



**Teachers and Students Learning through Service:
A Report on Need in Deed's Developing Work
with Teachers**

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Research for Action (RFA) is a Philadelphia-based, non-profit organization engaged in education research and evaluation. Founded in 1992, RFA works with public school districts, educational institutions, and community organizations to improve the educational opportunities for those traditionally disadvantaged by race/ethnicity, class, gender, language/cultural difference, and ability/disability.

Research for Action is funded through grants from foundations and contracts for services from a range of organizations, including the School District of Philadelphia. For more information about RFA please go to our website, www.researchforaction.org.

Mission Statement

Through research and action, Research for Action seeks to improve the education opportunities and outcomes of urban youth by strengthening public schools and enriching the civic and community dialogue about public education. We share our research with educators, parent and community leaders, students, and policy makers with the goals of building a shared critique of educational inequality and strategizing about school reform that is socially just.

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Introduction

Need in Deed (NID) is a non-profit organization which has been serving Philadelphia schools since 1987. The organization aims to promote youth engagement in their schools and communities by working with teachers to develop and implement service learning projects in which students can apply academics to real life problems. NID staff seek to build a network of teachers who will encourage students to explore root causes of social problems, problem solve, and take action to make a positive impact on a problem chosen by the students themselves. NID's *My VOICE* curriculum focuses on student choice and "student voice." For NID, "the concept of 'student voice' means student-generated ideas, opinions, and initiatives are used in meaningful ways to complete service learning projects" (NID *My VOICE* Handbook 2007).

Until recently, NID staff worked directly with students, visiting classrooms on multiple occasions throughout the school year to lead students in carrying out service learning projects. However, a desire to expand their reach and see service learning sustained beyond their involvement led NID to develop a new program model where NID staff train teachers to lead service learning projects themselves. NID began to develop this approach in 2004. In 2006-07, NID worked with 30 teachers in thirteen schools in the School District of Philadelphia (SDP) reaching approximately 700 students with service learning.

NID asked Research for Action (RFA) to conduct an evaluation during the 2006-07 school year. The evaluation aimed to learn more about the effect of the new model on network participants and their students. NID was interested in understanding the development of its teacher network as well as members' perceptions of the benefits they experience through their involvement in the network. NID was also interested in understanding how their work with teachers translates into outcomes for students. Previous evaluations explored NID's impact on students and found that when NID staff facilitated the service learning projects, students experienced personal and social development and demonstrated an increased sense of civic responsibility as well as

improved problem-solving skills (RMC, 2003). NID wondered whether these same outcomes would be seen when they weren't the facilitators of the service learning project. In addition, both the context of NCLB and NID's work with teachers had caused the organization to consider how it could help teachers raise student achievement through service learning. It was hoped that this evaluation could provide information to help answer these questions.

RFA also examined NID's theory of action as a way of understanding staff goals for teachers and students and the strategies through which they worked to achieve these goals. This report shares findings from research with teachers and students while a companion report shares findings regarding the theory of action.

While the focus of this evaluation was on understanding participant experiences and outcomes, it was not an impact study. The goal of the study was to begin to identify some of the types of outcomes that might result from the new program model at both the teacher and student levels. RFA aimed to understand the experiences of teachers and students separately and to understand the relationship between teacher and students' experiences. Specifically, how did teacher participation in, and learning from, NID relate to students' service learning experiences and outcomes?

RFA answered these questions through a mixed methods research design. Teachers and students completed surveys and participated in focus groups and interviews. RFA also conducted interviews with principals and school district administrators and observed NID activities as well as classroom service learning activities.

Surveys were administered once, in the spring of the year. Therefore, the analysis did not look at gains or changes in teachers' or students' attitudes or perceptions. Teachers were asked to indicate areas of growth but this research did not measure changes. Similarly, changes in students' attitudes were not assessed. Rather, the analysis looked at correlations between teachers' participation in, and experiences with, NID and student attitudes in the spring of the year. (See inset below for a more detailed description of research activities.)

The value of this exploratory analysis is that it illuminates potential connections between NID's work with teachers and student attitudes and provides an opportunity to explore whether specific aspects of NID's work are related to student attitudes and which student attitudes are mostly likely to be affected by NID.

Relationships identified in this research could inform the development of future research.

From these data we heard that service learning energized both teachers and students. Teachers were excited and challenged by using service learning that incorporates student voice. They were impressed by student responses and gained new insights about their students. Students felt efficacious, enthusiastic and experienced a greater sense of belonging in their classrooms. Teachers also observed students developing a sense of empathy, civic responsibility, and problem-solving skills.

Teachers were also very positive about their experience with NID and appreciated the support and professional development from NID staff.

They valued the opportunity to meet and network with other teachers, although only a core group of teachers seemed to be developing leadership and embracing the concept of a teacher network.

Interestingly, teachers' participation in one aspect

Research Activities

The evaluation, conducted (January-June 2007), examined the following questions:

1. What is NID's theory of action and what are its goals for the teacher network and the classroom implementation of the *My VOICE* curriculum?
2. Who are the participants in the teacher network and how are they affected by participation?
3. What are the successes and challenges that both NID staff and teachers in the network face in implementing the goals of NID?
4. What are the benefits to teachers of their involvement in NID?
5. What benefits do teachers intend and desire for their students and what benefits do they observe students reaping from their engagement in the *My VOICE* curriculum?

We answered these questions through a mixed methods research design that included interviews, focus groups, surveys, observations of NID events, classroom observations, and document review. Interviews were conducted with five NID staff members to understand the program and its theory of action. To better contextualize NID's work, we conducted interviews with two principals involved with NID and also interviewed two staff members at the School District of Philadelphia who provide support for service learning.

Network teachers participated in two focus groups (4-6 teachers) as well as interviews (2 teachers) and completed an on-line survey about their experiences in the network (90% response rate). The teacher survey was designed to measure teachers' level of participation in NID program activities, their perceptions of the activities and supports received professional attitudes, pre-existing knowledge and gains from their involvement in NID, and perceptions of student benefits from service learning.

Students at two middle schools and two elementary schools participated in focus groups (5-10 students each). Each focus group was diverse by gender and ethnic/racial identity. In addition, students in grades 5-8 were surveyed in 19 NID classrooms (representing 21 teachers). A total of 431 students completed surveys.

Surveys were used to get a broad sense of teacher and student experiences while interviews and focus groups with a sample of participants provided in-depth descriptions of the program, service learning and its benefits for teachers and students own voices. Qualitative data also triangulated staff interviews on the program processes.

Student focus groups and surveys focused on students' experiences with survey learning. Student surveys were also designed to measure students' perceptions of teachers, their sense of belonging in the classroom, school engagement, students' sense of efficacy (i.e., their ability to impact their environment), empathy, and civic dispositions. The student survey also measured students' perceptions of the quality of the service learning project and their engagement in the project itself.

of the teacher network—Peer Sharing¹—was correlated with positive student attitudes although fewer teachers attended Peer Sharings. This suggests that further development of this aspect of NID’s work could strengthen its impact on students.

Teachers reported gains in a number of areas including the ability to develop a service learning project, incorporate student voice, make connections between service learning and their content area, and develop an understanding of how to make connections with students’ communities. Teachers’ reported gains in making community connections were correlated with positive student attitudes about their teachers and their classrooms and thus seem to be a potentially important way in which NID has an impact on students.

Some teachers also felt confident in their ability to make connections to the curriculum and develop rigor within their projects; however observations of RFA, NID staff and district personnel suggest that there is variation in the extent to which this is done. One school district administrator suggested that rigor was an area in which NID could enhance its supports. Nonetheless, students and teachers reported that reading and writing were two academic areas frequently incorporated into service learning projects and many teachers felt that achievement in these areas was impacted by service learning projects.

The rest of this report will describe these findings in more detail. Part I focuses on teacher experiences and Part II focuses on student experiences and the relationship between teacher and student experiences. The concluding section offers a summary of the findings and recommendations for programming and future research.

¹ Meetings where network members come together to support each other without NID staff.

Part I: Need in Deed Teachers

*This project is the most amazing thing I've done as a teacher. Not just this year—my whole career. In fact, this is the most amazing thing I've done in my whole life. I'm not being melodramatic, it's true.*²

Introduction

Need in Deed staff share the goal of preparing teachers in the NID program to implement high quality service learning projects in their classrooms. Through their participation in NID, teachers learn strategies to foster “student voice” in their classrooms, lead students in developing an essential question and agenda for a service learning project, and develop connections to students’ communities. These strategies are expected to lead teachers to develop better relationships with their students and increase their ability to “make learning real” in the classroom. NID intends to achieve these goals through professional development and one-on-one supports provided by staff and through the development of a teacher network. NID also expects that teachers’ practice will be altered after the experience of implementing a service learning project, particularly if *student voice* is incorporated.

In Part I, we consider the NID program through the perspective of teachers to find out if teachers are in fact experiencing the benefits NID intends and whether the strategies NID is using are functioning as NID envisions. This section focuses on four key themes: 1) teachers’ experience of NID, 2) teachers’ self-reported benefits from participation in NID, 3) teachers’ perceptions of the implementation of the service learning project, and 4) the direction of the teacher network. Before discussing each of these themes, it is important to contextualize the discussion by providing a brief overview of teachers involved in the NID network.

NID Teachers are a Select, Experienced, and Committed Group of Teachers

NID carefully selects teachers who are ready to make the commitment required to be active participants in the NID program. This selection process has yielded an experienced

² Quoted from a first-year NID teacher who has been teaching for over twenty years.

group of teachers for the network. In 2006-07, the majority (77%) of teachers in NID had been teaching for more than six years, and of these 21 teachers, 12 had been teaching for more than 10 years. Only two teachers were new to the profession (teaching 1-2 years) and four teachers had 3-5 years of experience.³

NID has also retained some of its network members for several years. Among these 22 respondents, the majority (56%) had been involved with NID for one year, 22% had been involved for two years, and 22% were involved for three years or more. Teachers in NID come from a range of grade level classrooms, from 1st grade up to 8th grade, but the majority of NID teachers teach students in the middle grades (6th, 7th, and/or 8th grades). While most elementary school teachers teach all subjects, most middle grades teachers are more specialized. As a group, middle grades teachers teach a range of subjects, including literacy, math, science, and social studies. Some NID teachers work with ESOL students, mentally gifted students, or special education students (resource room). The majority of teachers in the NID network are white female teachers although in 2006-07 the network also included several female teachers of color and a few white male teachers. The predominance of white women within the NID teacher network in part reflects the demographics of the teacher population in the SDP, but may also reflect the pool of teachers who are being referred and recommended to the network.⁴

Teachers learn about NID through a variety of ways but many teachers are recommended to NID by their principal. With regard to the recruitment of teachers, at least one principal perceived that teachers who joined NID were those who were already very committed to their students. As this principal put it,

The teachers who join NID are ones who already always went above and beyond what they needed to do. . . . I think that is how we selected many of our teachers, it requires a lot of you if you are going to take on the NID

³ All quantitative data on NID teachers were gathered from our online teacher survey, taken by 27 of the 30 teachers in the NID network.

⁴ Nationally, only 18% of elementary and middle school teachers were male in 2006. Less than 19% of elementary and middle school teachers nationally are teachers of color while 38% of teachers in the School District of Philadelphia are teachers of color. Statistics accessed August 24, 2007 at http://www.menteach.org/resources/data_about_men_teachers.

initiative—it's a lot of extra time—you can just see those teachers would fit into that mold.

Indeed, teachers who join the program sign a contract with NID committing themselves to participate fully in the network, attend all NID workshops and events, and join in the spirit of collegiality of the network.

Teachers Feel Supported by NID

In interviews, focus groups, and via survey, teachers indicated positive reviews of the professional development provided by NID. The in-services led by NID staff are designed to prepare teachers to implement high-quality service learning projects. NID one-on-one supports are designed to assist teachers with implementation.⁵ Our data indicate that teachers felt well supported by NID in carrying out their service learning projects. These two areas—professional development via in-services and individualized supports—will each be discussed below.

Professional Development: NID In-services

Interviews and focus groups with teachers revealed very positive perceptions about the supports provided by Need in Deed. Teachers indicated being attracted to the idea of working with other teachers and finding support for creative pedagogy. One teacher shared,

I was impressed with the staff development they did last year, and I had sworn off all involvement in all extra programs for the rest of my career, so help me God. Something about what they did really struck a nerve with what I was interested in doing, and I thought, 'Aha! State-sanctioned creativity! I like this and you know I also enjoy working with teachers who still enjoy teaching, and so you know you'd be working with people who really were still in it for the right reasons—also to work with the children and also...the depth, to really go into something more in depth, because we also just paid a real quick flash of attention to service [learning] projects in the past.

⁵ Peer Sharing sessions are also organized by NID to help support teachers conduct successful service learning projects. Teachers' reflections on Peer Sharing sessions are discussed later in this section under the heading, "Developing as a Teacher Network."

Another teacher also experienced Need in Deed's professional developments as superior to other professional development opportunities she had experienced in the past.

I've been very impressed with how well organized they are and how in-depth their model is. I'm not used to that level of support from professional anything; I swore off School District professional development years ago, because it is just not professional. It is just not worth my time; I don't care how much they pay me! [In contrast] I find that they [NID staff members] are very enthusiastic and sincere about what they are doing and really open to helping you anyway they can.

In interviews, teachers were positive about in-services. Attendance at in-services was high, averaging 72% throughout the school year.⁶ Although attendance did decline during the course of the school year, teachers did not suggest it was because they were dissatisfied with the in-services. Instead, one teacher who had other obligations that competed with NID in-services noted, "I wish I could have been at every meeting."

Members who did attend regularly were pleased with the quality of the in-services. As one network member said, "They really are helpful; they are really well structured. I am always amazed." Another teacher also praised NID in-services for being well planned and well coordinated. "They stay on time; they don't mess about. They really have a good way of keeping us moving in the direction we are supposed to be going. They are very on target." In both individual interviews and focus groups, teachers told us that they appreciated the structure of NID in-services. In addition, NID teachers indicated via our survey that they were pleased with the quality and usefulness of the in-services. On average, teacher respondents gave in-services a 4.5 rating ("very good") for quality and a 4.5 rating for usefulness.⁷

Individualized Supports from NID

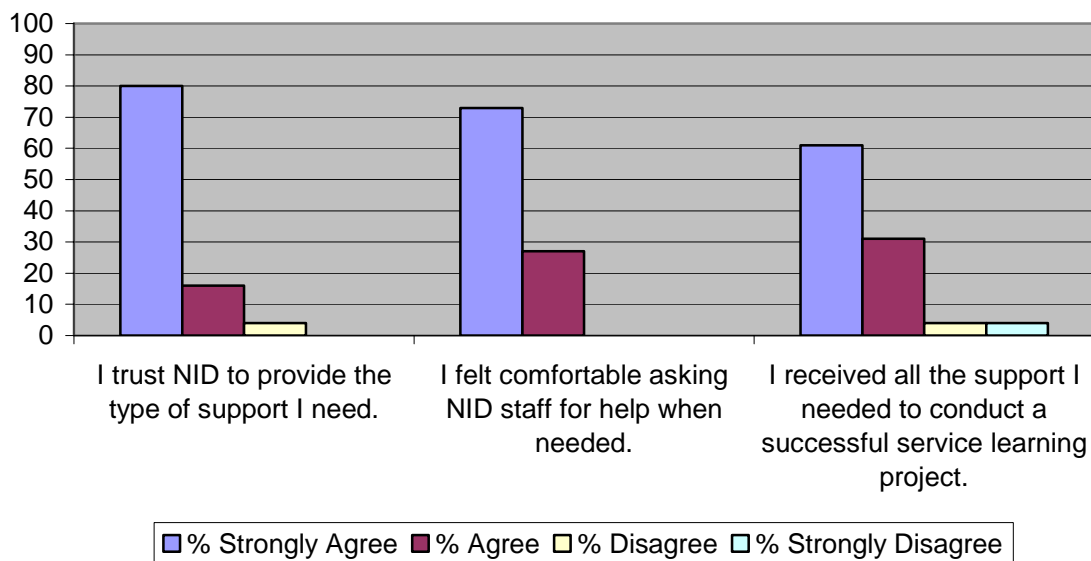
NID teachers indicated via our survey that they felt strong support from NID staff to help carry out their projects. In our survey of teachers, 100% of respondents answered that they "felt comfortable asking NID staff for help when needed" (where 73% *strongly*

⁶ When the optional December in-service is included, the average attendance was 68%.

⁷ Teachers were asked to rate each in-service for quality and usefulness on a scale of 1-5, where 1 was poor, 2 was not very good, 3 was adequate, 4 was good, and 5 was excellent.

agreed with the statement and 27% agreed with the statement). In addition, 96% of teachers agreed or strongly agreed that, “I trust NID to provide the type of support I need” (where 80% strongly agreed, 16% agreed, and one individual disagreed with the statement). Over 92% of teachers agreed or strongly agreed that they “received all the support [they] needed to conduct a successful service learning project.”⁸ In particular, teachers appreciated having assistance from NID staff with organizing and scheduling community partner visits. As one teacher observed, without support from NID, “it would be hard to do projects of this magnitude.” Thus, perceptions of NID support by teachers were overwhelmingly positive. These data are displayed in the figure below.

Figure 1: Perceptions of NID Support



Our conversations with teachers corroborated the survey data to confirm that teachers were overwhelmingly positive about the types of supports they received from NID. As one teacher said, “They had a lot more time to find resources than I did—so it was great. ...[Need in Deed] did everything they promised and more.” It was also remarkable that

⁸ One teacher *disagreed* with this statement and one teacher *strongly disagreed* that they received all the support they needed to conduct a service learning project successfully.

both “high participating” and “low participating⁹” teachers were very positive about the supports they received from NID. For example, one teacher who was less actively involved in the network, acknowledged that this was due to her own lack of time because of competing obligations and priorities, but that NID had been “very supportive” and had provided a myriad of resources.

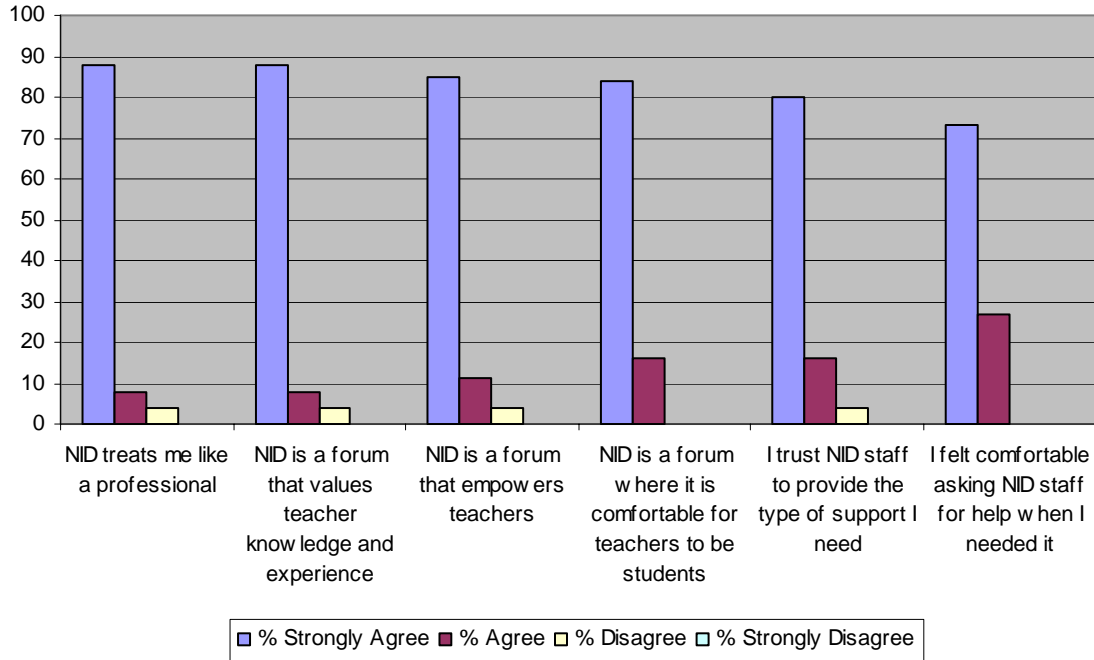
NID Treats Teachers like Professionals

In addition to appreciating NID in-services and one-on-one supports, teachers were very positive about the overall level of support that they experienced in working with NID. One theme that was salient in the data, and particularly in individual interviews and focus group interviews with teachers, was that network teachers appreciated how NID treats them like professionals. While this professional respect ought to be given to teachers on a regular basis, the NID network is uniquely supportive in this way. As one teacher put it, “They treated us very professionally. Teachers aren’t really used to getting treated that way.”

As Figure 2 below indicates, in our survey of teachers, the vast majority (nearly 90%) of teachers reported *strongly agreeing* that they feel treated like a professional in NID, that NID is a forum that values teacher knowledge and experience, and that NID is a forum that empowers teachers. Teachers also indicated that NID is a forum where it is comfortable for teachers to be students, which is said to be one of the benefits of a teacher network (Lieberman & Wood, 2003).

⁹ Participation is defined here in terms of attendance at NID workshops and events.

Figure 2



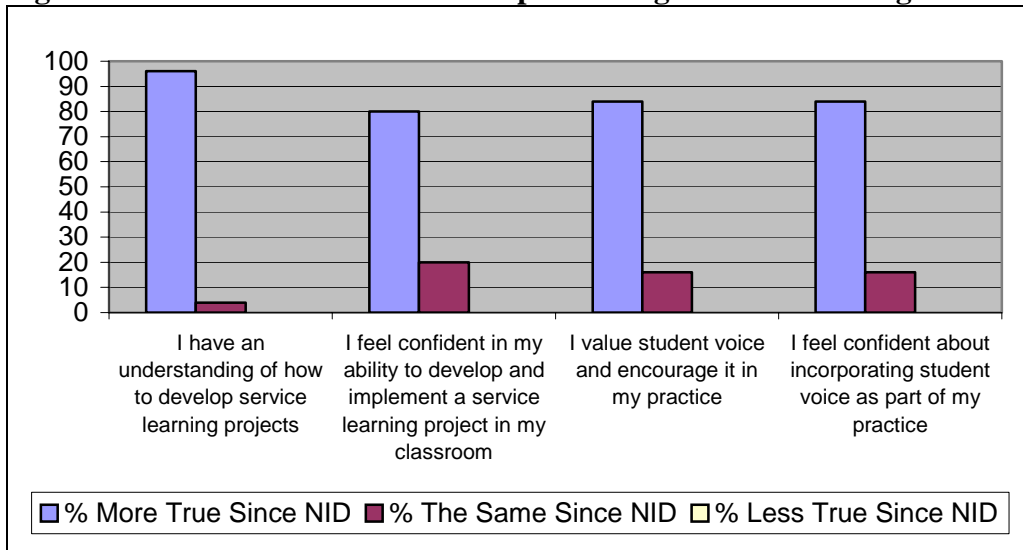
The figure above also shows that teachers overwhelmingly reported trusting NID staff to provide the support they needed and felt comfortable asking NID staff for help with their service learning projects when they needed it. Thus, the support that teachers felt from NID was broad-based and was an outcome of their overall involvement in NID.

Benefits to Teachers

The second salient theme that emerged from our research was that teachers have benefited in substantial ways from their involvement with NID. In interviews, focus groups, and via survey, teachers reported gaining knowledge, confidence, skills, and new experiences due to their involvement in NID's program. In our survey, teachers indicated that since becoming involved with NID, they have increased their understanding of how to develop service learning projects; increased their confidence in implementing a service learning project; and increased their appreciation and incorporation of student voice in their classroom. Many teachers did not perceive themselves as strong in these areas prior

to their involvement with NID but as Figure 3 shows, reported increasing their skills and confidence in these areas at the end of the 2006-07 school year.

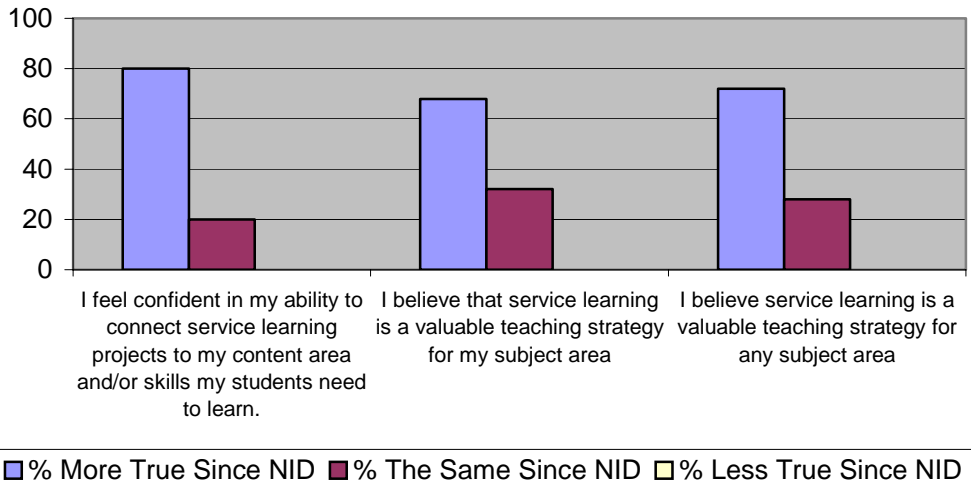
Figure 3: Teachers' Confidence in Implementing Service Learning Post-NID



As shown in Figure 4 below, teachers also indicated that they increased their confidence in connecting service learning to their content area and indicated a greater appreciation for the value of service learning as a teaching strategy both in their subject area and more broadly across subjects.¹⁰

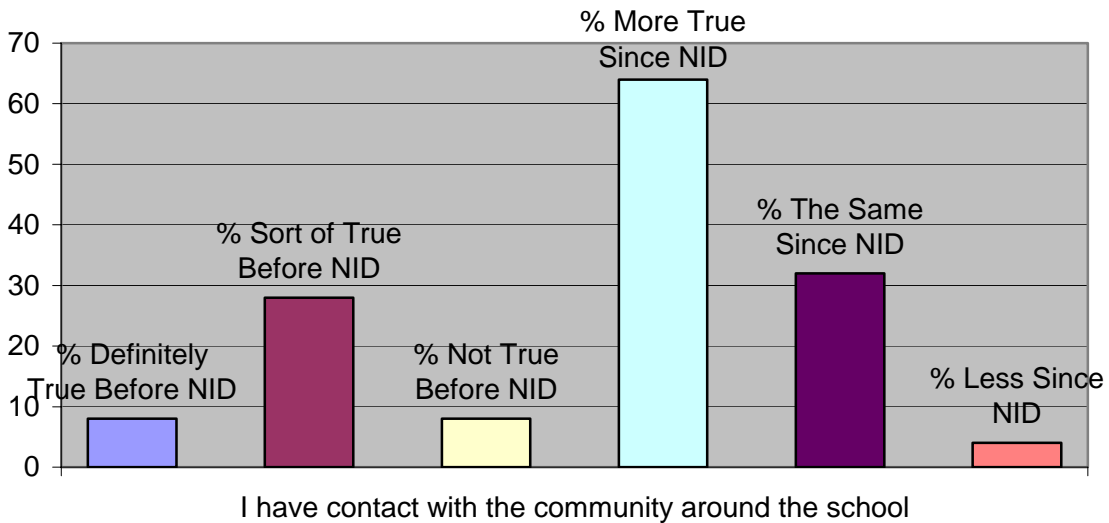
¹⁰ Note that teachers were asked to reflect back on their beliefs prior to their experience in NID. Teachers were not given a pre- and post-survey, but answered all survey questions at the end of the 2006-07 school year.

Figure 4: Teachers' Beliefs Post-NID



Finally, as shown in Figure 5, the majority of teachers indicated that they did not have contact with the community around the school prior to their involvement in Need in Deed. After joining Need in Deed, the majority of teachers (60⁺%) indicated increased contact with the community around their school.

Figure 5: Teachers' Contact with the School's Community, Pre-NID and Post-NID



In addition to the benefits cited in the survey, teachers also discussed benefits to their involvement in the NID program in interviews, focus groups, and at Peer Sharing sessions. Benefits cited by teachers in these contexts included:

- Developing better rapport and trust with their students (in some cases, teachers reported that students' behavior in the classroom improved once they began doing a service learning project)
- Greater access to leadership opportunities
- Having space and support in the classroom for "state-sanctioned" creativity
- Having the opportunity to share ideas with one another and develop mutual support with teacher colleagues
- More opportunities to give public presentations on service learning (e.g., at the annual National Service-Learning Conference)
- Practical assistance from NID (e.g., scheduling community partner visits)
- Becoming re-engaged with teaching
- Celebrating how their students benefit from the experience of doing service learning
- Involvement in service learning projects through NID gives good publicity to the teacher's school.¹¹

Teachers who presented at the National Service-Learning Conference in spring 2007 were particularly enthusiastic about their participation and noted that the NID model was widely respected at the conference as representing "the best of the best" of service learning. Network teachers also observed that the NID model of service learning was "more authentic" than the model that many other presenters were working with. In contrast to NID's work, other presenters' work was perceived by NID teachers as more akin to community service than to service learning.¹² At a Peer Sharing, when the facilitator asked teachers to report to the group about presenting at the National Service-Learning Conference, two NID members shared with the group:

Teacher 1: We should all feel good about being in this network because what Need in Deed gives us is authentic and genuine. On a national scale, so many other people doing this did not know the difference between

¹¹ While this last point may not represent a direct benefit to teachers, the teacher who provided this example was clearly invested in the success of her school, and thus implied that such good publicity affords an indirect benefit to teachers.

¹² Community service projects focus on providing short-term direct service, while service learning is a more extended process that engages student in learning activities before, during, and after service is performed. One NID teacher elaborated on this by explaining "With community service you feel good that day, but you don't get too much out of it. Service learning stays with you for a very long time."

community service and service learning. That became really clear from conversations I had with people, at the conference, even talking in the elevator with people. We are so lucky.

Teacher 2: We are so advanced. They were doing community service—most of them. I didn't hear student voice. Students weren't learning [in other projects].

One of the teachers who presented also noted what a wonderful opportunity it was for her to present to her colleagues. She commented that although she teaches a classroom of students every day, that giving a public presentation to her peers was something which she normally feels discomfort doing. However, speaking about her work with NID gave her an opportunity to have a much more positive experience with public speaking. As she told her NID colleagues at a Peer Sharing, “When you speak from the heart on your passion, it shows. It was the first time in my life I wasn't nervous speaking, because I was speaking about what I knew.” Thus, teachers in the network have taken advantage of opportunities to develop professionally, including developing their public speaking and presentation skills.

Another benefit to many teachers was that they developed a greater understanding and appreciation of their students' lives outside the classroom. One teacher reflected that she was not aware why one of her students was frequently late or absent until her class started their service learning project. The student then shared with the class that a member of her family had a serious illness. For the teacher,

It made me realize that there's life for these kids outside of this classroom. Of course I knew that but it brought that home to me more. I'm trying to teach about [all these topics in the core curriculum] and they have real lives outside of school.

In addition, some NID teachers also described becoming re-engaged with teaching (and re-motivated) as a result of their participation in NID, as suggested in the literature on teacher networks (Useem et al., 1995; Lieberman & Wood, 2003; Firestone & Pennell, 1997). As one teacher commented, “I always wanted to re-energize my program and this helps me to do that.”

Perhaps the most rewarding benefit that teachers experienced was seeing their students transformed through the process of completing a successful service learning project. As a NID teacher working with her students on the issue of asthma shared,

They really do get into it, and almost everybody in my room knows somebody in their family that has been affected by this issue or knows somebody who knows somebody. They are familiar with it and they get excited when they start learning about things they didn't have any idea about before. They learned a few facts from the nurse that we had not uncovered in our research and they were excited about that. You know they wrote about it, not necessarily because I asked them to. So they are getting excited about being empowered with knowledge. [That] is the whole thrust of our project, to empower people with knowledge about their asthma.

Other teachers corroborated this view. In many ways, one of the greatest benefits to teachers was seeing their students engaged in learning and in reflecting about the world.

One teacher observed

I think it gave my kids, some of the kids that don't write so easily, it gave them a real purpose for learning, which is something that is really important to me. I want them to see it doesn't matter what you are learning as long as you know how to find things. Doing the research on the rap artists and finding information... it motivated them, it was their world, it was their topic.

Another teacher noted that when her students did one of the NID activities, students started sharing their personal views and experiences on the topic. As this teacher put it, “I don't think anyone knew the level of depth we would get into; it was great.” Teachers enjoyed seeing their students respond to service learning in this way. In fact, many teachers joined NID with benefiting their students in mind. As one teacher put it,

When I heard there was a group that would be meeting on a regular basis to benefit their students—that sums up for me what Need in Deed is, and that's why it's so great for me, both professionally and for my students.

And, as shared by a potential incoming teacher to the network at the spring 2007 orientation meeting, service learning also has an appeal to teachers who are looking for new ways to reach their students—especially when faced with teaching a new group of students. This teacher stated,

I've been teaching younger kids, but next year I'll have [older students] for the first time. I'm petrified of the big kids. I'm scared of them. I'm hoping this service learning will help me.

Due to all the benefits cited above, most network teachers were very positive about their involvement in NID and many became enthusiastic proponents of service learning. Comments from some teachers suggest that service learning, and their involvement with NID, became central to their teaching. As one teacher put it, “I would not teach without service learning. It is a teaching strategy; it is not an extra.”

In sum, teachers increased their knowledge and confidence in the field of service learning, increased connections with the communities around their schools, and learned to value and nurture “student voice” in their classrooms. Several teachers who took advantage of the opportunity to give a public presentation about service learning or their individual projects were highly appreciative of the benefits that this brought to them.

Implementation of Service Learning Projects

NID’s goal is to provide all teachers in the network with the tools and resources they need to implement a high-quality service learning project. For NID, a high-quality service learning project is defined by both process and product. The process ideally includes a high degree of student voice and authentic connections to students’ communities. However, the product is also important. As staff defined the most successful service learning projects of the past, all seemed to culminate in some “product” produced by the students which received broad recognition for being of high quality and left students with a sense of accomplishment. In defining a high-quality service learning project, NID staff did not explicitly mention the necessity to connect to the core curriculum, but it was clear that positive academic outcomes for students are integral to the definition.

In this section, therefore, we discuss teachers’ perceptions of the quality of their students’ service learning projects. Teachers similarly described successful service learning projects both in terms of process and product. Teachers emphasized the issue of student voice when describing a successful process. Fewer mentions were made of the importance of community connections. Comments about products focused on the final culminating product. As might be anticipated from any program, there did appear to be

variability in the implementation of service learning projects; some projects had a high quality process, others had a high quality product and others had both. Teachers describe less variability in their ability to integrate service learning with the core curriculum. Most teachers perceived themselves as successful in this area.

Variability in “Process” and “Product”: Teachers’ Perspectives on Producing High-Quality Service Learning Projects

Teachers’ shared conception of a high-quality service learning project seemed to focus around themes such as students’ sense of accomplishment and the quality of the final project produced or performed by the students. However, some teachers became aware that the process of conducting the project and the final “product” may not always be in sync. In addition, just as NID recognized that there is variability in the quality of final projects, there was also variability in the reviews that teachers gave of their own students’ projects. For some teachers, leading their students in a successful service learning project was highly rewarding and they felt that their students were receiving a more rigorous intellectual experience as a result of conducting the project. One teacher was so excited by the process and product of her students’ project that she told us,

This project is the most amazing thing I’ve done as a teacher. Not just this year—my whole career. In fact, this is the most amazing thing I’ve done in my whole life. I’m not being melodramatic, it’s true.

In another case, a teacher shared her observation that, “As far as compassion goes, I have a very nice class...It [might have something] to do with the service learning.” Because her students got to know one another and opened up to one another in the course of doing a NID activity, this teacher felt that her students had developed closer and more supportive relationships with one another.

Planning and conducting a service learning project using the NID curriculum of “student voice” was such a positive one for students that one teacher noted that the *process* of incorporating student voice into her classroom and into the service learning project was very valuable, regardless of the outcome of the final “product” created by the students. In the midst of leading her students in their service learning project, this teacher reflected,

I don't know if we are going to be able to get our message across in the way that the kids initially wanted and we might have to redo it, but even if that happened, even if that happens the process of just getting here has been such a learning experience, so much has gone into that, it has been really valuable. . . . I thought the whole My VOICE program—the way [students] had to choose and think and look at their community from different angles and evaluate what was important and write about it and so many things went into the process of getting a service learning project, the project itself might not be as great as the building up to it.

This example suggests that teachers recognized that students may be gaining a great deal from their service learning project even if the project “might take some other winding roads that I [the teacher] didn't anticipate.”

At the same time, comments from two teachers suggest that, in some cases, students might produce a successful final “product” but may not have experienced as many “process” benefits from the project. For example, in one case, a teacher evaluated her students' final project as a success, but also mentioned that she put together the tri-fold board for the NID Shout Out herself, because “the students didn't have time.” Regardless of the teacher's reasons for making this choice, an opportunity to nurture “student voice” and students' confidence in their own abilities may have been lost by this decision. In another case, a NID teacher mentioned that she was disappointed that her students did not internalize the values of the service learning goal that they had identified. This teacher commented:

[The students] stepped up to the plate [and did a great final project]. But the day to day interactions—the way that they treat each other is so disrespectful and mean and I don't think they even realize it. I think that has a lot to do with what's going on outside of the school.

This teacher noted that, with regard to the values that their service learning project could have taught them, “For some it sunk in.” However, the teacher noted that the values that students expressed in their final “product” were not values that they were themselves living by in their day-to-day interactions in the classroom. This is one of the challenges that teachers face in seeking to use service learning to combat societal pressures that are present both inside and outside the school. Because teachers hear stories from their NID

colleagues about service learning improving students' classroom behavior, some teachers may become discouraged when their own project doesn't yield the same result.

Implementation: Integrating Service Learning into the Core Curriculum

Teachers' involvement with NID also appeared to help them integrate service learning into the core curriculum. Based on comments from teachers in focus groups and interviews, less variability was apparent here.¹³ While some NID staff members expressed feeling that teachers would benefit from and appreciate more support in this area, many teachers described being successful at fitting their service learning project into the core curriculum. The following quotes from teachers represent positive experiences with making this connection:

The Need in Deed activities were pretty easy to fit into the curriculum. We had to do narrative writing. We did a community walk, and it was easy for the kids to start thinking about the causes and issues that were important to them by making up stories.

I began to connect it to standards and I couldn't even believe how many connections were there, [even] just in literacy alone. . . . They get so much more out of that than you ever get out of a textbook.

Some teachers were able to integrate lessons from numerous subjects into the service learning project their students had chosen. In focus groups, two teachers discussed how they connected service learning to teaching core academic skills:

We have writing projects [and] every four or five weeks the topic changes. . . I know our most recent writing project was a biographical sketch, so that was how we came up with the idea to do rap star artists so it tied right in with the writing. We also had an observational writing [assignment] and we went on our community walk [and] we used our observation skills and wrote about that. . . . We're [also] doing a survey for the kids and I'm looking to make that into [a lesson on] graphing [and] organizing numbers.

¹³ A more focused look at the level of connection between the service learning project and the core curriculum may likely reveal variability in this area. However, the point emphasized here is that there was little variability in teachers' perceptions of their own ability to integrate service learning with the core curriculum.

Reading and writing skills were also frequently taught through service learning projects. “Informational reading is part of the core curriculum; we’re reading the news a lot,” said one NID teacher. Another teacher described using her service learning project to teach graphing, writing, and problem-solving, as well as covering other areas of the curriculum. For example, she noted, “mine is a health topic; it is helpful for health which we have to give a grade for but we have no [core curriculum] materials for.” She also noted, “I’ve been able to tie it in with some of the technology standards that they aren’t really getting in computer class, as far as researching online with them.”

Some teachers were of the opinion that service learning could be used to teach core skills in a more interesting way. As one teacher put it, “It doesn’t matter what your topic is, core skills can be taught with any topic you choose.”¹⁴ Other teachers describe integrating service learning into their subject matter as challenging, but “do-able.” As another teacher put it, “Math is tough [to integrate with service learning, but] I’m finding ways to get it in—graphing, data analysis, percentages.” This teacher even custom-designed test preparation materials for benchmark tests and standardized tests using data and topical information from her students’ service learning project to reinforce core curriculum skills.

While most teachers were very positive about integrating service learning into the core curriculum, some did acknowledge that it was challenging, and more time intensive, to do so. A few teachers did raise some concerns on this topic, including one teacher’s perspective that NID took too much time away from the core curriculum and that consequently, her students doing a NID project were “behind” in the curriculum compared with students in another one of her classes who were not involved with NID. In addition, while 70% of teachers intended to see overall academic gains for students, only 47% of teachers observed overall gains. (Teachers were more likely to report gains in specific subject areas such as writing and reading.) Thus, in planning for future years,

¹⁴ This teacher described choosing an “umbrella” topic for her science class at the beginning of the school year. This topic was chosen by the teacher, as opposed to the NID “student voice” model. However, the teacher was able to incorporate her students’ service learning topic with the broader “umbrella” topic of the year.

some teachers may benefit from additional guidance and support (whether from NID staff or from NID teacher consultants) on how to integrate their service learning project with the core curriculum.

Part of expanding and sustaining NID's framework/approach may therefore involve finding ways to improve the consistent high quality of NID service learning projects, despite the many variables at play which would predict variability across teachers and from year-to-year for the same teacher. This is a challenging mission, but one which is consistent with NID's vision and one which also has support at the school district level. As one district staff person commented about NID:

Their process is so good that we wish they would expand. . . . Process outcomes are very good. The one thing I would like to see –[and this is] not unique to Need in Deed—[is] to see the increase in the rigor, stretching beyond the comfort zone of kids and teachers. A level over and above that no one has cracked. We are still really working on that [across the district].

Thus, NID's ability to consistently foster cognitively challenging service learning activities would only expand the appeal of its work to District staff.

Developing as a Teacher Network

Fostering an environment where trusting collegial relationships among teachers can be developed is also important to NID. In interviews, NID staff noted that the creation of a teacher network is an important part of their vision. A teacher network is a non-hierarchical, peer-to-peer approach to teaching and learning (Lieberman & Wood, 2003:20). These networks are made up of teachers who participate on a voluntary basis, typically over a period of several years (Useem et al., 1997). Teacher networks are said to include and promote, "long-term voluntary professional development experiences that emphasize collaborative inquiry and reflection on content and pedagogy, teacher empowerment, and leadership development" (Useem et al. 1997, p. i). Teacher networks are expected to be most successful when they fit the goals and needs of the teachers who participate in them. Lieberman and McLaughlin note,

The success of networks turns to a significant extent on teachers' perceptions that the groups to which they belong serve their own goals—

not goals specified by some outside agent, even a friendly funding source (1992:677).

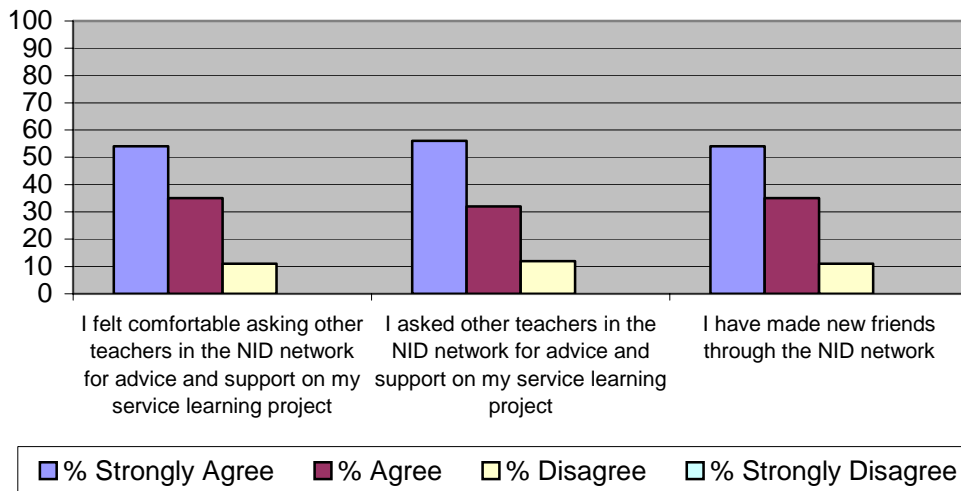
Research on teacher networks has found that autonomy and opportunity for leadership in teacher networks appears to contribute directly to their effectiveness (Lieberman & McLaughlin, 1992). According to Lieberman and McLaughlin, successful teacher networks are said to include the following features:

- Clear focus of activity, but also variety & self-determination
- Shared sense of identity built around shared objectives
- Social time for participants to get to know one another
- Shared expertise of teachers
- Opportunities for leadership
- Reflection; willingness to evaluate and improve upon ideas
- Application to the classroom.

NID is in the process of building these features into its professional development for teachers. In the contract that teachers sign when they join NID, teachers are asked to “join in the spirit of collegiality and professionalism” that are part of the network. In addition, they are asked to attend Peer Sharings which are meetings where network members come together to support each other without NID staff. As outlined in this contract, teachers are also expected to “support other teachers in the Network in the completion of their projects.” Thus, giving and asking for advice, ideas, and support to and from teacher colleagues in the network is an important facet of what NID envisions must take place in order for the network to reach its full potential.

Our survey of teachers addressed this facet of network involvement. A slight majority of network members (52%) indicated *strongly agreed* to the statements that they asked other network members for advice and support regarding service learning; that they felt comfortable asking for such advice and support from their peers; and that they made friends through their participation in the network.

Figure 6: NID Teachers' Success at "Networking" with NID Teacher Colleagues

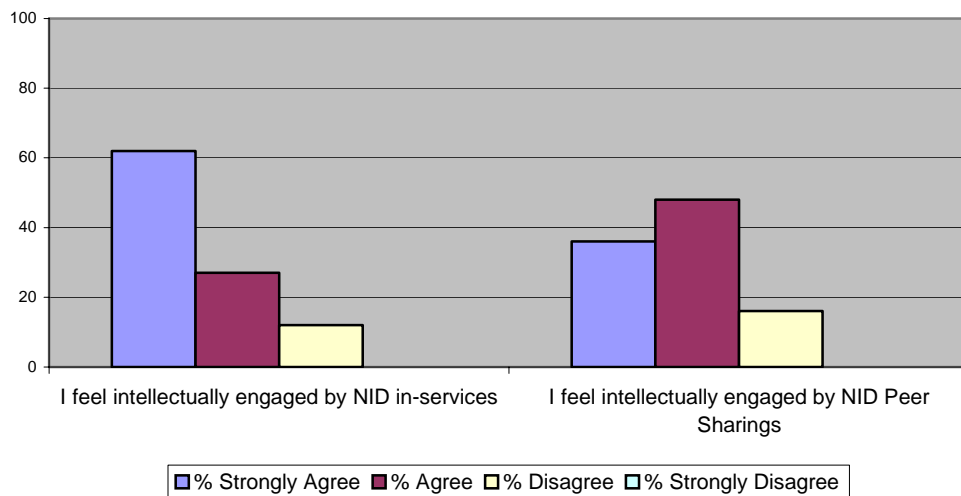


While there was a strong correlation between teachers who answered that they “felt comfortable” asking other teachers in the network for support and those who answered that they actually *did* ask other NID teachers for support, neither of these items correlated with making new friends through NID. At the same time, the correlation between the first two items suggests that the teachers who did not feel comfortable asking their peers for advice or support did not overcome this feeling to ask for help. It may be valuable for NID to reflect on what might be done to increase the comfort level of the subset of teachers who did not ask their colleagues for advice and support. Discussion with more experienced network members may help illuminate why particular teachers do not feel comfortable participating in the network in this way. Teachers themselves may have ideas about ways to increase such participation. In addition, future data collection might explore whether some, or many of the teachers who do not ask for advice and support are nonetheless actively participating in this facet of the network by *giving* advice and support to those who do ask. While a sense of community among network members does seem to be developing, this was also an area for growth identified by network members.

Despite the collegial environment of NID, it is not clear that a full teacher network has developed yet. When describing their experience with NID in focus groups, individual interviews, and informal conversations with us, most teachers highlighted what NID

“gave” them—such as teaching them about service learning, making phone calls to set up their community partner visits, providing the *My VOICE* curriculum, providing in-service workshops, and providing a structure in which to meet and talk with other teachers. However, it was not clear that teachers perceived NID as a teacher network. Nor did teachers appear to take full advantage of the potential benefits of a teacher network. Most notably, teacher attendance at NID in-services was higher in 2006-07 than teacher attendance at Peer Sharings (72% vs. 53%), which may suggest that teachers currently valued professional development provided by NID staff more than developing and sharing ideas with their teacher colleagues. In addition, the figure below shows that in our spring 2007 survey, teachers were more likely to *strongly agree* with the statement that they were intellectually engaged by in-services than by Peer Sharings.

Figure 9: Teachers Feel More Intellectually Engaged by In-services than Peer Sharings



In addition, although teachers rated both in-services and Peer Sharings highly in terms of their quality and usefulness, they indicated that they found Peer Sharing sessions to be somewhat less useful and of slightly lower “quality” in comparison to in-services.¹⁵ Again, this may suggest that teachers currently perceived NID-led professional development as more valuable than any advice, support, and ideas that might be provided

¹⁵ While the average rating given by teachers for all *in-services* was 4.5 for “quality” and 4.5 for “usefulness,” the average rating teachers gave to *Peer Sharings* was 4.1 for “quality” and 4.0 for “usefulness,” with 4 indicating a “good” review and 5 indicating an “excellent” review.

by their teacher colleagues in the network. Alternately, it could suggest that teachers did not fully appreciate the distinct goals of Peer Sharings compared with in-services, and consequently may not have taken full advantage of the potential benefits of the Peer Sharing sessions.

What we do not know from this round of the evaluation is whether most NID teachers are seeking or would welcome growth into a more teacher-led network, or whether most teachers prefer a NID-led program of professional development. At least one teacher noted that she wanted to see the teacher network aspect developed further. As she put it,

Maybe one of the things that isn't developed enough and it's not their fault is the whole networking with other teachers thing. . . Because we are in our rooms...our little caves, all day long, and we don't get a chance to see anyone except at the meetings.

Other teachers also expressed appreciation for the collegial aspect of the network. As another teacher expressed, “I have been looking for a group like this for all of my career. . . . I'm sorry it took me so long to find it.” This teacher's level of enthusiasm might indicate an interest in participating in developing this facet of NID still further. However, several other teachers emphasized how much they appreciated the direct support given by NID—such as making phone calls to arrange for community partner visits. It is therefore unclear whether teachers in NID desire to function with the additional autonomy that an active teacher network would call for. NID is hoping that some of the teachers who have “graduated” from their two-year professional development program may wish to take on a leadership role and are ready for this type of teacher network. Indeed, their willingness to embrace the leadership role of a “teacher consultant” would imply that they are likely to also welcome more autonomy and a growing degree of input into decision-making in refining the mission and strategies of NID. While teacher participants who are in their first and second years of the network may also appreciate and seek out opportunities for leadership, it may also be important to recognize and appreciate that not all NID teachers may wish to take on a leadership role.

NID staff told us that the network continues to evolve into something new, given the transition from a model where NID staff led service learning projects into a model where

NID staff train teachers to lead their own service learning projects. Consequently, NID staff told us that they are in the process of reflecting on how they want the teacher network to evolve.

Emergence of a Core Group

While both low-participating and high-participating NID teachers rated their experience with NID very positively, it is notable that a core group of teachers emerged who were more actively involved in NID throughout the school year. Analysis of attendance data suggests that overall, attendance dropped during the school year at both in-services and Peer Sharings.¹⁶ As the year progressed, some teachers became less involved in NID, such that NID staff could probably begin to predict which teachers would show up for NID in-services and Peer Sharing sessions and which teachers would likely not attend. Thus, although the contract that NID has with teachers indicates an expectation that teachers will attend all NID workshops, varying levels of participation were seen among teachers. A core group of about five-six teachers attended all Peer-Sharing meetings and most NID in-services. Members of this core group were more likely to have received awards at the end-of-year Shout Out ceremony and were emerging as the natural leaders among NID teachers. Teachers in this “core group” of reliable and active participators show promise to be among the teacher consultants for NID once they have completed their initial two years in the network.

Discussion

Transitioning into a teacher network can be expected to involve two stages. In the first stage, a core group of teachers are trained in the subject matter around which the network is focused. In the second stage, these teacher-leaders play an important role in shaping the direction of the network, potentially helping recruit new members, and modeling the activities of the network (Belzer et al., 1995). In 2007-08, NID will have its first “official” group of teacher consultants—those who have completed their initial two years

¹⁶ For in-services, attendance was at 90% in September, above 80% in October and November, and dropped to below 50% in December 2006 and January 2007. Attendance at Peer Sharings dropped off during the course of the school year, starting out strong at 78% in October, dropping to just under 60% in November, to 41% in March, and to 33% in mid-April.

of NID under the new model. As NID staff have recognized, this group will be a natural fit for accepting expanded leadership roles within the network.

Should NID wish to develop the teacher network aspect of their work, particular steps could be taken to move in that direction. First, including the goal of “fostering an active network of teachers who learn from one another” in NID’s promotional materials and recruitment presentations may help to attract and recruit teachers who are seeking this type of learning and leadership experience. Second, NID teachers could be included in conversations and decision-making involving key issues that NID staff have already identified as important questions about the integration of service learning into the core curriculum or increasing teacher participation in Peer Sharings. There is already evidence that NID staff are moving in this direction, particularly with teacher consultants. Appropriate to the network model, teacher consultants will help to shape and define their own roles in the coming 2007-08 school year.

Summary

In sum, teachers in the NID program feel supported by NID and are benefiting from their participation by becoming more knowledgeable and skillful in service learning. In addition, most teachers did report “networking” with other NID teachers to ask for help and advice on their projects. However, the supports that NID teachers praised most highly came directly from NID staff. NID teachers also did not take full advantage of Peer Sharing sessions, with Peer Sharings exhibiting lower overall attendance than NID in-services. This suggests that NID is still very much at the center of the network, providing benefits to teachers through professional development. As the network develops, teachers—and particularly teacher consultants—may play a larger role in shaping the agenda of Peer Sharing sessions. NID’s idea to involve teacher consultants in this way may address multiple goals: enhancing opportunities for teacher leadership; helping teachers assure that their own goals for involvement in the network are being met; increasing teacher attendance at Peer Sharing meetings; and meeting NID’s goal of strengthening its teacher network.

Part II: Student Experiences

“I was sad to hear all the stuff that happened to the kids. But I felt happy that we could address the issue and I felt like we were making a difference.”

(NID student describing a service learning project on child abuse)

As the previous section reported, teachers feel that they are learning from their involvement in NID and changing their teaching practice. As a result of NID, teachers may listen to “student voice” more regularly, become more aware of making connections to students’ communities, and have involved their students in a year-long service learning project. How are these self-reported changes in teacher practice experienced by students?

The RFA team looked at this question from a number of different angles. We talked with students about their experience in the project. We asked teachers for their perspectives on the gains they observed in their students. And finally, we linked survey data from teachers and students to see where there were relationships between teachers’ experiences with NID and students’ experiences of service learning.

In constructing surveys for teachers and students, we anticipated particular outcomes that might be expected. The anticipated outcomes were based on staff interviews and research on service learning. Anticipated outcomes included civic responsibility, efficacy (students’ sense that they can make a difference in the world), empathy for others, engagement in school, experience of belonging in the classroom, and perceptions of teachers. Student surveys also assessed whether the service learning project contained elements that are considered “essential” to high quality service learning according to the service learning literature (see Figure 10 for a complete list) and students’ overall engagement in the project.

Figure 10

Essentials of Service Learning (National Service Learning Clearing House)
1. Clear educational goals
2. Involve students in cognitively challenging tasks
3. Assessment used to enhance student learning and evaluate how well students have met content and skill standards
4. Students are engaged in service tasks with clear goals that meet genuine community needs and have significant consequences for students and communities.
5. Use of evaluation
6. Youth voice in selecting, designing, implementing, and evaluating service learning projects
7. Valuing diversity
8. Communication, interaction, partnerships, and collaboration with the community
9. Students are prepared for all aspects of their service work.
10. Use of reflection
11. Celebration and acknowledgment of service work

The student survey did not look at gains or changes in students' attitudes and perceptions over the course of a school year but looked at correlations between teachers' participation in and experiences with NID and student attitudes in the spring of 2007. Like all correlational analysis, our analysis of survey results identifies correlations rather than causation. While we cannot definitely say that NID's work with teachers *caused* particular outcomes for students (because other causal factors could potentially be operating), we can show potential connections between NID's work with teachers and student attitudes and perceptions. It also provides an opportunity to explore which specific aspects of NID's work are related to student attitudes and which student outcomes are mostly likely to be affected by NID.

This section will summarize what we learned about student outcomes from both our quantitative and qualitative data.

Students are Engaged and Benefiting from Service Learning

Surveys and focus groups with students demonstrated that students were extremely positive about service learning, even in those instances when projects were not as well developed. As mentioned in the previous section, there was some variability in the implementation of service learning projects. NID also evaluated classroom projects and found variability in the quality of the projects. Therefore, it is notable that students were consistently positive about service learning across all projects, regardless of NID's rating of the project's quality. In surveys and focus groups, students were extremely positive about service learning and demonstrated high levels of engagement.

We asked students a set of questions geared toward assessing their emotional, cognitive, and behavioral engagement in the service learning project. Student responses to the project engagement questions are listed in Table 1. Among the engagement items, it was notable that the item most frequently endorsed was, "I learned things in our service learning project that will help me make good decisions in life." Sixty-two percent of students *strongly agreed* with this item reflecting a sense of relevance or meaning derived from the project.

Table 1: Students' Responses to Project Engagement Questions

	% Very True	% Sort of True	% Not Very True	% Not at All True
I can make important decisions when we are working on our service learning project.	56.0	32.2	7.3	4.5
I want to learn more about the problem we are working on in our service learning project.	54.0	31.0	11.4	3.6
I look forward to going to school on days when we do the service learning project.	48.8	31.7	13.3	6.2
I work harder when we are working on our service learning project.	45.2	34.3	16.0	4.5
I talk or think about our service learning project when I am not in class.	30.8	32.5	17.8	19.0
I am more interested in this class when we are working on our service learning project.	36.6	37.8	17.8	7.8
I sometimes get into trouble when we are working on the service learning project.	16.4	25.8	19.9	37.9
I learned things in our service learning project that will help me make good decisions in life.	63.5	24.9	7.1	4.5

We did notice age differences in ratings of project engagement, however. The 5th grade students surveyed were the most positive and engaged in the projects overall while 7th graders were the least positive and least engaged. NID staff also noted differences in students' engagement by age. They noted that elementary school students were easier to engage in projects than older middle school students. This could be a developmental phenomenon that NID may want to discuss and address in professional development.

Students in focus groups also conveyed both cognitive and emotional engagement; most students demonstrated that they had learned a great deal about their topic and experienced it on an emotional level as well. Students chose topics that had some personal significance to them, perhaps increasing the emotional impact of the project. Students expressed feeling sad, angry, upset, concerned, or surprised as they learned more about the issue they had chosen. These feelings were also balanced by the sense that they were trying take action on the issue they chose.

Again, some age differences were discernible. Elementary school students expressed the most enthusiasm for their project. One student provided an illustrative example of this

enthusiasm when, in answer to our question “is there anything you don’t like about the project” the student responded: “*It just keeps getting more interesting!*”

Middle school students expressed engagement by describing the sense of meaningfulness and relevance they derived from the project. The following student describes the connections she sees between the service learning project and her future career. She also describes a sense of the importance of their work—making a difference.

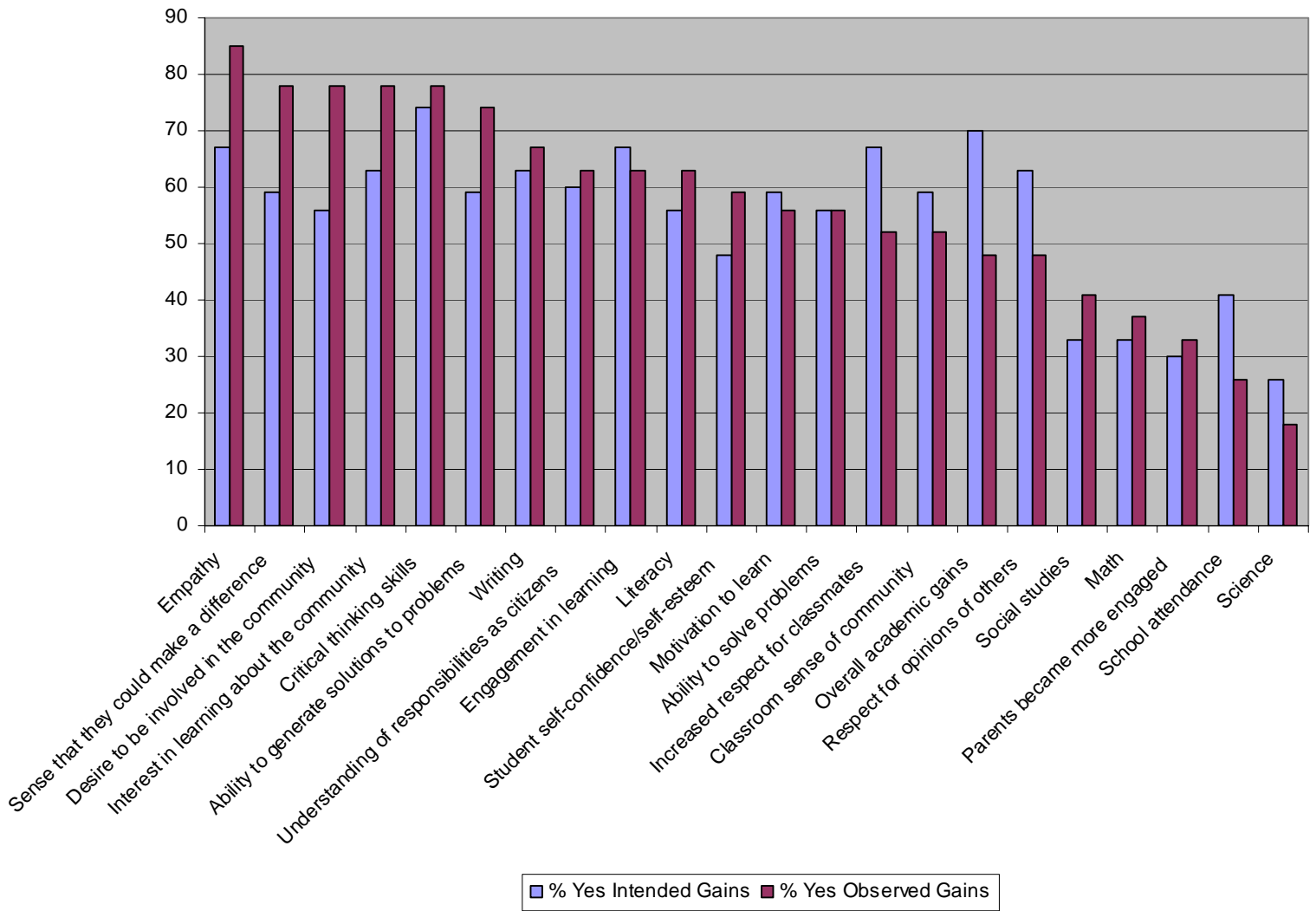
I just think we’re doing a great job—we’re young and we’re teaching young kids. If anyone wants to be a teacher, they’re already on their way. And it’s helping us in our future jobs because we want to work at [a community partner organization] when we get older because we saw how everything is there. I think we made a difference.

Students of all ages described a similar sense of pride and talked about how the increased positive attention they received was important to them. In addition, across focus groups, there was the sense that helping others felt good and they liked being identified by their peers or adults with these positive behaviors. For example, one class wore special T-shirts in school while doing a fundraiser and students described how much they enjoyed being asked about their shirts and given the opportunity to describe to their peers what they were doing. While students of all ages were pleased by the positive attention they received, research suggests that it would have different effects at different ages. Positive attention is particularly important for middle school student’s developing sense of identity while it could reinforce elementary school students’ sense of competence (Muuss, 1996).

Teachers’ Observed Gains for Students

The teacher survey asked teachers to identify, from a list of potential benefits, the ways in which students benefited from the service learning project (based on NID’s goals and the attitudes and perceptions of previous evaluations). Teachers’ reports of benefits to their students from the survey are listed in Table 2. Empathy was the most frequently observed benefit by teachers. Eighty-five percent of teachers observed student gains in empathy over the course of the project. Teachers also reported that they observed students

Teachers' Intentions and Perceptions of Student Benefits



developing their sense of civic responsibility; specifically, 79% saw an increase in student interest in their community and desire to be involved while 78% reported an increased sense among students that they could make a difference. A high percentage of teachers also reported gains in critical thinking skills, greater ability to generate solutions to problems, and gains in writing skills and literacy skills.

In focus groups, many teachers described students developing greater levels of awareness and knowledge of the particular issue students worked on. One teacher described, “They make such great connections and they really notice things now, and they have such concern.” And some teachers perceived this learning to be more relevant to students and

therefore, more motivating for students. As a middle school teacher noted, “Some of my kids don’t write so easily, it gave them a real purpose for learning.” An elementary school teacher stated that her students had an increased sense of purpose for reading since starting service learning with NID. “You know it’s not just like researching where a hurricane comes from, it is something in their daily lives that has made a difference to them and they care about.” These teacher-identified benefits add to the potential set of benefits that future research could test.

This report now turns to the analysis of student and teacher survey data; highlighting areas where significant relationships emerged between teacher data and student data.

Teacher Behaviors Linked to Student Attitudes and Behaviors

Teachers’ overall levels of participation in NID were not related to any of the student attitudes and perceptions. Neither was teachers’ attendance at just in-services. However, correlations existed between teachers’ involvement in Peer Sharing and student attitudes and perceptions. Teachers’ attendance at Peer Sharing sessions was related to students’ perceptions of teachers and student self-efficacy. In addition, in surveys students reported more of the essential elements of service learning present in the projects of teachers who attended more Peer Sharings. Attendance at Peer Sharings demonstrates a deeper level of involvement in the NID network and this may be contributing to teachers’ ability to develop stronger service learning projects, better relationships with their students and student self-efficacy. At the same time, certain qualities of teachers, such as an openness to collaboration, may lead them to attend Peer Sharings. These same qualities of teachers may be responsible for the relationship with student attitudes and perceptions. Table 3 displays the correlations between teachers’ attendance at Peer Sharing sessions and the student outcomes described above.

Table 3: Teachers' Attendance at Peer Sharings and Student Outcomes

	Teachers attended more Peer Sharings
Students' positive perceptions of teachers	$r = .67$ $p < .00$
Student self-efficacy	$r = .67$ $p < .00$
Students reporting the essential elements of service learning	$r = .51$ $p < .05$

Note: r refers to the strength of the correlation. Correlations range from 0 to 1. The higher the correlation, the stronger the relationship between the two variables. The p values refers to the probability that this correlation could have occurred by chance. P values of .05 mean there was only a 5% chance that it could have occurred by chance. P values of .00 mean there was less than 1% probability that the correlation could have occurred by chance.

Teachers' involvement in the Network is related to positive student attitudes and perceptions.

NID staff also rated teachers' involvement in the network. In addition to attendance at meetings, NID staff looked at whether the teacher implemented a high quality service learning project, stayed in regular communication with staff, supported other teachers in the network, and demonstrated a spirit of collegiality and professionalism. Several important correlations were identified between NID staff's ratings of teacher involvement and student attitudes and perceptions; the higher the NID's rating of the teachers' involvement, the more positive students' perceptions of the teacher. In addition, the higher NID's ratings of the teacher, the greater the sense of belonging students felt in their classrooms and the greater students' sense of self-efficacy. These correlations are displayed in Table 4 below. Again, teacher characteristics likely also influenced both involvement in the network and student attitudes.

Table 4: Highly-rated Teachers correlate with Positive Student Outcomes

	NID staff's ratings of teacher involvement
Students' positive perceptions of the teacher	$r = .62$ $p < .00$
Students felt greater sense of belonging in their classrooms	$r = .51$ $p < .02$
Students' greater sense of self-efficacy	$r = .47$ $p < .04$

Teachers' Reported Learning and Student Attitudes and Perceptions

We also looked at how the teachers' self-reported gains from their involvement in NID were related to student attitudes and perceptions. Teacher gains were broken down into four categories—gains in learning about service learning, gains in learning about how to connect service learning to academic content, gains in learning how to incorporate student voice in the classroom, and gains in learning the value of connecting to the community. We looked at gains in each of these areas and we also looked at a composite score of these four categories—overall teacher gains from involvement in NID.

Teachers who reported the greatest benefits from NID had students who reported higher self-efficacy (“I can make a difference in my community”) and civic responsibility on one item (“I am interested in current events”). The only teacher “gains” sub-scale that was correlated with student attitudes and perceptions were teacher gains in connecting with student’s community (“I’m more likely to have contact with the community as a result of NID,” and “I learned additional strategies for bringing the community and neighborhood into the classroom”). Teacher gains in connecting to the community were associated with more positive student perceptions of teachers, greater sense of student belonging in the classroom, student emotional engagement in school, one self-efficacy item (“I can make a difference in my community”) and one civic responsibility item (“I am interested in current events”). Thus teachers who reported learning more about how to increase the connection between their classroom and the community were viewed more

positively by their students. Their students felt a greater sense of belonging in their classroom, greater engagement in school and a strong sense of civic responsibility.¹⁷

Table 5: Teacher Gains and Student Perceptions

	Overall teacher gains from involvement with NID
Students' interest in current events	r = .56 p < .02
Students' sense that they could make a difference	r = .56 p < .02

	Teacher gains in connecting to community
Students' positive perceptions of teacher	r = .49 p < .04
Students' greater sense of belonging in the classroom	r = .70 p < .00
Students' emotional engagement in school	r = .56 p < .02
Students' interest in current events	r = .70 p < .00
Students' sense that they could make a difference	r = .67 p < .00

Quality of Service Learning Project and Student Attitudes and Perceptions

We also looked at how students rated the quality of their service learning project and whether the quality of the project may be related to student outcomes. Quality was defined by the essential elements of service learning (National Service Learning Clearinghouse, 1998) and students were asked whether they experienced these elements in their service learning projects.¹⁸ Table 6 summarizes students' average responses to

¹⁷ This finding should also be qualified by noting that it was teachers' self-reports of the gains in these areas. Teachers reporting gains in this area may have particular personality characteristics that make them more open to such learning.

¹⁸ The survey assessed the following essential elements: clear educational goals, involving students in cognitively challenging tasks, meeting a genuine community need (and having significant consequences to the community), youth voice, valuing diversity, communication and interaction with the community, preparation, and use of reflection. We did not assess celebration because students took the survey before the culmination of most of the projects was scheduled to take place.

each of the survey items. Most students reported experiencing many of the elements (the average response for most items was 3 or above on a 4 point scale). The elements which were most frequently incorporated across all projects were 1) having clear goals, 2) student voice, and 3) educational goals in reading and writing. Community connections, an item important to NID, was not rated as highly. This item had a lower overall average and the greatest range across classrooms.

Table 6: Students’ Averaged Responses to Survey Items

	% Very True	% Sort of True	% Not Very True	% Not at All True
We used math to complete our Need in Deed service learning project.	23.3	33.6	14.7	28.4
We used reading to complete our Need in Deed service learning project.	66.5	21.9	5.3	6.3
We used science to complete our Need in Deed service learning project.	11.5	14.6	22.5	51.4
We used social studies to complete our Need in Deed service learning project.	23.0	22.1	19.5	35.4
We used writing to complete our Need in Deed service learning project.	71.4	22.5	2.8	3.3
I learned a lot about at least one school subject doing the Need in Deed service learning project.	47.9	31.6	11.8	8.7
We met people in my community through doing the Need in Deed service learning project.	41.8	28.4	14.3	15.5
I learned a lot about people who are different than me through doing the Need in Deed service learning project.	51.1	29.7	13.1	6.1
Our class had to really think to do our Need in Deed service learning project.	62.4	26.6	7.2	3.7
By the end of our service learning project, I understood what we were trying to accomplish.	73.6	19.6	3.0	3.7
I felt prepared to do our service learning project.	45.7	39.6	10.7	4.0
My class got to choose the issue we worked on.	74.5	15.0	6.3	4.2
My class got to make a lot of the decisions about the service learning project that we did.	62.0	27.0	8.2	2.8
I feel like our service learning project made a difference.	44.2	40.7	9.6	5.6
My class spent time discussing or writing about how our service learning project was going.	56.7	30.9	9.6	2.8
Our service learning project was harder than regular school work.	18.5	26.2	32.0	23.4

We summed these items to create a scale of the quality of the project from students' perspectives (see methods of scale reliability). NID staff's ratings of project quality were significantly correlated with student ratings of the essentials of service learning.

Both quality of the project (as assessed by students) and overall engagement in the project were related to student attitudes and perceptions. The more essentials of service learning reflected in the project the more positive were students' perceptions of their teachers, their sense of belonging in the classroom, their emotional engagement in school, cognitive engagement in school, sense of efficacy, empathy, and all the civic responsibility items in the survey (correlations range from $r = .41$ to $r = .15$ $p < .00$). Even stronger correlations existed between student engagement in the project and these attitudes and perceptions. The more engaged students were in the project, the more positive all of the attitudes noted above. Again, this finding could reflect one of two dynamics. It could reflect, as other service learning research has shown, that the higher the quality of service learning and the more engaged students are in the project, the more it will influence student attitudes and perceptions (Billig, 2005; RMC, 2007). On the other hand, students who feel positively about their classrooms may rate their service learning projects higher quality and feel more engaged in them.

Table 7: More Essentials of Service Learning Reflected in the Project

Students' perception of teacher	$r = .49$ $p < .00$
Students' sense of belonging in the classroom	$r = .45$ $p < .00$
Students' emotional engagement in school	$r = .46$ $p < .00$
Students' cognitive engagement in school	$r = .39$ $p < .00$
Students' sense of efficacy	$r = .41$ $p < .00$
Students' empathy	$r = .17$ $p < .00$
Students' civic responsibility	$r = .15$ to $r = .41$ $p < .00$

NID's ratings of the quality of the project, however, did not show the same pattern of correlations with student attitudes. NID ratings of quality were correlated only with student's sense of belonging in the classroom ($r = .58$ $p < .01$).

In summary, teachers' experience in the network, the quality of the service learning project, and engagement in the project appear to be related to student attitudes and perceptions. Teachers' attendance at Peer Sharings, the overall gains they reported from NID (particularly the learning related to connecting to the community), and their ability to implement a high quality service learning project were related to student attitudes and perceptions. Also, personal characteristics of teachers—their knowledge about service learning as reported prior to entering the network, as well as their sense of responsibility for student learning, were related to student attitudes and perceptions.

Teacher Characteristics Linked to Student Attitudes and Behaviors

As has been noted throughout this section, characteristics of individual teachers may contribute to student outcomes. The survey assessed some characteristics of individual teachers including years teaching, years of involvement in NID, previous knowledge about service learning and related topics, motivation for professional development, and sense of professional responsibility for student learning. We tested whether all of these characteristics related to any of the student attitudes and perceptions and did not find relationships with most of these characteristics. However, a few significant correlations related to teachers pre-existing knowledge and skills as well as their sense of “responsibility for student learning” (Lee & Smith, 2001) were found. Counter intuitively, the greater the amount of pre-existing knowledge and skills teachers reported when they entered NID, the more negative student perceptions were of their teachers, less sense of belonging they felt in their classroom, and the less students' emotional engagement overall and in the service learning project classroom. This negative correlation warrants further research.

Table 8: Greater Pre-Existing Teacher Knowledge and Skills

Students' perceptions of teacher	$r = -.57$ $p < .02$
Students' sense of belonging in the classroom	$r = -.49$ $p < .04$
Students' emotional engagement in school	$r = -.53$ $p < .02$
Students' engagement in service learning project	$r = -.49$ $p < .04$

Teachers' responsibility for student learning was positively related to students' sense of "civic responsibility." The greater teachers' sense of responsibility for student learning, the more likely students were to endorse the following civic responsibility item, "It is important to try to do something about problems in my neighborhood," and the more unlikely it was for students to endorse a related civic responsibility item "I'm NOT interested in doing something about community problems." It is possible the teachers' positive perceptions and expectations of students lead students to develop a sense of civic responsibility. On the other hand, students' positive attitudes about helping their neighborhood and community may have contributed to teachers' expectations of their students.

Table 9: Teachers' Sense of Responsibility for Student Learning

It is important to try to do something about problems in my neighborhood	$r = .55$ $p < .03$
I'm NOT interested in doing something about community problems	$r = -.56$ $p < .02$

It is not surprising that characteristics of teachers were related to student outcomes. Other characteristics besides those assessed in this survey could also play a role and should be assessed in future research. Given the selectivity of the network, a major question for

future research is what portion of student gains are related to characteristics of teachers prior to entering the program and what aspects are related to gains since entering the program?

Students' sense of belonging, positive perceptions of teachers, and sense of efficacy were related to aspects of NID's work. In the correlations reported above, three student attitudes were consistently and significantly related to teachers' experience of NID. These three areas were students' sense of belonging in their classroom, students' positive perceptions of their teachers and a sense of efficacy—or sense that they could make a difference. Emotional engagement and some civic responsibility items were also related to aspects of NID's work but not as consistently or strongly.

Students' sense of belonging, positive perceptions of teachers, and emotional engagement are descriptive of experiencing a supportive classroom environment, one of NID staff's clearest goals for teachers' work with students. This finding suggests that NID's work with teachers may have the strongest effect on the teachers' relationships with their students and sense of support in the classroom.

The qualitative data also provides support for the idea that NID's work helps students to experience a supportive classroom environment, including improvements in the class's ability to work together and an improved mood in the classroom. One middle school student stated:

The whole mood of the class is different. The feel of it. Because in regular classes, we would just do math or reading and take a test and have homework, but here we are doing something to help other people.

A student from another classroom stated: “It teaches people how to participate and be together.”

Teachers similarly commented on students' improved relationships with each other including improved discussion skills, improved behavior, and greater acceptance of each

other. Which aspects of NID’s work contribute to these outcomes? The next sections of the report will describe survey analysis addressing this question.

Service Learning and the Curriculum

While 70% of teachers expected to see overall academic gains for students as a result of service learning, only 48% reported seeing those overall gains. Nonetheless, teachers did see gains in two specific areas—writing and literacy, with 68% of teachers observing gains in writing and 63% of teachers observing gains in literacy. These two areas were also among the top three academic areas teachers were intending to impact. The third area was math with 33% of teachers indicating they hoped to have an impact on math and 37% of teachers observing gains in these areas.

Writing and literacy were the two curricular areas which seem to be most frequently tied to the service learning project. All teachers responding to the survey indicated that they were able to teach “writing skills” through service learning. Student responses mirrored this with 93% indicating it was *Very True* or *Sort of True* that they used writing to complete their service learning project. Teachers indicated literacy was the next most common subject they were able to teach through service learning at 86%. Of students, 88% indicated they used literacy. The next most common subject area was “Math” with 80% of teachers indicating they were able to teach it using service learning; students also cited this as the next most common subject area, but cited it at 57%. This may be because students used skills they did not identify as “mathematics” or it may be that teachers attempted to teach skills that students did not retain.¹⁹

Overall it is helpful that students’ perceptions of subjects they used to complete their service learning project mirror the subjects’ teachers indicated teaching through the service learning project and the academic areas in which teachers reported gains. It provides a clear picture of the types of academic outcomes teachers are intending to address and which have the potential to be impacted. Interestingly, these subject areas are

¹⁹Teachers reported Social Studies was 67% while Science was the subject area teachers found most difficult to teach through service learning with only 37% reporting incorporating science successfully. Students reported Social Studies at 45% and Science was cited the least often at 26%.

the same areas other research on service learning has found most frequently tied to service learning projects (Billig, 2005; RMC, 2007). It also raises questions for NID about recruiting teachers of disciplines that have been difficult to connect to service learning such as science. NID may want to explore the ways in which the teacher sees connections to their content area before involving them in the network. In addition, the following list of skills taught may help NID network members think about how they may connect service learning to their area.

Below is a table listing the responses to the question, “Which skills were you able to teach in that subject area?” The number of respondents indicating the particular skill is given in parenthesis.

Table 10: Academic Skills Covered by Teachers in NID Service Learning Projects

Writing skills	Persuasive writing (9) Creative writing (skits, poetry) (9) Letters (style/purpose not indicated) (9) Reflective writing (reflection, journal) (8) Informative writing (pamphlets, posters, PowerPoints) (6) Narrative writing (3) Thank you notes (3) Design Survey (2) Vocabulary/Grammar (2) Essays (2) Other (2)
Literacy	Reading for information (10) Research skills/Research with technology (8) Analysis/critical thinking/problem solving (8) Summarizing (5) Writing (letters, emails, pamphlets)/Grammar (5) Comprehension (4) Main idea (2) Speaking (2)
Math	Data collection, graphs, charts, analyzing graphs/data, statistics, percents (16) Working with money (4) Estimation (2) Other (2)
Social studies content and/or skills	History (Philadelphia, Civil Rights, Current Events) (6) Social Sciences (examine societal problems/social change,

	awareness of social issues) (6) Civics (legal system, government structures, community building) (3) Geography (reading maps) (1) Other (2)
Science content and/or skills	Health topics (6) Research/problem solving/collecting data (3) Environment (2)

The complete list provides ideas of how teachers could potentially integrate subjects into their service learning project; the most common responses can provide focus for looking for academic impacts on students.

Summary

In summary, students, particularly younger students, are engaged in service learning both emotionally and cognitively. They learn about their topic and according to teachers, seem to develop reading and writing skills as well as problem-solving and critical thinking skills as a result. The experience brings out strong emotions in the students as they learn more about their chosen issues. Teachers also notice that students develop empathy and a greater desire to be involved in their communities. We noted several connections between NID’s work and student attitudes. When students participated in high quality service learning projects as defined by students and NID, or teachers attended Peer Sharings or learned how to make connections to student’s communities, students reported more positive attitudes in a number of areas. In particular, students expressed more positive perceptions of teachers, greater sense of belonging in the classroom, greater sense of efficacy, and greater sense of civic responsibility on several items. The first two attitudes and perceptions—student perceptions of teachers and sense of belonging—are related to the creation of a supportive classroom environment. These findings suggest that NID’s work with teachers may help to create a supportive environment for students.

Some student attitudes and perceptions were also related to characteristics of teachers. Since NID is selective about network members, separating out NID’s contribution to student attitudes and perceptions versus what teachers bring to the classroom on their own will be important in future research.

Conclusions

In conclusion, teachers and students appear to appreciate and benefit from their involvement with NID. Teachers are positive about NID and report learning how to develop high quality service learning projects which incorporate student voice. While variation is observed in how teachers implement projects, students are engaged in service learning across projects when teachers are facilitating.

What outcomes emerge for teachers and students as a result of their positive experiences and engagement in NID? In addition to learning about student voice and service learning, some teachers are learning more about how to make authentic connections with students' communities. When teachers reported learnings in this area, students reported more positive perceptions of their teachers, a greater sense of belonging, greater emotional engagement in school and a sense of being able to make a difference. A core group of teachers has also emerged as potential leaders within this network. Members of this group have been able to implement model service learning projects, present at conferences and at their schools, and have shown greater interest in the concept of a teacher network. Teachers with more investment in the network had students who viewed them more positively, had a stronger sense of self-efficacy, and higher quality service learning projects. At the same time, many teachers did not appear as engaged in the teacher network and some acknowledged it was an area for growth for NID.

This research suggests that NID's greatest impact on students may be through the development of a supportive classroom environment. The student attitudinal areas most frequently related to NID's work were positive perceptions of teachers, sense of belonging in the classroom, and emotional engagement—all of which related to experiencing a supportive classroom environment. This finding makes intuitive sense; it aligns with NID's theory of action and is a reasonable way in which work with teachers could translate into outcomes for students. Future research could explore more developed measures of classroom climate to test this hypothesis.

NID has attracted an experienced and committed cadre of teachers and seems to be providing them a new opportunity for professional growth. Capturing the growth of these teachers is important. Future research could interview teachers in greater depth about the gains reported in this research—gains in connecting to communities, gains in fostering student voice and gains in embedding academic learning in service projects--to understand the meaning of these gains and the tangible ways in which this learning is becoming a part of teachers' practice. Such research would also strengthen the measurement tools for assessing teacher learning in future research. Future research should also use pre-post testing with teachers and a comparison group of teachers to document change. This evaluation asked for teachers' self-reports, but having baseline assessments, more refined surveys and a comparison group would provide even stronger evidence that NID's work is having an impact on teacher practice.

Upcoming evaluations should study gains for students using pre-post testing and a comparison to a similar group of students. Ideally, such research could incorporate measures of teachers' gains and factor out teacher characteristics such as attitudes toward students, teaching style and classroom management. Future research should also explore students' sense of community attachment, an attitude some staff hoped to develop and would naturally seem to emerge from teachers developing strategies for connecting to communities but was not assessed in this research.

Writing and literacy appear to be areas in which NID might be influencing academic achievement. Both students and teachers at all grade levels indicated they taught writing skills through the service learning project. We recommend further research that would look at these academic outcomes with a matched comparison group. Measuring student gains in persuasive writing, critical thinking, and problem-solving skills may be particularly promising areas to evaluate.

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