



Service-learning Annual Report 2017 - 2018

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Summary

Prior to the start of the academic year, a plan was developed to better train participating faculty and students. A formal training day was offered to faculty teaching service-learning courses in July and was led by Amy Bravo and Jim Martinez; twelve faculty members participated. A Google Team drive was created for faculty to share service-learning best practices on pedagogical approaches, reflection, assessment and orientation, and to store samples of student work. Fourteen faculty members received one-on-one training, bringing faculty training to 26 individuals in total. 81 students attended a two-hour training session outside of class time. Led by Jim Martinez and Marian Rich, students learned how to build community, navigate ambiguous real-world situations and problem solving skills. Service-learning courses were identified as such through the Registrar's office, allowing students to select service-learning courses at the time of registration. A showcase of student work was held in the Library in December with 181 attendees. Pre and post assessments were completed by 194 students and 12 participating faculty evaluated their experience. **1,058 students, in 47 courses taught by 29 instructors, partnered with 28 distinct organizations this academic year.**

Over 400 students (38% of all service-learning students) participated in service to NYIT's Building Resilient Communities (BRC) initiative in Harlem. Students from first year core, architecture, engineering, and global health courses worked with Harlem community members on issues of health and wellness, STEM education, employment, college preparedness, housing and design, sustainability, public problem solving, technology accessibility and veteran support. They addressed these concerns through direct service to community members, indirect service, research and advocacy. Students not affiliated with BRC directed their service on similar topics, with a heavy emphasis on food insecurity, sustainability and education issues in Manhattan and Long Island. Students documented their service through reports, presentations, workshops and videos. An extensive collection of this work is available in the Service-Learning Team Drive and access can be provided upon request.

Students benefited most from service-learning in four ways: self-development; civic awareness; career development and faculty relationships. The top skills students developed in service-learning are: organization/planning; verbal communication; critical thinking/problem solving, and time management. [National Association of Colleges and Employers \(NACE\)](#) has identified career readiness as the attainment and demonstration of requisite competencies that broadly prepare college graduates for a successful transition into the workplace. The skills our students developed most are among the required competencies that make college grads career ready. Students acknowledged having a greater understanding of needs and problems in society and the factors that create them. This understanding aligns with core course and institutional learning objectives. Participating students also built resume worthy experience and were advised to visit Career Services for resume reviews at the end of the term. Additionally, students eligible for Federal Work Study were advised that they could earn their financial aid dollars for their service aligned with the courses. Students acknowledged that the service-learning component in their classes encouraged them to interact with their professors more. The associated student-led fall showcase of student learning enhanced this faculty engagement by seeking their advisement when planning the event, and inviting them to attend.

Participating faculty also reported that service-learning helped them build relationships with their students. They also noted that the service component added to their students' social and emotional growth. While using service-learning as a high impact practice in their courses required more of their time, 92% reported that it was worth the effort.

Retaining students is one of our chief objectives in higher education, particularly from the first and second year. Service-learning has helped our students: integrate more meaningfully into NYIT and its surroundings communities (increased sense of belonging); enhance academic and career skill sets necessary for success; produce rather than receive learning; develop civic skills; and in some cases earn money through their service. Service-learning can also retain faculty. Of the 29 service-learning faculty this year, 10 have taught service-learning courses before, and more than half of those surveyed said they would do it again. It connects them more with their students, enhances their ability to communicate the core competencies of their courses, and personally fulfills them .

Measuring Community impact was extremely difficult this year. Despite our best efforts to prepare and organize all participants, we were challenged in providing the support they required. Service-learning is never predictable or easy. Each participant has different capacities for engagement. Upon reflection of the overall program we learned that because of our partnerships through service: more youth have been exposed to college students; community members are aware of NYIT and what we do; more youth have been exposed to STEM fields; seniors have been trained to use technology and to use design thinking; hundreds of people received healthy meals; preventative health information was disseminated to over a thousand community members; and exposure to numerous community-based resources were shared with external community members.

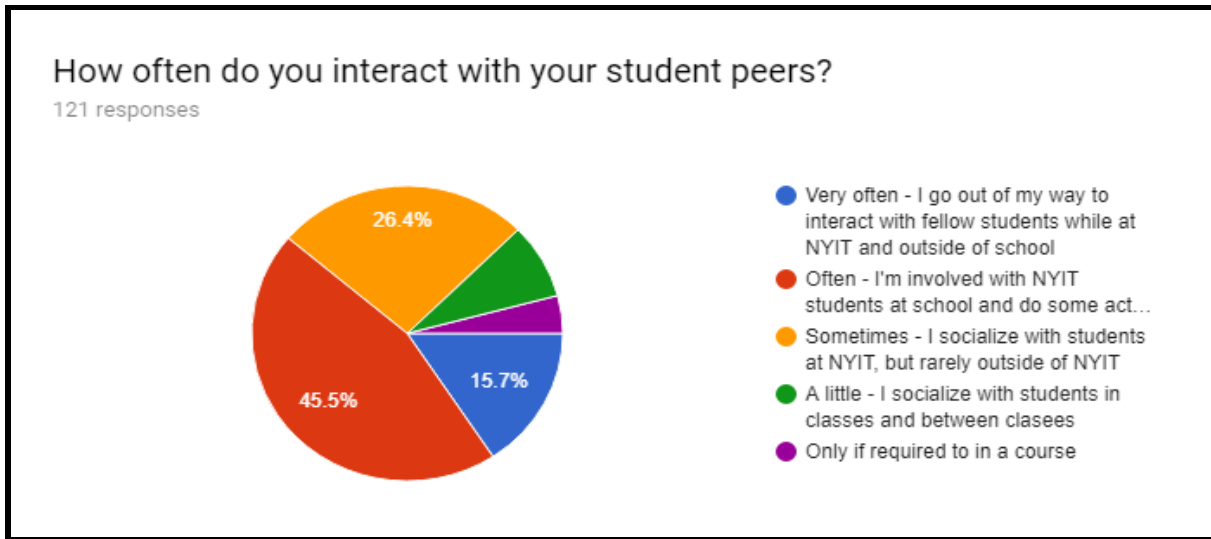
Service-learning is a worthwhile high impact educational practice. It must, however, have adequate institutional and departmental support to yield the best possible results. While we had struggles last year, students, faculty and community partners felt that service-learning added value to the course, to their personal, professional and civic development, and to the existing community efforts designed to address pressing social issues. To maximize success, we will limit the number of courses that offer service-learning until adequate resources are available.

Amy Bravo
Senior Director
International and Experiential Education

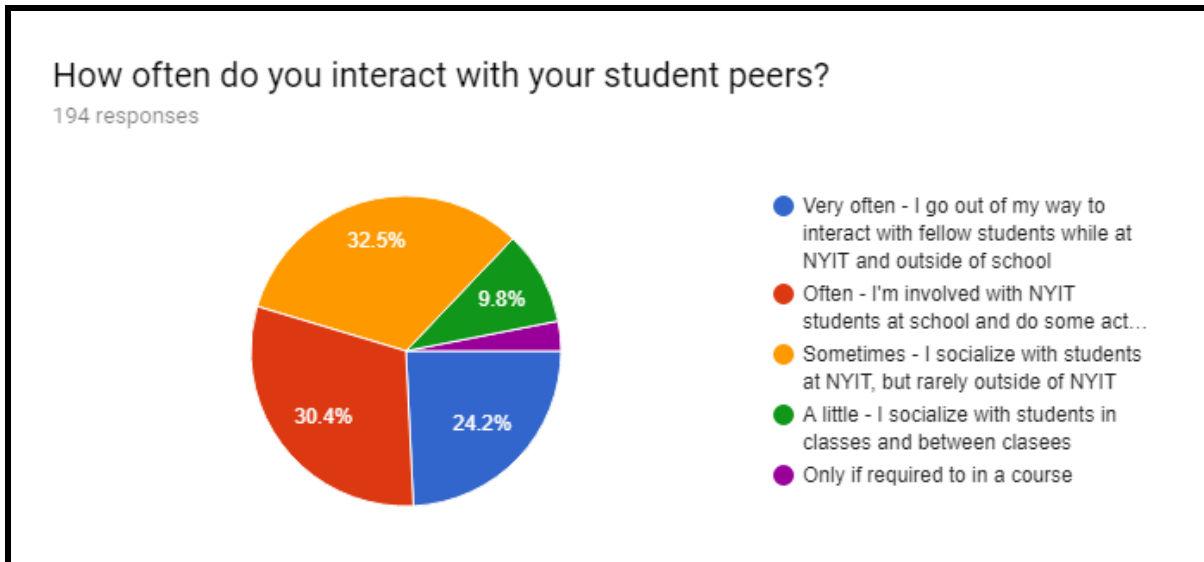
Student Learning

Service-learning activities generally require students to work in teams on community based projects. These charts demonstrate the increase in peer-to-peer involvement for the duration of an academic semester. Project work encourages students to step out of their comfort zones to engage with peers with whom they may not engaged otherwise.

Pre- Service Academic Learning

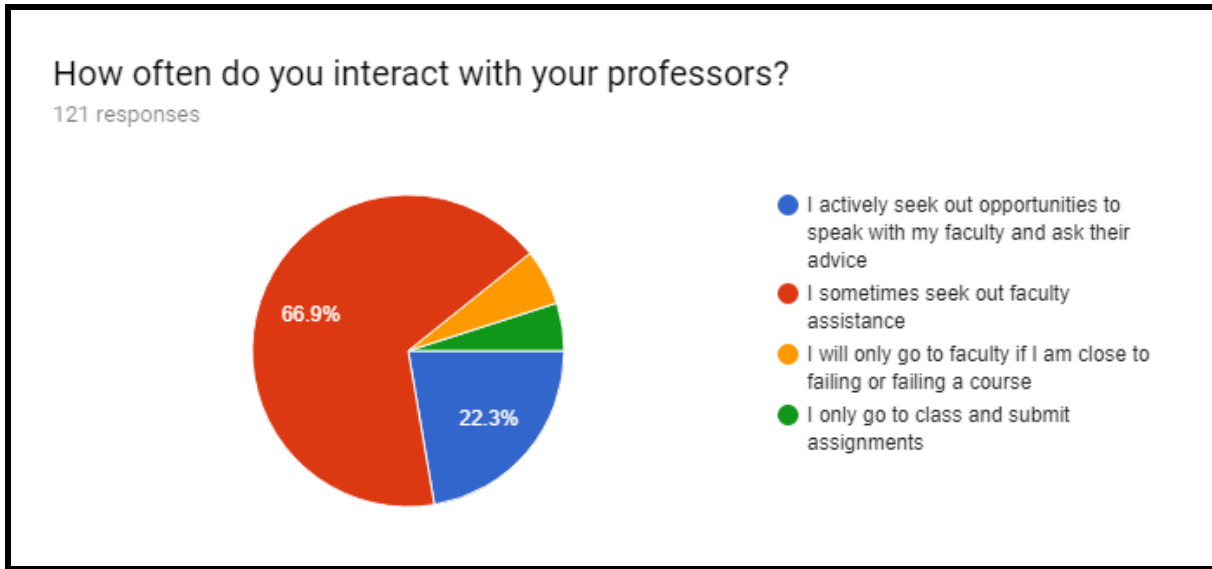


Post Service Academic Learning

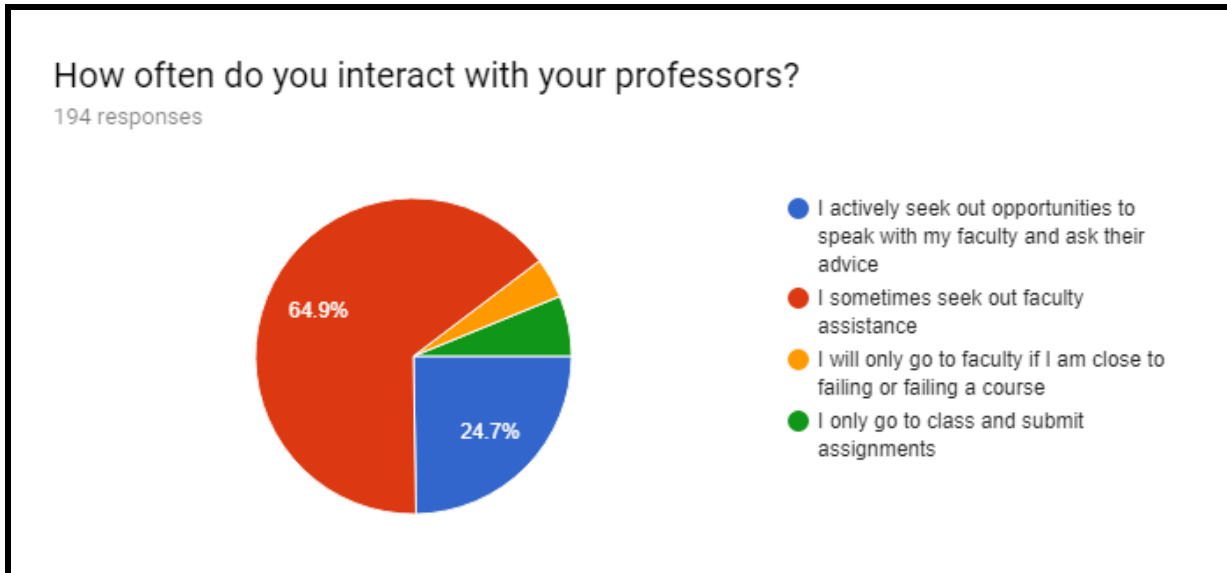


Pre-Service Student-Faculty Engagement

Service-learning courses require more student/faculty engagement because real world experience is less structured and predictable than traditional lecture-style courses. These charts show a slight increase in students actively seeking faculty support, and a decrease in students who choose to communicate with faculty only when they fear failing the course. In this case, service-learning serves as an intervention of sorts, potentially aiding in retention.

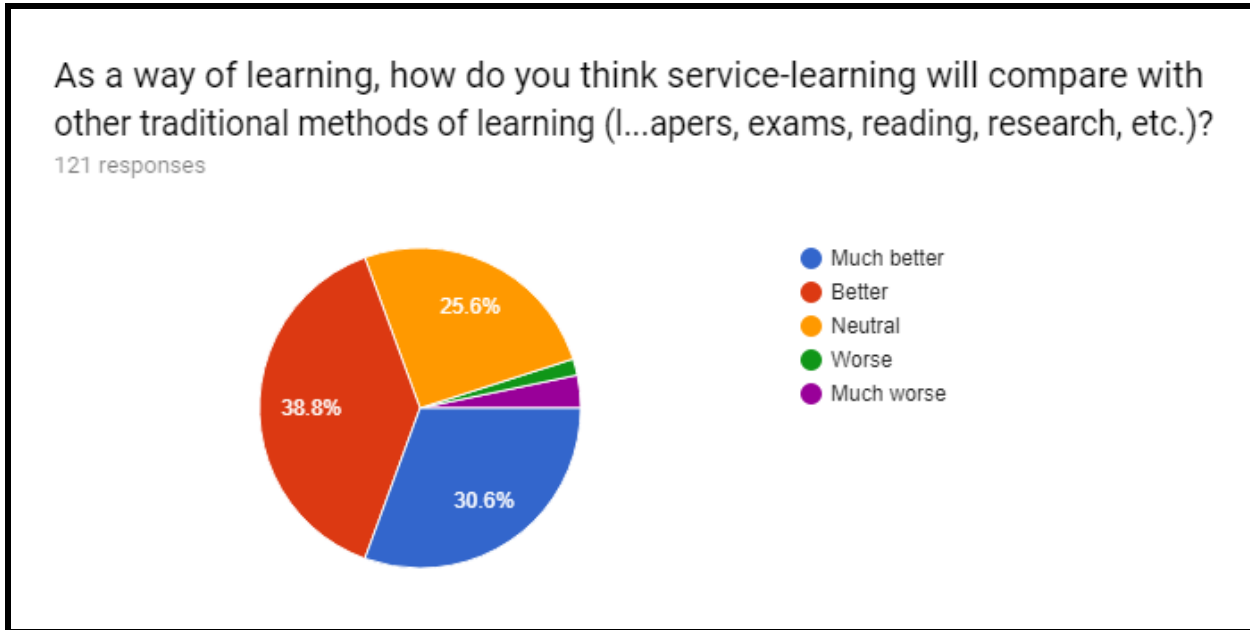


Post Service Student-Faculty Engagement

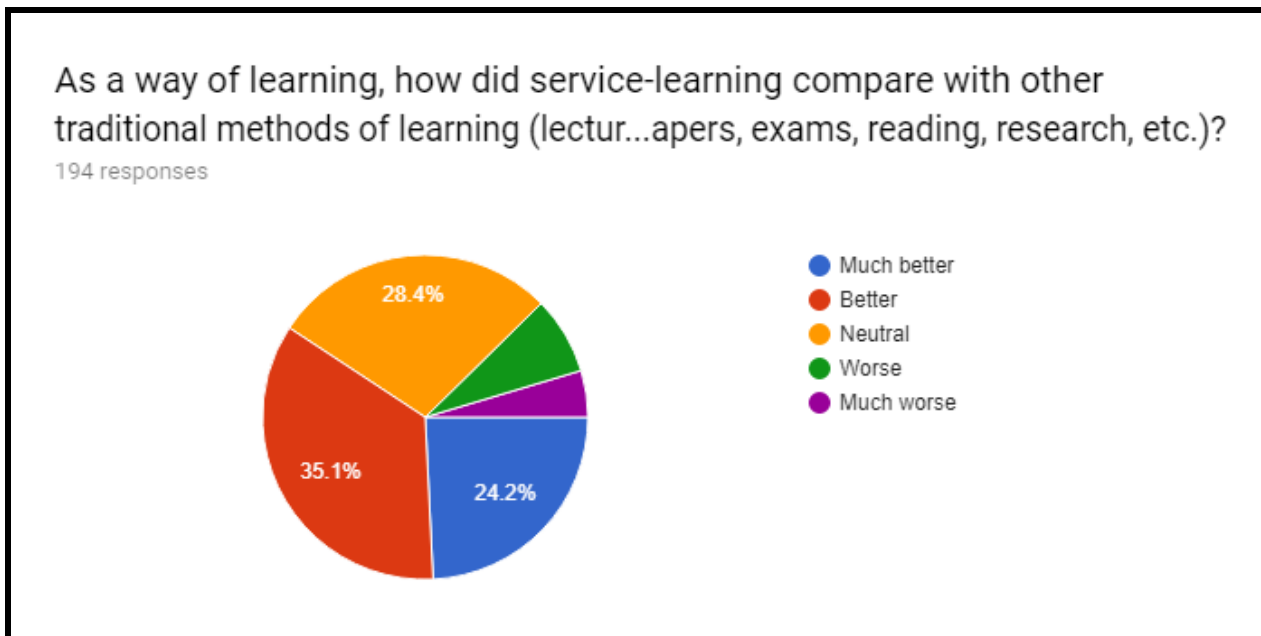


Pre-Service Ideas of Effective Learning

The graphs on pages 4 and 5 demonstrate student expectations of service-learning as a pedagogical approach, prior to project work and their reactions to it thereafter. The allure of service-learning for students at the onset of the course is that it is unconventional and fun. Upon completion of the service project, students recognize that learning in the field can be unpredictable and uncomfortable at times. High impact practices are designed to help students navigate ambiguity and to grow in unexpected ways. Students were able to develop soft skills that will be beneficial to their future academic and career success. Additionally, service-learning enabled them to increase their awareness of the needs and problems in society and the factors that create them. This learning better prepares them as engaged citizens.



Post Service Ideas of Effective Learning



Effective learning continued...

| | Pre | Post | Diff |
|---|--------------|--------------|-------------|
| I think that this project will allow me to apply course content / theory to an experience outside of the classroom. | 80% agree | 72% agree | -10% |
| I think that I will be able to apply experiences from the project site to the course content and class discussions. | 80% agree | 68% agree | -15% |
| Due to this project, I think I will better understand the material presented in this course. | 73% agree | 59% agree | -19% |
| I expect that this service-learning will challenge me to think about things in new ways. | 80% agree | 73% agree | -9% |

Civic Learning

| | Pre | Post | Diff |
|--|------------------|-------------|-------------|
| Rate the sense of responsibility you feel towards your community. | 64% signif | 62% | -3% |
| Rate your level of awareness of the needs and the problems in society and the factors that create them | 68% Very good | 70% | +3% |
| I think that service-learning will be a positive contribution to my NYIT experience. | 94% agree | 68 | -28% |

Skill Development - Top Skills Developed

| # Respondents | Skill |
|----------------------|-------------------------------------|
| 118 | Organization/Planning |
| 100 | Verbal Communication |
| 94 | Critical Thinking / Problem Solving |
| 92 | Time Management |
| 79 | Technology |
| 75 | Leadership |
| 72 | Flexibility |
| 65 | Adaptability |
| 63 | Research |

| | |
|----|---------------------------------|
| 46 | Intergenerational Communication |
| 42 | Written Communication |
| 39 | Civic |
| 23 | Intercultural Communication |

Students describe how they demonstrated a self-identified skill developed during the service-learning project.

Examples:

- Technology- We made coordinating posters digitally which was only possible by sharing and working on various types of files such as AutoCad, Adobe Photoshop, Adobe InDesign, PowerPoint and what was interesting and new for me was sharing the files between different members of the group.
- Whenever something did not go as planned my group and I were forced to adapt and go with what was happening versus what was not.
- Communication was really important throughout the journey of service-learning because talking to one another was what brought everyone together to form ideas.
- Organization/Planning - I was assigned service-learning at the Computer Clubhouse where I didn't get the opportunity to interact with students. Therefore, I went out of my way to plan activities for the students who will attend the Clubhouse in the future. I deeply thought about the age group, likes/dislikes and how to make the activities interesting while I was planning it for them. The results were great because when I presented the book at the Showcase, a teacher from a magnet school really liked my ideas and took pictures of my book so she can do them with her students.
- Intergenerational Communication - I taught senior citizens basic computer skills and it made me realize just how little some senior citizens still don't know about their technology. It was interesting finding ways to make the things that I thought were simple even simpler so the senior citizens could understand.
- Thinking together we were able to solve basic problems of teaching children of STEM related topics. Thinking of an active form of learning and sharing ideas between kids.

Please share any comments, questions, or concerns about your service-learning experience.

- Overall, service-learning was a great experience. I think it has changed my way of looking at things and has brought out the best in me. I am really glad that I got the opportunity to participate in this program.
- My service-learning experience was great. It helped me to improve my self esteem and through service-learning I developed valuable teaching skills.
- Overall a great experience. Connected real life with school in a positive way. Brought people together and gave real life experiences.
- It was best experience of my college life
- One concern I had with the experience is how unorganized it was. When my team and I came to the places, there was nobody there to give us a plan and we were told there would be. It felt like a waste of time and we felt bad for those who commuted for hours and took time out of their free days only to sit at the sites and do almost nothing because there was nothing to be done. Besides that, it was still a good experience because we learned a lot and we were able to work together and see how other teams who were able to work with teams collected data.

- Rethink this program and how it is approached by the school. The experience I had with it was terrible since I have had experience with community service before and this was not remotely close to what could help develop a neighborhood. I don't think this project fits in the current Syllabus for FCIQ, and the school can not send student off to a service-learning site and expect everything to work out. The clubhouse is not close from becoming a viable place for the experience the school expects the students to have. I was very disappointed and frustrated with this experience.

Faculty Evaluations

FACULTY PROGRAM EVALUATION

Participating faculty reported that service-learning helped them build relationships with their students. They also noted that the service component added to their students' social and emotional growth. While using service-learning as a high impact practice in their courses required more of their time, 92% reported that it was worth the effort.

| About Service-Learning | Responses of 12 |
|--|--|
| Service-learning enhanced my ability to communicate the core competencies of the subject matter I teach. | 67% agree |
| The service helped my students see the relevance of the course subject matter | 58% agree |
| The service aspect of this course helped my students see how the subject matter they learned can be applied to everyday life | 50% agree / 50% neutral |
| The service my students completed was beneficial to the college | 67% agree |
| The service my students completed was beneficial to the community | 67% agree |
| The service my students completed added to their social and emotional growth. | 83% |
| The service my students completed interfered with their other academic responsibilities. | 25% agree / 25% neutral / 50% disagree |
| Using service-learning required more of my time as a teacher | 83% |
| Service-learning was worth my effort | 92% |
| I will likely use service-learning as a teaching strategy with future courses | 58% agree |
| Service-learning helps fulfill NYIT's mission to 1.Provide career-oriented professional education, 2.Give all qualified students access to opportunity, 3.Support applications-oriented research benefiting the larger world | 92% agree |
| There should be more courses offering service-learning at NYIT | 67% agree |
| I am satisfied with the assistance I received with the mechanics of service-learning (identifying placement sites, follow-up with students, etc.) | 50% agree /33% neutral /17% disagree |

| What were your reasons for deciding to teach a course using service-learning as a teaching method? | Responses of 12 |
|--|-----------------|
| Enhance student learning | 67% |
| Encouragement from colleagues | 50% |
| Desire to try something new | 42% |

| | |
|--|-----|
| Desire for increased relevance of the course | 42% |
| Encourage Civic Responsibility | 42% |
| Own personal sense of fulfillment | 42% |
| Prior experience serving the community | 17% |

| Teaching a course that incorporates service-learning has affected the following: | Resp. of 12 |
|---|--------------------|
| Relationship with students | 92% |
| Own personal fulfillment | 58% |
| My relationship with community partners | 50% |
| My relationship with administration and other faculty members | 50% |
| My plan for publications / presentations | 17% |
| My research agenda | 17% |
| Other courses I teach | 17% |

General comments, questions, suggestions, ideas, concerns:

- Though it was the first course that I taught at NYIT / in general, I feel like Service-Learning enriched the ways in which I could make critical thinking skills more graspable for my students - in one of our last meetings, we talked about how to truly reflect on their learning in a thorough way, which touched upon so many aspects of critical thinking. As the course progressed, I got the impression that they really developed an understanding of the issues we had discussed in theory in the first half of the semester, and that they integrated this knowledge into their service-learning projects.
- My students were in too many locations for me to optimize their learning experience. If I were to teach again, I would have all my students at one location (maybe two). I like the open-ended nature of service-learning and students creating their own experience with minimal intervening by me. I disliked that I could not keep up with all these experience to personalize my course content like I have in the past due to the multiple locations/projects they were working on.
- My students weren't able to volunteer or walk dogs at Bideawee Animal Shelter because they had too many volunteers, so we did most of the projects on our own. I think we should partner with an animal shelter that would allow our students to interact with the animals more. It might make the experience more meaningful.
- I feel that the students in my class benefited from a variety of sites from which to choose. I purposefully selected sites with availabilities at different times of the day and week so that the project could blend into their schedules differently. I have interacted with students from other sections with less flexibility, and I found them to have greater stress levels towards their service-learning hours. In one case in particular, a student's availability did not

match up with the class' project time, and she felt penalized for being unable to participate. service-learning should not be designed in a way that adds more stress to a student's already busy schedule. Especially in FCIQ, we are dealing mostly with freshmen level students. Overwhelming them with course requirements outside the classroom can just as likely hurt their chances of success as it could help. If the path for FCIQ is to be a service-learning oriented class, then the description of the class itself and the curriculum guidelines should change to reflect the time and effort that project will consume.

- I did not feel that service-learning allows students to apply what we learned in class. This could be because they were not able to go to the school but contributed by finding/creating videos for the high school science class, college prep, and activities club. It cost us time in class to do it this way and I led to a less than usual organization of topics and a substantial loss of curriculum that is normally covered. I would not run this course with service-learning again without a major revision of the course.
- Service-learning in my 2 FCIQ courses was organized as a project whose work took place primarily in the classroom (or in work students did outside the classroom, but not in the community). The goal of the project was to create a product that could be of use to a broad group of citizens in becoming more savvy when encountering a particular kind of political and economic rhetoric: "I am going to bring jobs back to America." We studied the issue, interviewed seniors at HCCI as well as others, and created a website for distribution (for educators and others). I think it was a good experience but I would be very interested to discuss whether it met our service-learning goals. And I'd like to share students' responses to the experience. I think there is something to develop here for FCIQ classes, including the Design Thinking component of the course. So I am looking to review and see what would benefit the school and the students to develop further, and what we would like to change.
- I need need to get information about sites of SL - e.g. tutoring and afterschool programs earlier in the semester. There needs to be a way for groups of students in my classes to sign up for dates to provide their services earlier in the semester. We need a way to schedule dates for after-school enrichment activities or for hydroponics lessons with kids (or anyone) at Dinkins Gardens - or, I have to learn about any scheduling system that existed that maybe I didn't know about! I think I recall Amy saying that students should be prepared to provide services at least once weekly for several weeks, starting in November – however, it was nearly impossible for my students to arrange more than one date to deliver services – and sometimes they got turned away because there were already other groups of students delivering lessons on the same date. In general, getting community members to provide a service to was very difficult! My students didn't manage to sign up anyone at the Nov 11th opening and it was very difficult afterwards to get people – even though some made the effort to post and hand out flyers advertising their services. I found it difficult to coordinate by email communications between student groups, Amy, and HCCI to advertise services and/ or to set dates for services that didn't conflict with SL groups from other classes. This was also a problem for my students who were working with the after-school students at Dinkins Gardens.

Community Impact

Measuring Community impact was extremely difficult this year. Despite our best efforts to prepare and organize all participants, we were challenged in providing the support they required. Service-learning is never predictable or easy. Each participant has different capacities for engagement. Upon reflection of the overall program we learned that because of our partnerships through service: more youth have been exposed to college students; community members are aware of NYIT and what we do; more youth have been exposed to STEM fields; seniors have been trained to use technology and to use design thinking; hundreds of people received health meals; preventative health information was disseminated to over a thousand community members; and exposure to numerous community-based resources were shared with external community members.

Collecting data on our partners in service is a challenging task. Research on long-term impact to the community is strongly desired, but it is as difficult as measuring lifelong learning in college students. Beginning this fall, five faculty members have agreed to commit to offering service every fall and spring with the same community partner, or that addresses the same social issue. This will allow us to conduct longitudinal studies on community impact. This can then be documented on the NYIT Community Impact page we created for this purpose

https://www.nyit.edu/about/community_impact. Below is a sampling of feedback from one spring service-learning initiative called the Maker Craft Series, which was a series of 9 workshops that took place mainly in Harlem from March - May. Close to 120 community members came to weekly sessions that taught drawing, painting, decoupage, sculpting, jewelry making and smartphone photography. This series was designed to inspire creative thought as a foundation for future Maker sessions which would introduce them to more advanced technologies. All participants were surveyed at the end of the 7th session. The final two sessions were offered as a result from the evaluations. Participants wanted sessions on how to sell their creations online, and how to find and pursue their passions; both were offered in May. Below is a synopsis of who participated and the impact it had.

15 participants responded to the evaluation; all are women. 47% were between the ages of 46-59 years old and 27% were 60+ years old. 67% were from Harlem and most heard about the workshop series from flyers and posters hung in the community. 73% of participants had heard of NYIT prior to signing on, while 60% heard of HCCI, our partner organization. Participants identified that Fridays and Saturdays are the best days for them to attend workshops, either midday or early evening. They also welcome the opportunity to bring their children/grandchildren with them. Participants noted that they would be most interested in attending the following NYIT-led workshops (in descending order from most desired - these are the top 6 of 12 topics chosen):

| |
|--|
| Art and Craft |
| Starting your own small business |
| Holistic wellbeing |
| Finding my passion - career development |
| Nutrition for folks with diabetes, high blood pressure or high cholesterol |
| Technology - Programming, Computing, Robotics, Mobile Devices, App Dev |

Responses to, “What did you enjoy most about the sessions?”:

- I enjoy anything that teaches me to learn a new craft and allows me to express myself artistically.
- I enjoy the ease of the instructors and volunteers. Their deep understanding of the subject matter made it so easy to complete the projects. I also loved the welcoming atmosphere of the sessions. So much knowledge was shared.
- Learning new things was exciting. I enjoyed created things that I had no idea that I could make. All the sessions I attend was enjoyable. However, the decoupage and jewelry session was most fun for me. I love making things that I use as decor or to wear.
- Everyone was really comfortable working in the space and doing their own things. There was a lot of freedom and liberty to do your own things and interpretations of what you saw. For the drawing II class, when I started drawing the people around me, I wasn't forced to keep working on the still life and was instead encouraged in my artistic pursuits
- It was creative, I could bring my child

Responses to, “What was the most memorable thing you learned?”:

- I learned that I could utilize my crafting skills at a higher level.
- We all have the ability to create.
- I learned that I still got more to learn. I am now willing to do so .People are willing to help you see your greatness.
- The most memorable thing i learned came from the people I was with and not the classes themselves. It was a beautiful conjunction of people from the Harlem community.
- I think the most memorable thing was meeting and talking to the people who attended the classes. Everybody had such interesting stories and life experiences- and some of the things that we talked about will stick with me for the rest of my life! I think the Maker Craft Sessions were so successful because people had the opportunity to express themselves creatively, while also being in an environment where they could unwind and just have fun conversations.
- I have an eye and some talent for making earrings ..who knew

General comments, questions, concerns from participants:

- This was a wonderful experience for me since this is the second phase of my life. Life after retirement! I look forward to having similar secessions offered to our community in the future. Thank you NYIT and HCCI for these awesome sessions of higher learning?
- I am so grateful for the opportunity to be taught by an architecture major and students willing to show up and help me learn what I am capable of achieving in my art. A special thank you to the director of experiential education at nyit.
- Just wanted to say thank you for this program and all instructors. This program was a blessing. It informed and enrich my life.

Reflection of the Service-learning Program 2017-2018

Apropos to the practice of experiential education, I conclude this report with a reflection. Prior to the fall 2017 semester, preparations for training faculty and students and setting up resources online for all participants proved beneficial. More still needs to be done at NYIT to build service-learning into the culture of teaching and learning. Several new external partners required a significant amount of guidance and support for service-learning capacity building on site; several promised more than they could deliver and that was felt by NYIT participants. Student and faculty participants expressed feeling uneasy at times with the ambiguity of partner expectations and participation, however they were able to learn a lot from the experience and found it worthwhile and transformative.

Experiential Education still lacks adequate staffing and financial resources. A majority of service-learning placements were in Manhattan. Experiential Education has a team of three; two people in Manhattan and one in OW. The department unexpectedly started the year without an operating budget and had to pull resources from wherever it could to make service-learning meaningful for all participants, all while the staff of three ran its other major experiential programs. This lack of institutional support impacted the amount of assistance staff could provide to students, faculty and community partners. Ultimately, it is the reason why we cancelled our spring 2018 delivery of STEM after-school programs in the community, and our partnership with NYC magnet schools. Additionally, while resources were earmarked to support students engaged in service-learning through core courses, they were not made readily available, nor was it clear what those resources were. Students requested travel support and we were allotted a fraction of what was needed to support students getting to and from site.

Below are a few bulleted takeaways:

- Communications between various stakeholders was unclear and contributed to misunderstandings about roles, responsibilities, priorities and commitments
- Varying levels of commitment to projects across stakeholder sites created disappointment when goals and promises were not kept
- Mid-semester changes in overall plans involving hundreds of students contributed to the sense that service-learning was not organized
- There was general confusion about the differences between service-learning and student internships
- Despite problems, students did have good experiences, the community was positively impacted and all stakeholders had valuable learning experiences
- Service-learning partnerships need to be designed in such a way as to minimize the exposure of new partnerships to complex service-learning arrangements
- Each afterschool site had its own characteristics and problems that required the ability/authority to make executive decisions on the spot
- Trying to organize service-learners to provide after school programs was difficult because of training challenges and service-learner commitments to be available on a regular basis
- Instructors found it difficult to support afterschool curriculum if they were not directly involved or using materials in the courses

Service-learning is a worthwhile high impact educational practice. It must, however, have adequate institutional and departmental support to yield the best possible results. While we had struggles last year, students, faculty and community partners felt that service-learning added value to the course, to their personal, professional and civic development, and to the existing community efforts designed to address pressing social issues. To maximize success, we will limit the number of courses that offer service-learning until adequate resources are available.

APPENDIX 1 - Sample Guided Reflection from FCIQ Student

1. What have you learned about your community?

Throughout my service-learning experience, I have learned a couple things about the NYIT community. One thing that surprised me was how uneducated students and faculty members were about Blockchain Technology and cryptocurrencies. Many people have heard of the subject but never took the opportunity to do further research and learn more. I was one of those people who were uneducated about the subject, until I became a part of the team to write the white paper. Another thing I learned about my community was that NYIT is far behind other competing technology related universities. Other universities have been offering courses on blockchain and cryptocurrencies for more than ten years. Overall, with more service-learning projects geared towards the NYIT community the school can be greatly improved.

2. If you could do the project again, what would you do differently?

If I could do this project again I would do a few things differently. The first thing I would do differently is be more consistent with more research. Many times, I would slack off and procrastinate, if I was to restart I would contribute to the white paper at least once a week. Another thing I would do differently is to actually collaborate and discuss with my group. Within my group we all had crazy schedules, so we never had an opportunity to sit and work together, unless the professor told us to discuss with each other after class. I think if all of my group members and I could have scheduled at least one day to talk about the white paper, we could have gained a better understanding of the entire document. The last thing I would do differently is to ask questions. I now realize I should have asked more questions on what more I could have done to contribute to the white paper.

3. Do you have a different picture of your community than you had before you began your project?

After the completion of my service-learning project my perspective of NYIT has definitely changed. I learned that NYIT actually values the opinions of its students. A lot of times universities do not care about improving the student life on campus, NYIT is the opposite. The school actually wants to improve and uses the students to do so. Because of that and the service-learning project I have more respect for the school.

APPENDIX 2 - Sample Descriptions of Service-learning Projects

David Cirella - ETCS 105 - Career Discovery

Students in David's class researched the following topics to aid in conversations his students would have with Harlem community members.

Project 1: Advantages and Disadvantages of car to car Communication

This project explains briefly about how we can avoid millions of car accidents that happens every year by using car to car communication. The article explains that car to car communication uses a wireless protocol which is similar to Wi-Fi called dedicated short range communication. So, by using this technology we can avoid millions of car accidents happening every year.

Project 2: Building and Testing a Truss Bridge

This project helps you to build a truss bridge which is very commonly used in the boroughs of New York City. This project helps you learn in 12 simple steps as to how you can design a truss bridge with basic materials and test how much it can hold without breaking.

Project 3: Artificial Intelligence

AI is the capability of a machine to imitate intelligent human behaviors. This project tells us the impact of AI in our daily lives by using Siri, Alexa, Cortana, Snapchat, Instagram etc. and how it might be used in the future like building a robot which could be seen doing human like actions. It shows us the working of AI for object recognition and facial recognition.

Project 4: Reverse Paralysis

This project tells us how **Paraplegia** (medical condition that occurs in the lower half of the spinal cord and make lower half of the body paralyzed) can be treated by implanting a device inside the brain of the species suffering from this medical condition.

Luzia Geier - Foundations of Inquiry

NYC Excursions

This project was themed around the topic of New York City as a hub of communities and was established as **N**.avigate **Y**.our **C**.ommunity. The main focus was to send students out to explore their college as well as NYC's rich history, culture, and various communities. Students were asked to go in a group of 5 to explore an NYIT office, a borough, and a global spot in NYC- students were given free reign of their project. In addition, each student was required to create impacts on GivePulse in order to let the professor know at which times they had worked on their project outside of class. At the end of the project, all students submitted an overview of their three excursions and presented them at the 2017 Student Showcase. The service component of this was to build future NYC excursions in which NYIT students could participate.

Gwen Lowenheim - Foundations of Inquiry

WHAT?

Our service-learning Project

service-learning in my 2 FCIQ courses (in Manhattan and Old Westbury) was designed as a project whose work took place primarily in the classroom or in work students did outside the classroom, but not in a community-based program. The service-learning project was inquiry-based. It started with a question to which we did not know the answer: "How do we develop a citizenry better able to go beyond the rhetoric that often surrounds the promises made by politicians to "bring jobs back to America."

We studied this complex issue through the lens of psychology, economics, history, philosophy and art. We interviewed seniors, a staff member and a board member of HCCI, and created a website at the end of the project. Because this was our service-learning project we focused our academic explorations, particularly into logic, fallacies and argumentation, in the direction of creating a product that could be of use to educators, students and the broader community.

Design Thinking & Mind Mapping

We utilized a Design Thinking Methodology, the key elements of which are empathetic listening and the creation of prototypes used to develop possible solutions to problems and challenges. This included a Mind Map project.

SO WHAT?

Throughout the semester, a few students asked, "What difference will this make? If it's service-learning, it's supposed to make a difference." They asked this about our project and some of the other service-learning projects they were involved in. This was a challenge I readily accepted and it helped shape our course. I was grateful for the link between service-learning and what could otherwise be related to as purely an academic endeavor (which often, understandably, looks like the completion of work towards a grade). And it was great to have a service-based project we were working towards throughout. But there were still questions

- A website: www.makingsavvycitizens.com -- Using the Design Thinking methodology, we decided to invest what we learned about the economic, social, and political complexities of our guiding question into the development of this website. We came up with this idea a few weeks before the end of the semester, as we continued to ask the question, "so what?" We to create a website it is easily shareable and accessible, and can be distributed to a broad grouping of people, including educators, community and civic leaders, friends and family, and other interested parties. (and it's possible to continue to upload content as it is completed)
- I noticed a trend toward the cynical regarding service-learning, as stories of students' negative experiences with the community gained traction throughout the freshman class. This can be demoralizing and possibly discourage service in the future as well as exacerbate already existing prejudices.

NOW WHAT?

- Talking to colleagues -- I'd like the opportunity to talk to colleagues about how the course and the service-learning Project is going -- share what's working, get support to develop new ideas that come up off of the work, use their experience in trouble shooting early on, etc.
 - As an adjunct who is new to teaching Foundations of Inquiry/service-learning, I never get to meet, see, talk to, or hear about the work of any colleagues who are doing the same kind of work. That made my work much less efficient and most likely less quality than it could be.
 - I did receive advisement from Bravo, which was wonderful, but she, of course, is not in a position to talk about day to day things which could be more efficiently solved or further developed with collegial conversations. Nor is she in a position to talk to me about the service-learning/foundations of inquiry interface, and how to keep developing that as the academic and service work ensues over the semester.
- Inquiry-Based **service-learning?** - Perhaps we can develop this connection. I think that as instructors we need to make the case for why service-learning is part of Foundations of Inquiry. What is our pedagogical reasoning? And then once we've made that case, find ways to discover with our students how service-learning can support students as critical thinkers, etc.
 - In my class, that was an explicit part of the project because that was how it was designed. But I would also appreciate pedagogical conversations about that, how to develop it, etc.
 - How do we create inquiry-based service-learning projects that allow for reconsidering our initial premises. Does the professor learn something new each time as well? How do we incorporate that. (more to say here).
 - How do we develop "organizing questions" to support academic and life-based inquiry?
 - Let's not discourage curiosity (which is exactly what we're after) with unnecessary confusion about the connection between service and inquiry.
- How can instructors and students can do **ongoing/inquiry-based evaluation** of the service-learning Project throughout the semester.
 - For me, this semester was like a **pilot program** that could benefit from a form of **Participatory Evaluation**. (more to say here about specifics re our community partnerships)
- **Difference between:**
 - service-learning Projects that are already set up, the kinks have been dealt with, the community partnerships are strong, etc. and we can plug students in. And...
 - New partnerships, programs, etc. which are in the development phase
 - For these, I think we to self consciously **provide training to students and staff** re how to negotiate, inquire about, improvise with, keep developing, give what they have to give, etc. to the the project. In my experience with creating and supporting school and community-based programs, I've seen how

this can encourage students and staff to perform as proactive stakeholders rather than as dissatisfied consumers.

- **Ongoing evaluation which supports inquiry: Might it be Appreciative Inquiry?** I invited Jim Martinez to speak to my Manhattan students about Showcase 2017 a few weeks ago so that they could get on board (which wasn't happening prior). In that conversation, a few students raised questions and doubts about service-learning (particularly with the community programs) and Jim suggested that they consider what IS working in these community programs. He suggested that they include the success as part of their critique, and then proceeded to tell them a few stories about that. That had a big impact on the class - conceptually and emotionally. So as I write this, I wonder if we'd like to include **Appreciative Inquiry** as part of our methodology.
- Inquire into **students previous experience** with volunteering, helping, raising funds for causes, etc. There can be a tendency on the part of educators to assume that this service-learning project brings students into the world in a way they haven't been in before. I think it would be good to build on and explore their experiences.
- **Showcase** - now that we began it, we can consider how to build it into the course from the beginning.

Dr. Jim Martinez - Foundations of Inquiry

Different students did the project on different topics. Their briefings are as below:

Project 1: How building relationships can change one individual's day

The student described his experience of building relationships when he was sent to a STEM school in Queens called PS200, which was a part of his service-learning. He explained how he felt the environment to be chaotic and noisy the very first time he entered this school, and then how his perception changed after being with those students for a couple of weeks. He went through the period of his service-learning and encountered a kid whom he related to his childhood and experienced the same things happening to him which he went through when he was a kid. He shared his experiences to all the students but especially that kid whom he related to himself back when he was a kid whose name was Phoenix. During his period of service-learning at this school, he helped the teachers make the classrooms better and more interesting. They also helped them address lots of problems the students and the teachers were facing during their studies. During his period of service-learning at this school he felt that people are uncomfortable at the beginning of an experience but that once they warmed up and started talking, it is possible to build relationships as a group.

Project 2: The Psychology of the people and the economy at the workplace

The student described how poor infrastructure and maintenance of public schools leads to physiological changes in behaviours of people working at public schools. During his time of service-learning, he was sent to PS200 and he encountered a lot of incidents where he felt that the overall environment can lead to a lot of changes in the psychology and behaviour of a person. He faced lots of problems with the devices he was working with at the school. Some of the devices had problems with its configurations while some had some problems with connecting the printers to the Wifi. He felt the system of the school is disorganized. He also felt that all those problems were because of the disorganized rooms with the wires scattered and no proper host names in the system. He felt frustrated at some point but then, he went out of his comfort zone and tried to pull everything together. And due to this reason, he felt that the psychology of the people and the economy of the workplace are related to each other.

Project 3: Becoming a Queen in Queens

The student described the importance of teachers in a student's life. She described her topic in the best way saying, a teacher teaches their 'princes and princesses' what it takes to become a 'King and Queen' in their own life and also a teacher is the one who spends most of their time in a classroom setting, learning about the things they need for when they get into the real world.

Project 4: Utilizing an Engineering Student's skills in an elementary education environment

The student assisted the faculty of one of the school in Queens where he worked with paperwork for the school and assisted teachers by relieving their workload. He said his prior experience working as an intern helped him take the knowledge he had been taught and reteach to younger children as a way of recycling knowledge. This program helped him make an impact on the lives of youth.

Project 5: The impact of service-learning

The student worked with a school in Flushing, NY. He provided lessons, experience and services to the kids, teachers and staff. The experience with the kids, their reaction to what he did and what he had to provide to the school is what the data is composed of. The results reveal a connection between service-learning and how the community receives it, regardless of age or rank. These results enforce the idea of increasing service-learning to more locations throughout our communities.

Project 6: Education and Technology

This paper describes how technology in education and personal experience can create a technological environment for kids to use. Our first assignment was to hook up the computers in the school, check if they're functioning and download Google Chrome for the students to use. The school never had a computer room or had any other assistance. Overtime more students started using the computers and we started to do some activities and play educational games like coolmathgames.com or funbrain.

Project 7: War against Disproportionality- Is STEM-Learning a new secret weapon?

This research project examines the problem of disproportionality in schools with students from low socioeconomic backgrounds which in turn affect their access to STEM Learning programs and activities. The findings reveal that the issue was not accessing the STEM learning programmes, but having the capacity to properly facilitate these programmes. The approach I took in an attempt to combat the disproportionality in the school I was assigned was through the use of the STEM Learning activity of creating a student-lead newspaper. By creating this newspaper my goal was to give students a new experience using a new medium to let their voices and thoughts be heard.

Project 8: The Unorthodox teaching- Teaching students through STEAM based curriculum

This paper examines how the use of STEAM as a teaching tool can benefit students and provide a different and more enjoyable way of learning.

Project 9:HCCI's Impact on Harlem

This study shows how the Harlem Community was impacted by HCCI and the students of NYIT there. The involvement of the students have made a positive impact to the HCCI building at 263 W153rd Street.

Project 10:STEM Learning

This research paper is about the impact that S.T.E.M learning has on kids everyday and the way that they interact with technology.

Project 11:The effects of Technological Advancements: Harlem

The goal of this research project is to build resilient communities with the help of service-learning. While there are service sites located all over Harlem and Queens, the project focuses on the Computer Clubhouse in Harlem.

Project 12:Impacts of the STEM program on education

This research project is about how STEM programs impact education. How does it benefit students? Does it improve their academic performances? How does it help them solve problems in the real world and how is the program different from just typical school teaching systems?

Project 13:How STEM Can Improve Test Scores in Low Income Schools

This research project explains about how the information about STEM with the help of the teachers can help the students improve their test scores in the schools where the income is really low.

Project 14: STEAM Learning

This report uses a sociological lens to examine the impact of STEM education on 3rd and 4th grade students.

Project 15: How Classroom Engagement Builds Resilient Communities

This research paper examines how classroom engagement is an effective way to build a resilient community. Classroom engagement was explored from a sociological view, so social interactions were observed. This research is informed by observations and experiences at the after school program, Hands that Make a Difference, as a part of NYIT's HCCI Service-Learning partnership.

Project 16:How does interaction lead to gaining knowledge?

This research paper involves the motive behind being exposed to different types of interactions that lead to knowledge. Whether the interaction may be engagement with people among service-learning or encountering something new around the community, knowledge can be gained from anywhere.

Project 17: How we help

This paper is about a student at NYIT who participated in service-learning and was supposed to go to a school in Queens, New York called IS 145 the Joseph Pulitzer Junior High School. The student helped the the students in many areas that many of the teachers are not highly skilled in terms of recent technologies. When the teachers understand what they are working with, it will be easier for the children if they have someone they can go for any of the questions they have.

Project 18:Independent Impact

This essay explores the idea of applying independent learning methods to the classroom through blogging, along with the current problems with teaching methods that are being faced as a student.

Project 19:How can STEM Education contribute to building resilient communities?

This research paper examines the role STEM education can play in contributing to building resilient communities.

Rachel Morrison - Foundations of Inquiry

Rachel allowed her students to pick any service project that addressed issues of hunger and food insecurity.

Project 1: For this project, the student volunteered for a local food drive over the Thanksgiving break which was located at 8 East 109th Street. It was the NY Common Pantry which is a local donation-based organization that aims at reducing the hunger throughout NYC.

Project 2: For this project, the student went to the Convent Family Center which has an after school program for the kids living there. The student himself was a part of that family in his childhood so he went back there to help the kids with everything.

Project 3: For this project, the student went to volunteer at the Holy Apostles Soup Kitchen on 296 Ninth Avenue in New York. The soup kitchen has been feeding people since 1982.

Project 4: For this project, the student volunteered at Operation PB&J which is a weekly event hosted by Kean University's organization, "Be the Change" where students and volunteers join together every week to make peanut butter and jelly sandwiches and other goodies for the homeless at Newark Penn Station in Newark, NJ.

Kate F. O'Hara - Foundations of Inquiry and IDSP 450

Kate's students served the Harlem community by engaging youth in Computer Clubhouse and hydroponic gardening projects. The computer clubhouse has lots of things for kids like art supplies, legos, computers, webcams, camera lights, a green screen and a printer.

One student began her service by organizing and cleaning the computer clubhouse classroom which she found to be uneven and weird because of the bright colors. She taught students how to design a 3D structure through Google software called Google Sketchup. Also, she decided to do a workshop for the students on how to do creative writing/blogging. She also taught them how to make slime which the kids found interesting.

Another student thought that there was not enough hands-on experience for the students with science-related activities. They helped the students by providing more interactive opportunities giving them hands-on experience with fun activities and experiments that turn ordinary household objects into fun gadgets and toys.

A student chose to go with something related to STEM. He chose to do some STEM experiments with Big Shot Cameras and Little Bits Circuits. He helped students know how to build a lava lamp and grow plants in a greenhouse.

NYIT students organized and decorated the hydroponic garden space (signs with instruction for daily use of greenhouse, use of the hydroponic equipment, charts about Ph balance, information about the seeds that have been planted, and pictures Ryan took of afterschool students). They also learned about hydroponic gardening so they could educate children in the after school program.

Dr. Gail Sobel - Foundations of Inquiry

Hempstead Plains: A Place Worth Knowing & Conserving

Two groups of students went to Hempstead Plains which is located right across the Nassau Coliseum and next to the Nassau Community college. In their project document they gave the briefings about the history of Hempstead, like horse racing, aviation history, military purposes and Education Research Center(ERC) which is constructed from four recycled steel shipping containers, and the invasive species which are a part of the locality like the birds, the animals and the plants. They also explained about the politics involved in those urban and suburban communities. Students then visited to remove invasive shrubs and small trees, and planted seeds of area natural plants.

Food Pantries: An in-service-learning project: A group of students volunteered by cooking at Old Westbury House, The Hunger Banquet, at Nassau Community College's Food pantry known as NEST, and went to the community church soup kitchen to help and serve food. Afterwards, they reflected on the places they served, what they did there, and what they learned.

Ian Straughter - Foundations of Inquiry

For this service-learning project, a couple of group of students went to HCCI and every member of the group was assigned with different tasks. Some students conducted an inventory of equipment in the Computer Clubhouse; downloaded and installed computer programs; learned how to use the 3D computers and then taught area children what they learned, developed their own interactive stories, games, and animations using Scratch programming, used Green Screen technology with kids, taught area children the Science behind toys, introduced children to the Robotics club and Lego architecture and more. They helped out the students with teaching them new things and guiding them. Finally, the students prepared a report and submitted to the professor with the pictures of the tasks they performed and some glimpse of their work and environment in which they were working.

Jamel Vanderburg - Foundations of Inquiry

Jamel's service-learning was indirect and advocacy service-learning; his students researched topics and then informed the public on social issues of importance.

Civil Liberties Students wrote a paper regarding gun violence.

Marijuana: Should the recreational use of it be legalized in all states?

Students research whether or not marijuana should be legalized.

Abortion Students discussed about one of the most controversial topic that exist in the world today. They started off by setting up websites and forums, so people could sign up for help.

Senior Citizen Care Students discussed how to keep senior citizens physically and mentally active in nursing home by using technology, development, finance and marketing.

Unemployment Insurance System: Students discussed how to improve the current unemployment insurance system. How to reduce the number of citizens abusing unemployment benefits without restricting those that need this service? They exchanged views on the strength and weaknesses of the proposal. For example: how everyone pays an equal percentage towards unemployment insurance, but a few never collect unemployment, while others do. People aren't happy paying for someone's laziness. They also talk about how financial plan & technology can help resolve this issue.

Human Cloning: Students weighed in on how the world's population is coming to an end due to unrecognized viruses. Bring into question genetically modified clones; will these clones remain human? Research is uncovering if clones will be exact replicas of humans or become their own person?

Global Warming: Students researched global warming and what affect it is having today and in future.

Eleni Nikitopoulos - Foundations of Scientific Process

Students partnered in service with the local HS for Hospitality Management. Based on their interests and schedules, students formed teams and worked on one of the following projects:

- **Earth Science Classroom Assistants/Tutors**
- **PR/Bulletin Board Designers**
- **Science Lab Assistants**
- **STEAM Afterschool Facilitators.** Students had a choice of implementing an NYIT STEAM based curriculum, a Recycling/Sustainability Program, a Food Science Program, or a YouTube channel created around the science and technology of food, etc.
- **Yondr Consultants,** The school is a cell phone free zone program so help was needed with the cell phone check-in and out process, to analyze challenges and propose solutions.
- **Tech Consultants** were needed to coordinate a school wish list, inventory equipment and usability: develop a system to keep things working properly and a troubleshooting protocol, develop a copier, printer, and computer maintenance plan, and to research and outline ways to get updated computer equipment and send to the Development Team.
- **Development Team** Research a fundraising and donation plan, and develop a web based fundraising plan

Lauren Rigney - Foundations of Scientific Process

service-learning: After School Edition

Students operated 2 vlogs, one at PS200 and another at PS145, where they took inventory of several science closets + science lab, and instructed a small robotics club for 15 students . NYIT students collaborated with teachers to complete these tasks. They used innovation when creating a chart to take inventory of science equipment and helping teachers manage Google drive.

Harlem Clubhouse Garden Initiative Proposal

Student assisted with establishing a garden. They selected herbs that would be helpful for computer clubhouse users and be beneficial to the community surrounding the clubhouse. In addition to the garden proposal, they created a interactive tech room the community could access, which featured 3D printing, DIY technology, creative filming, and computing lab.

Joseph Pulitzer School

Students worked with Mr. Mateo to help fix the different technological issues that the teacher faced, such as re-imaging, inventory and printing issues.

Service-learning Presentation

Students assisted with updating iPads, computers, softwares, and game advice. They fixed printers and configured the wireless transmitter. They reconnect the internet and the connection between the computer and the printer.

My service-learning Experience (and why it was a failure)

A student spoke about how he helped while working in Computer Clubhouse in Harlem. This student conducted an observation in order to propose projects to group members and provide feedback on initial reports. He explained the lack of communication and collaboration was the factor that made this project a failure.

Lenore Snyder - Foundations of Scientific Process

All students described the sight, smell and touch of their own experiences during their visit to Harlem Congregations for Community Improvement located at W153rd Street. Students had to document their experiences and an Observation Report regarding their experiences.

Students were directed to Harlem by their Professor and Amy Bravo helping them with directions and offering an explanation about HCCI. Listed below are student observations of the initial tour and the programs that they delivered afterwards.

- Some students noticed that the buildings were worn down and there was trash was all over the sidewalks. Also, they noticed the environment was fairly quiet.
- Some noticed the lobby of the building was clean but had very little space. Also sound of children playing could be heard everywhere.

- Students discovered an amazing detail about HCCI, they recycle rain water (not everyone in surrounding areas does this).
- NYIT has a room called the Computer Clubhouse in the main building of HCCI, where they have computers, handsets, web cameras. Students went there to assess the area and receive some background knowledge of the technologies that HCCI provides.
- Many students provided pictures of the HCCI's surrounding community and gave information about it.
- Some students learned about 3D printing and helped the HCCI to order 3D printers.
- Students helped the HCCI kids fix their computers and teach them how to access the computers by logging in and doing several things related to computers.
- NYIT students assisted many kids at HCCI with all kinds of technical support needed during creating their projects (such as 3D printers, green screen and computers in general).
- NYIT students guided HCCI kids on Stop Motion Animation. They presented the program to the kids in an understanding manner. The process involved capturing an image of a ball, setting one frame at a time and when the sequence of the images is played back rapidly it creates an illusion of the movement.
- NYIT students took interest in the LEED Building Education project. This project is about the Green Features of the building.
- NYIT students worked on a project related to the Architecture.
- NYIT students worked on a gardening project at HCCI where they cleaned the gardens, watered plants and cleared the surrounding area of trash and cigarettes.
- NYIT students worked on creating a video tutorial related to saving the environment on Green Screen Technology.
- NYIT students helped HCCI plant perennials for the November 2017 NYIT/HCCI Open House.
- NYIT completed a project on Healthy Living for kids. They encouraged and taught students, parents, teachers and children on nutrition health benefits and exercising. They initiated an info session for parents and children to learn about healthy living. They included pictures of diets that are healthy and some exercising habits.
- NYIT student took initiative to teach the children and adults about Hydroponic gardening. There is a Hydroponics room where children and seniors go to watch movies. The basics about Hydroponics were taught and insights on how to create Hydroponics at home were shared. (Hydroponics: It is a method of growing plants in a nutrient rich water). They included pictures.
- A project named, ALL OF US, is a research program that gathers data from a very large group of people and utilizes that data to help focus on accelerating medical research and breakthroughs.
- NYIT students took a lead in introducing photography and editing software to younger kids.
- One student took initiative to teach engineering to Brooklyn Technical High School students and mentored the high school's FIRST Robotics team.

APPENDIX 3 - Faculty Reflections

Jim Martinez 10-22-17

Despite the bumpy start with HCCI and the Magnet Schools it all works. I look at what we do in service-learning as one big improvised ensemble performance. In an ensemble individuals perform at different levels and some scenes and interactions are better than others. We are socialized to only look at the disconnects, the parts that didn't go well or are odd. One of our goals in partnering outside the university is to create access to new kinds of learning for all the members of our community. Failure, mistakes and screw-ups are generally penalized in our culture, especially in schools. We are creating a space where mistakes are possible and therefore we are seeing mistakes. Hurray! My comments are not just some abstract way of wallpapering over the cracks and stains. I've been at the center of service-learning at NYIT for the last 6 years. It always looks this way when we increase the scale of the project. Scale introduces new complexity and new challenges. We always feel like we should have planned better. In my recently published book, *The Search for Method in STEAM Education*, I've documented my work in service-learning at NYIT with Amy Bravo and some of you. One of the central ideas of the book is that creating new relationships requires that we find new ways of talking about things and looking at problems. Reflection is an important part of the process that everyone can engage in. The reflective process is how we will discover what we need to do (our method) next.

Kate O'Hara 10-24-17

Tonight we had our first training with NY Sun Works! Yay! I arrived at HCCI around 3:45 PM and the children from the afterschool program were watching a movie in the Greenhouse Classroom. Richard Williams was there and he expressed he didn't know we were going to be using the classroom and for you to let him know when you were planning to use it. I responded that there was probably a miscommunication which most likely also included me—in hindsight I realized I never added it to the shared calendar and I also should have updated the folks at HCCI by email that Dave from NY Sun Works was going to facilitate the first training. Although now I have a better sense of what the training entails, as well as the expectations, so once dates are confirmed, I can send a more informative invite to members of the HCCI community as well as all FCIQ 101 NYIT students.

We had a nice showing of NYIT students (3 from Ian Straughter's class, and 4 from Lenore Synder's class) The students from Ian's class were not clear what to do—they mentioned they were supposed to be thinking of what to do for November 11 but they were unaware that there was another service-learning component that should be occurring weekly. I provided them with an overview of the Greenhouse Project, they attended the training, and they are onboard with the hydroponic garden! If Ian has any questions, he can feel free to email me.

There were two of our new student employees for the project there as well:

Mihika Vardhan, a grad student in Urban and Regional Design. She is a former intern at rePlace Urban Studio and was a part of the lowline underground park proposal, where she also attended community meetings and carried out workshops for youth. She also has experience in mentoring middle and high school students.

Ryan Paulsen, an MSIT grad student (and former student of mine). He is a videographer, photographer, NYCDOE librarian, and has a background in STEM. While he took photos he also had some great ideas for organizing and distributing stacks of boxes containing donated books. The books were a topic of discussion because the room was not set up as the agreed upon floor plan of NY Sun Works. Since the hydroponic installation (October 6) understandably the room has become space for the after school children; tables with games and supplies, and empty tables lining the walls. A point of concern was the food that is stored and prepared in that room (snacks are above and in the refrigerator. There is also a microwave in use next to the hydro equipment).

Dave and Lissette from NY Sun Works walked us all through basics of the system which includes keeping the Greenhouse Classroom free from dirt, soil and food. We discussed it with Nigel as well. He had the good idea to have the kitchen area partitioned with a curtain or some sort of room divider. Perhaps the microwave could be moved near the refrigerator too. With this kitchen/food area partitioned, the afterschool group can still use it daily, but the Greenhouse Project will be clearly identifiable and dedicated to all associated activities.

Working with the afterschool students, our NYIT students are looking forward to begin organizing and decorating the space (signs with instruction for daily use of greenhouse, use of the hydroponic equipment, charts about Ph balance, information about the seeds that have been planted, and pictures Ryan took of afterschool students). It was also noted we should have a storage space--preferably locked since some items contain chemicals. Dave suggested we could even use the large plastic tubs that have locks.

The afterschool (AS) students all took part in planting cilantro, sweet basil, butter lettuce, collard greens, and red Russian kale! If all goes well, with their help, they will yield a harvest in 40- 60 days! The students were very excited, curious and engaged—perfect dispositions for getting this garden underway! I'll work with Nigel on having a daily maintenance schedule that the AS students can assist us (NYIT students) with. Also after I have a follow-up conversation with Dave (NYSW) as to specific maintenance needs (cleaning, light timer, watering schedule, pH levels, cooling fan), I'd like to see if we can have a point person(s) at HCCI to assist as well. (Maybe from the senior residents or Donald Lawrence's group?)

Richard Williams came by shortly before we wrapped up for the evening and commented that it would be nice to have the children involved and vested in the project, which of course is our sole goal! It was unfortunate that he missed the AS students so excitedly planting the seeds that will be the very first crop of 100 vegetables and herbs! Given his comment, I know it is not clear to our HCCI partners what our collaboration is about. Please let me know how I can assist with this—I know the event on November 11 will help, but perhaps we can create an info night about the Greenhouse Project itself? In the meantime, on November 11 we should plan on setting up a few tables in the Greenhouse classroom specifically about the garden, nutrition, etc. And, since the AS students are the ones that did the planting, if available, they can assist in sharing the garden story!

Lenore Snyder: 1/5/2018

This was the first term that I included service-learning in my FCSC-101 courses. My goal was to cover science topics that I usually cover (scientific process, astronomy, chemistry, genetics, evolution, energy and climate change), while cutting out some detail (much of chemistry and Mendelian genetics) and to incorporate a community service project that was worth 50% of the final grade. Students were to work together in groups of 3 – 5 to deliver some science-related service (e.g. science enrichment activities for kids over the course of 4 – 6 weeks. They were to report on their progress through weekly journal submissions to Blackboard, and in a final group report that would be styled in the manner of a typical scientific journal article. Along the way, I would teach them how to use publically available scientific databases (Pubmed), and how to write the various sections of a scientific report. At the end of the term, students would also submit a report in which they reflected on how they felt about their service-learning experience. Student groups would also be required to do a group presentation in which they described what they did while showing pictures and video clips of their experiences. I had two large classes with ~ 30 students each, mostly freshmen.

Things didn't work out the way I had envisioned! In short, I lost a lot of science topics along the way, including large parts of chemistry and genetics (as planned), but also the entire earth science unit that included energy and climate change. I also had to scale back on the scope of their writing. Their journaling became a weekly repeat of posting information that I needed to monitor project progress. Because many of my students ended up starting their service-learning very late due (in some cases) to tutoring and after-school opportunities (e.g. in Queens) that were available one week, but not the next, by early December, I decided that there would only be one final report due in which they described what they did and reflected on the experience (no need for scientific format or citations). I would have had to cut out all remaining science to support this activity in class. Final group presentations also morphed into a day in which students watched each other's final videos or Powerpoint presentations (which were required to have embedded audio - eliminating the need to talk through their presentations). The point was to have students produce an audio-visual presentation that would inform any viewer/listener (not just people present in the room) about what they had accomplished.

Throughout the term, I told my students that they would have to document their experiences with video and pictures – however, it wasn't until the beginning of December that I realized that not all of my student groups (which were now 1 – 5 students at most) had the expertise required to produce a video presentation (and neither did I). I was able to figure out how to make a Powerpoint with embedded audio – and showed my students so that they would have at least 1 option. I encouraged them to produce a videos (with audio) if they knew how, and to upload them to Youtube (or some other website). I had researched online whether or not it was possible to produce a Google-presentation with audio – and after reading answers to similar questions on different forums, I came to the conclusion that it was not possible.

In my 2 FCSC classes, students ended up in 17 different groups; 2 groups working at sites other than Dinkins Gardens (Brooklyn tech & Columbia Presbyterian), 1 group of 5 that delivered a tech lesson at students included at least 3 students working alone (one who was extremely antisocial and resisted all of my attempts to group her, another who worked at the clubhouse setting up the 3D printer, and a struggling army veteran who worked on and off with a group). For me, it was very hard to manage so many groups – it took a lot of time in and out of class for me to communicate with students in order to troubleshoot SL problems. It took TOO MUCH time; I felt like I could not keep up with the demands of the FCSC course nor the other courses that I taught (7 sections of 6 different courses – 2 of them new – which (like the SL-FCSC) also required a lot of time and had plenty of problems to troubleshoot. I don't want to go

through this again next term, so, I'd like to meet with the NYIT SL team SOON to try to resolve as many problems in advance – or, possibly revert to teaching a couple of regular FCSC courses without SL so that I have fewer student groups to deal with. Already, I am anxious and preparing for next term since I will be teaching 8 sections (6 different courses – with 3 new ones that I have to prepare EVERYTHING for as well as learn some complicated science that I don't yet know).

In the end, all student groups (except 1) managed to provide some sort of service delivered to community members – however, in one case, there were only 2 community members attending their workshop, and for 2 other group's nobody showed up. One of the group's with no attendees taught a few other NYIT students who happened to be present at the site (the clubhouse) and then produced a tutorial on green screen techniques so that others could learn off site. Another group with no attendees managed to give technology lesson to several community students who happened to be in the clubhouse and needed help putting together a presentation for their calculus class.

In general, getting community members to provide a service to was very difficult! My students didn't manage to sign up anyone at the Nov 11th opening and it was very difficult afterwards to get people – even though some made the effort to post and hand out flyers advertising their services. I found it difficult to coordinate by email communications between student groups, Amy, and HCCI to advertise services and/ or to set dates for services that didn't conflict with SL groups from other classes. This was also a problem for my students who were working with the after-school students at Dinkins Gardens. There was no way to reserve a time slot to work with the after-school students (or, if there was, I didn't know about it). Fortunately, some of my students managed to get 1 or 2 lessons delivered just before (or immediately after) the Nov 11th opening. By December, it was very hard for my students to deliver planned science-enrichment lessons because there were frequently other groups of students (from other classes) who were there ahead of them waiting to do the same (too many students from different classes working at the same site?)

For final presentations, I asked students to prepare videos or Powerpoints with embedded audio. The presentation itself was not to involve students actually talking about their project – but there had to be audio within the video or powerpoint in which they described what they did. The final presentations were satisfactory, with a few that were very good. There were problems associated with the Powerpoints –audio quality was very poor if recorded with a computer (audio recorded with cell phones was good). Some presentations had audio and slides that played the audio and advanced automatically, while others did not. Another problem was that Powerpoints deposited into Google drives can be viewed but not listened to (which I didn't anticipate!) so they are just a series of slides with no audio – not very informative. I wasn't sure how to deposit videos into the Google drive, so I had students put a link of any video onto a Powerpoint slide or a word doc that could be first posted to Blackboard - and then onto the Google drive.

Issues to address for next term:

- How to make a video to document SL - any tips would be greatly appreciated! I want to avoid Powerpoint just so that final presentations can be viewed from Google drive.
- How to incorporate science and/or technology into all of the student SL projects – I managed this satisfactorily for most, but not all of the student projects.
- Access to Dinkins Gardens – this was a BIG problem; a lot of time wasted trying to get in – many hours when added up. Also, this problem will be much worse in bad weather – either extreme cold or rain. My students were lucky to have relatively mild conditions on the days they couldn't get in. Some of the times that they were locked out were times that there were supposed to be people in the HCCI office, but there was nobody.
- Money for transportation was a problem for a few students (or at least it was a perceived problem). I think that I may have sent info to Amy too late to get some reimbursement for students who had traveled more than 5 time – or maybe I was missing some info? In any case, at the start of next term, I will make a big deal over the fact that they have no required text - and that the \$30 saved should be reserved for SL travel.
- Work-study forms (for veterans and non-veterans) should be provided to me (in digital or paper form – or, a link on the NYIT website I can find these) so that I can get these to students ASAP in the term. I had a veteran who I spend a lot of time with trying to get the forms, and then, another few weeks harassing him to get the forms filled out and submitted. It would also be helpful if I had a short written description of the program and details on who is eligible (and where to drop off forms) so that I can inform students about the program without making errors.
- Scheduling dates for after-school enrichment activities or for hydroponics lessons with kids (or anyone) at Dinkins Gardens; I'm still not sure how this was supposed to be accomplished. I think I recall Amy saying that students should be prepared to provide services at least once weekly for several weeks, starting in November – however, it was nearly impossible for my

students to arrange more than one date to deliver services – and sometimes they got turned away because there were already other groups of students delivering lessons on the same date.

- Students need to be able to commit to a SL site early so that they can start within 4 to 6 weeks. Advance notice of any schools (or sites other than 153rd St) that have SL opportunities would be great (if not impossible). If there is a commitment from some school that wants tutors, could several positions (3 or 4? even) be reserved for students in my classes? This would help prevent an unproductive series of emails between me, my students, and Amy. Emailing students about opportunities was probably the greatest waste of my time this term since it so rarely resulted in responses and did result in many missed deadlines and opportunities. Many students rarely look at their emails (or pretend not to).
- How to get garden supplies or plants – for example, we could use a spade and/or a small pick (~\$40 altogether). It's cheap to buy packs of seeds for hydroponics or for growing plants outside in the spring - however, paying for trees or flowering plants can be expensive. Given how difficult it was for my students to get community members to participate in workshops, I don't have much faith that they would be successful soliciting money for plants. IF there is money available for plants, I would be nice to know how much we can spend (early in the term), and maybe we can set a date (or dates) in advance for ordering (or visiting some garden center)? If there isn't money, maybe it would be possible to use the indoor hydroponics system to get seedlings started for outdoor plantings? Some of my students will probably be able to start seedlings at home (note; this was not an option in the Fall since even perennial seedlings are not hardy enough to plant in cold weather).
- If possible, I would like students to be able to communicate directly with HCCI (or Amy) about services to be advertised to the community – at least with students that I trust to carry out this task responsibly. This would be especially helpful late in the term when I'm too busy to effectively relay emails back and forth. In general, I think that communication delays (by email) resulted in missed opportunities for my students. I will also make a BIG deal at the beginning of the term about them having and using active NYIT email addresses, and checking emails regularly.

In spite of all the bumps in the road, there were highlights and student accomplishments that were very satisfying – these can be seen in the videos and powerpoints (with audio) that students produced.

APPENDIX 4 - Service-learning Performance and Inquiry-based Learning Training Summary

We conducted three sessions to train service-learning students, mostly freshmen, in both performance and inquiry-based approaches to education. We trained 81 students:

- Wed. 9/20 – 8 students
- Fri. 9/29 – 34 students
- Sat. 9/30 – 39 students

The trainings consisted of these elements:

- Marian Rich introduced how improvisation and performance is a tool for growth and development.
- Dr. Jim Martinez shared his own history and how he came to be leading service-learning, and how it has developed, at NYIT.
- Ms. Rich taught each group four basic improvisational games for use in the classroom (Name/Introduction game, Whoosh, One Word Collective Storytelling, and Zip Zap Zop).
- Martinez and Rich led a conversation about using improv in the classroom.
- Martinez and Rich divided students into groups and had them lead each other in the games so they could learn to teach them, with the performance of confidence. They were also encouraged to make up their own games.
- Martinez and Rich had the groups perform what they did for the whole group.
- Martinez and Rich had a discussion about inquiry-based learning (what is it?).
- Then the students formed new groups and created inquiry-based games.
- Martinez and Rich had the groups perform what they did for the whole group.
- Wrap up discussion with time for students to ask their questions.

An online evaluation form was sent to participants. We received a 42% response rate on the evaluations. The questions were as follows:

1. What is the value of bringing improvisational games and play into the classroom?
2. How do improv games or ice-breakers contribute to getting to know others?
3. How confident do you feel that you can lead an improv game with children? 1= not confident at all 5= super confident
4. Name one strategy that you have learned for dealing with the unexpected?
5. How does play contribute to community building?
6. How do groups learn (vs. individuals)?

Summary and examples of student feedback to each question:

1. What is the value of bringing improvisational games and play into the classroom?

Respondents highlighted making children comfortable, they have fun and learn at the same time. They also cited how play gets the children involved and helps them get to know the teacher (NYIT students) and each other. Examples of student responses:

- Bringing games and play into the classroom takes the class outside of the traditional reading and writing tasks.
- It enables students to acquire new skills that can be used inside and outside the classroom, such as speaking in public and working in groups.
- It creates a relationship with the students and a stranger. And it makes the student know that they can trust this total stranger.

2. How do improv games or ice-breakers contribute to getting to know others?

Most students cited that the games helped people feel more comfortable. The games allow people to open up to each other. Examples of student responses:

- Improv games allow people to feel more open towards each other and many improv games require people to use certain skills that reveal what kind of person they are and this makes it easier for people to get to know others.

- It allows the children to see what they have in common with one another and by playing as a team the children will learn how they can work together.

3. How confident do you feel that you can lead an improv game with children? 1= not confident at all 5= super confident

Of the 52 responses – on average students said they were confident (4.1 average score) to lead improv games in the classroom. Only 6 students ranking below a 4.

4. Name one strategy that you have learned for dealing with the unexpected?

The students cited that they learned to, “go with the flow,” improvise, not to be reactive, and be confident. Examples of student responses:

- One strategy I learned was that you have to ignore the bad things that happen unexpectedly. For example, if a child is having a bad day and curses at you, you don't react as another child. You react in another matter that doesn't allow a back and forth fight. In other words, when you don't expect something negative to come your way you don't react in a negative matter. You react in a positive matter. Don't step down to a child. Be the mature person and ask "are you okay?" If not find a game that'll open the child up.
- Make a game out of everything.

5. How does play contribute to community building?

The students cited ways that play helps people interact with each other and that builds trust and comfort. Examples of student responses:

- It makes students more comfortable with each other, which results in them being more willing to work with each other for their community.
- It not only brings fun to the community but it also releases any worries and lets each child feels that they are not alone

6. How do groups learn (vs. individuals)?

The students responded that working in groups allows children to, “learn off of each other,” to learn from each other. People work together and learn from their own mistakes and other people's mistakes. Examples of student responses:

- Group learning is different from individual learning because it allows students to learn from each other and share different perspectives.
- They learn that it's okay to make a mistake without feeling like all of the pressure is on them.
- Group learning is more of an interactive learning experience.

APPENDIX 5 - Service-learning Student Showcase

Showcase 2017 - Debriefing Report

The SHOWCASE concept arises out of service-learning practices that place importance on public sharing and reflection on achievements and challenges in the context of community endeavors. The student SHOWCASE 2017 project was conceived to address the need to create and make visible high impact educational practices that could be evaluated independently and outside of the classroom. Students presented their service-learning projects during the two-day showcase event in the following formats: 5 minute talks / slideshow presentations, poster sessions (Share Faire), video presentations, virtual reality goggles, a student panel session, and a community reflection session. Course instructors, invited guests and students were the audience and evaluators of the experience. A conference evaluation was sent out to students.

The showcase followed a 2-day conference format that was primarily run out of the 11th Floor Auditorium in MC16. The process for creating the conference included forming a student conference committee, issuing a call for proposals, reviewing and scheduling the proposal, an outreach effort, two “day of conference” team meetings and conference execution. The overall plan for the showcase was distributed to faculty and administrators on September 26th and the student committee was recruited and met for the first time on October 11th. At that time students were provided with an overall plan, organized into different committees, and were provided with a timeline of tasks leading up to the showcase dates of December 11th and 13th. The students were invited to meet regularly with faculty mentors every week during normal faculty office hours in weeks leading up to the event. Students were also encourage to use email and their own preferred technologies to communicate among themselves and to meet together independently.

The number of attendees at SHOWCASE 2017 was 181 over the course of the 2-days. Coffee and lunch were provided and the cost was approximately \$1300 with approximately \$1000 of the cost covered by SISE and the balance covered by anonymous donations. Balloons, swag, water, achievement certificates were donated by faculty, Career Services, the School of Interdisciplinary Studies, and the Office of Experiential and International Education. The faculty mentor committed approximately 30 hours of time in planning, emailing, producing materials and meetings in the time leading up to the event from August - December with 6 hours dedicated to each day of the event for at total of approximately 42 hours. Staff mentor committed approximately 18 in meetings, planning, placing orders, producing materials and 12 managing the event for a total of approximately 30 hours.

In what follows, the benefits and challenges of producing SHOWCASE 2017 are presented in detail. The report concludes with an evaluation and recommendations for future showcase events.

Benefits of SHOWCASE 2017

- Students were provided with an opportunity to share their projects and experiences of service-learning in the Building Resilient Communities initiative and were able to give expression to the benefits and challenges of participating in the initiative.
- Students had opportunities for public speaking during the 5-minute presentation program and during poster sessions, in an environment outside of their classrooms.
- Students had opportunities to share multimedia presentations including, slideshows, videos, and VR (virtual reality) presentations.
- Students on the organizing committee demonstrated the ability to self-organize and self-regulate during the showcase.

- Students on the organizing committee managed time, formulated questions, communicated clearly, asked mentors for direction, and contributed ideas and effort to the production process.
- Students had the experience of describing their work to strangers and peers, and received valuable feedback from someone other than their instructors.
- Faculty reported elevated levels of effort on project work as students prepared for their showcase presentations.
- Faculty noted new achievements in areas of public speaking (students who struggled to speak publicly, spoke on stage), articulation of course concepts, critical thinking about experiences, mature choices in offering critique, detailed accounts of project work and experiences, and sensitivity to audience.
- Faculty were able to evaluate student work during the showcase outside of the classroom setting and had opportunities to see how others valued the work of their students.
- Community partners noted the detailed projects, presentations and professional conduct of the students, they appreciated the project ideas and the significance of the experience of the students, as well as the impact that they made on the communities in which the service was performed.
- A community-wide reflection on the benefits and challenges of service-learning courses was created (student panel / final reflection).
- There is evidence that the different stakeholders (students, faculty, partners, parents, staff) in attendance experienced of a sense of celebratory mood, pride, interest, accomplishment, and community.
- Members of different NYIT faculty departments, staff, and administration worked together to create a student-facing event.
- A showcase is a high impact practice that showcases other high impact practices (service-learning, project-based learning, experiential learning) that contribute to Middle States accreditation evaluation data.
- Producing a showcase and presenting at one provides the freshmen with a collective challenge that contributes to building relationships, community and legacy. It also prepares the ground for them being part of the academic community at large.
- Producing a showcase provides freshmen with opportunities to develop leadership skills.

Challenges

- With the exception of two student organizing committee members, the majority of the students had difficulty showing up to meet with mentors in the weeks leading up to SHOWCASE 2017.
- According to various reports from organizing committee members and faculty, the students had trouble communicating among themselves and coordinating efforts.
- According to faculty members it was very difficult for students to understand the initial idea behind a showcase.
- Faculty members were not prepared to incorporate the showcase event, it was another separate experience from service-learning to attend to.
- OW faculty members were initially on board but withdrew when it became clear that there was no budget for transportation from OW and no support for a showcase in OW.
- Students struggled to create comprehensive showcase proposals that could be evaluated and given detailed recommendations for improvement.
- Student struggled to anticipate challenges and tasks related to producing the showcase.
- The organizing committee, as a group, was unable to get organized to evaluate proposals, this was done by the mentors.
- The structure of the showcase was in large part provided by faculty and staff, students struggled with the development of the concept.
- It was difficult for students and faculty to distinguish between SHOWCASE 2017 presentations and regular course work. Could these be the same? The answer was yes.

- The student organizing committee did produce a website, a google form for collecting proposals and a google drive for collecting presentations prior to SHOWCASE 2017. However, communications, promotions and responses back were uneven.
- Several students had classes scheduled during make-up week and were unable to attend/present at SHOWCASE 2017.
- Students, in general, had difficulty managing time in preparing and reviewing presentations in preparation for SHOWCASE 2017. In some cases the presentation could become a last minute thing if the presentations are not required as classwork.
- As a new event, SHOWCASE 2017 was squeezed in to the existing environment, it is not part of the normal freshman or instructor experience as such, communication and promoting the event was challenging.
- Day 1 of SHOWCASE 2017 featured a move to the main floor of the Library for video presentations, however, the team felt that the move disrupted the flow of the conference and a decision was made to run Day 2 entirely on the 11th floor.

Post-Showcase Evaluation Results

An evaluation was sent out to students, staff, and faculty who participated in SHOWCASE 2017:

- 23 respondents: 19 students, 3 faculty/staff, 1 guest
- On a scale from 1 (worst) to 5 (best), 13 respondents rated their experience with a 4, and 7 respondents rated it with a 5.
- 17 respondents think that all freshmen should participate in a showcase at the end of their first semester at NYIT.

While the response rate was rather low at 12%, open-ended questions allowed for some interesting qualitative insights:

- Izamam Haque, Student: “I liked the way we had to present in front of a huge audience and I liked the way everything was organized there.”
- LauRena Pintard, Student: “I liked the variation of the presentations done by students. No one student talked about the same thing and what was talked about was very interesting. [...] I would not have had video presentations in the library. I would keep everything in the 11th floor auditorium.”
- Sharon Rosen, Guest (NYC Magnet Schools): “The showcase was very insightful. It absolutely informed my understanding of the Service Learning project as a whole. Not only did the showcase provide an opportunity for students to practice important communication skills, but more importantly, it provided them time and space to reflect on their experiences, get feedback from other stakeholders, and publicly share and stand by their work. As a partner, it was a critical part of my service learning experience as well. It provided a window into the project from a different perspective and it allowed NYIT students to share work with me and provide me with feedback I would not have otherwise had access to.”
- Gwen Lowenheim, Faculty: “It was very motivating for my students to prepare for and present to, a broader section of the school. It pushed them/us to up our game, including the 2 students who were part of the production team over the two days. And I think they were impacted on by the caliber of presentations and the enthusiasm of the crowd. I'd be interested to debrief this in the new year. [...] I think that we can begin conveying the Showcase in the beginning of the semester and perhaps offer some training or tips to all faculty and staff as to how to prepare (and/or volunteer) for it. It was supposed to be organized by the students but my students needed a lot of my input to make it happen. [...] If we did more to set up the students well, faculty would need to do less.”

Recommendations

- Make SHOWCASE 2018 and service-learning a prominent part of the incoming freshman experience. Many freshman express resentment that service seems to be forced upon them in a course and that they have no alternative. This can be addressed by making community service as a freshman an **expectation of being a student at NYIT**. Similarly, presenting at SHOWCASE 2018 will be an expectation.
- Form a standing faculty-staff-admin team charged with working with students to create an annual showcase the team will address the following;
 - SHOWCASE 2018 needs its own budget, the recommendation would be \$2000 for MA only.
 - Is there a showcase event in OW?
 - Is SHOWCASE 2018 a SISE event? An Academic Affairs event?
 - Develop / refine 2018 conference theme
- Create SHOWCASE 2018 prep materials to scaffold faculty and students for SHOWCASE 2018.
- Include SHOWCASE 2018 pictures and descriptions as part of the admissions process
- Classrooms on the 11th floor might be used as breakout sessions in future showcase events.
- Suggest to freshman course instructors not to use make-up week for regular class instruction and invite them to use SHOWCASE 2018 as a place for student presentations during make-up week.
- Make SHOWCASE 2018 awareness part of the training for FCIQ and FCSC instructors.