

Great Teaching and Leading Fund Final Annual Report: National Board Professional Development Schools

2015-2016

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Contents

I. Summary	2
a. Program Name & Overall Goals/Objectives	2
b. Abstract and Results Overview	2
c. Next Steps	10
II. Grant Funded Activities	11
<i>Activity 1: Leadership Team Kickoff Session</i>	11
a. Overview	11
b. Participant Information	11
c. Areas of Effectiveness Measured	11
d. Effectiveness Measures for Each Area	13
e. Implications for Future Implementation	13
<i>Activity 2: School-Based Professional Development Cohort Sessions</i>	13
a. Overview	13
b. Participant Information	14
c. Areas of Effectiveness Measured	15
d. Effectiveness Measures for Each Area	27
e. Implications for Future Implementation	31
<i>Activity 3: ATLAS Online Video Library</i>	31
a. Overview	31
b. Participant Information	32
c. Areas of Effectiveness Measured	32
d. Effectiveness Measures for Each Area	32
e. Implications for Future Implementation	33
III. Budget Summary	33
a. Narrative Overview of Use of GTL Funds	34
b. Brief Description of Expenditure Categories	34
c. Awarded Funds vs. Unexpended Funds	35
References	37

I. Summary

This section of the report summarizes the program, providing a brief overview of the goals and objects, an abstract and overview of the results, and an outline of the next steps to be taken in the program. Following this section is a detailed analysis of the program activities, and a brief summary of the budget.

a. Program Name & Overall Goals/Objectives

The title of the program is National Board Professional Development Schools (NBPDS). Funded by the Nevada Department of Education Great Teaching and Leading Fund (GTLF) with a total amount of \$226,826, the NBPDS program had four overall goals:

Goal 1: Increase the number of teachers in the board certification process from 72 in 2013/14 to 200 in 2015/16, with an increase of at least 50% or greater in candidates teaching in high need schools.

Goal 2: By June 30, 2016, increase by 50% the number of NBPD candidates/teachers in identifiable instructional leadership roles by capitalizing on the instructional expertise of National Board Professional Development Schools cohort candidates.

Goal 3: Support the Nevada Educator Performance Framework by providing embedded professional development to teachers and administrators.

Goal 4: By June 30, 2016, accomplish a retention rate of 80% among NBPD School cohort candidates completing the year-long training who remain at the same high-needs schools.

b. Abstract and Results Overview

Across Nevada, and especially in Clark County, schools are grappling with the challenge of staffing high-need schools with high-quality teachers. A review of the *Nevada Plan to Ensure*

Equitable Access to Excellent Educators (June 1, 2015) equity gap data and focus group findings identified the predominant root causes of Nevada's equity gaps as high teacher turnover, inadequate professional development, a weak professional culture, and persistently low student achievement. While there are many variables involved in student success, research has proven that teachers are the single most important school-based factor. More than a decade of rigorous research shows that students taught by National Board Certified Teachers (NBCTs) are more effective at improving student achievement than their non-Board certified counterparts, and that the impact is greater for minority and low-income students. Given this evidence, it is critical to ensure Board-certified teachers reach the students that need them the most; this is not the reality of high-need schools in Clark County (see demographics maps in Appendix).

It is the aim of the Clark County Education Association's (CCEA) National Board Professional Learning Program (NBPLP), in partnership with Clark County School District (CCSD), the National Board for Professional Teaching Standards (NBPTS), and University of Nevada, Las Vegas (UNLV), to increase access to Board certification in Clark County, especially in our highest- need schools, by growing the existing state support system and establishing National Board Professional Development Schools (NBPD Schools). This two- year, site-based, research-proven, high quality Board certification professional development program will address the following grant priorities: (1) Recruitment, Selection, and Retention, (2) Nevada Educator Performance Framework (NEPF) Implementation, (3) Leadership Training and Development, resulting in improved instructional, professional practice, and student outcomes. Given that administrators are key to promoting school improvement and developing accomplished teachers through collaborative learning communities, the NBPD School's work plan uses site-based leadership teams. Each team comprises an administrator, teacher liaison, and

NBCT facilitator to support site-based cohorts of ten or more teachers and their students. The NBCT facilitator's role is to assist in the completion of two NBPTS Components yearly. In addition, for inexperienced or Alternative Route to Licensure teachers, NEPF trainings are offered for the entire staff using the NBPTS Accomplished Teaching, Learning and Schools (ATLAS) video library, which provides examples of the Instructional Standards taught by NBCTs paired with commentaries that analyze and reflect upon the effectiveness of the lesson.

Year 1 of this program impacts: 20 cohorts of teachers (ten traditional and ten NBPD Schools) equaling approximately 200 teachers, ten or more administrators, and an estimated 3,292 students (averages derived from School Accountability Reports, 2013-14). Of these students, 75% or more are identified as high-need. In year 2 these numbers are projected to double. A UNLV External Evaluator (Dr. Katrina Liu, UNLV College of Education) will measure the effectiveness of this program using pre- and post-program interviews and surveys of administrators and teachers, and data on the number of candidates entering the board certification pipeline, completing the training, and submitting NB Components.

Results Overview: The NBPDS program in 2015-2016 met all four goals of the program.

Goal 1: Increase the number of teachers in the board certification process each year, from 72 in 2013/14 to 200 in 2015/16, with at least a 50% or more increase in candidates who teach in high need schools.

Results: Goal 1 was met: The total number of teachers in the board certification process in 2015/2016 reached **208**, exceeding the goal of 200. Most of these teachers are in high need schools, exceeding the goal of a 50% increase in candidates who teach in high needs schools.

The increase of teachers in the board certification process by more than **200%** is largely due to the NBPDS program, which recruited ten schools with a total of 143 teacher candidates in year

2015-2016. **121** teacher candidates in the ten schools stayed through the whole professional development process. More importantly, of the 121 candidates, more than 80% teach in high-need schools.

Goal 2: By June 30, 2016, National Board Professional Development Schools capitalize on the instructional expertise of cohort candidates to increase by 50% the number of NBPDS candidates/teachers in identifiable instructional leadership roles.

Results: Goal 2 was met: All the teacher candidates in the NBPDS program have taken leadership roles through two approaches facilitated by the NBPDS program. First, teacher candidates acted as National Board Ambassadors. Nine schools chose the National Board Ambassadors approach and organized presentations about National Board Certification; teacher candidates invited their colleagues to attend the presentations. Teacher candidates not only demonstrated their knowledge of the National Board process and how they integrated the knowledge they gained from the training in their teaching, but also actively recruited colleagues to join the program for year 2016-2017. Second, teacher candidates took leadership roles in hosting legislators to co-teach lessons in their classrooms, strengthening relationships between policymakers and educators. Two schools chose to implement this approach in addition to the NB Ambassadors program.

It is important to point out that this program goal of capitalizing the instructional expertise of cohort candidates was in perfect alignment with the goals of administrators in the candidates' schools. The final survey of administrators demonstrated that all the administrators envisioned those teachers taking the roles of enhancing instructional practice and collaboration in the school, taking leadership roles on campus to encourage other teachers to be National Board

Certified teachers and help other teachers to be reflective practitioners. For example, one administrator reported, “I want to have a school full of master teachers where there is no judgment, just support and reflection on good instructional practices.” Another administrator stated:

The goal is for them to become leaders on campus and discuss the process with other teachers. We hope it will encourage other teachers to pursue National Board and we believe that they will help promote other teachers to become reflective practitioners through PLC discussions. They will also help to improve PD and instruction in the classrooms.

In the final reflection, the teacher candidates indicated that the NBPDS program assisted them to grow professionally and thus to take instructional leader roles in their schools. For example, one teacher candidate stated:

As result of this National Board PD, I have become more involved with my colleagues, begin viewing myself as an instructional leader and noticed that the school climate has become more positive.

Goal 3: Support the Nevada Educator Performance Framework by providing embedded professional development to teachers and administrators.

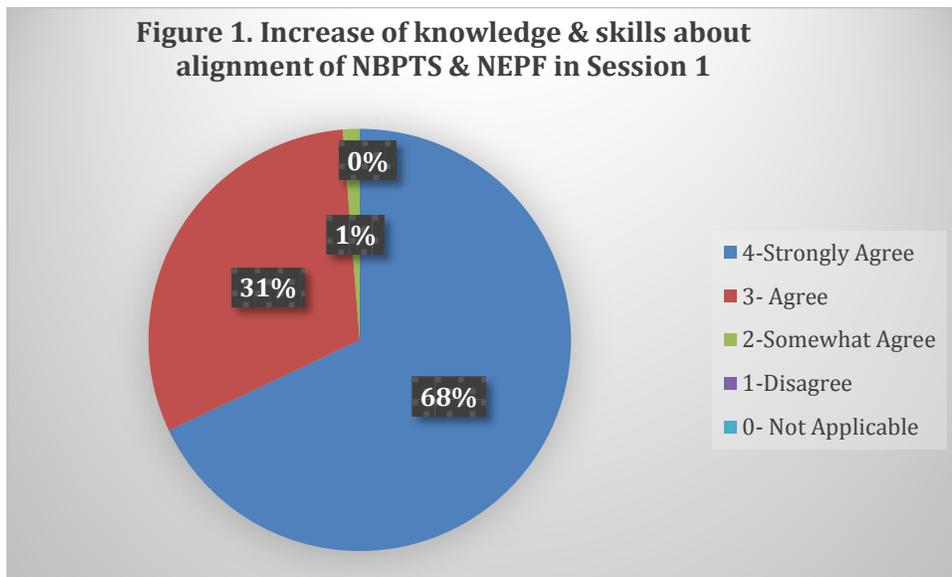
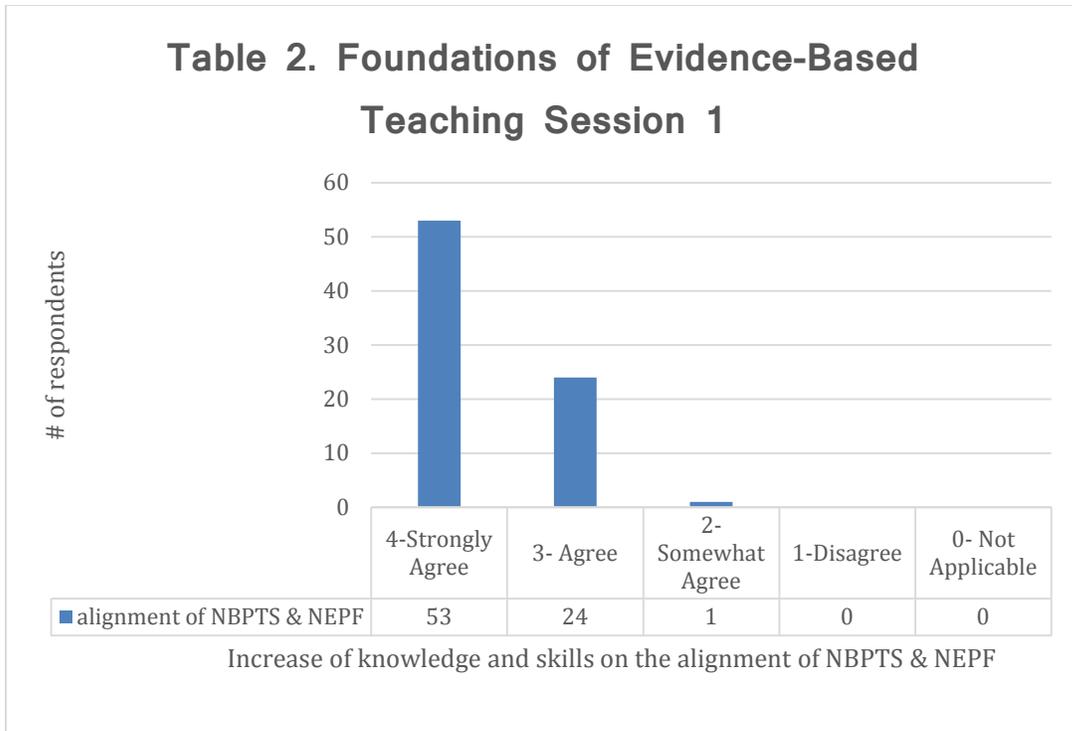
Results: This goal was met through embedded professional development on NEPF in every cohort session throughout the program in year 2015-2016. The NBPDS program provided twelve school-based professional development cohort sessions to the teacher candidates. Major topics covered in these training sessions included:

- Foundations of evidence-based teaching
- Differentiation in instruction
- Knowing your students and developing your contextual and instructional context
- Setting learning goals

- Planning and instruction
- Analyzing student work
- Linking coherent instruction to students
- Reflecting on effectiveness
- Revising thinking
- Reflecting on the NBPTS process and its impact on NEPF

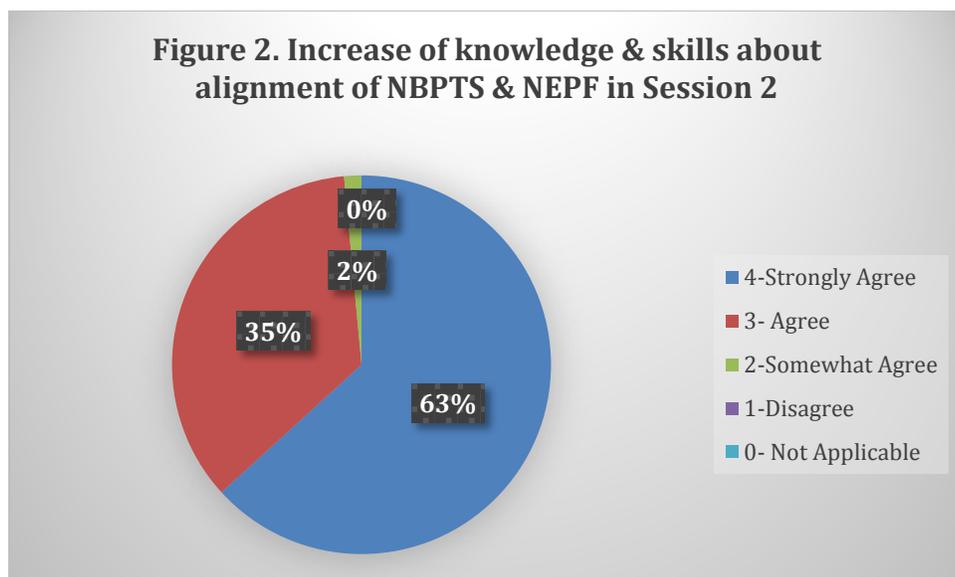
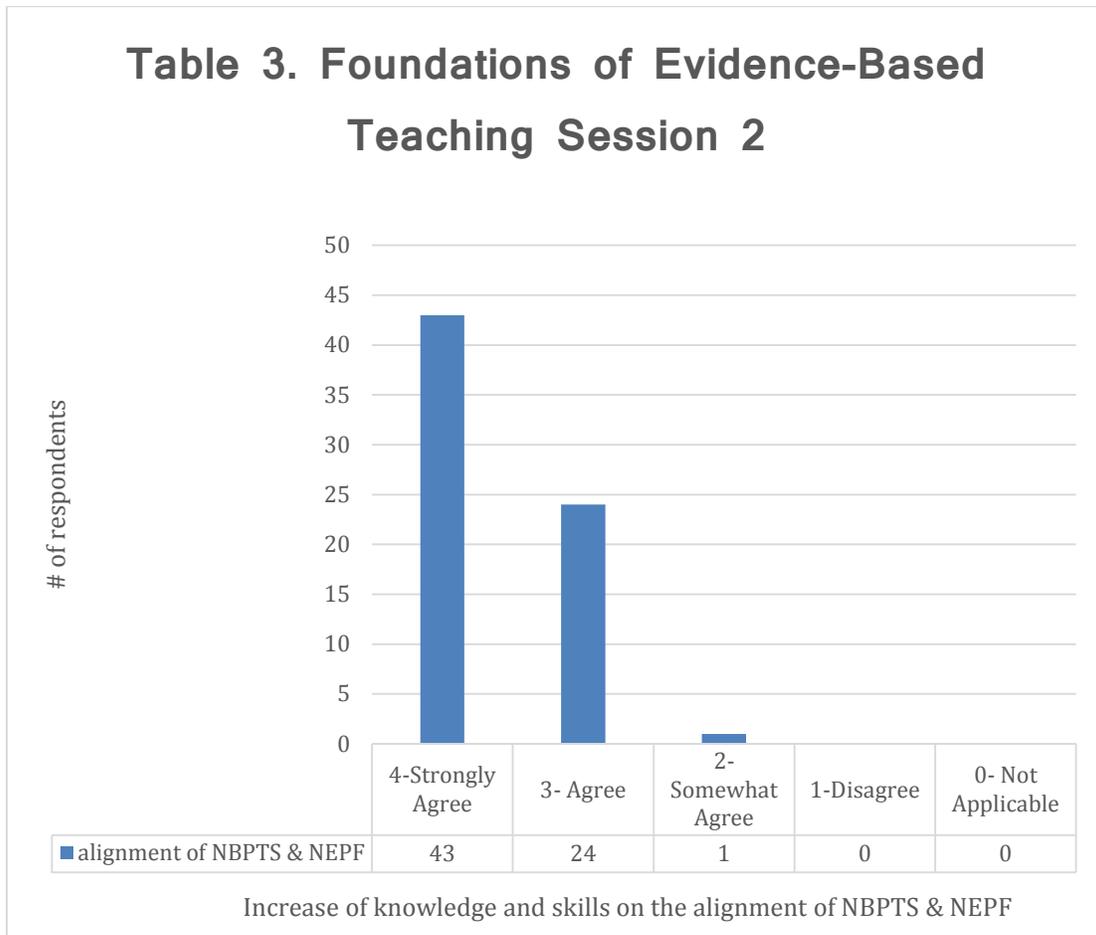
All these topics are closely related to the Nevada Educator Performance Framework (NEPF) teacher instructional practice and teacher professional responsibilities standards. Each training session provided embedded professional development for teachers to align National Board standards with NEPF standards and indicators.

Teacher candidates participated post-training surveys to rate their knowledge and skills about the alignment of NBPTS and NEPF. Survey results show that they demonstrated strong agreement that the training increased their knowledge and skills about the NBPTS and NEPF alignment. For example, 78 teacher candidates participated the post-training survey after Session 1 training. 53 teachers candidates (68%) strongly agreed, 24 teachers candidates (31%) agreed and, only 1 teacher candidate (1%) somewhat agreed that they increased knowledge and skills about the alignment of NBPTS and NEPF. None of the teacher candidates indicated disagreement (See Table 2 and Figure 1 below).



Similarly, Session 2 post-training survey demonstrated that teacher candidates had very strong agreement that they increase knowledge and skills about the alignment of NBPTS and NEPF after training session 2. A total of 68 teacher candidates participated in the post-training

survey; 43 (63%) strongly agreed, 24 (35%) agreed, and 1 somewhat agreed that they increased their knowledge and skills on the alignment of NBPTS and NEPF (See Table 3 and Figure 2).



In addition to the Likert scale items, teacher candidates also responded to an open-ended question: How will I apply what I learned to NVACS and or the NEPF? Teacher candidates highlighted a strong connectedness to the NEPF standards, and indicated that the training was effective in guiding their instruction and student-centered goal setting, increasing the clarity of their daily learning outcomes, and provided transparency both on what is asked of teachers in NEPF and how to provide evidence to support the answers.

Goal 4: By June 30, 2016, 80% of NBPD School cohort candidates who complete the year-long training will remain teaching at the same high-needs schools.

Results: This goal was met: By June 30, 2016, 119 of the 121 teacher candidates who completed the year-long training remained teaching at the same high-needs schools. Two teacher candidates transferred to other high-needs schools.

c. Next Steps

The following steps could be taken for the next year of the project:

1. Continue recruiting teachers, facilitators, and liaisons from schools that participated in the program last year to build the professional capacity of these schools.
2. Continue providing school-based professional training to teacher candidates by using the structure of school-based facilitators and liaisons to build the leadership capacity of schools.
3. Continue supporting teacher candidates' reflective practice through reflective journaling and collaborative conversations among colleagues.
4. Continue supporting teacher candidates to develop cultural and instructional competence to support minority students.

II. Grant Funded Activities

This section describes the activities funded by the grant, giving an overview of each activity and its participants, assessing the effectiveness of the activity, and considering the implications of that assessment for future implementation.

Activity 1: Leadership Team Kick-off Session

a. Name of Activity and Overview

The Leadership Team Kick-off Session was held on October 10, 2015. The purpose of the session was to provide an overview of the National Board processes, the goals of the NBPDS program, and the responsibilities of each member of the leadership team. It also provided the opportunity for each leadership team in a school to brainstorm their specific responsibilities and potential roadblocks in their school-based NBPDS program.

b. Participant Information

The leadership teams from the ten participating schools attended the session. Each leadership team included a school administrator, a National Board facilitator, and a liaison. Altogether, thirty administrators, facilitators, and liaisons attended the session.

c. Area(s) of Effectiveness Measured

Assisting Teachers/Administrators/Other Licensed Personnel

At the end of the Kick-off session, a survey was conducted to gauge the effectiveness of the session. The survey included the following questions:

1. What was most helpful today?

2. What other support do you need to be successful in your role with the National Board Professional Development School Cohort? What can the National Board Professional Learning Program at CCEA do to help support in your role next year?
3. Do you have interest in continuing the program in Year 2?
4. Do you have any general comments?

Twenty-two (22) leadership team members submitted the survey. Responses to Question 1 indicated that the materials on National Board certification, the team building activities, and breakout session for different roles were very helpful for them to gain a deeper understanding of the National Board Certification Process as well as the goals and expectations of the NBPDS program. Some examples of their statements are:

The session with my cohort group taught us to write a goal.

The structure of the PD, organization of materials, activities, breakout session for differentiated roles are most helpful.

Linking to NEPF makes National Board Certification even more relevant.

Responses to Question 2 provided valuable input from the leadership teams about the support they need. This input gave the program director opportunities to integrate relevant support and resources during the program. Support they would like to have include:

- Communication within and outside the cohort on expectations
- Participants and facilitators and liaison training
- Continued encouragement
- Study guide and practice test
- Planning time

Responses to Question 3 demonstrated that the leadership team were very enthusiastic about this opportunity and would like to continue in Year 2. Responses to Comments included thank you

notes to the program and statements such as the session is very organized and this was a great opportunity.

d. Effectiveness Measure for Each Area

The post-session survey is a most direct and immediate way to measure the effectiveness of the session. It gave the opportunity for the participants to share their experiences and express the support they would like to have. Also, it invited the participants' input about their vision for Year 2. All the information was valuable for the program director to plan and organize the training sessions during the year and the Kick-off session for Year 2.

e. Implications for Future Implementation

1. It is recommended to continue using the Kick-off survey in Year 2.
2. It is noticed that the participants did not provide input about what other information/materials they would like to have from the Kick-off session. This is partially because the survey did not have a question to solicit this input. It is recommended to include one more question such as "What else would you like to learn from this Kick-off session?"

Activity 2: School-Based Professional Development Cohort Sessions

a. Name of Activity and Overview

One key professional development activity offered by the NBPDS is the school-based professional development cohort sessions. A total of twelve cohort sessions were provided to teacher candidates facilitated by National Board Certified facilitators. The purpose of the training sessions included:

- Train and support teacher candidates to complete one or two National Board components: Component 1 (Content Knowledge) and Component 2 (Differentiation in Instruction)
- Provide Information and support discussion on how to adapt curriculum to the shifts in the Nevada Academic Content Standards.
- Assist teacher candidates make connections between student learning, effective instruction and the teacher's evaluation as aligned to the Nevada Educators Performance Framework.

Major topics covered in the cohort sessions included:

- Foundations of evidence-based teaching
- Differentiation in instruction
- Knowing your students and developing your contextual and instructional context
- Setting learning goals
- Planning and instruction
- Analyzing student work
- Linking coherent instruction to students
- Reflecting on effectiveness
- Revising thinking
- Reflecting on the NBPTS process and its impact on NEPF

b. Participant Information

A total of 121 teacher candidates participated in and stayed through the school-based professional development cohort sessions.

c. Area(s) of Effectiveness Measured

1. Improving Recruitment/Selection/Retention of Effective Teachers

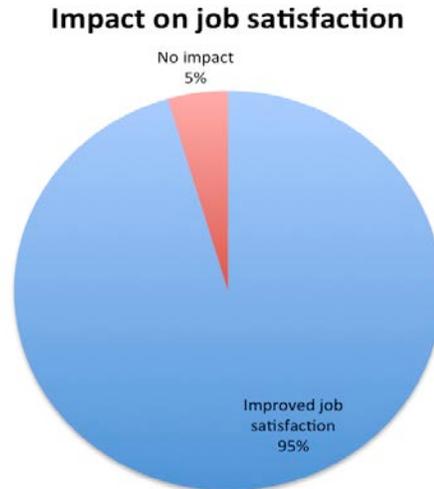
Two outcomes were measured to evaluate the effectiveness of the cohort session activity in terms of improving recruitment/selection/retention of effective teachers: 1) Calculating the number of teachers remained teaching in the same high-needs schools; 2) Using teacher candidates' final reflection to study the impact of the training sessions on the teacher candidates' job satisfaction; collaboration, collegiality, and a culture of high expectations for student learning; teaching for diversity; and support for minority and low-income students, and impact on achievement gap.

Results

The total number of teacher candidates who remained teaching in the same high-needs schools is 119, comprising 98% of the 121 teacher candidates who stayed through the program. Two teachers (2%) left their original schools but transferred to other high-needs schools.

After participating in the National Board Professional Development School program for one year, teachers reflected on the impact of the aforementioned four areas. Altogether, 44 participants reflected on their experiences using these questions. Here is a summary of the findings for each area:

- 1. 95% of the participants report significant increase in job satisfaction** from the program, particularly in terms of improved skills in reflection and planning, deeper understanding of content area knowledge, and enhanced collaboration among colleagues.



The following table demonstrates the different themes of impact the National Board Professional Development School had on teacher candidates’ job satisfaction:

Themes	Number of candidates	Description
Being reflective	17	Reflecting on teaching
Better meet students’ needs and support their learning	13	Putting students as the center of teaching by better meeting their needs and support their learning
Being more professional	10	Being more professional in content areas, instruction, and assessment.
Enhanced collaboration among colleagues	10	School and cohort-based model provided the candidates opportunities to collaborate with colleagues with different subject areas.
Validated instruction	5	Participating in the NBPDS program validated/confirmed the teachers that they have been doing the right thing work.

Taking the theme of being more professional as an example, ten teachers reported that their participation in the National Board Professional Development School helped them become more professional by gaining more knowledge in content areas, instruction, and assessment. Being a professional teacher and instructional leader enhanced their job satisfaction. For example, one teacher candidate stated that NBPDS helped them to grow as a professional and a better teacher,

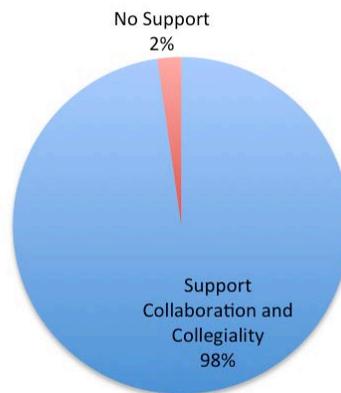
It has helped me grow as a professional. I feel that I am a better teacher now. I am more attentive to my students' needs, I am more reflective and more knowledgeable about my planning and approach to instruction and assessment.

Another teacher indicated similar improved job satisfaction because they were working toward full potential in content knowledge and pedagogical content knowledge so that they inspire the students:

Like most teachers, I am most satisfied when I think I am genuinely working toward my full potential to deliver knowledge & even inspire my students to learn more about content related to my curriculum. There is no doubt that my decision to pursue National Board Certification helps boost this potential and therefore leads to better job satisfaction.

- 98% of participants agreed that the program improved collaboration, collegiality, and a culture of high expectations for student learning.**

Support Collaboration and Collegiality



Because it is school-based, this professional development program provided opportunities for teachers to have cross-curricular interaction and collaboration. Multiple teachers reflected on the positive impact of the NBPDS on collaboration and collegiality crossing subject area boundaries:

In terms of collaboration and collegiality, the NB process has increased cross-curricular interaction. It has also increased cross-science interaction between biology, chemistry, and physics. Although some teachers on my chemistry team continue to be resistant to collaboration, the team members that have embraced it

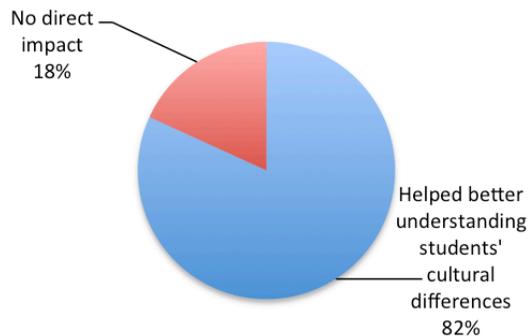
have increased rigor and improved teaching strategies. It has been a process where you get out what you put in.

Similarly, another teacher reported,

Because it is school-based, this professional development program provided opportunities for teachers to have cross-curricular interaction and collaboration. It gave me an opportunity to meet and discuss teaching practices with teachers I normally would not collaborate with; in other words, I was able to discuss curriculum and teaching practices with teachers in other departments.

3. **82% of the participants reported that the NBPDS program helped them better understand their students' cultural differences** and make diversity a means for enriching the culture of their classroom learning community.

Help better understanding students' cultural differences



The following table demonstrates the different themes of how the National Board Professional Development School helped teachers better understand students' cultural differences and make diversity a means for enriching the culture of their classroom learning community.

Themes	Number of candidates	Description
Better understand students' cultural differences	13	Teachers are encouraged to learn students' demographics and their family lives outside of the classroom and communicate with their parents.
Design content and assessment based on students' interests and culture	8	Based on their understanding of students' culture and interests, teachers design and bring content and assessment accordingly.
Research ways to include and celebrate diversity	9	Teachers conduct research on strategies and ways to include and celebrate diversity.
Provide opportunities for cultural sharing	3	Teachers create opportunities in class for students to share their culture.
Reflect on and analyze own teaching	3	Teachers reflect on their teaching to analyze the effect of their teaching on diverse students.

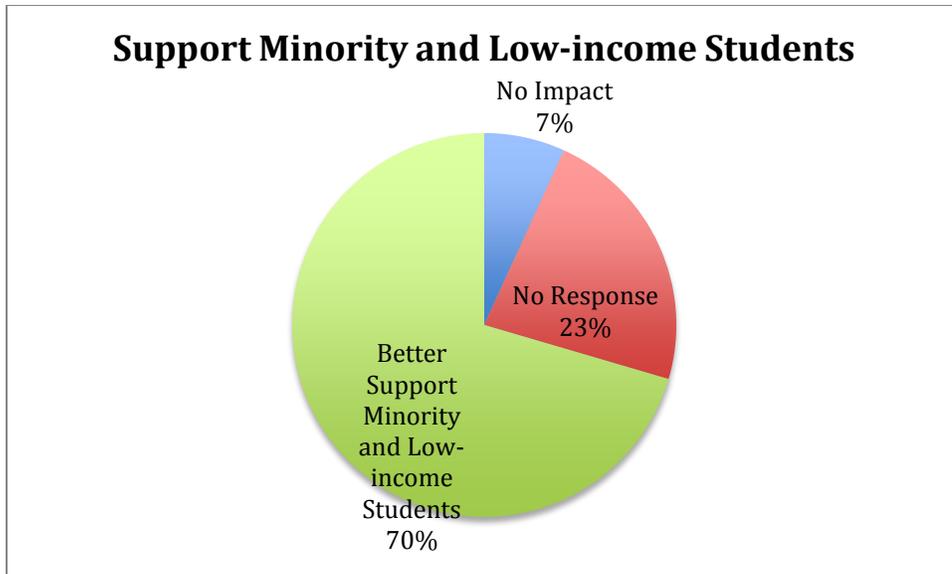
For example, thirteen teachers reported that they gained a better understanding of students' cultural differences during the process of National Board certification. They were forced to learn students' demographics and their family life outside of the classroom and communicate with their parents. For example, one teacher reflected,

This professional development helped me to better understand my students' cultural differences by encouraging me to meet with the parents of my students and spending time to get to know them.

Another teacher reported that the National Board process, especially working on Component 2 required them to look at the students' demographics:

As part of the NB process we had to look at the demographics of the class as a whole and the two students we chose for component 2. That process made me think about every student as an individual and also led me to delve into all my classes in a similar way. It certainly made me more aware of the individuals in my class and got me to ask questions of my students that increased my respect for the cultural differences present in my classes.

4. **70% of the participants found that the program improved their ability to recognize diversity in the classroom** and make more effective use of it in their teaching.



The themes emerging of better support minority and low-income students from this question are summarized in the following table:

Themes	Number of candidates	Description
Identify minority and low-income students and understand their backgrounds and needs	21	Identify at-risk students, know their personal and academic backgrounds, be aware of their challenges and struggles, make use of demographic data
Design lessons to address minority and low-income students in general	6	Find strategies and activities, choose appropriate content and materials
Deliver lessons in an individualized way	6	Be flexible, offer more help and feedback, build relationships with students
Maintain high standards regardless of minority status and income level	3	Teachers may associate high standards with maintaining quality or with encouraging student interest in learning.

5. **There was some confusion between differentiating instruction** on the basis of the individual students’ abilities and doing so to address fundamental educational equity issues.
6. **Participants provided suggestions for improving technical aspects of program delivery and general positive comments** in open-ended comments.

2. Assisting Teachers/Administrators/Other Licensed Personnel

How the cohort sessions assisted both teachers and administrators was measured through post-training surveys of the teachers and surveys and interviews with administrators.

Assisting Teachers

One major outcome was measured to evaluate the effectiveness of the cohort session activity in terms of assisting teachers. At the end of the training sessions, teacher candidates filled in post-training surveys designed to allow them to reflect on the learning outcomes of the cohort sessions.

Survey Method

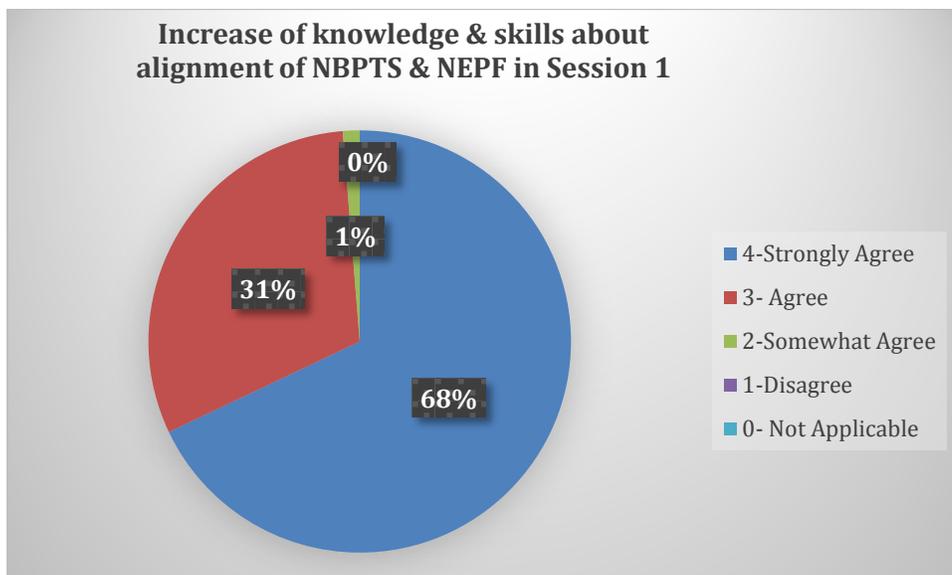
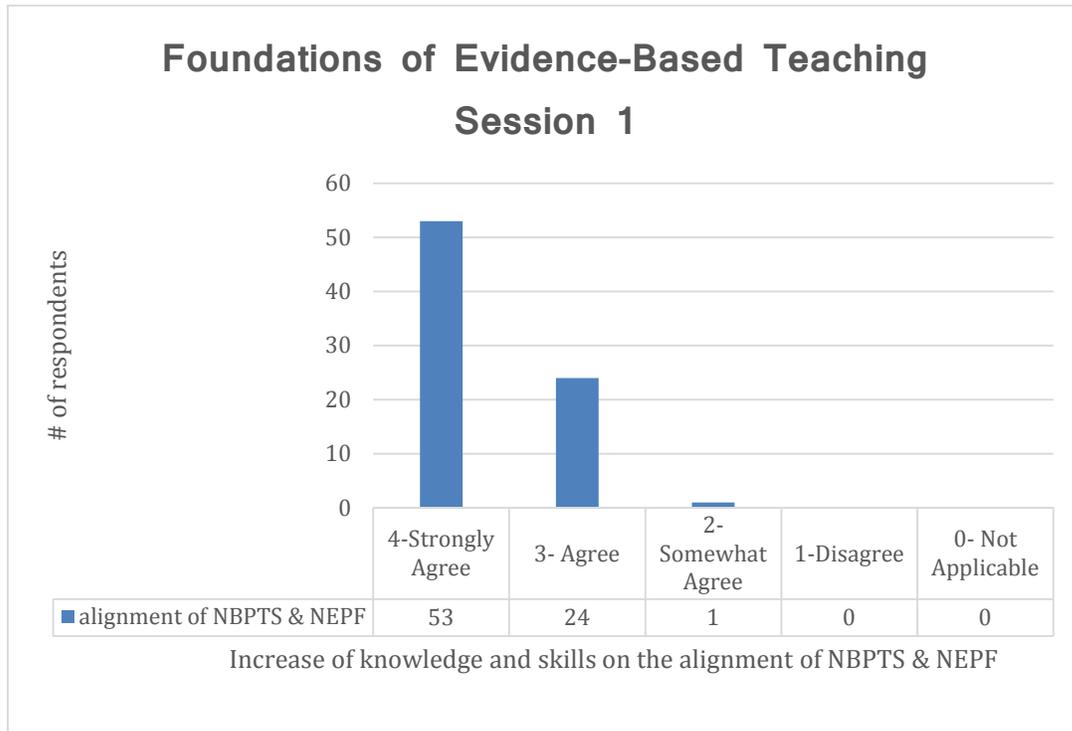
The post session survey is a five-item Likert scale survey focusing on three key learning outcomes: 1) Knowledge and skills about the alignment of NBPTS and NEPF; 2) Knowledge and skills about the NBPTS five core propositions and standards; and 3) Knowledge and skills about the Architecture of Accomplished Teaching. Based on the three overall learning outcomes, each post-session survey was modified to fit with the specific content of the session. At the completion of each training session, participants were asked to rate their experience with responses varying from a) strongly agree, b) agree, c) somewhat agree, d) disagree, and e) not applicable.

Survey Results

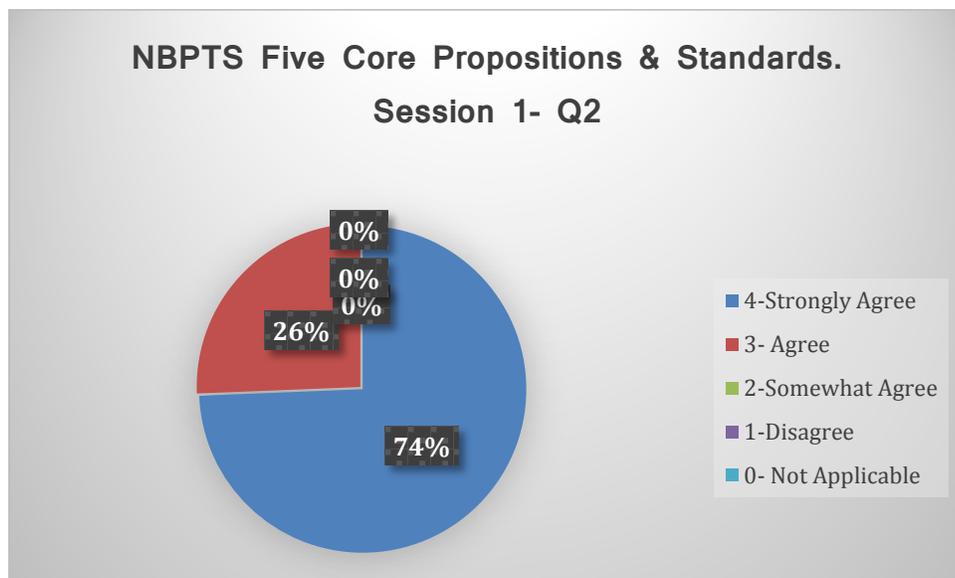
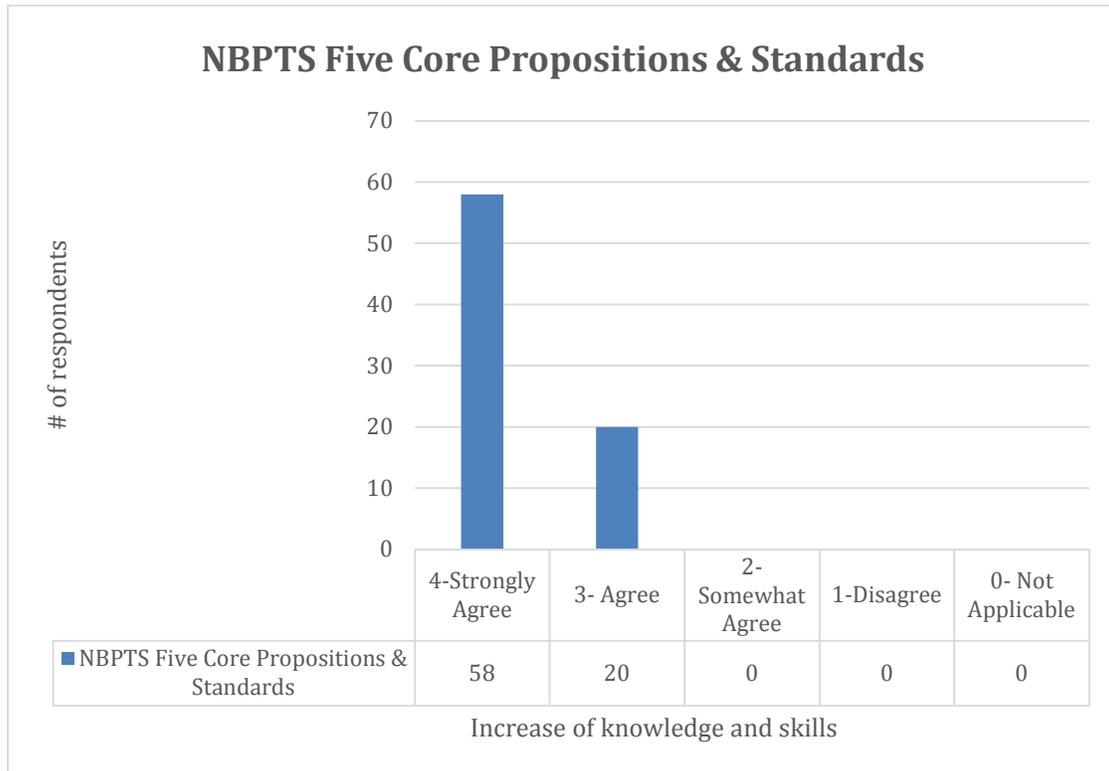
Candidates expressed strong agreement that the training increased their knowledge and skills in the alignment of NBPTS and NEPF, the NBPTS five core propositions and standards, and the Architecture of Accomplished Teaching. Taking Session 1 survey as an example, 78 teacher candidates participated the post-training survey after Session 1 training. The following findings are evidence of the impact of the training.

- 53 teacher candidates (68%) strongly agreed, 24 (31%) agreed and, 1 (1%) somewhat agreed that **they increased knowledge and skills about the alignment of NBPTS and NEPF.**

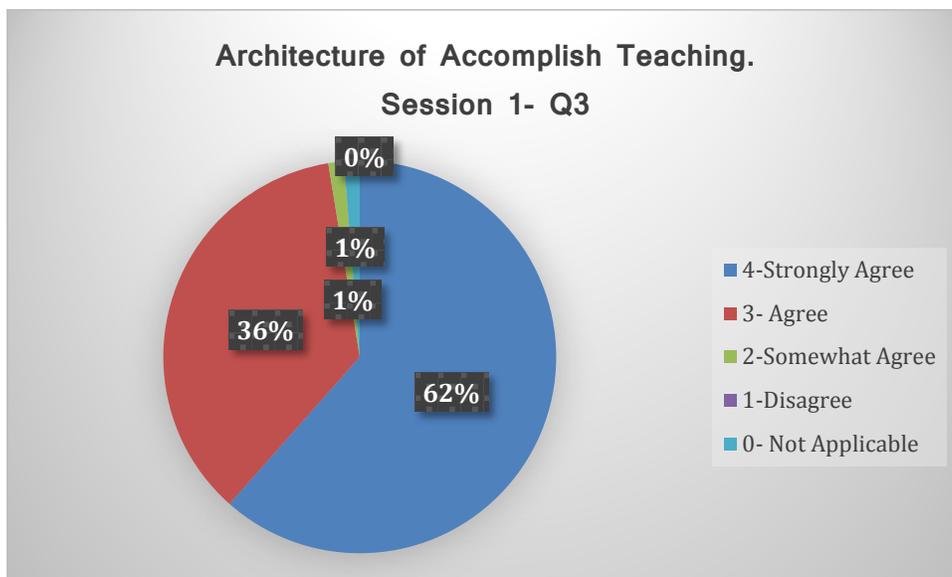
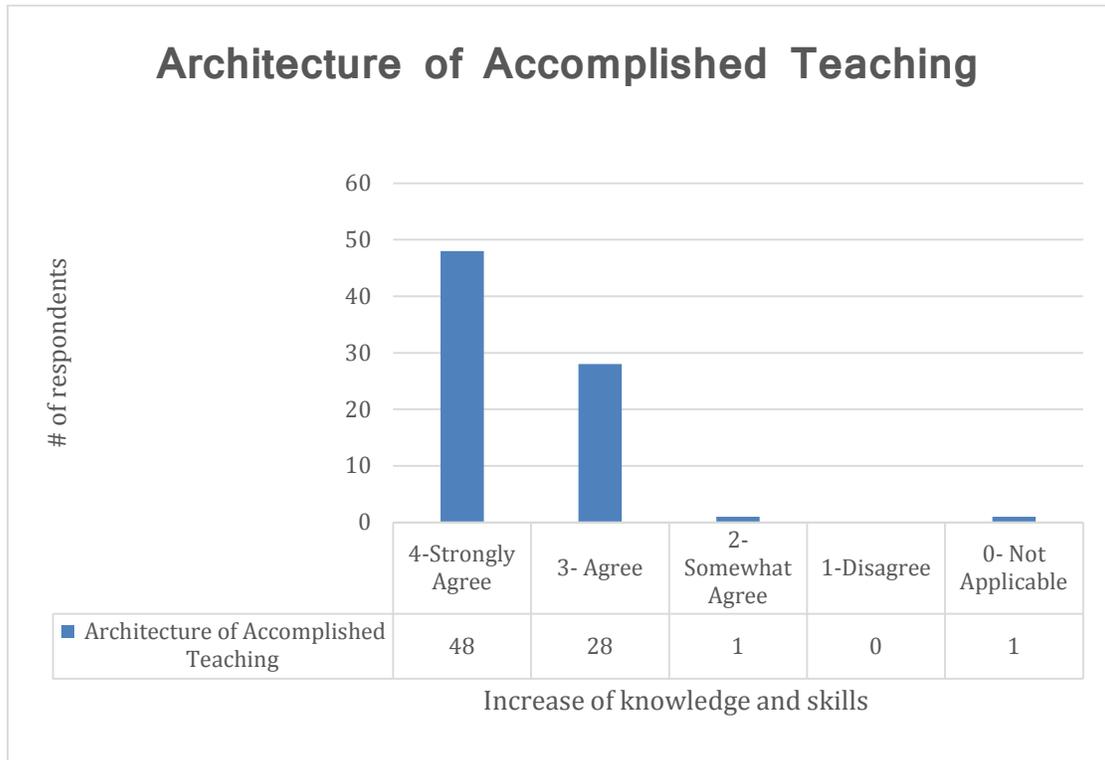
None of the teacher candidates indicated disagreement.



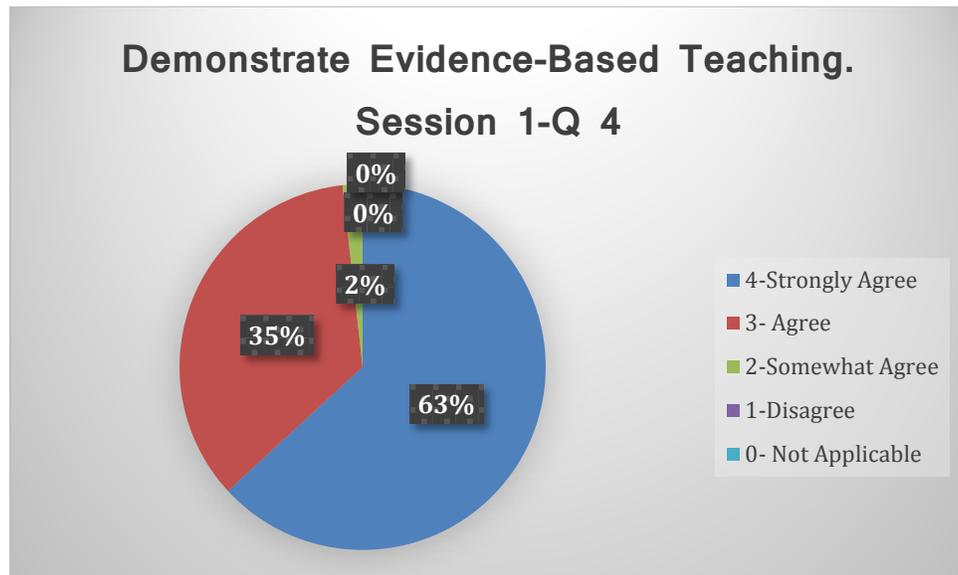
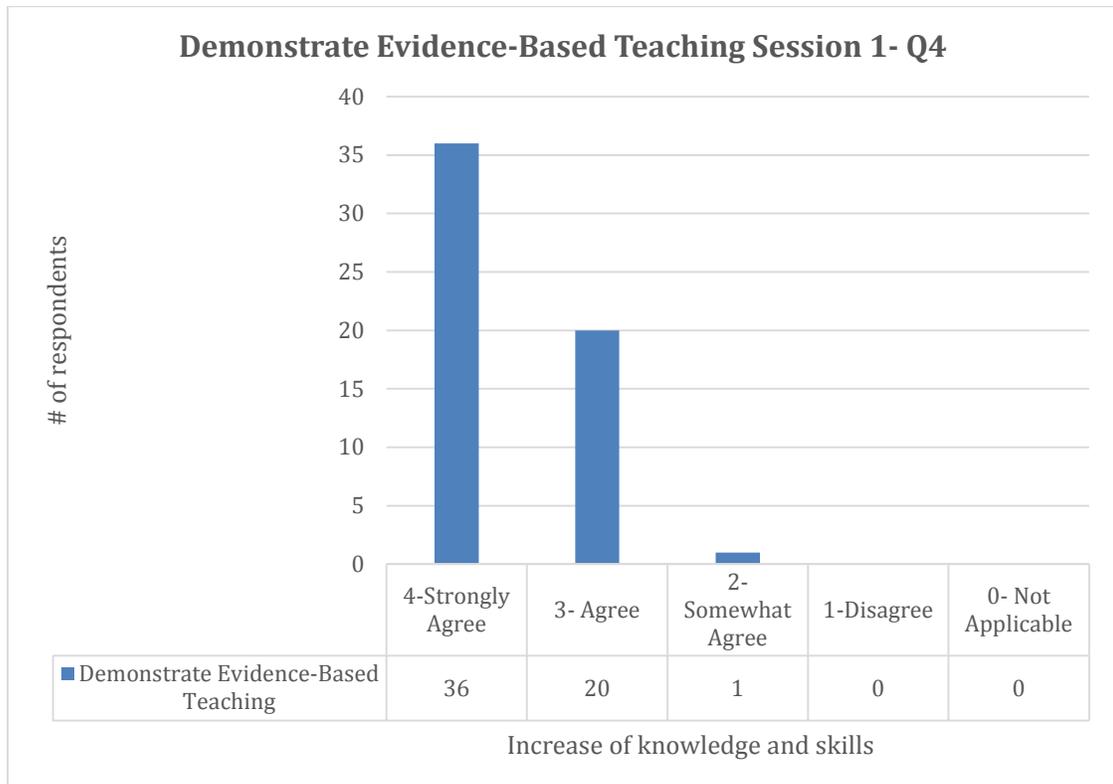
2. 58 teacher candidates (74%) strongly agreed and 20 (26%) agreed that **they increased knowledge and skills about the NBPTS five core propositions and standards**. None of the teacher candidates indicated disagreement.



3. 48 teacher candidates (62%) strongly agreed, 28 (36%) agreed, and 1 (1%) somewhat agreed that **they increased knowledge and skills about the architecture of accomplished teaching**. Only one teacher candidate (1%) selected Not Applicable.



4. 36 teacher candidates (63%) strongly agreed, 20 (35%) agreed, and 1 (2%) agreed that **they increased knowledge and skills to demonstrate evidence-based teaching.**



Assisting administrators

Two major outcomes were measured to evaluate the effectiveness of the cohort session activity in terms of assisting administrators. First, administrators' level of understanding of the National Board Certificate process was measured at the beginning of the program and at the end of the training sessions through a ten-point scale question, 10 being the highest and 1 being the lowest. Second, administrators were interviewed at the end of the training sessions to measure how the training assisted them overall.

Results

- 1) 8 of the 10 administrators filled in the survey at the end of the kick-off session. 1 administrator rated 1, two administrators rated 3, two administrators rated 5, two administrators rated 8, and one rated 10. The average score was 5.3. At the end of the training sessions, the 5 of the 10 administrators filled in the survey again. Of the five respondents, two rated the level of 9, two rated the level of 8, and one rated the level of 7, with an average score of 8.2. Although the sample size was not large enough to conduct statistical analysis to compare the difference, **the results suggest a gain in the administrators' level of understanding of the National Board process.**
- 2) During the interviews, administrators expressed strong agreement that **the training helped change the school climate overall and motivated teachers.** For example, one principal commented:

Being a national professional local school has impacted our school climate greatly. Teachers are a lot more positive and a lot more reflective on their instruction. They're very good at taking feedback. They look for the feedback from their friends and from my colleagues. It's been a great improvement to teachers and their instruction. I've seen teachers go from mediocre to model teachers and they do a great job. My students are excited in school and my teachers are excited to be in school.

One principal did a presentation about how his school participated in the NBPDS program and its impact. He stated how the program helped change the school climate and motivate other teachers to become National Board certified.

We got ten teachers on board the first year. Throughout the year, we started to see the changes and started to hear the conversations changing. At the end of the first year, all the ten teachers submitted the components and all the ten teachers decided to continue the following year. We now have thirteen additional teachers want to join the second year.

d. Effectiveness Measure for Each Area

1. Effectiveness measure of the final reflection

Four guiding questions were provided to teachers to reflect on the impact of the training:

1. What impact has the National Board Professional Development School had on your job satisfaction?
2. How has this site-based, job-embedded professional development supported collaboration, collegiality, and a culture of high expectations for student learning at your school?
3. How has this professional development helped you better understand your students' cultural differences and make diversity a means for enriching the culture of your classroom learning community?
4. How has this process aided you to better support your minority and low-income students?
How has your teaching impacted their achievement?

These questions are adequate and effective to measure the impact of the training on teacher retention. Teacher reflection can be effective ways to document teacher learning and practice, especially in a non-evaluative environment (Liu, 2015). The reflection guiding questions designed in the evaluation were able to measure the impact of the NBPDS program on the retention of teachers, an approach well-supported by the literature. First, teacher job

satisfaction is a significant predictor of effective teacher retention (Hall, Pearson, & Carroll, 1992; Ostroff, 1992; Zigarreli, 1996). Therefore, one way to retain teachers is to increase their job satisfaction. Major domains of job satisfaction include school culture, inservice training, motivation to teach, competence in teaching, and administrative support (Tillman & Tillman, 2008; Watson, 2006). Second, the needs of public schools are rapidly changing as the diversity of the student body increases (Banks & Banks, 2009; Sleeter, Neal & Kumashiro, 2014; Ladson-Billings, 2009). This increase in student diversity pose tremendous challenges for teachers who are predominantly white females with little socioeconomic diversity (Dedeoglu & Lamme, 2011; Feistritzer, 2011). Research indicates that the gap between student diversity and teacher diversity and the lack of competence and experience in teaching diverse students threaten teacher retention, producing turnover rates up to three times greater than the average for majority White schools (Borman and Dowling, 2008). Therefore, it is important to support teachers to gain understanding of students' cultural backgrounds and learn how to better support those students.

The findings of this reflection-based research indicate that NBPDS, as a job-embedded professional development program, is effective in several of the areas we investigated, including increased job satisfaction on the part of the teachers, greater collaboration between colleagues, deeper knowledge in content areas, and an increased awareness of issues of diversity within and outside the classroom. Based on literature about factors of job satisfaction and retention (Hall, Pearson, & Carroll, 1992; Ostroff, 1992; Zigarreli, 1996), the school-based training sessions were likely to increase retention of the teacher candidates. In addition, these findings echo what researchers have discovered about effective professional development. For example, Darling-Hammond and colleagues (2009) observed that that most U.S teachers participate in some form of professional development every year but nearly half of them are dissatisfied because of issues

such as a lack of in-depth subject matter treatment, little collaborative curriculum planning among teachers, and little funding or other support that might allow teachers to participate in professional development. In addition to the the content of professional development programs, Loucks-Horsley, Love, Stiles, Mundtry, and Hewson (2003) also argue that successful professional development programs need to consider the knowledge base of learners and learning as a major input to their designs (p. 33-34).

Based on teachers' reflections, it is clear that the NBPDS program addressed both content and knowledge base, providing opportunities for the participating teachers to validate their previous knowledge, acquire new knowledge through collaboration and discussion with competent peers, and modify and refine their knowledge to better serve their students. During this process, their expertise was acknowledged and utilized for group capacity building. This not only brings teachers' job satisfaction, but also greater collaboration and collegiality, which are important factors to effective teacher retention. There are also reports of improvement in planning and teaching strategies, particularly in addressing understanding and addressing the needs of minority and low-income students: 70% of teacher candidates reported that the training helped them better support minority students and low-income students.

It is worth mentioning, however, that approximately 30% of the teacher candidates either reported no impact on their supporting minority and low-income students (7%), or simply did not respond to the question (23%) of how the program helped them support minority and low-income students. Examining the details of the comments makes it apparent that the shortfall in these areas results not from deficiencies in the NBPDS program itself, but from inadequate support for the participants' reflection and understanding of diversity (Liu, 2015; Thomas & Liu, 2012). In particular, comments such as these:

Again, I am already aware of the minority and low-income students in my school, and I already had structures in place to create a fair and equitable schooling experience for these students in my classroom.

I have not seen any evidence yet that it helps to better support minority or low income students because the process is about self-reflection of your process of developing unique learning environments and the reasoning behind it.

indicate a need to help teachers better understand the practice of reflection as well as its purpose. Reflection is primarily of value when it prompts action that improves teaching practices to better support student learning (Mezirow, 1990; Zeichner & Liston, 1996). The belief that reflection is “just paperwork” is a common challenge to many teacher education programs (Liu, 2015), so this problem is hardly unique to the NBPDS program. This problem is easily addressed with proper scaffolding.

In sum, based on both analysis of teacher reflection and support from existing research, it is clear that teacher reflection on the impact of the training provided an effective measure of improving retention of effective teachers.

2. Effectiveness of post-training surveys of teachers

The post-training survey provided immediate and valid input from teacher candidates about the impact of the training on their understanding of NEPF and the key components of National Board Certification. The Likert scale design provided quantitative data to measure the degree of agreement teacher candidates have toward each area.

3. Effectiveness of surveys of and interviews with administrators

Surveys and interviews provided opportunities for the administrators to articulate their overall experiences and how the program assisted them in their job. The pre- and post- surveys provided quantitative data to demonstrate the changes in administrators understanding of the National Board process. Also, interviews of administrators and their testimonials provided qualitative data to analyze the impact.

e. Implications for Future Implementation

The primary recommendation is to implement more detailed examination of teacher reflection on the program by supplementing the single post reflection with interviews and classroom observation. This will enable the Director to better understand the effectiveness of the subcomponents of the program, guiding future development beyond Year Two. This supports researchers such as Ladson-Billings (2006) and Sleeter (2001), who point out that, due to the high percentage of students of color in U.S. K-12 schools, it is important to prepare a predominantly white, middle class, female teaching force with little to no life experiences of working with diverse student populations to better support underrepresented students in K12 classrooms (Furlong, Cochran & Brennan, 2009; Zeichner, 2010). Therefore, the program should consider supporting more effective training in teaching diverse students. Furthermore, greater care needs to be taken in scaffolding reflective practice and supplementing it with classroom observation to prevent teacher candidates from “sunshining” (Thomas & Liu, 2012) or simply ignoring problems that could be addressed in the training.

Activity 3: ATLAS Online Video Library

a. Name of Activity and Overview

The ATLAS online video library ATLAS is a unique, searchable online library of authentic videos showing National Board Certified Teachers at work in the classroom. Each video is accompanied by the teacher's written reflection about the instruction or the activity shown. These cases also demonstrate the critical aspect of reflection essential to ongoing improvement. ATLAS spans grade levels, educational settings, and subject areas, including STEM subjects, literacy and English language arts, special education, English as a new language,

social studies, world languages, art, music, physical education and more. The NBPDS program provided ATLAS to the administrators of the ten schools in the program. The administrators were able to access to the ATLAS videos and learn about exemplary teaching practices in different content areas and interacting with students.

b. Participant Information

All the administrators involved in the National Board Professional Development Schools participated in this activity.

c. Area(s) of Effectiveness Measured

The ATLAS video library assisted administrators in three ways: First, administrators used the video library to facilitate one-on-one discussion with teachers. The video serves as a resource for discussion. Second, administrators used the videos to support struggling teachers. When administrators observed some teachers struggling in specific areas, they would assign some relevant videos for the teachers to view and guide their practice. For example, one principal shared that one teacher struggled with differentiation in teaching. The principal selected some videos demonstrate how National Board teachers conduct differentiated teaching and assigned them to the teacher to watch. Third, some administrators showed videos to entire staff and align the teaching practices in the video to NEPF standards. The administrators reported that the ATLAS Video library provided the opportunity for them to learn and grow professionally in content areas, instructional strategies, and mentoring teachers.

d. Effectiveness Measure for Each Area, Including Rationale for Chosen Measure

The effectiveness of ATLAS in assisting administrators was measured by interviews. Administrators were interviewed to share their experiences in using the ATLAS. The interview

provided an opportunity for the administrators to share their stories and reflect on their practice. This is a valid and manageable measure due to the relative small number of participants.

e. Implications for Future Implementation

Based on the interviews, it is clear that the ATLAS library works well for supporting administrators; therefore, it is worth continuing to provide this resource in program Year 2. However, it is recommended that training be provided to administrators in the effective use of the ATLAS library in mentoring their teachers, and in assessing the effectiveness of that mentoring. For example, in the case of administrator described above, who assigned an ATLAS video of differentiated teaching to a teacher struggling with that issue, it is not clear that there was any follow-up to evaluate the impact of the lessons in the video on the teacher's classroom teaching. It is important that administrators and teachers understand that the ATLAS library is best used as one component in a coherent mentoring strategy, and will not, by itself, solve problems in the classroom.

III. Budget Summary

This section of the report provides a brief summary of the use of GTL funds for the project, including a short narrative overview, and brief description of expenditure categories, and an explanation of the use of unexpended funds.

a. Narrative Overview of Use of GTL Funds Awarded

The attached spreadsheets show the details of the grant expenditures over the period July 2015 to June 2016, and summarized in the table under III.b. Section III.b. also briefly describes the expenditure categories, which can be summarized as follows: 66% of the grant went for staff salaries (instructional and support staff), 19.7% for candidate retention incentives, 8% for purchased professional services, and the remaining 6.3% for staff travel and supplies. Combining the salaries of the Director, the NBPTS consultants, and the external evaluator produced an administrative cost ratio of 45%, well within the normal range for nationally-ranked educational outreach organizations. The provision of nearly 20% of the grant to directly defray the cost of participation to the candidates is a particularly commendable use of funds that more grant recipients should consider emulating.

b. Brief Description of Expenditure Categories

This grant made use of the following broad expenditure categories:

- Salaries for both instructional and support services, including that of the Director
- Professional services for consulting (two NBPTS consultants, two training sites, and an external evaluator)
- Staff travel
- General supplies (including books and periodicals, software subscriptions, binders, and so forth)
- Candidate retention incentives (reimbursement of participant fees on completion of the program, categorized as Miscellaneous: Other). See the following table for an expanded summary, and the attached spreadsheet for full details.

Expenditure Breakdown		by Object Code
Object Code	Instructional Cost Itemization/Narrative	
	Description	Instructional Cost (\$US)
100	Salaries	
	(1) Director (no benefits)	91,573.61
	(2) Participant instructional	53,392.93
	(3) Participants support	15,418.20
200	Benefits	0.00
300	Purchased professional services	
	310 NBPTS Consultants Debbie Kasperski and Mary Jill Shoda	6693.87
	310 NBRC at Illinois State University	1,000
	310 Clark County School District Facility	365.75
	320 UNLV External Evaluator Dr. Katrina Liu	11,400
400	Purchased Property Services	0.00
500	Travel	
	580 Travel Marriott Wardman Park	865.64
	580 Travel Elizabeth Giles	1,893.73
	580 Travel Tonia Holmes-Sutton	156.27
600	Supplies	11,285.73
700	Equipment	0.00
800	Other	
	890 National Board for Prof Teaching Standards	47,857
	893 Approved Indirect Cost	0.00
	Total	241,902.73

c. Awarded Funds vs. Unexpended Funds

There are no awarded funds remaining unexpended. Rather, in spite of savings in staff travel of \$2,584.36 the grant was overdrawn by \$15,076.73, with the majority of the overage (\$15,868.74) coming in staff salaries, and smaller overages in purchased professional services (\$659.62), general supplies (\$775.73), and candidate retention incentives (\$357.00).

**National Board Professional Development Schools
Budget Summary Including Variance from Proposal**

Object Code	Description	Budgeted Instructional Cost	Budgeted Support Services Cost	Actual Total	Variance
100	Salaries	131,580	12,936	160,384.74	(15,868.74)
200	Benefits	0			0.00
300	Purchased Professional Services	18,800		19,459.62	(659.62)
400	Purchased Property Services	0.00	0.00	0.00	0.00
500	510 Student Transportation Services	0.00	0.00	0.00	0.00
	580 Staff Travel	5,500	0.00	2,915.64	2,584.36
	500 Other	0.00	0.00	0.00	0.00
600	610 General Supplies (exclude 612)	6,735		11,285.73	(775.73)
	612 Non-Information Tech Items of Value	0.00		0.00	0.00
	620 Energy	0.00	0.00	0.00	0.00
	630 Food	0.00	0.00	0.00	0.00
	640 Books and Periodicals (exclude 641)	275		275	0.00
	641 Textbooks	0.00	0.00	0.00	0.00
	650 Supplies; Info Tech (exclude 651 , 652, 653)	0.00			
	651 Software	0.00	0.00	0.00	0.00
	652 Information Tech Items of Value	0.00			
	653 Web-based and Similar Projects: ATLAS	3,500	0.00	3,500	0.00
700	730 Equipment (over \$5,000 each)	0.00	0.00	0.00	0.00
	700 Other	0.00	0.00	0.00	0.00
800	810 Dues and Fees	0.00	0.00	0.00	0.00
	890 Other Miscellaneous	47,500		47,857	(357)
	800 Other	0.00	0.00	0.00	0.00
	Totals	0.00	226,826	241,902.73	(15,076.73)

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