GLASS ROOTS

2016-17 PROGRAM EVALUATION REPORT

Lisa Duggan, Program Director October 2017

This report marks a second full year of data collection and analysis, building on work we began in February 2015, when we created and implemented a Program Evaluation and Assessment Protocol, funded through the generosity of the Victoria and Geraldine R. Dodge Foundations. The results of our evaluation efforts will continue to inform our policies, practices and programming choices for the coming year.

Throughout this report we refer to STEAM. STEM + Art = STEAM. In this climate of continued economic uncertainty, America is once again turning to innovation as the way to ensure a prosperous future. Traditional innovation remains tightly coupled with Science, Technology, Engineering and Math – the STEM subjects. Yet we know that Art creates Value and a pathway forward for our youth and young adults. Art + Design are poised to transform our economy in the 21st century just as science and technology did in the last century. We add Art + Design to the equation — to transform STEM into STEAM.

MISSION & VISION

GlassRoots ignites and builds the creative and economic vitality of greater Newark, with a focus on underserved youth and young adults, through the transformative power of the glass art experience.

Through involvement with GlassRoots' arts, NJ residents of all ages are empowered to think creatively and realize new visions of their futures through the art of glassmaking. Widely renowned for excellence in collaborative programming, GlassRoots presents high quality, rigorous, innovative, relevant, and diverse programing that both reflects and expands the community's interests.

PROGRAMS

In the 2016-17 program year, GlassRoots' offered youth and young adults:

- One Day Field Trips,
- Long Term Residencies,
- FLAME (a daytime, teen, college and career readiness program),



- Business & Entrepreneurship (an after-school teen college and career readiness program),
- The Bead Shop (a craft entrepreneurship/workforce development program aimed at women),
- The VARIS Scientific Glass Program (a workforce development program for young adults), and
- Summer Youth Leadership Corp (YLC)
- The GlassRoots/Penland Fellowship, the first of a three-year initiative. This fellowship is a thirteen-week art intensive for high school graduates created in collaboration with the Penland School of Crafts in Penland, North Carolina, which includes work and study in both our studios in Newark and off-site at Penland in North Carolina.



EVALUATION METHODS

GlassRoots continues to use the program evaluation and assessment protocols implemented in February 2015. Our survey tools allow us to measure and document the impact of our programs, and determine if and how well each program is meeting its objectives. For short term programs (e.g., a One Day Field Trip) participants completed a single post-program survey. Participants in longer term programs (e.g., a 10-week Mosaic Residency) completed both pre- and post-program surveys.

We continue to use additional evaluation mechanisms including student journaling, teacher observations, still photography, and reflective conversations between teachers and students, in the assessment of our year-long programs (FLAME and Business & Entrepreneurship), our college and career readiness programs(Scientific Glass, Bead Shop and Penland Fellowship), and our summer Youth Leadership Corps (YLC).

In this report we pay particular attention to the GlassRoots / Penland Fellowship, our newest initiative. We are especially excited about this fellowship as it expands upon and extends our mission to inspire underserved youth to think creatively and realize a new vision for their future. At the same time it provides students with the opportunity to earn college credits with which to start their post-high school education.

As we grow in our evaluation program you may note discrepancies between the number of program participants and survey respondents. We strive to have the most robust participation possible and continue to aim for 100% participation.

ONE DAY FIELD TRIPS

GOALS: To learn basic skills in glass art, to understand basic elements of STEAM as related to glass art, to create a piece of glass art that can be taken home, and to have fun.

SURVEY GROUP: 457 respondents following participation in 2-3 hour programs.

DEMOGRAPHICS: The majority of respondents identify as female (57%); 40% identify as male and 3% as gender neutral.

The largest number of students are in middle school (51%); with 45% of students in high school and 4% of students in grades 4 or 5 (elementary school).



The racial/ethnic breakdown of respondents is: 24% Black/African American, 43% Hispanic/Latino and 22% White/Caucasian.

Notably, this year the percentage of our one day field trip participants who identified as Hispanic/Latino was greater than those who identified as Black/African American; last year the reverse was true. This year we saw greater partnership with the Newark Public Schools, particularly in Hispanic/Latino neighborhoods. The percentage of those identifying as White/Caucasian remained nearly the same.

SUCCESSES:

- GlassRoots serves a diverse constituency that reflects the community of Newark and surrounding communities, as evidenced by the demographic self-reporting.
- 93% of respondents reported that they were "Very Satisfied" or "Satisfied" with their GlassRoots experience.
- 65% of respondents said <u>Yes</u> they would like to come back to GlassRoots; 32% said Maybe.

STUDENT SNAPSHOT:

- 87% of respondents were first time visitors to GlassRoots.
- Students reported their three favorite school subjects to *be Math, Science* and *Visual Arts*.
- The top three descriptors students used to describe themselves are *Curious, Happy* and *Observant/Artistic.*
- 79% have visited museums.
- 74% of the students plan to go to college.
- 72% were inspired by their GlassRoots experience to create art.

Please tell us what you like most about your GlassRoots experience...

<i>"I love playing with fire and making things. I hope I can work here."</i>	"How friendly and understanding the people are."
<i>"I like Flameworking the most because we take ordinary items, such as glass and fire, and transform them into</i>	<i>"I liked when we had to make the beads. I trusted myself more."</i>
jewelry that we can be proud to call our creation."	"Everything!"

TEACHER EVALUATIONS

SURVEY GROUP: All teachers or chaperones are asked to complete a Teacher Evaluation Survey after the One Day Field Trip of a school or camp group.

28 respondents completed the survey. 46% reported they are high school teachers, 29% middle school teachers, 11% elementary school teachers and 14% reported that they are other educators of some kind (teacher assistants or aides) or school administrators. 43% of teachers responding taught art.

SUCCESSES:

• When asked to rate one's agreement with the impact of GlassRoots' Arts programs, 28 educators reported that they "Strongly Agree" and "Agree" that:

Answer Options	# Strongly Agree + Agree
It increases student self-confidence.	28
It improves a student's ability to express ideas.	28
It results in students having a better cooperative learning experience.	26
It results in students having better peer relations.	26
It results in students having a more positive attitude toward learning.	27
It results in students having a more positive attitude about school.	23
It increases student appreciation of the Fine Arts.	28
It increases student achievement in Science.	22
It increases student achievement in Math.	20
It increases student critical thinking skills.	25

- 86% of respondents agreed that our instructors were knowledgeable and well prepared; 89% reported instructors to be engaging and polite.
- 89% of respondents agreed that proper use of tools and equipment were demonstrated and 82% reported that the studio and equipment were easily accessed and user friendly.
- 86% of teachers reported satisfaction with their GlassRoots experience and 91% said that they would recommend GlassRoots to other educators.
- 87% reported that they plan to return to GlassRoots.

And significantly,

• 91% reported that their students were engaged and interested in the GlassRoots workshops.

LONG TERM RESIDENCIES

GOALS: To learn basic glass skills, and to practice 21st century skills such as teamwork, communication, collaboration

and problem solving while creating a group or individual project.

SURVEY GROUP: In 2016-17 GlassRoots conducted long-term residencies at seven schools; Whitney Houston Academy and Campus High School in East Orange; Arts High School and American History High School from the Newark Public Schools, and Link Community Charter School, Philip's Academy Charter School and Eagle Academy for Young Men in Newark.

125 students were served in these residencies. The average length of a residency was 14 weeks. Each of these residencies involved designing and creating large-scale mosaics for installation at the school sites.



There were **74** respondents in the post-survey pool.

DEMOGRAPHICS: 53% of respondents there are male, while 46% reported as female and 1 respondent reported themselves as gender neutral. The greatest number of participants in long-term mosaic workshops were 8th graders (38%), the second largest number of participants were 9th graders (22%) and the 3rd largest group were 10th graders (12%).

The racial/ethnic breakdown of respondents is: 81% Black/African American, 13% Hispanic/Latino, and 3% White/Caucasian. Less than 5% chose not to answer the question.

SUCCESSES:

- 87% of respondents were first time participants in GlassRoots programs.
- 83% of participants reported they were "Very Satisfied" or "Satisfied" with the program.
- From pre to post survey, respondents' agreement with these four statements increased by about 10%: "I consider myself an artist," "I am not afraid of making mistakes," "Expressing my thoughts are important to me," and "I can learn from people from a different background".
- The top three answers to the question "What did you get out of this program?" were, "I learned how to shape and cut glass," "I had fun," and "I learned to design a mosaic". Response rates closely matched pre-survey responses, possibly demonstrating that respondents had realistic expectations for the program.
- Overall, instructors were well received and well liked. Common descriptors used for instructors were, "Cool," "Great," "Nice," "Helpful," and "Fun".

FLAME PROGRAM

GOALS: *FLAME* stands for Focus, Leadership, Art, Mentorship and Entrepreneurship. These terms represent the concepts, skills and goals students learn and practice one day a week for an academic year.

This year, we made a significant adjustment to our program, based on prior year evaluative data which told us that these students were not responding well to the traditional classroom approach to entrepreneurship education. To address this realization, we altered our program design to teach the business and entrepreneurship concepts through application directly in our glass studios. Students worked in production teams, designing, costing, creating, pricing and marketing products – some of which can now be purchased in Whole Foods, Newark. The program culminated in a year-end design competition.



The FLAME Program requires that student participants attend a high school that provides "release time," since the program is held during the

school day, and is considered part of the student's school program. In 2016-17, the students were all from a single high school, one that focuses on individualized learning plans to reach the most disengaged students. GlassRoots worked in tandem with the students' advisors, teachers who work closely with the group of students and form personalized relationships with each advisee.

SURVEY GROUP: 6 respondents (from 9 participants)

DEMOGRAPHICS: 50% female, and 50% male. Half of the group were 16 years old, the other half were 17 years old. The racial/ethnic breakdown was 78% Hispanic/Latino, with the remaining 22% choosing not to specify. All participants were Newark residents. Two of the students were participating in the FLAME program for the first time.

SUCCESSES:

- 100% of participants were Very Satisfied or Satisfied with the program.
- 100% said they would recommend the FLAME program to a friend.
- In assessing their skills, post-program, students indicated the highest confidence (Very Capable) in the following areas: *Creative Thinking, Planning and Research, Communication, Team Building* and *Goal Setting*.
- Also post- program, respondents reported high confidence (Strongly Agree) with the following statements: "I am a creative problem solver," "I am comfortable learning a new skill," and "I like teamwork/collaboration".
- Mentors and advisors were named as the most valuable aspect to the program, along with the Hot Shop, which students enjoyed very much.

CHALLENGES:

• Pre and post survey questions differed significantly enough so as to make a meaningful comparative analysis more difficult.

BUSINESS & ENTREPRENEURSHIP PROGRAM

GOALS: Once a week after school, over the course of an academic year, teenagers design a business around glass art or glass products while learning and practicing important life (21st Century) skills.

We believe entrepreneurship education benefits students from all socioeconomic backgrounds because it teaches kids to think outside the box and nurtures unconventional talents and skills. It also creates opportunity, ensures social justice, instills confidence and stimulates the economy.



SURVEY GROUP: 6 respondents

DEMOGRAPHICS: 50% identified as male, 33% as female and 17% gender neutral.

Three students were 16 years old (50%), and one student each was 17, 15 and 14 years old. The racial/ethnic breakdown was 66% Black/African American, 17% Hispanic/Latino, and 17% White/Caucasian. Five of the six students were Newark residents. 83% of participants were enrolled in Business & Entrepreneurship for the first time.

SUCCESSES:

- 100% reported being Very Satisfied or Satisfied with the Business & Entrepreneurship program.
- 100% of those students eligible to graduate high school did graduate high school.
- 100% of those students who graduated enrolled in a 2 or 4-year college.
- 100% of those who completed the program reported that their glass skill level in their studio of choice improved
- In assessing their skills, post-program, students indicated the highest confidence (Very Capable) in the following areas: *Team Building, Creative Thinking, Planning and Research, Decision Making*, and *Goal Setting*.
- Also post-program, respondents reported high confidence (Strongly Agree) with the following statements: "I am comfortable learning a new skill (100%)," "I am comfortable working with fire (67%)," "I look at mistakes as a learning opportunity (67%)," and "I am passionate about glass arts (50%)".

CHALLENGES:

• School requirements caused 3 of the initial 9 students to withdraw early in the program year.

Q: What is the most valuable aspect to the B&E program for you?

"I now feel like a legitimate entrepreneur and B&E has given me that feeling. I plan to make entrepreneurship a staple in my journey in life."

"I like working with others and I think the business aspect helped me a lot with future goals." "Building a brand and learning new techniques, and exploring these."

"Glassblowing. Also, trying new things, in general."

YOUTH LEADERSHIP CORPS

GOALS: The goal of the Youth Leadership Corps (YLC) program is for participants to grow by mentoring younger kids and to practice 21st Century skills such as collaboration, teamwork, problem-solving and communication.

Our participation in the YLC program allows us to deepen and strengthen our commitment to provide career and college-readiness learning for Newark youth.

SURVEY GROUP: 10 respondents.

DEMOGRAPHICS: 60% of our participants reported as female and 40% male.



Five participants were 16 years old; three were 18 years old and one participant each was 17, 19 and 20 years old.

The racial/ethnic breakdown of students was 50% Black/African American; 40% Hispanic/Latino; 10% White/Caucasian. All participants were residents of Newark.

SUCCESSES

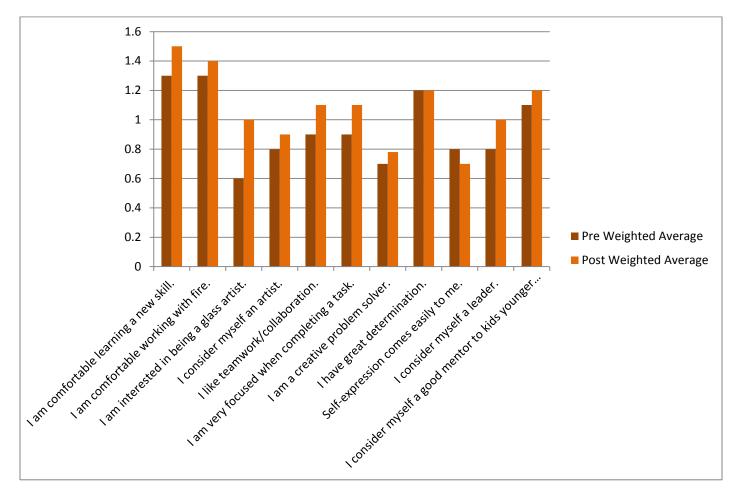
Social-Emotional Skills

Post-survey results show that student confidence increased in nearly all social-emotional skills (see charts on next page).

In addition, as reported by our teaching staff and program director, a majority of the YLCs grew as teachers and mentors of young people, some in their focus and concentration (leading to sharper glass-art skills) and nearly all in self-confidence and self-expression:

- 100% of respondents reported they were either "Very Satisfied" or "Satisfied" with the YLC program.
- 70% reported they would be interested in enrolling in another GlassRoots program.
- Program Impact: 90% of respondents reported that the YLC program made them want to Create Art; 80% reported that the program made them want to work with kids; 60% reported wanting to practice their new mentorship skills and tell people about their summer at GlassRoots.

YOUTH LEADERSHIP CORPS continued



Note: numbers are based on an average of a 2, 1, 0, -1 or -2 point Likert scale. Measurements over 1.5 are considered "good" or "great"; a lack of negative measurement, or an overwhelming positive trend in scoring, is considered excellent.

The YLC program has made me want to: (check all that apply)		
Answer Options	Response Percent	
Create art	90.0%	
Work with kids younger than I	80.0%	
Practice my new mentorship skills	60.0%	
Tell people about my summer at GlassRoots	60.0%	
Ask questions	50.0%	
Take more of a leadership role in school	50.0%	
Solve a problem	40.0%	
Learn more about other people	30.0%	

Perhaps the best sign of satisfaction and effectiveness of programming is the personal testimonials provided by the students themselves. Participants overwhelmingly reported that the program met their expectations, and that they benefitted from it. Here are some of their comments:

- "Met my expectations; nothing had to be improved. I wish this was a full time job."
- "I was able to gain mentoring skills. I had so much fun. And all the times we went out to schools, it was fun teaching kids the stuff that I learned."
- "I was able to practice mentorship skills with kids younger than me, I was able to learn new skills and improve glass art skills, and I learned to take more of a leadership role."
- *"Honestly, the program exceeded my expectations because I've learned different techniques and tools."*
- "I felt I had major improvement in my hot shop skills and in public speaking. I used to be shy. My confidence is a level 10!"

SCIENTIFIC GLASS PROGRAM

GOALS: To train young adults (ages 18-24) to become proficient in making and repairing scientific glass, such that they are ready for entry-level work in the scientific glass industry.

Our ideal, targeted candidate for the Scientific Glass Program were high school graduates with ambition for and interest in creating their futures, who did not plan or want to go to college, but who also had no mapped direction to take outside of college.

SURVEY GROUP: Five (5) respondents.

DEMOGRAPHICS: Of the five students, all were male and were from Essex, Union and Ocean counties, NJ. 75% reported they were 21 years old, 25% reported being 22 years old or older. The racial/ethnic breakdown was 80% White/Caucasian and 20% Black/African American.



100% of students self-identified as having a learning disability or difference.

SUCCESSES:

- 100% reported being satisfied with the program.
- In assessing their skills, post-program, students indicated the highest confidence (Very Capable) in the following areas: Creative Thinking, Team Building, Business Development and Planning & Research.

"I sought another outlook for creativity. I sought progress. I gained friends, resources, options, and, for what it's worth, I had fun. Thank you, Ellen, Barbara. This was a blast." • Also post- program, respondents reported high confidence (Strongly Agree) with the following statements: "I am comfortable working with fire (71%)," "I consider myself a perfectionist (57%)," and "I understand banks, saving and checking accounts, and credit cards (57%)".

Q: This GlassRoots program makes me want to:

"Create glass art."

"Learn more about scientific glass."

"Start my own glass business."

THE BEAD SHOP

GOALS: The Bead Shop is a program designed to teach women, aged 18 and up, to become proficient in flameworking, and to assist them in launching businesses resulting in supplemental income.

According to a Goldman Sachs report, investing in women is one of the most effective ways to reduce inequality and facilitate economic growth. When women are empowered it leads to healthier, better-educated families, and ultimately more prosperous communities.

SURVEY GROUP: Of the 20 women participating in Bead Shop, seven completed our "Jewelry in a Box" workshops, each workshop running for two consecutive weekends, or four days.

DEMOGRAPHICS: 100% female, 43% reported being 18-24 years old, 29% reported being 65 to 74 years old and and 14% reported in each age group of 45-54 and 55-64 years old. All participants were from Essex county, NJ.



The racial/ethnic breakdown is 43% Black/African American, 43% Hispanic/Latino and 14% White/Caucasian. 74% of students reported this program was their first GlassRoots experience.

SUCCESSES:

- 100% of participants were Very Satisfied with the program.
- 100% were interested in participating in another program or class at GlassRoots.
- 100% of participants said the program met their expectations.
- 100% said they would tell friends and family about GlassRoots.

Bead Shop continued

Social-Emotional Skills

In post-program scoring respondents reported high confidence (Strongly Agree or Agree) with the following statements:

	Strongly Agree or Agree
I am comfortable learning a new skill.	100.00%
I am comfortable working with fire.	85.00%
I like teamwork/collaboration.	86.00%
I am very focused when completing a task.	100.00%
I am a creative problem solver.	100.00%
I have great determination.	100.00%
Self-expression comes easily to me.	86.00%
I consider myself a leader.	85.00%

Q: Did the program meet your expectations?

- ✓ "I learned a lot and teachers are delightful and patient and skilled."
- ✓ "I learned more than I thought [I would]; it was amazing, and Richard did an amazing job teaching."
- ✓ "I just wish it was longer."
- ✓ "I didn't know what to expect....but I went beyond my limits and became more motivated, and am stimulated to return to jewelry-making and to take it seriously."
- ✓ "This program exceeded my expectations."
- ✓ "It was a great learning experience, and it took a lot of focus and an open mind to complete."
- "The program and its staff were intense and professional. I felt comfortable asking questions even when things were already explained, I knew nothing about this art-form before I began."

GLASSROOTS / PENLAND FELLOWSHIP

2016-17 was the first year of the GlassRoots/Penland Fellowship, a college readiness program, for which we have secured funding for three years. The program, in its first year, included two "launch" weeks – studio and life skills training at GlassRoots, followed by an 8-week intensive craft workshop at Penland, and closing with a week which included evaluation, college applications and a show of completed works. Each student who successfully completed the program received up to nine transferrable college credits.



GOALS

- To expand personal and professional development opportunities for inner-city young adults through a sustainable partnership between Penland and GlassRoots.
- To foster accountability, self-esteem, and other important interpersonal and social skills, including developing the confidence to pursue post-secondary education and career development.
- To expand students' vision of future possibilities and broaden young people's network of supportive peers, teachers, and mentors.
- To teach young adults marketable skills that will further their vocational and academic success.
- For at least 90% of participating students to apply for college/university, vocational training, and/or employment in the 12 months following their completion of the program.

SURVEY GROUP: 6 respondents.

DEMOGRAPHICS: 50% reported as male, 33% female and 17% as gender neutral. The racial/ethnical breakdown of students was 67% Black/African American; 16.5% Hispanic/Latino and 16.5% White/Caucasian. 100% of participants are residents of Newark, NJ.

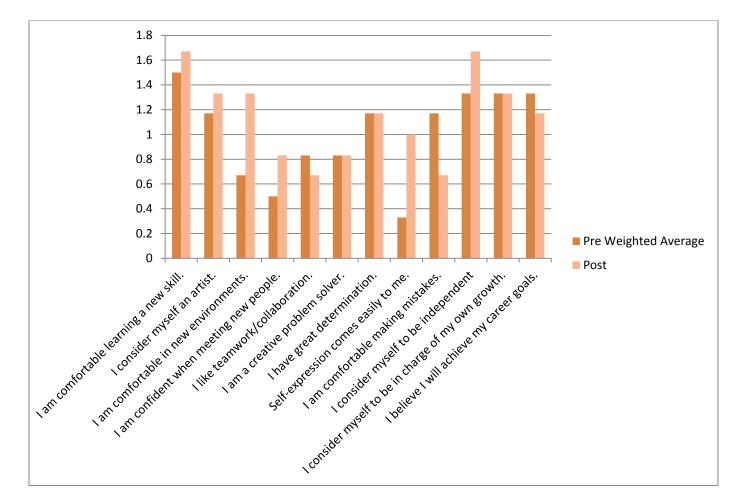
SUCCESSES

- 100% of participants were Very Satisfied or Satisfied with the program.
- 100% reported they would recommend the GlassRoots/Penland Fellowship to a friend.
- 84% of participants Agreed or Strongly Agreed with the statements, "I have acquired new artistic skills that I will continue to use," and "I can now work independently in the medium and processes I learned at Penland".
- 100% reported they were "Very Satisfied" with their choice of art concentration at Penland.
- 90% of first-year participants are enrolled and attending college and/or are gainfully employed.

Social-Emotional Skills

Post-survey results show an improvement in the measurement of many social-emotional skills, with students reporting increased confidence or ability in the following:

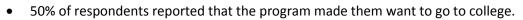
- learning a new skill
- considering themselves to be an artist
- being comfortable in new environments and having increased confidence in meeting new people
- considering themselves to be independent, and
- in the statement, "Self-expression comes easily to me" (a .67 point increase)

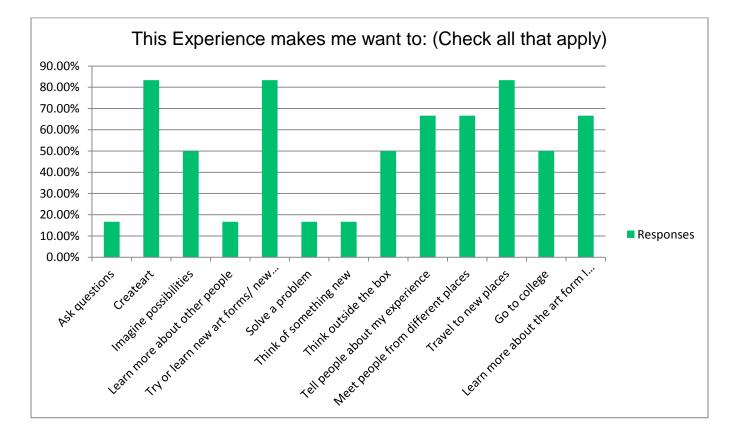


Please note: numbers are based on an average of a 2, 1, 0, -1 or -2 point Likert scale. Measurements over 1.5 are considered "good" or "great"; a lack of negative measurement, or an overwhelming positive trend in scoring, is considered excellent.

Program Impact

- 84% of respondents reported that the GlassRoots/Penland program made them want to "Try or learn new art forms/ new materials".
- 84% reported that the program made them want to "Travel to new places" and 67% of respondents reported that the program made them want to "Meet people from different places".





Participant Testimonials

Successes

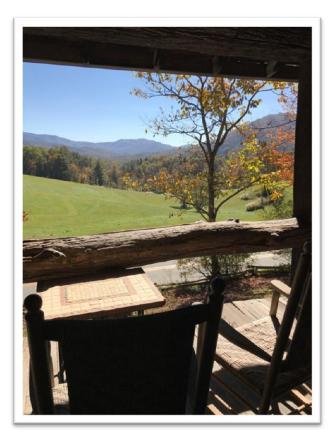
"Developing a relationship with myself and building confidence in myself and my artwork. Finding different mediums to work in and different paths and outlooks on what success is and ways to succeed. Beginning to find my artistic voice."

"[The program] expanded my knowledge of crafts and I have been inspired to travel more."

"It has shown me a new world and that traveling to new places can help me learn much more than staying in one city."

"It has helped me by letting me experience new possibilities, and helping me to realize that I can accomplish anything I put my mind to."

"When I first heard of it I thought that it was too good to be true, but it ended up being better than I expected."



Ways to Improve Program / Advice for Future Fellows

"I think you could Improve the program by actually having someone who has been there talking about the program and what they will experience. Also, to have pictures of the dorms and campus."

"We could have done more research on college scholarships and grants and looked at other colleges as well."

"I did not trust my gut when choosing my class. I took advice from other people about choosing classes and what to bring or do when I was there, and listened to them more than myself. It was something I really regretted during my time at Penland; so I would tell another student to trust their own instincts and really make sure you do what you have to do to get what you need and want, (in order) to make the most of your time and the program."

"Also, pack as much underwear as you can."

SUMMARY: COMMENTS AND RECOMMENDATIONS

Our data, both the quantifiable and anecdotal, show that GlassRoots' programming for youth and young adults is successful and achieving program objectives, as evidenced in, among other measurement; high scores for program satisfaction, intent to recommend our programming to others, returning students, and participants who stated an intent to return to GlassRoots for more classes or workshops.

We are proud that GlassRoots serves a diverse constituency that reflects the community of Newark and surrounding communities.

We continue to note that assessing social-emotional impact in small groups may be better documented through observation, as opposed to through survey questions by participants. Therefore, we will continue to include student journaling, teacher observations, and reflective conversations between teachers and students in our assessment. That being said, the current social-emotional scales now in place in our surveys, plus open-ended questions, are providing sufficient data to assess change in student's attitudes about themselves and their skill levels. Open-ended questions are also proving helpful in assessing which programs and processes are working.

Feedback we received from teachers is influencing us:

• We had a request for our instructors to provide a more in-depth explanation of GlassRoots' mission and history in our introduction

- We had a request to encourage picture taking of classes, students and projects, and sharing on social media
- We had a request to connect glass-art making skills and experience to workplace skills in our introductions

We are acting on this feedback, and learned about these topics as well:

<u>Data integrity</u>: Analysis was made difficult because of mid-year changes that made pre and post surveys differ in content and length. We are committed to starting and ending next year's data collection with intact surveys. Also, we are working to develop a method or methods to keep data collection accurate and consistent when participants do not stay for the entire length of the program.

<u>Recruitment and Retention</u>: All programs would benefit from an increase in partnerships with schools and youth and adult service organizations, both in Newark and out, to insure a steady pipeline of candidates. In addition to our broad outreach efforts, we will include specific targeting for long-term relationships (i.e., East Side High School, Covenant House).

Multiple Languages: All surveys should be made available in English and Spanish.

<u>Program Partner Evaluations</u>: We recognize the value of parents, teachers, advisors and other program partners' input and are working to strengthen this part of our evaluation protocol.