, learning may begin to occur in which more creative, synergistic solutions are generated. In this way learning is actually constructed (Saavedra, 1996).

**NBTC and Student Achievement**

The ultimate goal for improving teacher practice and high standards through NBTC is to improve student achievement. Many states, including Washington State (OSPI, 2010) are investing significant amounts of scarce education dollars to NBTC with the intention of improving student achievement. Goldhaber and Anthony (2004) state, “The quality of a teacher can make the difference of a full year’s learning growth.” Students with a poor quality teacher may only make .5 grade level gain in a school year while a high quality teacher may help students make as much as a 1.5 grade level gain in a school year (Goldhaber & Anthony, 2004).

Vandervoort, Amrein-Beardsley, and Berliner (2004) analyzed student achievement data for students of NBCT (National Board Certified Teachers) in Arizona over a 4 year period to compare achievement levels for students of NBCT to non-NBCT teachers. Vandervoort, *et al.*
concluded that the students of NBCT appear to have increased levels of growth over a school year compared to non-NBTC teachers. This study supported a study conducted in South Carolina by Goldhaber and Anthony which came to a similar conclusion (Goldhaber & Anthony, 2004 as cited by Vandervoort, et al.).

The conclusions of these studies conflict with other studies that call for the cessation of public money supporting NBTC because the impact on student achievement is deemed minimal (Stone, 2004 as cited by Vandervoort, et al. 2004). There are significant challenges in sorting out all of the variables that influence student achievement in order to determine if NBTC status significantly impacts student achievement. This indicates a need for more studies to be undertaken on a large scale and on a local level.

Summary

The frameworks of andragogy, transformative learning, critical reflection, and collaborative inquiry have potential to create the type of professional and personal growth that helps teachers increase the capacity to help all learners gain access to knowledge and skills essential academic success. NBTC is a model for embedded professional development incorporating the principles of adult learning to challenge teachers and create meaningful experiences that translate theory into practice. As student populations in public schools present increased challenges and demands on teacher skill, adult learning theory provides insight for increasing teacher capacity to meet the challenges. Understanding and applying these principles requires a shift from traditional staff development to embedded professional development.

Further research to identify and define adult learning in the context of NBTC may provide useful and practical insight in how to create and nurture an environment of transformative learning to improve teacher practice.
The critical question of student achievement and the impact of NBTC on student achievement must be addressed on a large-scale and local level. Overall trends in student achievement can be identified by looking at large-scale testing, using measures such as the WASL to compare NBTC teachers and non-NBTC teacher impact. Also, there is value in looking at local data at the district and school level. Local studies on student achievement could examine formative assessment results which may be more sensitive in measuring teacher effectiveness for reading and math to determine impact of National Board Certified Teachers (NBCT) on student achievement.
Chapter 3

The Study of National Board Certification Teachers

How the Study Came to Be

During the spring of 2008, seven teachers at May Creek Elementary School in the Creekside School District decided to participate in the NBTC process. Four of the teachers were first grade teachers; the fifth teacher taught integrated kindergarten (a mixed class of students on IEPs and general education students); the sixth teacher was a special education teacher, and the seventh teacher taught English as a Second Language (ESL). All of the teachers applied for grants being offered through the WEA and the school district to assist NBTC candidates in paying for the costs associated with going through NBTC. The 5 teachers who moved ahead with NBTC received scholarships which paid half of the costs of NBTC. Two of the teachers who did not receiving funding did not move ahead for reasons other than not receiving the scholarships.

All of the original seven teachers also participated in the WEA program called Jump Start which was offered during the summer of 2008. Jump Start is designed to help teachers understand the NBTC process and determine if they want to participate in NB certification. One teacher stated, “You don’t really find out the scope of what you signed up for until you go to Jump Start.” Jump Start is designed to explain the portfolio assignments and the requirements. WEA (2010) describes Jump Start as “a 4-day seminar that provides early support to new National Board candidates to help them understand and be successful in the certification process ahead.” After attending Jump Start, two of the original seven teachers decided their personal commitments did not allow them to devote the time required to complete the NBTC process at that time.
I did not know much about NBTC and I had wondered if NBTC might be a tool for professional development for all teachers. I recognized having a cohort of teachers in one building going through NBTC was a good opportunity for me to learn about this process and find out whether or not NBTC was an effective professional development experience. I also decided to examine how being part of a cohort may affect teachers going through this process and whether or not NBTC had a positive or significant impact on student learning. I was also interested in whether my influence as a building leader supported or inhibited the process.

**Study Methods, Data collection, and Stakeholder participation**

Prior to the start of the 2008-09 school year, I approached the five teachers who committed to the NBTC process and asked them if they would be willing to participate in a study about NBTC. They all agreed to be interviewed three times either individually or in a group. I also told them I would be writing down my impressions and observations as they went through the NBTC process. They informed me I could not include any specific information about their portfolio entries in my dissertation study. Consequently, the discussion about the process will not include any specific information directly related to the lessons, projects, or reflections included in the portfolio entries.

Amy, Karen, Callie, and Sarah participated in cohorts organized by local universities and facilitated by a National Board Certified teacher who acted as a guide and facilitator for the candidates. Becky joined a cohort in the school district which was led by a NB facilitator. I was able to observe two of the university cohort meetings in November 2008 and January 2009. My purpose in observing these meetings was to learn more about the NBTC process and how I could support them. I made observation notes and my reflections for these meetings.
I shared with the school staff that I was studying the NBTC process and the NBTC candidates had agreed to be interviewed and observed during this process. I also told the candidates they would have the opportunity to see the interview transcripts and clarify or expand on their comments to ensure I had accurately captured their impressions and thinking about this process. The staff and the candidates were informed this research would be shared with the Creekside School District Department of Learning and Teaching in addition to being published as part of my dissertation.

Data Collection

Participant Interviews. I conducted three interviews either, individually or in a group, with the candidates. The candidates were allowed to choose individual or group interviews. The interviews were held as conversations with questions designed to prompt responses and elicit discussion (see Appendix A). The interviews were transcribed and coded into major themes. These themes included: reflection and analysis, instructional practices and decisions, collaboration with other candidates and colleagues, the National Board certification process; professional learning, and the cohort effect and impact on non-NBTC teachers.

The first round of interviews took place in April 2009, immediately following the submission of the portfolios. The second round took place in October of 2009, after the candidates had taken the online assessment and prior to finding out the results. The last round of interviews took place in April 2010, a year after submitting the portfolios, getting the results, and having time to reflect on the experience and how it has impacted their practice.

I surveyed the certificated staff June 2009 to find out the perceptions other staff members had of NBTC (Appendix C). I asked if and how the NBTC candidates added value to the work in
our building and to their individual and grade level team work. I also included questions about the interest of the other teachers in NBTC and the barriers they perceive exist in getting NBTC.

Amy and Callie were on the same grade level team. Therefore, I interviewed their team mates, Judy and Carol, who were non-NBTC teachers to try to deepen my understanding about the impact of candidates on their non-NBTC counterparts (see Appendix D). The interviews were about 20 minutes long and I conducted them individually in order to allow them the opportunity to speak candidly and confidentially about their experience. The interviews were conducted in June 2010. I asked questions about the impact the NBTC teachers had on their collaborative work as a grade level team. I wanted to know if the NBTC candidates brought added value to their work. I also, wanted to determine what they had learned from their NBTC colleagues.

**Student achievement data.** I examined student data for reading to see if the NBTC candidates’ students had different achievement outcomes compared to their non-NBTC counterparts. Three of the teachers were primary level teachers and teach literacy as part of their teaching assignments. One of the teachers taught special education resource room during the NBTC process and moved to fourth grade general education the following year. Her NBTC certification area was literacy and her teaching assignments included teaching reading and writing. She served all students in grades 1-5 who receive special education services in the core content areas of reading, math, and writing. The fifth teacher taught ESL and her focus was on students acquiring basic literacy and conversational skills in English. Again, she served all students in grades 1-5 who qualified for and received ESL services.

Data collected from the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) was a formative assessment given to all students in grades K-5 in Creekside School District.
Benchmark assessments were done three times per year, at the beginning, middle, and end of the year. In between the benchmark assessments, progress monitoring assessments were given to students who were identified as needing strategic or intensive interventions. The progress monitoring allowed the students and the teachers to measure progress toward grade level. The DIBELS assessment measured the number of words read correctly in a minute on a reading selection at the child’s grade level. For the purpose of this study we looked only at the benchmark data.

I also looked at WASL data collected in April 2008 and April 2009 to examine student achievement for students served in ESL and special education for reading and looked at the subgroups of special education students and ELLs (English Language Learners). As of the 2009-10 school year the WASL was no longer used and the test was changed to the Measurement of Student Progress (MSP) for students in grades 3-8.

**Classroom observation data.** Classroom observation data were collected using a CWT tool (Teachscape, 2009, Appendix B). This is a standardized observation tool used by administrators and teacher leaders throughout Creekside School District to observe the use of research-based teacher practice. The CWT tool was adopted as part of a large scale district improvement effort designed and funded with Federal and State funds through OSPI to support districts in Washington State working on district-wide improvement efforts.

The CWT tool was developed by a company called Teachscape. Teachscape was a vendor contracted by OSPI to work with the districts participating in district-wide improvement. Principals and teams of teacher leaders from each school in Creekside District were trained over a period of months in the data collection process and how to use the data. The CWT teams were
taught what to “look for” in the classrooms during instruction and in specific protocols for marking, collecting, and using the data.

CWT observations lasted about 4-7 minutes. The purpose and intention of the observation is to document teacher practice and student learning activities that occur in the 4-7 minute window. About 30-40 observations were collected each week and the data was entered into a computerized data bank. The data bank tallied the observed activities and aggregates the data into district, building, and grade level data. Reports were generated from the aggregated data for teacher reflection at the building level and for the purpose of planning professional development at the district and building level.

I used this tool to collect data about teacher practice throughout the 2009-10 school. For the purpose of this study the data is reported in a narrative form to discuss the classroom practice of National Board Teacher Certification candidates. I found this tool highly useful as an instructional leader to clarify and document my observations of actual classroom practice.

I used only the CWT data collected by me for this study. I knew at the time of the observations which teachers were NBTC candidates and which teachers were non-NBTC candidates. This sample size was very small and does not exclude the possibility I may have some bias about what I expected to observe the classrooms of NBTC candidates and non-NBTC candidates. This data was used only to discuss practice of NBTC candidates and triangulate other qualitative data used in this study.

**Researcher observations and reflections.** I also included my notes and reflections as I observed the participants and worked with my staff through the 2008-09 and 2009-10 school years. My notes helped me recall events, decisions, and staff responses to the NBTC cohort and experiences at times when I was not recording or formally observing a specific situation.
Reviewing these notes prompted me to ask more questions, conduct additional observations, or look at achievement data, guiding the direction of this study.

**Role of the Literature Review**

Several years ago I began a search to understand how adults learn, what motivates them, and what factors would create a collaborative and reflective environment to help teachers change and improve their instructional practice. The review of literature for this study is the result of my search to more deeply understand adult learning theory, reflection and analysis, transformative learning, and the role of collaboration.

The review of literature outlines a framework for adult learning that includes the foundations of andragogy (adult learning), transformative learning, and critical reflection with collaboration. As stated earlier, the characteristics of effective professional development align with the NBTC model (Cohen, 2005). While the NBTC is a prescribed process with timelines and specific targets, the learners choose to engage in the process at a point in their careers when they recognized the value and benefit to themselves professionally of critically examining their individual practice. They may also see NBTC as an opportunity to be recognized for their professional work. Also, the NBTC process allows learners to self-select lessons and tasks for their portfolios and produce evidence of their capacity to meet the NBPTS standards. Portfolio entries are teacher-created within the guidelines established by NBPTS.

A major premise of the adult learning framework is the notion of transformative learning. NBTC provides opportunities for the candidates to experience transformative learning as they participate in cohort groups allowing them to make their work and their thinking public. This collaborative experience may cause the candidate to re-examine their thinking as they lay bare their underlying assumptions about learning and teaching.
An example of this occurred while I observed a NBTC cohort meeting one Saturday morning. A teacher showed a video of her working one-on-one with a student. The child was working on early language skills and as the video of the lesson proceeded the candidate commented to the others in the group the lesson wasn’t very exciting – in fact maybe rather boring. She was doubtful whether this was a good example for her portfolio. At the end of the video, her colleagues began to ask her questions about the student: why she did what she did, how she determined what materials and strategies to use for the lesson, and how she assessed the student’s progress, etc. The questions, comments, and feedback challenged her notion that this wasn’t a good lesson for her portfolio. She began to recognize the value of the lesson and her use of this lesson in her portfolio as she responded to the comments and questions of her colleagues.

Finally, National Board Teacher Certification (NBTC) aligns with the framework of adult learning theory because it requires teachers to examine their practice, reflect extensively on their practice, and analyze their work against professional standards of practice and standards for student learning.

The review of literature sets the backdrop for this study – providing a framework or lens to examine NBTC as a professional development model. As part of May Creek’s professional development, the staff and the NBTC candidates were given some basic information from me about adult learning theory and the lenses being used to study this cohort. Our school professional development work began to become more individualized for staff members as the 2009-10 school year progressed. This change in practice occurred because of my developing knowledge about adult learning. We did this by having grade level teams plan their professional development work to focus on what they needed here and now. Rather than a whole staff focus on one research-based practice in a traditional staff development training session, we had grade
level teams identify what research-based practice they needed to focus on, using student achievement data and CWT data for the building and their grade level. I encouraged and nurtured this idea with the instructional coach and staff based on my knowledge that the most effective professional development will come from self-identified need. The teams reported that this was a valuable experience and will continue to be a practice in our school.
Chapter 4

Findings

I wanted to know if the NBTC process provided a good opportunity for professional development to deepen understanding of professional practice and become more reflective and intentional. Recurring themes emerged in the data including: Instructional practice and decision-making, analysis and reflection, impact of NBTC teachers on non-NBTC teachers, collaborative practice, and the cohort effect for NBTC candidates. These themes are closely aligned with the principles of adult learning theory outlined in the review of literature.

Instructional Practice and Instructional Decision-making

Within the theme of instructional practice and decision-making, the data revealed a perception of increased focus and increased intentional practice in the NBTC candidate’s daily work. This was evident through all three interview cycles, classroom observation data, and in discussions with their non-NB colleagues. Classroom observations provided evidence of increased intentional use of strategies to increase the level of rigor. (For the purposes of this study the term rigor refers to the level of cognitive demand placed on students as well as the traditional definition of rigor connoting thoroughness, and strict adherence to standards.) During the interviews, the NBTC candidates and their non-NBTC colleagues made statements about the difference in the NBTC candidates heightened awareness of the standards for students and accomplished teachers as a result of the NBTC process.

The teachers attributed this increased focus to having a thorough knowledge of the standards for student learning. Over and over each of the candidates commented on how the process “forces you to think ‘what are the goals?’” and “[I] spend a lot more time looking at standards rather than curriculum.” Callie stated, “The biggest [question] is why am I doing this?
[What is] the intent behind it?” In this same line of thinking, Amy commented, “Now I’m a lot more comfortable saying that doesn’t really fit second grade standard and I don’t see why I need to spend three days doing that.”

Several of the candidates commented on how knowing the standards so thoroughly impacted their practice. Amy said, “We had to know the standards and everything about them.” Karen stated, “I’ve always thought in terms of what my kids need. Now I think. . . not only what do they need but where do they need to go.” She also stated, “I’m thinking of what the target is and there’s so much more I think about in terms of what I choose in my classroom.”

Sarah commented that the experience reinforced for her “setting objectives and assessments and kids working together” as major areas of instructional practice and decision-making. She commented after completing her portfolio entries that the requirement to write about your practice forced her “to embed all of the standards – like 50 pages of standards.” Later, Sarah explained her increased awareness about the value of assessments:

I have more of an emphasis on how you assess students. I’m still working on that – it’s one of my goals. We have that ELL progress report for the report card but I don’t necessarily have assessments to assess those things. The WLPT [Washington Language Proficiency Test] doesn’t really help us. My awareness has been heightened and I’m still in the process of implementing that assessment piece. I’m not required to assess but it would be nice if I had back-up on that progress report.

The NBTC candidate’s perspectives of increased focus on standards were validated by comments from their non-NBTC colleagues. Carol told me,
I did notice their objectives were well stated and they followed it all the way through. Even the stuff on their walls served a purpose. . . There was definite intent in what they were teaching and higher level questions about what they were teaching.

One staff member whom I did not interview formally, expressed concern her NBTC colleague didn’t follow each reading lesson in the order it was printed in the curriculum materials and actually skipped some sections, contrary to the directions from the pacing guide. This teacher was concerned the NBTC teacher wasn’t doing it “right.” I told her that it was ok to make a Professional decision, based on student data and need to teach content in a different order or to choose another way to teach a concept outside of the recommended pacing guide, as long as it was aligned with the standards. She expressed alarm about this point of view. At the end of the school year, I looked at the DIBELS scores for these teachers, the NBTC teacher’s students had fared significantly better. This correlates with the findings that the focus on learning targets and standards positively impacts instructional decisions and improves daily instruction.

CWT data indicated NBTC teachers and non-NBTC teachers are virtually indistinguishable about making the learning targets evident. However, CWT data does not reveal the quality of the objectives evident or whether the objectives were aligned with the state learning targets, only that the objectives or learning targets were evident. Interviews revealed that the candidates and their colleagues reported the NBTC colleagues were more focused on learning targets. Further questioning and research about how the learning targets are made evident may shed further light on this perception.

Rigor is a term in K-12 education used to describe the level of cognitive demand teachers place on students. This definition is combined with the traditional definition of rigor meaning thoroughness and strict adherence to procedure and practice. High order thinking skills such as
analyzing a problem, using information in a new way, or evaluating information critically are recognized strategies to increase the rigor of student learning. CWT data indicated that higher order thinking skills were observed more frequently in the classrooms of NBTC teachers. Students in these classrooms were observed using information in new ways, breaking information down (analysis), and synthesizing information (putting information together) more frequently than in the classrooms of non-NBTC teachers. One example of analysis, I observed in a classroom observation was kindergarten students, following their science unit on trees, creating their own picture of a tree that included the roots, trunk, branches, and leaves in their correct placement and being able to verbally describe the parts of the tree. Another example of students breaking down information was observing a student explain to a peer how they solved an addition problem using cubes. Of course, this does not mean that non-NBTC teachers never do these activities or that some non-NBTC teachers do these activities less – simply that NBTC candidates as a group may engage their students in higher order thinking skills more often, than non-NBTC teachers, as a group, do. The indicators of increased rigor may be the result of increased knowledge of and focus on the learning targets and a thorough understanding about what students need to do to achieve these learning targets.

Another behavior that changed, possibly as the result of increased focus on targets, was communication with the parents and families of their students. Communication was one of the biggest challenges for educators in their practice and one of the teacher standards for each of the certification areas includes communication and partnerships with families (NBPTS, 2010). In the interviews 3 of the 5 candidates said there was a significant change in the content of the communication. They reported a shift from communicating almost exclusively about student behavior to communicating about academic progress. One candidate indicated she started to put
the learning objectives for each week in her notes home so parents know what their students are learning. Amy and Callie expressed the shift in communication to academics resulted in students bringing homework back more consistently. Callie commented, “I’ve gotten more homework back than I’ve ever gotten before.” Amy followed up with, “Parents feel more comfortable coming in. . . [parent] conferences were so much easier because it wasn’t a surprise. Nothing, academically, was a surprise because we’ve been talking about it.”

Callie said she had a “bad attitude” because she just felt the parents couldn’t help their children. Now, she realizes she needs to teach them (the parents) so they can help. This is an important shift in thinking because she sees the parents as a resource rather than an obstacle to student learning. She also reported she sometimes sends home notes asking parents how their child feels about school and how they feel about their child’s progress. While every parent didn’t respond, there seemed to be more awareness about their student’s academic progress. As Karen put it, “Sometimes I’ve found it’s just to give them a voice… it empowers them.”

Karen and Sarah did not report a change in their parent communication. When asked about this Sarah said she already communicated a great deal with parents about academics and behavior. She indicated one of the best parts of her job has been the family and community connections. This is true about her because she speaks Spanish fluently and has developed many relationships with the parents of her students. Karen had opportunity to talk with most parents everyday as they drop off and pick up their kindergarten students. She also said that the conversations with parents were now more about academics and not just behavior.

An unexpected professional learning occurred when some of the teachers realized they needed to teach their students how to have academic conversations in order to capture evidence of student learning for the portfolio entries. Amy explained what she did:
You tell them that you need to focus on this and you need to do this . . . they are having conversations that I’ve never had students have before. That huge focus on how to have meaningful conversations with each other is paying off in the long run.

She found that giving them explicit direction and modeling for how to talk and what to talk about made a big difference in student conversations and that the learning carried over into the next school year. (She had moved or looped with her students from first grade to second grade.)

Becky said she found training students to have academic conversations was similar to teaching social skills. She commented, “It goes a long with PBS (positive behavior support) with social skills in class. We have to learn how we talk to each other. You know, it’s school vocabulary you want them to use.”

Carol, a non-NBTC colleague validated the way another NBTC candidate used student conversation as part of their instructional practice. Carol said after team teaching with Sarah, “She’s into students having conversations and learning from each other.” When I asked the candidates if they would continue to teach their students how to have academic conversations, they agreed that it had paid off and was a highly useful academic skill.

CWT data indicated that there was a slightly higher number of occurrences of student-to-student conversations observed in the NBTC candidate classrooms. While the observations weren’t dramatically different, the slight difference may be indicative of the training these students received from their teachers going through the NBTC process.

Teacher Reflection and Analysis

Two significant themes to emerge in the interviews were reflection and analysis. These themes align with the Cohen and Rice (2005) analysis indicating that effective professional
development requires teachers to analyze and reflect on their work. The candidates all expressed that they learned to reflect on their work and that student learning was a major emphasis and area of growth. Sarah stated, “I think my capacity to reflect has increased because I had to reflect more than I thought I could.” Karen commented that the one thing she “most certainly gained from going through the National Board process was the ability to reflect and write and talk about [my] own practice”. A full year after turning in her portfolio, Sarah expressed she was inclined to do more reflecting now “than I would have before doing National Boards. When you thought you were done reflecting there was always more reflecting to do.” Becky said, “The questions I ask may be more specific or more direct because I’m looking at it deeper.”

Amy mentioned that the deep reflection required to complete the portfolios has caused her to become more intentional, “doing things for a reason, rather than this is what the book says.” This theme was repeated several times in the interviews with the candidates. The candidates said things like, “Even with the lesson I do every year . . . just reflecting . . . reaffirms [why I’m doing this lesson].” Callie said, “I can now tell you why I made a decision.” While they did not reflect as deeply on every lesson at the level they did for the portfolio entries, they found they were reflecting more on other lessons. A year later they reported that they were still more reflective about their lessons and their students’ learning.

During my interview sessions and informal conversations with NBTC candidates, I observed that the candidates “are very focused and are effectively using the student data to analyze student learning.” These teachers talk about the specifics of what is going on in their classroom. They seemed to request parent meetings, staffing meetings, and evaluation team (multi-disciplinary team) meetings more frequently, possibly indicating closer tracking of
individual student progress and using feedback on student learning to make instructional decisions.

Evidence that NBTC teachers may engage more often in analysis of individual learner progress more frequently was found in CWT data. CWT data indicates NBTC teachers may be more likely to differentiate instruction for individual students. Differentiation for content and product was observed only slightly more frequently in NBTC candidate classrooms than in all classrooms. Differentiation of process was observed significantly more often in NBTC candidates classrooms. This data validates the findings that NBTC teachers may be more analytic and reflective in their classroom practice because differentiation of content, process, and product require the teacher to analyze individual student need and adjust, modify, or redesign learning experiences for individual students. Amy provided a detailed example of how she reflects and analyzes more deeply individual student learning and makes decisions based on her reflection and analysis:

. . . It’s made me focus and say ok, I know that [a student] needs these certain skills and [another student] needs these certain skills. It’s helped me to pick and choose how to double dose them and be very specific rather than this kid needs to write a sentence but this kid needs to work on [another skill].

As a result of the reflection and analysis required to develop their portfolio entries, all of the candidates reported they had become more reflective and analytical about their daily work. Callie commented, “If I can’t come up with a good reason why, then I shouldn’t be doing it. There’s a lot more thought put into what I’m doing and why I’m doing it.” She also commented, referring to the reflection required as part of the NBTC process, “It’s transferred out to everything else.” Becky said she “looked at things a little bit deeper. . . I take more time to
analyze [the lesson].” Consequently, she felt there was more purpose in her lessons. Another said she now asks herself, “Is this making a difference?” The consensus for all candidates was if it isn’t making a difference for students, they stopped doing it or changed the plan.

Becky shared how she recognized a need to change groupings of students as she analyzed and reflected on what was happening in her classroom:

It took me until about mid-year to realize I had a split in my class. I have a lot of older [students] that are already 10 [years old] and a lot who are not 10 until later on. I was seeing the groupings with academics, the high kids and the lower kids and it was a pretty big split. I was going gosh what’s not going right. What do I need to do differently? . . . a big factor is their age because the older ones are more of the higher kids and it’s just where they are at in their learning. It’s good to remember.

Another indicator that NBTC teachers are effectively analyzing student progress is the DIBELS data (see Table 1). This data shows a difference in student achievement in NBTC classrooms vs. all classrooms at May Creek Elementary School. Students in NBTC classrooms made more gains over the course of the school year in meeting benchmark than students in non-NBTC. Table 1 illustrates that students in NBTC classrooms started at a lower level of achievement at the beginning of the 2008-09 and 2009-10 school years than all students at May Creek School. Yet, by the end of each school year more students were meeting benchmark on the DIBELS in NBTC classrooms by 8-9 percentage points over the number of students meeting benchmark in all classrooms at May Creek School.

Table 1 shows a two year comparison of all May Creek Elementary School Students to the students of NBTC candidates during 2008-09 (the year the candidates completed their
portfolio entries) and the year following their portfolio submission. This data indicates that the students of the NBTC entered their current grade level performing at a significantly lower rate than the rate of ALL students. The students of NBTC candidates made significantly more growth over the span of each school year when compared to all students’ growth.

Table 1. A Comparison of All Students to NBTC Teachers’ Students Meeting Benchmark on the DIBELS Assessment.

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<thead>
<tr>
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<th>% of All Students Meeting Standard</th>
<th>% of NBTC Teachers’ Students Meeting Standards</th>
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<tbody>
<tr>
<td></td>
<td>Beginning of Year</td>
<td>Middle of Year</td>
</tr>
<tr>
<td>2008-2009</td>
<td>45%</td>
<td>57%</td>
</tr>
<tr>
<td>2009-2010</td>
<td>46%</td>
<td>55%</td>
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**Impact on Non-NBTC Teachers**

Survey data and interviews with non-NBTC teachers indicate there are mixed feelings about the NBTC process and whether NBTC adds value to teaching and learning to those who have not gone through the process. The survey data showed non-NBTC teachers either significantly bought into the process and, circumstances permitting, they would engage in NBTC themselves; or they viewed the NBTC as another hoop to jump through for increased pay. They did not view the process as bringing added value to their instructional practice and student learning. Some survey respondents indicated a feeling student learning actually suffered as a result of the teachers going through NBTC. One teacher commented in the survey, “[It] takes away from classroom instruction.[I] need to focus on my students.”
While the survey data was primarily positive, it did reveal a concern about the time required to do NBTC while maintaining a full teaching load. One individual felt the information shared by NBTC candidates during whole school professional development or in their grade level teams wasn’t what they needed to help their students. I also noted in my observations that there appeared to be an attitude of resentment during the 2008-09 school year from some non-NBTC teachers. The resentment was manifest in the lack of receptiveness to NBTC teachers leading professional development during the 2008-09 school year (although all of these teachers had always taken a leadership role in professional development activities). There was a feeling of divisiveness within grade level teams with NBTC and non-NBTC.

These observations were confirmed during my interviews with the NBTC candidates. One of the candidates commented, “There’s some resentment from other staff members. . . there is the perception that we somehow think we’re better or more qualified.” Another commented, “There’s a divide,” referring to her relationship with non-NBTC teachers. Verifying my perception and the perceptions of the candidates, one non-NBTC teacher commented, “[They] are very strong and opinionated and having passed the [NBTC] added to their confidence but . . . sometimes they think their way was the best way.”

Cohort research studies about students in leadership programs found similar feelings expressed from members outside of the cohort. “Non-cohort students often feel like “second-class citizens” when they sense cohort students are provided learning experiences . . . not available to them” (Barnet & Muse, 1993; Hill, 1995, as cited by Barnett, et al. 2000). The survey, given to all staff members at the end of the 2008-09 school year reflected a similar feeling. One survey participant wrote, “Please value professional development activities done by those not NBTC.” The survey response validated my perception that some non-NBTC teachers
felt “left out” or like “second-class” staff members because they were not members of the cohort. The majority of the survey responses were positive. How I, as principal, work with these teachers to address the issue of teachers feeling “left out” or like “second-class” staff-members while continuing to encourage those teachers who are ready and interested in pursuing NBTC will be discussed later on this paper.

The majority of teachers who participated in the 2009 all staff survey indicated they found added value in their collaborative work with NBTC candidates. From the survey, one teacher noted many of the building activities were facilitated by NBTC candidates. May Creek staff listed the following as valuable learning from the NBTC candidates: Training on autism; developmental milestones in students; math performance expectations (standards); how to evaluate student work; ELL and SIOP strategies; co-teaching; how to interpret data; current research-based practices; and integrating science and social studies into the curriculum. These items were listed multiple times and from several survey participants.

One grade-level team consisted of two of the NBTC teachers and two non-NBTC teachers during the 2009-10 school year. One of the non-NBTC teachers is a veteran teacher and very experienced at this grade level. Her name was Judy and the other non-NBTC teacher, Carol was an experienced teacher but new to the grade level. All four of these teachers have at least five years experience and are highly skilled. I interviewed the Judy and Carol near the end of the school year in June 2010 to find out what their experience had been working with NBTC teachers. I wanted to know if they had learned anything working with NBTC teachers and if so, what (See Appendix D)?

As a result of her work on this team Carol said, “I did notice their objectives were well stated . . . Even the stuff on their walls served a purpose.” Judy commented, “They bring a little
more detail into our professional learning community. . . I’ve benefited from some of the things they’ve learned. ” Carol also commented that because of the increased focus on standards modeled by her NBTC colleague, she was able to identify the priority areas for her own class more effectively.

In addition to working with Amy and Callie on her grade level team, Carol co-taught writing with Sarah to address the needs of ELL students in this skill area. She shared how this experience impacted her practice. “I changed the entire way of doing it because of the way she did it. I saw her in action.” When I pressed her for more details she said Sarah took more time; encouraged the students to have conversations; told her own personal story and then had the students tell each other a personal story; Sarah would then share with the other students what she heard them talking about. “It opened my eyes to different things,” Carol said.

Collaboration

Collaboration among teachers was a highly valued activity at May Creek Elementary School and in Creekside School District. At the time of this study, Creekside School District had weekly delayed start time for 90 minutes on Friday mornings, dedicated to collaborative work. In addition to the weekly delayed start time, at May Creek we devoted a considerable amount of money and time to create opportunities for collaborative work as a whole school and in grade level teams at other times. For example, teachers were paid to stay after contract time and work on analyzing student assessments. On several occasions we found a way to release teams of teachers from their teaching assignments during the contract day to work on lesson study, participate in reflective observations, or analyze benchmark data. Consequently, I was interested in how the NBTC candidates influenced the collaboration on their grade level teams because of the focus on collaboration in our school.
The NBTC candidates expressed a variety of perceptions and experiences about collaborating after going through the NBTC process. Sarah commented, “It helped me see how important it is to collaborate; how putting more than one head together helps you come up with a better product.” Becky who had not been part of a grade level team prior to the 2009-10 school year commented that she was “thankful for my team because I feel like I can talk to them about anything.” She gave an example of how they can say to another teacher whose students’ scores may be higher, “What did you do?” She feels it’s helpful to have those conversations.

Several NBTC candidates expressed frustration working with their grade level teams following the NB experience because they felt the focus among their colleagues was different and less intense. One candidate expressed her frustration in collaborating with her grade level team, “It’s all about how many copies do you make.” The general feeling was that it was difficult to have collaborative conversations with non-NBTC colleagues at the level they had with other NBTC candidates. The NBTC candidates indicated that they believed the other teachers wanted to have a deep exchange of ideas, but they didn’t know how. One of the candidates pointed out the time required to have deep conversations requires more than 10 minutes and teachers are extremely busy during the course of a school day. They also felt they were in different places when it comes to collaborating with their other colleagues. One of the candidates said she felt that NBTC teachers tend to ask “more specific questions or more direct questions because [we’re] looking at it deeper.”

Cohort Effect

This cohort of five teachers working on NBTC presented an opportunity to examine the impact of a cohort on an intense professional development experience. The value of being part of a cohort for the NBTC candidates was an unexpected finding in this study. All five teachers
expressed positive feelings about being part of a cohort. In addition to the cohort of five candidates in our building, they also belonged to different cohorts through local universities or through the Creekside School District. These outside cohorts were facilitated by teachers who were already National Board Certified teachers with additional training to facilitate and support NBTC candidates.

Three of the candidates, Karen, Amy, and Callie, were working on the same certificate area, Early Childhood Generalist. They worked very closely with each other on a daily basis. They could talk about what worked in a lesson and what didn’t work. Sarah looked for support in her certificate area through her university cohort. Her certificate area was English as a New Language. Sarah stated, “The cohort meetings helped because I met a couple of people that I ended up meeting with weekly that were in my cert area. . . you bounced ideas off of each other constantly . . . on a weekly basis.” Sarah’s experience with the other teachers in her certificate area was similar to Amy, Callie, and Karen’s experience working together in the same certificate area. Amy explained the impact of working with a cohort, “We call each other all the time. . . we have these instructional conversations all the time. . . ‘I’m thinking about doing this. What do you see, what should I add?’ [We] are always talking about it.”

The five candidates helped each other with the technical work required to assemble the portfolio entries. They helped each other with everything from figuring out the best way to set up the equipment, to taping a lesson, reading each other’s reflection papers, and providing feedback. Frequently, I observed each of them using their conference and planning time to help another candidate tape a lesson, find equipment, or solve a technical problem. Teachers highly value their planning time and this was a generous gift they gave each other.
Callie felt so strongly about having a cohort she stated, “If you have the idea you can do it alone – uh uh.” Karen commented, “It made a huge difference having the 3 of us doing the same certification area.” All of them felt it was helpful to see each other’s videos and read each other’s papers. Sarah said, “Everybody helped me at one point or other. . . Karen videotaped my lesson. [She] helped me come up with the lesson.” She also commented to the other candidates during the interview that “Because they were on the ball made me realize [what I needed to do next] even though I didn’t work with [them] directly.” She felt some of the others were a little ahead of her at one point and this helped her figure out what she needed to do to finish her portfolio entries. One teacher pointed out, “It was just helpful to have other people understand what you were up against and actually take time to sit down and talk about the things you were struggling with.” Amy summed it up, “It’s like we went through a war together.”

Research studies about the impact of being part of a cohort were documented in a study conducted in Scotland (Grieve & McGinley, 2010). Teachers participating in a program called Continuing Professional Development (CPD), a program with goals similar to NBTC, reported that they had benefited from working with other teachers going through this experience. They found support from other professionals, with resources, and varied of expertise broadened their own knowledge base. Barnhart, et al. (2000) also reported the value of cohorts as a benefit to graduate level students going through leadership training. The sense that they had support and a network of other professionals to work with increased the likelihood they would complete their program. The NBTC candidates at May Creek School had a similar experience.

Achievement

Is there evidence of NBTC impacting student achievement? This is the bottom-line for all professional development in K-12 schools. Our work is providing optimal opportunities for
learning and ensuring all students have access to learning.

Goldhaber and Anthony (2004) and Vandevoort, et al. (2004) found evidence that NBTC teachers have a positive effective on their students’ academic growth in reading and math when compared to non-NBTC. I decided to look at student achievement in literacy for the students of the NBTC candidates. This was primarily because more assessment data for literacy was available and accessible for most of these teachers for the 2008-09 and 2009-10 school years. Also all of the NBTC candidates were involved with literacy instruction, even when several changed assignments or grade levels. The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) data is available for all students K-5. WASL data was available for all students in grades 3-5 for the 2007-08 and 2008-09 school years. I looked at this data to see if I could gain some insight about the impact of NBTC on student learning. This is a very small sample, inadequate for providing broad generalizations about the impact of NBTC, but it does provide some evidence of a possible relationship between NBTC and student achievement.

DIBELS data is a formative assessment with 3 benchmark data collection periods in the school year. DIBELS data indicates progress for students in reading fluency and accuracy. Kindergarten and mid-first grade DIBELS monitors progress in fluency in letter/sound recognition, phonemic segmentation, and non-sense word fluency. Mid-year in first grade the students begin to be measured in oral reading fluency only and the other fluency measures are dropped. The benchmark assessments occur at the beginning of the school year, middle of the school year, and the end of the school year. As stated earlier, progress monitoring occurs in between the benchmark assessments as needed to support student progress and monitoring improvement.
Three of the NBTC candidates, Karen, Amy, and Callie, gave DIBELS assessments to their students in the 2008-09 and 2009-10 school years. The other 2 candidates, Becky and Sarah, were specialists assigned to provide instruction in special education and ESL, respectively. In 2009-10 Becky taught fourth grade general education and so DIBELS data was included for her students in that year. In addition to DIBELS data for the 2008-09 and 2009-10 school years, I looked at WASL data for the 2007-08 and 2008-09 school years to look at student achievement for Special Education and ELLs. I hoped that the WASL achievement data would provide some additional information about the impact of NBTC for students served by Becky and Sarah in these specialty areas.

DIBELS data for 4 candidates during the 2008-09 and the 2009-10 school years indicated significant student growth and progress through the school year. For the kindergarten students phoneme segmentation fluency is the key growth indicator. Phoneme segmentation fluency is a critical skill for developing reading skills. Research indicates students who develop phonemic awareness (measured by phoneme segmentation) are more likely to become good readers (University of Oregon, 2010). In grades 1, 2, and 4, oral reading fluency was the key growth indicator because automaticity in decoding words allows students’ brains to focus on constructing meaning rather than focus on decoding (University of Oregon, 2010).

During the 2008-09 school year, students in most of the NBTC candidates’ classrooms showed significant growth toward benchmark as measured by the DIBELS. This growth continued into the 2009-10 school year as well. In 2008-09, three of the 5 NBTC candidates taught reading in the general education classroom and monitored progress through DIBELS benchmark assessments. At the end of 2008-09 school nearly 66% of NBTC teachers’ students met benchmark. Again, during the 2009-10 school year, nearly 66% of NBTC candidates’
students met benchmark. This compared to all May Creek School students in grades K-5 meeting benchmark at a rate of 58% by the end of the 2008-09 school year, and 57% at the end of the 2009-10 year (see Table 1).

This is a small sampling of teachers and students but the data indicated NBTC teachers may be more effective in supporting student learning in literacy than a general cross-section of teachers.

WASL Reading data provided information about student achievement for students in grades 3-5. The WASL was an important measure of student achievement and determines whether or not a school or district met AYP achievement goals. This assessment was designed to give a big picture look at a school’s overall programs and provides useful information about program effectiveness for large scale planning at the building and district level. It was not designed to be sensitive enough to make daily instructional decisions for individual students or provide teachers with information about effectiveness of daily practice. The WASL also provided information about academic growth for sub-groups of students.

Two of the sub-groups measured by the WASL data were special education students and ELLs. Becky and Sarah provided direct instructional support to these two groups of students. We relied on the 2008-09 WASL and 2009-10 MSP data to see if we could draw any significant relationship between student achievement and NBTC. Becky did not provide instruction to special education students in the 2009-10 school year but we included this data for consistency. In addition to the fact that WASL was not designed to measure the effectiveness of instructional practice, we noted that these students received limited instruction from these teachers because they spent most of their day with their general education peers in general education classrooms. Also, ELLs who have been in the U.S. less than a year do not take the Reading WASL, but even
when ELL students take the WASL they are still not fluent in academic English. ELLs at May Creek School received the majority of direct instruction from Sarah during their first year in the U.S. When they exit “newcomers” status (based on progress measured by the Washington Language Proficiency Test and other local assessments) they no longer receive much, if any, direct instruction from Sarah.

The 2008-09 WASL reading data for May Creek School indicated there was great variability in reading achievement for ELLs from the 2007-08 school year to the 2008-09 school year. Third grade reading achievement dropped dramatically from 28.2% of ELL students meeting standard to 17.40% of students meeting standard between these two years. The number of fourth graders meeting standard in reading increased the most dramatically from 22.7% in 2007-08 to 29.6% meeting standard in 2008-09. Fifth grade data showed a smaller increase in students meeting standard from 2007-08 with 14.3% ELLs meeting standard to 2008-09 with 16.7% ELLs meeting standard (Table 2).

Table 2
Percentage of ELLs Meeting Standard on the WASL in 2007-08, 2008-09 and MSP in 2009-10

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Percentage of students meeting standard in 2007-08</th>
<th>Percentage of students meeting standard in 2008-09</th>
<th>Percentage of students meeting standard in 2009-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 3</td>
<td>28.20</td>
<td>16.70</td>
<td>14.7</td>
</tr>
<tr>
<td>Grade 4</td>
<td>22.70</td>
<td>29.60</td>
<td>05.0</td>
</tr>
<tr>
<td>Grade 5</td>
<td>14.30</td>
<td>16.70</td>
<td>14.3</td>
</tr>
</tbody>
</table>

The ELL students taking the Reading WASL have been in the U.S. longer than 12 months. Consequently, while all of them received some instruction from a NBTC candidate, the majority of their instruction is delivered by a general education classroom teacher. The variability of student performance, small cohort size, and the lack of sensitivity of large scale
assessment such as the WASL make it difficult to draw any conclusion about the impact of a NBTC on student achievement using this assessment data.

WASL Reading data indicated a significant increase in the number of special education students meeting standard, in grades 3-5, between 2007-08 and 2008-09. Special Education students in grade 3 went from 20% meeting standard in 2007-08 to 50% meeting standard in 2008-09. Special Education students in grade 4 improved from 23.10% meeting standard in 2007-08 to 38.5% meeting standard in 2008-09. Fifth grade students improved slightly as well, going from 10% meeting standard in 2007-08 to 14.3% in 2008-09 (see Table 3). Again, this was a very small sampling of students, using an assessment which was not sensitive enough to draw conclusions about specific teacher practice, therefore we are not able to draw a strong correlation between student achievement and NBTC based on this data. These students did receive the majority of their literacy instruction from Becky, who was the special education teacher during these years and her certification area was Literacy: Language Arts and Reading. While all grade levels showed improvement, the data may be explained by the cohort of students and their individual levels of achievement or, by the teacher’s increased focus on literacy as she went through NBTC. One sample with one teacher and small cohort of students does not allow us to make generalizations about the impact of NBTC on student achievement – even for this one school.
Table 3. Percentage of Special Education Students Meeting Standard on the WASL in 2007-08, 2008-09, and MSP in 2009-10

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Percentage meeting standard in 2007-08</th>
<th>Percentage meeting standard in 2008-09</th>
<th>Percentage meeting standard in 2009-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 3</td>
<td>20.00</td>
<td>50.00</td>
<td>NA</td>
</tr>
<tr>
<td>Grade 4</td>
<td>23.10</td>
<td>38.50</td>
<td>NA</td>
</tr>
<tr>
<td>Grade 5</td>
<td>10.00</td>
<td>14.30</td>
<td>18.8</td>
</tr>
</tbody>
</table>

These students received the majority of their literacy instruction from Becky, who was the special education teacher during 2007-08 and 2008-09 school years. Again, due to the small cohort size and the lack of sensitivity to daily teacher practice of a large scale assessment like the WASL makes it difficult to draw any strong conclusions or make generalizations about the impact of NBTC on student achievement.

The NBTC Experience

Survey data indicated that non-NBTC teachers had the perception that the time commitment required to go through the process was a major barrier to attempting NBTC. And, quite frankly, their perception that the NBTC process was demanding and time consuming appears to be correct based on the interviews with the NBTC candidates.

The candidates expressed that it was highly stressful to go through the process. Just prior to the portfolio deadline in late March, the NBTC teachers expressed they felt they were not able to attend to their teaching duties as well as they normally did due to the pressure of finishing their portfolios. After submitting her portfolio, one candidate joked they were going through “post-traumatic stress disorder now just because it was so hard for so long!” Another exclaimed, “it’s exhausting!” Other complaints about the process included comments like, “There are things
about the process that don’t necessarily model the NBTC standards. There’s a discrepancy between what accomplished teachers do and what they are having us do.”

I asked the candidates about the barriers they encountered in the process. Callie responded:

I was using a 1980 science kit and as much as I tried there [were] only so many ways to make it developmentally appropriate and so many ways to tie it to the standards. . . you can only do so much with something bad . . . Having appropriate curriculum [was a barrier]. We didn’t have appropriate social studies curriculum.

Becky stated that,

My obstacle was the behavior of the kids that I had . . . listening, viewing, speaking – I had to dig deep . . . to get them to do things to help their learning. My reading group was my autistic reading group. They were a challenge . . . thinking specifically about what would work for them and their unique learning.

Karen summed up her struggle with her experience this way: “The hardest thing is the blind leading the blind. Nobody knows what we’re doing and nobody knows why they don’t pass.”

Technical challenges of recording lessons on video presented a significant obstacle. Students are not used to being taped and sometimes school equipment is not in great shape, not to mention that accidents happen. While taping a lesson one of the candidates tripped over the camera cord, accidentally knocking the camera over, breaking it. We did replace it. One of the candidates said, “The technical aspect was tricky. Even though it seems kind of secondary, getting it on the video was a pain and it was helpful to have other people say ‘do this’ or ‘this [type of] camera works really well.’”
The teachers with young students found they needed to train their students how to interact and talk to each other about the work they were supposed to be doing in order to produce a video with students talking about the lesson. Amy said, “We really focused on how to have [academic] conversations because we needed to have them do it in the video tape, so with beginning of the year first graders was really a hard thing.” Training these students to have academic conversations paid off because later, two of the candidates commented their students talked like “miniature teachers.” CWT data showed that student-to-student discussion was slightly more evident in NBTC classrooms as a result of this training.

Yet, for all of the stress and strain involved in the NBTC process, the candidates felt the very process is what provided the professional growth. Callie said, “It’s not about achieving certification . . . it’s the process and I can now tell you why I made a decision. I can tell you why I did what I did.” Karen commented, immediately after turning in the portfolio, “As hard as it was, it’s that very struggle that makes you think. Now that I’m done with it I’m ok with it.” Another candidate noted that while there were annoying details like filling out forms, “I don’t think I’ve done anything that’s superficial.” And another commented, “I feel like it really has focused me more.”

The portfolio entries were mailed by the last day of March. The assessment portion of the NBTC process posed another challenge for the candidates. Candidates were required to take an online assessment after submitting their portfolio. NBPTS (2010) describes the assessment center as an online assessment designed to assess the candidates in their knowledge of the content they teach. The candidates were given six exercises and 30 minutes per exercise to respond. One candidate said, “The assessment center . . . you’re given this situation. One [of her questions] was [a] broad topic and it was with third graders . . . you really can’t prep for it.”
Administrative Support for NBTC

I viewed my role as a facilitator to the NBTC process. I found resources such as released time by using Title I funds to provide substitutes. I also directed some building resources to ensure that the candidates had access to a good video camera and microphones in order to tape lessons for their portfolio entries.

I observed a university cohort group and I asked the group what principals and district leaders could do to support their work. Several teachers indicated being allowed to lead professional development and other building initiatives would be helpful. Several felt their principal did not recognize the value of allowing them to take leadership roles and so they struggled with finding evidence of their leadership, outreach, and contributions to the profession for portfolio entry four. They also indicated providing time to work on NBTC during the contract hours would be helpful and resources to ensure that they had sensitive microphones and video cameras for recording lessons.

The interviews with the NBTC candidates revealed their perspective about the level of support they received and needed to accomplish certification. Callie expressed her perspective:

I think the support was wonderful because I don’t think anybody else I know had that same level of support. They were amazed [that money was allocated for a new camera] versus trying to check out the camera from downtown and have it for a week. It’s just not feasible because it may take you a lot of shots to get that video . . . you’re under so much stress. It’s not going to work. Having the sub days to work together and give each other feedback. That was really useful to have that time because we were at that point where it was time to hammer it out.

Sarah also elaborated:
Giving the days and being flexible . . . sometimes you just need to work with your cert area. The day we were all in the conference room I got a lot done on [portfolio] entry four because that was the one we all had to do the same.

Amy reiterated, “It was nice having the days to meet and plan. There was so much more support it was great.”

The staff survey responses gave some indication that May Creek School has an environment that promotes professional growth for the staff. The survey specifically asked, “Are you considering participating in National Board Teacher Certification at this time or in the future? If no, why not?” Slightly more than half of the respondents, 53%, indicated they would consider participating in NBTC. This positive response may be indicative of the supportive school environment and a supportive administrator.

One of the issues that surfaced among some of the NBTC candidates and non-NBTC teachers was the perception that the NBTC candidates were preferred or valued more than the other staff members. As mentioned earlier, survey data indicated that some staff members felt like second-class citizens because they had not pursued NBTC. Tension did surface in the grade level teams with NBTC candidates because non-NBTC teachers had a perception that NBTC teachers felt they had all of the answers or had arrived. This posed a challenge for me as the principal, focused on creating a climate of trust among staff members that would facilitate collaborative inquiry and reflection. This tension created some stumbling blocks for a period of time among team members and may have reduced feelings of trust and openness for a time. I discovered two strategies that seemed to help overcome these feelings: 1) Team teaching or co-teaching between NBTC candidates and non-NBTC teachers. Carol commented that as she
observed, worked with and got to know her teammates who were NBTC she could see the value of their knowledge and felt her work improved. 2) Team members having the courage to confront their peers about the lack of trust. For example, one of the non-NBTC teachers confronted her NBTC candidate colleague with her perception that there was not trust between them. This proved to be an important turning point in the relationship that helped to reduce the negative feelings between them.

    Principals need to be sensitive to the issues of perceived difference among their staff members and they need to be willing to acknowledge, confront, and support teachers in confronting and pushing through the tension. One way to do this is to openly talk about what to do if there is a lack of trust among colleagues. Be open to listening to the non-NBTC teachers and the NBTC candidates and view the experience from both perspectives. Then encourage and coach them on strategies for bringing these feelings out into the open in a way that may increase trust and honor the work of all accomplished, hardworking teachers in the building.

**Effective professional development**

    Was NBTC an effective professional development activity? All five candidates indicated this was the best professional development experience they had ever gone through. Karen commented, “It’s a great accountable way to look at my teaching practices and improve my strategies. It made the lessons better all around for students, myself and for assessing their learning.” Callie stated, “I think I’m more adamant about standing up for what I believe is right. My knowledge base is bigger and I have more to support it and I’m more vocal than I was before.” Becky explained how the NBTC process has changed her planning, “I’ve noticed . . . that listening, speaking, viewing always pops up in my head and . . . [I’m] trying to think about
how are the kids taking the information in and how am I . . . presenting it to them so that they can have it from all those angles?”

One of the NBTC teachers summed it up this way, “It is the best professional development I’ve ever gone through.” All of her NBTC colleagues agreed with her.
Chapter 5

Outcomes, Reflections, and Recommendations

I began this study with very little knowledge about NBTC, standards from NBPTS identifying accomplished teaching, or the time required to successfully achieve certification. The decision to go through NBTC by the five May Creek candidates was a rare opportunity to study the process, learn about the experiences of the candidates, and examine the impact of the NBTC certification process on teacher learning and practice and student achievement.

My initial impression was that the requirements to achieve NBTC were a series of activities that may or may not be related to high quality instruction. I was suspicious that teachers were “jumping through hoops” for the prestige of being called National Board Certified Teachers and some additional pay. As I learned about the process through observations, interviews, and reading their portfolio entries, I realized that NBTC was indeed a powerful professional growth experience. These teachers were required to engage in activities that define high quality professional development (Baron, 2008; Brown, 2005; Guskey & Yoon, 2009).

The five NBTC candidates were very accomplished professionals prior to engaging in NBTC. They were already leaders among their peers and had demonstrated capacity to provide high quality instruction to their students. These were teachers who already valued professional learning and were involved in book studies, independent professional reading, and engaged in professional activities that expanded their professional knowledge and expertise. For example, all of the candidates held Masters Degrees in education. One of the candidates was an adjunct instructor at a local university. Another was a professional development trainer in mathematics.
curriculum. Two of the candidates held credentials in special education as well as general education. Yet, as they progressed through the experience they became more aware of their own areas for growth and engaged in a level of deep reflection about their practice that surpassed their previous experiences. Examples of this awareness are found in Callie’s awakening to the idea that she needed to teach her students’ parents how to help their children with school work and in Sarah’s increased awareness about the value of assessments for ELL students in order follow their progress. The reflective process required them to know the standards for the content areas they were teaching in depth. Amy commented, “I can recite K-1 standards inside and out and that’s one thing [NBTC] does. We had to know the standards and everything about them.”

They also became much more aware of how they delivered instruction and the impact of their instructional decisions on their students. This deeper knowledge of the standards, combined with analysis, reflection, and an opportunity to collaborate brought opportunities for the candidates to change some practices and become more deeply committed to already established effective practice. Karen found this experience to be transformative. She stated, “it’s made me more focused and intentional because it changes how you look at things . . . Where I find other teachers say, what does it say in the plan? I’m thinking of what the target is.” Sarah summed it up this way, “Even if you’re a rock star teacher, you still had to dig deeper into your teaching practice.”

Their impact on the other staff members was generally perceived as positive and adding value to the work in the school. Respondents to the staff survey indicated that they had learned about SIOP instruction; how to work more effectively with autistic students; and how to analyze student work. One non-NBTC teacher, Carol, talked about observing Sarah as they co-taught and
the profound impact it had on her practice. Carol commented, “[Working with them] opened my eyes to different things.”

There was some sensitivity among the NBTC teachers and non-NBTC to feelings of resentment. The NBTC candidates felt some resistance from their non-NBTC peers and some non-NBTC felt left out or left behind as the NBTC candidates progressed. As stated earlier, sometimes non-cohort students felt like “second-class citizens” (Barnet & Muse, 1993; Hill, 1994, as cited by Barnet, et al. 2000). The sentiment of non-NBTC teachers feeling not as valued as the NBTC candidates was evident in the staff survey results.

The results of this study were informative for May Creek Elementary and for me as the building principal. The NBTC candidate experiences helped teacher leaders and me, as the administrator, to think about ways we could develop reflective practice and create professional development opportunities for all staff members that would help them move into a cycle of reflective practice. I mentioned in the previous chapter how we began to have grade-level teams use CWT data and student achievement data (formative and summative) to decide what areas of research-based practice they needed to learn about and develop in their daily practice. The decision to move in this direction was guided by my understanding about adult learning theory and the observations and interviews from this study with NBTC candidates.

Another professional development decision based on the NBTC teacher experiences was to send a team of teachers to learn about co-teaching. Co-teaching requires teachers to make their practice public and to closely collaborate, plan, and analyze student work with another teacher. Sarah was particularly influential because her experiences with co-teaching with non-NBTC teachers had a positive impact on the practice of her own practice and on the practice of her peers.
when they had the opportunity to co-teach with her. As a result of these experiences several teachers (not NBTC candidates) were sent to training about co-teaching. Co-teaching is a strategy used to differentiate instruction for struggling students and ELLs in some content areas. The value of co-teaching became very apparent to me and to our instructional coach as we looked at the data I was collecting about NBTC and reflective collaborative practice.

NBTC candidates benefited from the study because it gave them the opportunity to articulate their experiences about going through the certification process. They were able to articulate what they had learned and to think about how the NBTC experience impacted current practice and how it may impact future practice. Increased confidence about their work emerged through this process. Callie expressed it this way,

[I’ve] become a lot more intentional about everything I do. [I ask] why is this happening and what am I building on and where are we going with it? Like Math, technically I should have been done with unit 1 about three days ago. Well we were only supposed to spend . . . two days on our doubles combinations. [The students] don’t know them . . . So rather than starting on the next unit we’re going to work on these doubles combinations and we’re going to work on filling some of these holes and we’re not going to go ahead.

I found this small study validated my thinking that the principles of adult learning theory, a praxis of practice and reflection in a collaborative setting are highly desirable for professional growth. The NBTC candidates and their colleagues felt that there was added value to their practice because of the increased focus on learning standards that helped teachers make instructional decisions and target lessons to specific goals. The candidates found that the demands of creating portfolio selections required them to move into deeper analysis and
reflection about their own work. Specifically, they found value in viewing the videos of their work and writing in depth about their thinking as they planned and delivered lessons. Some of their non-NBTC colleagues found added value because the NBTC process helped their colleagues bring a heightened awareness and knowledge about best practice to their collaborative meetings.

The necessity of working in collaboration was felt by every NBTC candidate and was expressed in the comments that they could not do it alone. The need for colleague support was essential to success.

**Directions for Future Research**

The structure of this study worked well with my role as an instructional leader and could easily be duplicated in other schools with teacher leaders and principals collecting the data about their particular school. There would be value in conducting this type of study to include NBTC teachers across the school district and employ other CWT observation teams to provide CWT data on NBTC teachers as well as all teachers. District-wide surveys to all staff and a deeper examination of K-12 student data may be valuable in helping district leaders make decisions to target professional development resources.

This study points to the need for additional research about the NBTC process and professional development. While the participants in this study felt they made significant growth through the process in their understanding and knowledge of student learning standards and their capacity to reflect and make better instructional decisions, the study sample is too small to make generalizations or draw definitive and broad conclusions outside of May Creek School. There was some evidence NBTC teachers may be more likely to engage in reflective practice about
their own practice and its impact on student learning with more frequency and at a more sophisticated level. A larger study sample over the course of several years may give us more clarity about the impact of NBTC on classroom practice. This information may also be useful to inform professional development planning at a district and building level.

A largely untapped area for research is the impact NBTC teachers had on student achievement. I believe it would be highly valuable to conduct a study to analyze and study the progress of students of NBTC teachers over time and with several student cohorts in the Creekside School District. This may be especially important considering the significant amount of state, local, and personal dollars that are being invested in NBTC as a school and district improvement strategy.

The increasing number of NBTC teachers will provide opportunities for research to understand how to improve teacher practice and direct professional development resources. An organized and systematic look at the NBTC process and its impact will help educational leaders make better decisions about the level of support and resources that should or should not be directed to this effort. In a time of increased scarcity of resources and an escalating demand for increased teacher skill and capacity these studies may provide important information about how to meet the needs of all students.
References


University of Oregon (2010). Big ideas in beginning reading: Fluency. Downloaded from http://reading.uoregon.edu/big_ideas/flu/index.php


Appendix A

Questions for NBTC candidate interviews:

- Tell me your reasons for becoming Nationally Board Certified?
- What obstacles have you come up against as you’ve begun this process?
- What has surprised you so far?
- Have you changed the way you approach your students as you work on this process? Can you give me specific examples?
- What are you doing in your classroom or your work that is different than before you started the process? Again, specific examples?
- How is the process of NBTC affecting your collaboration with your grade level team members? With other staff members? Give some specific examples of what you do now.
- How do you view your job now compared to the way you viewed it before you started this process? What do you understand now that you did not understand prior to starting this process?
- What specific leadership roles have you taken on during the certification process? Has the NBTC process changed the way you approach leadership roles you’ve held prior to beginning this process?
- How has this process impacted your relationship with parents? What are you doing differently? Why have you changed your approach (or not changed)?
- How do believe your future practice will be changed or influenced by this experience?
- What activities have you expanded on or implemented you’ve thought about or dabbled at in the past but with NBTC you’re motivated to do it?
- What have you learned so far?
Appendix B

SUMMIT CWT LOOK FORS

<table>
<thead>
<tr>
<th>Date:</th>
<th>Grade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time:</td>
<td>Content:</td>
</tr>
<tr>
<td>School:</td>
<td>Walker:</td>
</tr>
</tbody>
</table>

1. Focus on Curriculum

1a. Identify the learning objective(s) or target(s)

<table>
<thead>
<tr>
<th>Learning objective(s) or target(s) is evident (select one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evident</td>
</tr>
</tbody>
</table>

1c. Learning objective(s) or target(s) is evident to the students (select one)

<table>
<thead>
<tr>
<th>Learning objective(s) or target(s) meets grade-level standards (select one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

2. Focus on Instruction

2a. Identify instructional practices

<table>
<thead>
<tr>
<th>Coaching</th>
<th>Discussion</th>
<th>Hands-on experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning centers</td>
<td>Lecture</td>
<td>Modeling</td>
</tr>
<tr>
<td>Presentation</td>
<td>Providing directions/instructions</td>
<td>Providing opportunities for practice</td>
</tr>
<tr>
<td>Questioning</td>
<td>Testing</td>
<td></td>
</tr>
</tbody>
</table>

2b. Identify grouping format

| Whole group | Small group | Paired | Individual |

2c. Identify research-based instructional strategies used by teachers

<table>
<thead>
<tr>
<th>Identifying similarities and differences</th>
<th>Cooperative learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarizing/Note-taking</td>
<td>Setting objectives/providing feedback</td>
</tr>
<tr>
<td>Reinforcing effort/renewal</td>
<td>Generating/testing hypotheses</td>
</tr>
<tr>
<td>Homework/practice</td>
<td>Cues/questions/advance organizers</td>
</tr>
<tr>
<td>Nonlinguistic representations</td>
<td></td>
</tr>
</tbody>
</table>

2d. Identify research-based instructional strategies used by students

<table>
<thead>
<tr>
<th>Identifying similarities and differences</th>
<th>Cooperative learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarizing/Note-taking</td>
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<td>Cues/questions/advance organizers</td>
</tr>
<tr>
<td>Nonlinguistic representations</td>
<td></td>
</tr>
</tbody>
</table>

2e. Explicit connections are made among classroom learning and other subject areas, personal experiences or real world contexts

| Yes, by students | Yes, by teachers | No | Unable to determine |

3. Focus on the Learner

3a. Identify student actions

<table>
<thead>
<tr>
<th>Computing/computation</th>
<th>Diagramming</th>
<th>Justifying their thinking/problem-solving skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>Modeling</td>
<td>Self-evaluating work</td>
</tr>
<tr>
<td>Peer evaluating work</td>
<td>Reading</td>
<td>Student-student discussion</td>
</tr>
<tr>
<td>Sensory-motor activity</td>
<td>Speaking</td>
<td>Writing</td>
</tr>
<tr>
<td>Using rubrics</td>
<td>Working with hands-on materials</td>
<td></td>
</tr>
</tbody>
</table>

3b. Identify instructional materials

<table>
<thead>
<tr>
<th>Computer software</th>
<th>Content-specific manipulatives</th>
<th>Handheld technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab/activity sheet</td>
<td>Oral</td>
<td>Overhead board/flip chart</td>
</tr>
<tr>
<td>Published print materials</td>
<td>Real-world objects</td>
<td>Student-created work</td>
</tr>
<tr>
<td>Textbook</td>
<td>Video</td>
<td>Web sites</td>
</tr>
<tr>
<td>Worksheets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3c. Determine level(s) of student work

<table>
<thead>
<tr>
<th>Recalling information (Knowledge)</th>
<th>Understanding information (Comprehension)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using information in a new way (Application)</td>
<td>Breaking down information into parts (Analysis)</td>
</tr>
<tr>
<td>Putting information together in new ways (Synthesis)</td>
<td>Making judgements and justifying positions (Evaluation)</td>
</tr>
</tbody>
</table>

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### SUMMIT CWT LOOK FORS

3d. Determine level of class engagement (select one)
- [ ] Highly engaged classroom
- [ ] Well managed classroom
- [ ] Retreatist/rebellious classroom

4. Focus on Classroom Environment
- [ ] Materials are available in the classroom
- [ ] Routines and procedures are evident
- [ ] Students interact with classroom environment
- [ ] Models/exemplars of quality student work posted
- [ ] Scoring rubrics are displayed/provided
- [ ] Student work displayed that is current and relevant

5. Focus on the Needs of All Learners

5a. There is evidence the teacher is responding to specific learning needs through differentiation of **content**
- [ ] Yes
- [ ] No
- [ ] Unable to determine

5b. There is evidence the teacher is responding to specific learning needs through differentiation of **process**
- [ ] Yes
- [ ] No
- [ ] Unable to determine

5c. There is evidence the teacher is responding to specific learning needs through differentiation of **product**
- [ ] Yes
- [ ] No
- [ ] Unable to determine

5d. There is evidence the teacher is responding to specific learning needs through differentiation of **learning environment**
- [ ] Yes
- [ ] No
- [ ] Unable to determine
Appendix C

This survey is to assist us in understanding the impact of NBTC on our overall staff. Please respond briefly and specifically to each of the following questions or statements:

1. Did you learn any new strategies or ideas from your colleague who participated in the National Board Teacher Certification process? What strategies have you learned from them?

2. Are you more likely to go one of the teachers who has participated in NBTC for instructional ideas or instructional support than to a non-NBTC candidate? If so, why? If not, why not?

3. Did your NBTC colleague(s) contribute added understanding or value to your weekly Professional Learning Community meetings? What added value did your colleague(s) contribute to the PLC? (i.e. deeper understanding of practice, increased ability to analyze student work, effective and useful instructional practices, etc.)

4. Are you considering participating in National Board Teacher Certification at this time, or in the future? If no, why not?
Appendix D

Questions and Prompts for Interviews with 2 Non-NB Teachers:

- Tell me about what’s it has been like for you to work on a grade level team with 2 NB teachers?
- What was helpful to you?
- What didn’t work for you?
- Do you feel like you learned from the other teachers on the team?
- What did you learn?