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# GLASSROOTS

## 2017-18 PROGRAM EVALUATION REPORT

SEPTEMBER 2018



During a **Glass Volcano Workshop**, students from Our Lady Help of Christians School, in East Orange, feel the radiating heat from the glass "lava" flow that destroyed a town!

### FULFILLING OUR 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 programming that both reflects and expands the community's interests.*

## INTRODUCTION

GlassRoots is a community-based nonprofit organization working to ignite and build 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.

At the very heart of our work is the focus on engaging youth from Newark and throughout the state in an effort to promote the flame within them to create, to innovate, to reach and exceed their potential and to guide them towards educational and career opportunities that they may have not had access to otherwise.

Since its inception 17 years ago, GlassRoots has served well over 18,000 young people with its programs, the majority of whom are from the city of Newark and the nearby communities of Orange, East Orange, and Irvington. Citizen participation is one of our core values, and over the years our services have evolved in direct response to the needs of our Newark community – from enhancing school-day learning for under-resourced schools, to extending learning and providing a home-away-from home for teens in the afterschool hours, to fostering entrepreneurship and college and work readiness skills for young adults.

Our programs offer students:

- a specific connection to NJ core curriculum concepts in art, math and science
- a connection to STEM and STEAM based careers and occupations
- multiple opportunities to practice 21<sup>st</sup> century skills such as creativity, cooperation, collaboration and communication, and
- multiple opportunities to develop social-emotional skills which are transferable to other areas in life.

Public benefits of our work include:

- access to the arts for at-risk youth through school field trips, high-quality after-school, weekend, and summer workshops,
- workforce development and entrepreneurship programs for young adults that develop skills and create opportunities for residents to generate income, and
- glass arts education programs to people of all ages.

## PROGRAMS

In the 2017-18 program year, GlassRoots’ offered youth and young adults the following eight programs:

<b>Business &amp; Entrepreneurship</b> ; an after-school teen, college and career readiness program.	<b>Page 5</b>
<b>FLAME</b> ; a full-day, teen, college and career readiness program. Both FLAME and our Business & Entrepreneurship programs combine hard business skills with glass art making techniques in a year-long program for high school students that culminates with students creating an original product and competing in a business plan competition, encouraging students to explore their options after high school.	<b>Page 9</b>
<b>Long Term Residencies</b> ; which offer customized glass-art programs that match the needs and interests of students in grades 5-12, and align with New Jersey State Learning Standards.	<b>Page 13</b>
<b>Summer Youth Leadership Corp (YLC)</b> ; offered in cooperation with the city of Newark, the YLC program provides work experience, leadership training, and opportunities for Newark teens to mentor younger students in our summer programs, gaining important skills and building resumes.	<b>Page 17</b>
<b>One Day Field Trips</b> (includes Teacher Evaluations, page 26)	<b>Page 21</b>
<b>One Day Glass Volcano Experience Workshops</b>	<b>Page 29</b>
<b>The GlassRoots-Penland Fellowship</b> ; the third of our three-year initiative. This fellowship is a thirteen-week art intensive, 9-college credit fellowship program, intended for high school graduates and created in collaboration with the Penland School of Crafts in Penland, North Carolina. The program includes work and study in our studios in Newark and off-site at Penland in North Carolina.	<b>Page 32</b>
<b>The Bead Shop</b> ; a craft entrepreneurship/workforce development program aimed at women.	<b>Page 36</b>

## EVALUATION: METHODS AND PARTICIPATION

This report marks the third full year of data collection and analysis, a continuation of the 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.

This data collection process continues to provide invaluable feedback on how successfully we execute our primary mission, as well as critical information about a) who we serve, b) the quality and reach of our programs and c) where we can improve our programs and processes.

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 complete a single post-program survey. Participants in longer term programs (e.g., a 10-week Mosaic Residency) complete both pre- and post-program surveys.

We continue to use additional evaluation mechanisms including teacher observations, still photography, and interviews and reflective conversations between teachers and students, in the assessment of all our programming.

## **PARTICIPATION**

Our largest sample size of data comes from one-day field trip participants, with 537 collected responses. Paper surveys are administered by instructors at the end of each field trip which has helped us obtain nearly 100% participation, and which allows us to reach attendees when their memories and reflections on the day's activities are freshest.

Achieving 100% participation in our long-term residencies is more difficult, as we depend upon assistance from program administrators and teachers on-site at schools to help us collect responses. To that end we continue to explore the best way to administer surveys including electronic means.

## BUSINESS & ENTREPRENEURSHIP PROGRAM



Students gain proficiency in glass-art making, and learn the fundamentals of creating a business, in GlassRoots' business & entrepreneurship after-school 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 skills.

***Program Note:** Courses in business and entrepreneurship have gained popularity in the last decade, a product of and response to an uncertainty in the job market, and the economy, that have become the norm for two generations of high school and college graduates. GlassRoots' has long recognized the benefits of an education that includes lessons in the fundamentals of business and entrepreneurship for students of all socioeconomic backgrounds. We believe it creates opportunity, ensures social justice, instills confidence and resiliency in students, and stimulates the economy.*

**SURVEY GROUP:** Three respondents\* (Five students began the program, two left after the fourth week. See "Challenges" below.)

**DEMOGRAPHICS:** 100% of students are Newark residents. Two of the three students were enrolled in the program for the first time.

**Grade/age:** Two students are 16 years old, and one 14 years old (11<sup>th</sup> grade and 9<sup>th</sup> grade, respectively). Two are students at Science Park High School and one at Arts High School, all in Newark.

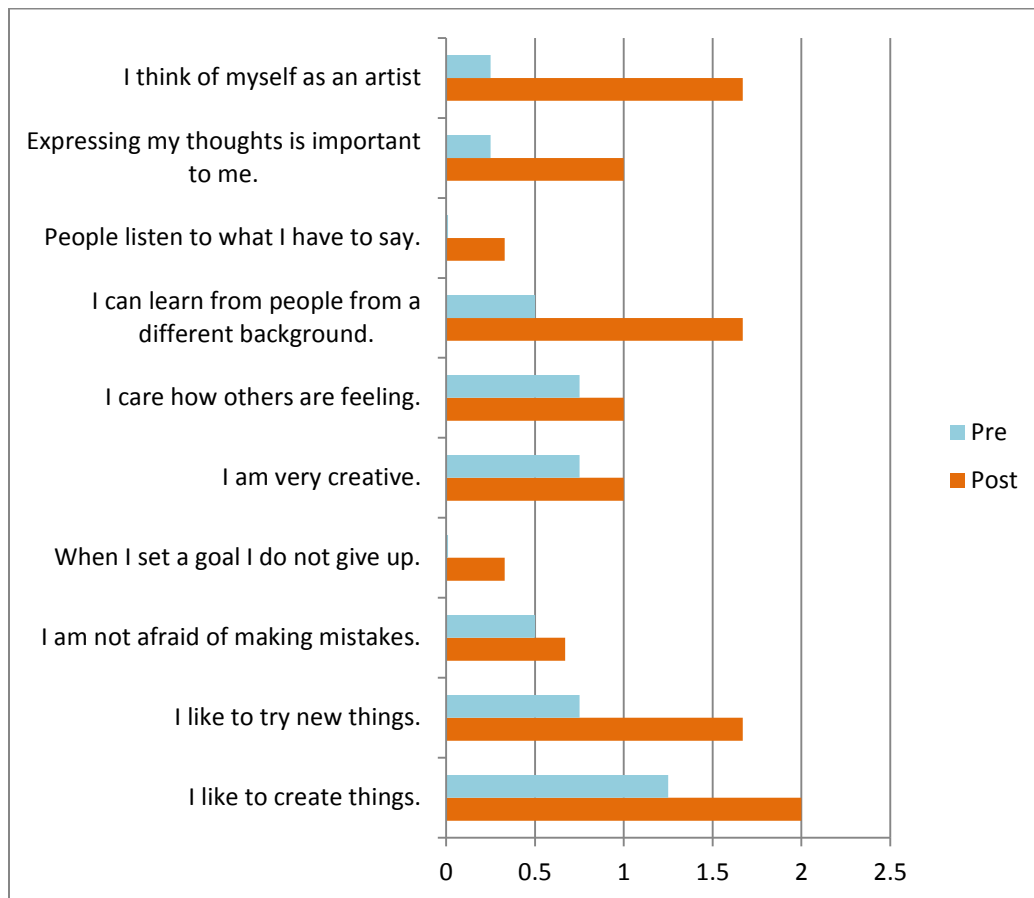
**Racial/ethnic identity:** One student identified as Black/African American, and two identified as Hispanic/Latino. 100% of students spoke English as their first language.

**Gender:** 1 student identified as male, 1 as female and 1 student identified as gender queer.

**PROGRAM IMPACT**

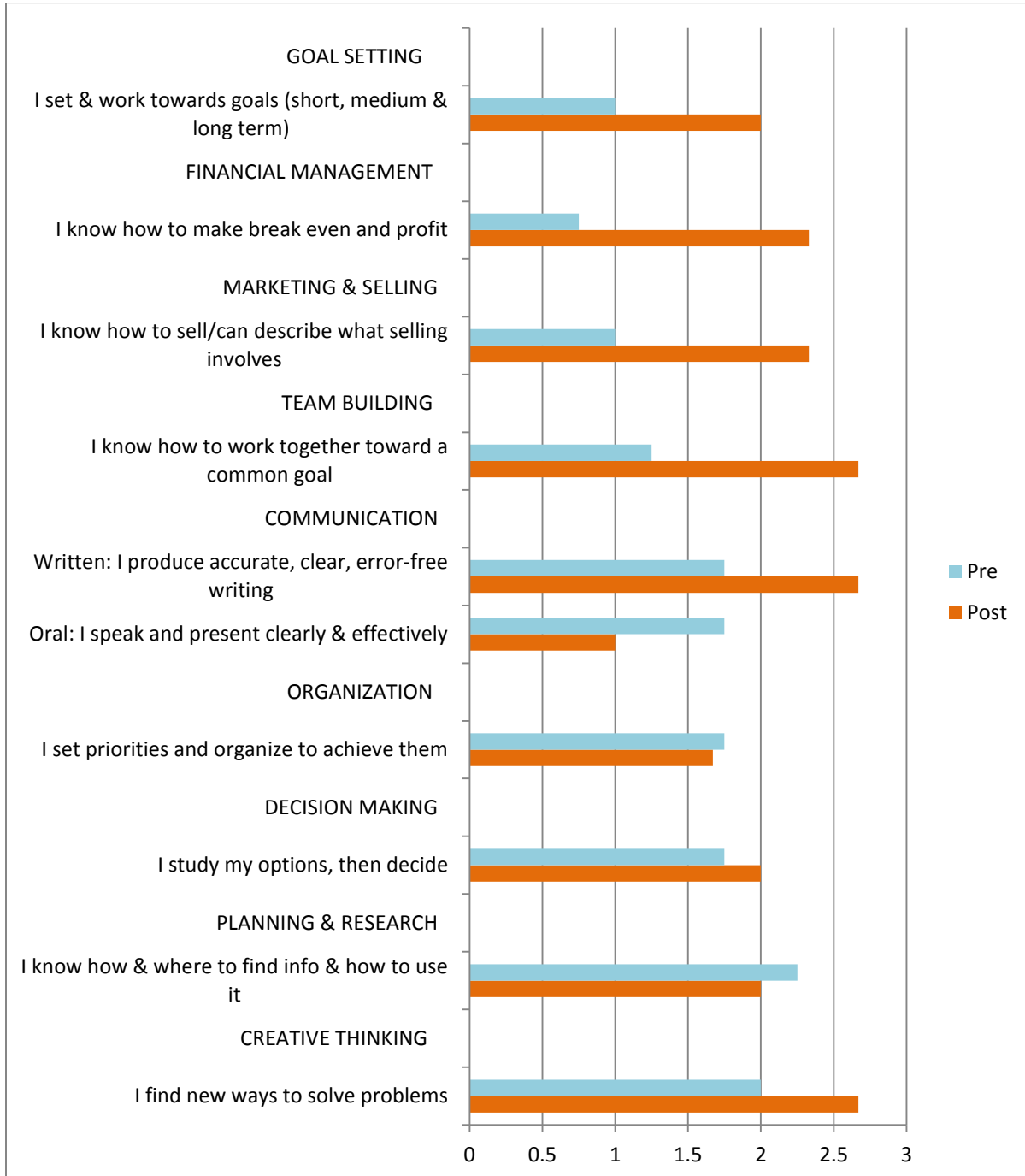
Of the three respondents, two said they “Agree” or “Strongly Agree” with the statement; “I enjoyed this experience.” The third participant responded that they neither agree or disagree with this statement.

Participants described themselves as **Artistic, Committed, Determined, Excited, Persistent** and **Tolerant** at the end of the program. Also post-program, respondents reported high confidence (Strongly Agree) with the following statements: “I like to create things,” “I think of myself as an artist” and, “I can learn from people from a different background”. The highest gain between pre-program survey measurement and post is seen in the statement, “When I set a goal I do not give up,” for all three participants.



## Measuring 21<sup>st</sup> Century Skills

In assessing their skills, students reported a high gain in skills in multiple measurements: **Goal Setting, Financial Management, Marketing and Selling, Team Building, Written Communication and Creative Thinking.**



Reading the chart: 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.

**CHALLENGES:**

1. Two of the five students that began the program were siblings from East Orange. Difficulty in traveling here after school, and getting home, dampened their enthusiasm for the program and they withdrew after the fourth class.
2. Enrollment for the program was the lowest in three years. We suspect, among other factors, that the competition for after-school programming within Newark has increased dramatically. An additional emphasis on outreach has begun for the coming academic year.



## FLAME PROGRAM

**FLAME** stands for **Focus, Leadership, Art, Mentorship** and **Entrepreneurship**. These terms represent the concepts, skills and goals students learn and practice over an academic year. Our competency-based learning approach both educates students and prepares them for the workplace, by providing opportunities to work with others and think creatively and critically, (21<sup>st</sup> Century skills).

**GOALS:** To gain college and career readiness skills, business skills and glass art proficiency while working as a production team designing and crafting glass product(s) and/or glass art.

**Program Note:** *The FLAME Program*

*requires that student participants attend a high school that provides full-day “release time,” since the program is held during the school day, and is considered part of the student’s school program. In 2017-18, we partnered with the Big Picture program at East Side high school, one that focuses on individualized learning plans to reach the most disengaged students.*

**SURVEY GROUP:** We started the program with six students; three completed the program.

**DEMOGRAPHICS:**

**Grade/age:** 100% of students are in 9<sup>th</sup> grade (14 and 15 years old).

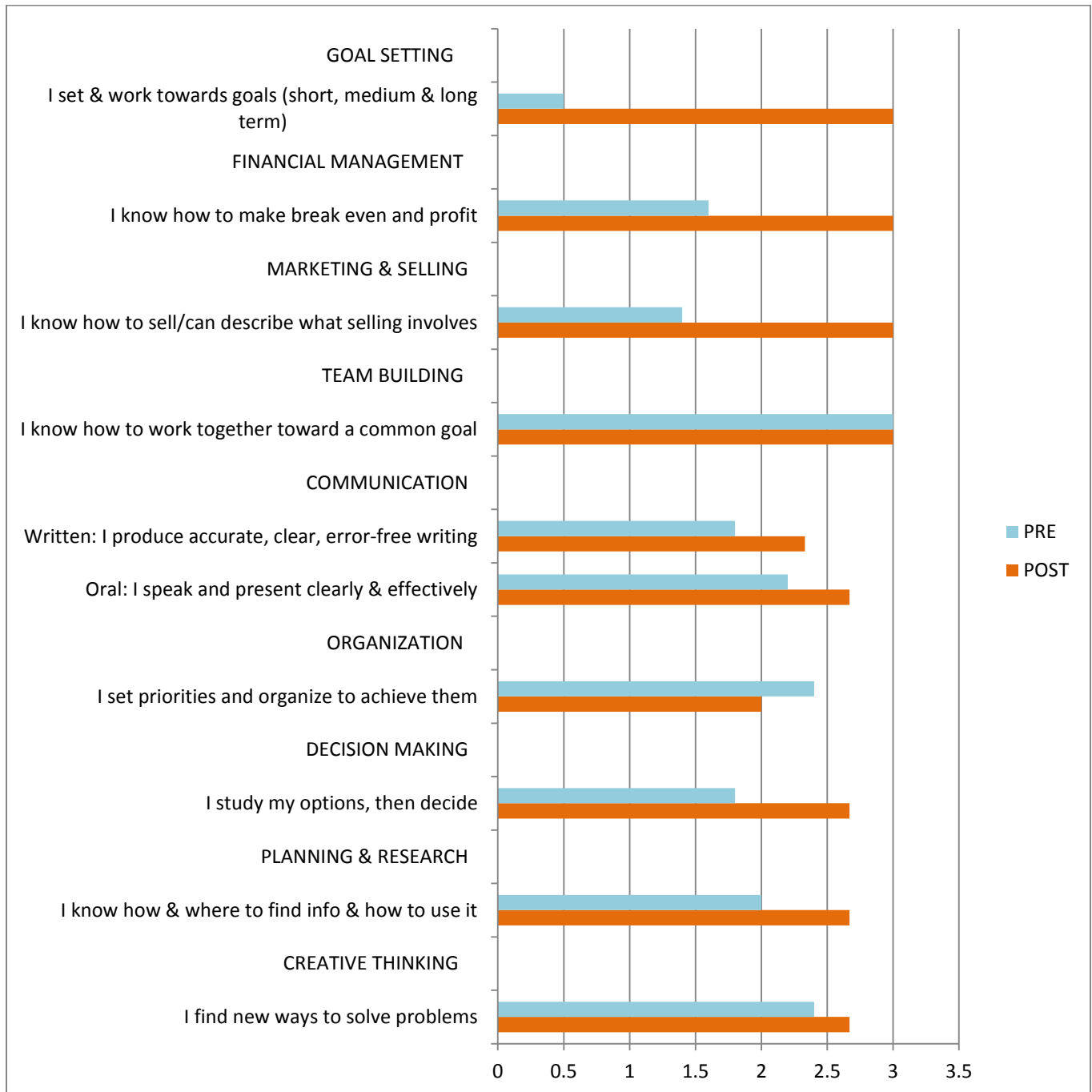
**Racial/ethnic identity:** 100% of the students identify as Hispanic/Latino with English as their first language. 100% of students live in Newark.

**Gender:** Three participants identified as female, two as male.



## PROGRAM IMPACT: Measuring 21<sup>st</sup> Century Skills

100% of participants reported they were “**very satisfied**” with the program. In assessing their skills post-program, students reported the highest gain in skills in three areas: **Goal Setting, Financial Management** and **Marketing & Selling**. They also reported significant increases in **Decision Making, Planning & Research** and **Communication** skills, both oral and written. (\*See page 19 for instruction on reading chart values.)

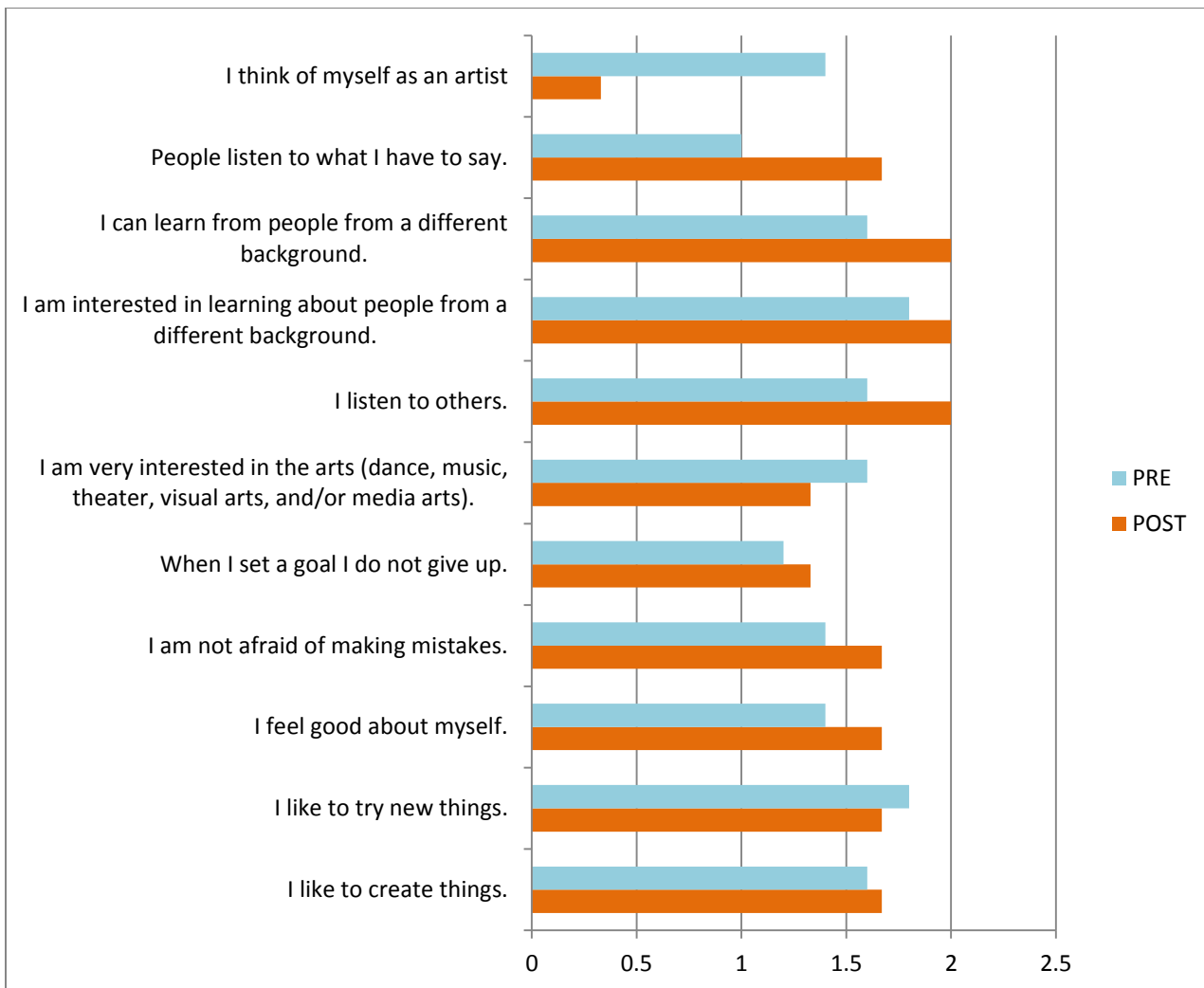


Also post- program, respondents reported high confidence (**Strongly Agree**) with the following statements:

- “I am not afraid of making mistakes,”
- “When I set a goal I do not give up,” and
- “I can learn from people from a different background.”

Additionally, students **Agree** or **Strongly Agree** that,

- “People listen to what I have to say,”
- “I listen to others,” and
- “I feel good about myself”



## Short-Term Outcomes

At the end of the year FLAME students competed alongside GlassRoots' Business and Entrepreneurship program students in GlassRoots' annual year-end competition and fair trade show, and combined forces to create a Pop-Up-Shop retail event and product showcase.

At the end of the program, according to GlassRoots' instructor assessments, students had accomplished the following:

- ✓ gained proficiency in 1-2 glass art studios
- ✓ gained mastery in public speaking
- ✓ gained mastery in 21st Century skills such as teambuilding, communication and problem solving
- ✓ demonstrated understanding of basic business skills and concepts including: how to recognize a business opportunity, Cost of Goods Sold and Economics of One Unit, and an understanding of the different types of business models



## Long-Term Outcomes

GlassRoots' instructors gained additional insight into student's progress by speaking with their teachers, parents/guardians. They reported that students demonstrated:

- ✓ increased self-actualization (students were able to teach what they learned)
- ✓ more consistent school attendance
- ✓ increased engagement in school classes
- ✓ a passion for glass or other art forms
- ✓ visible 21st Century skills such as problem solving, communication, mentorship, and collaboration
- ✓ an increased ability and confidence in literacy, spoken and written, particularly in public speaking

## LONG TERM RESIDENCIES

**GOALS:** To learn glass skills, and to practice 21<sup>st</sup> century skills including teamwork, communication, collaboration and problem solving while creating a group or individual project.

**SURVEY GROUP:** In 2017-18 GlassRoots conducted long-term residencies at four schools; Whitney Houston Academy and Campus High School in East Orange; Link Community Charter School and Philip's Academy Charter School in Newark.

Fifty-seven students were served in these residencies. The average length of a residency was 12 weeks. Each of these residencies involved designing and creating large-scale mosaics for installation at the school sites.

### *Program Highlight*

*Our residency at East Orange schools this year concludes three years of working with students and*



*teachers in the creation of large-scale mosaic panels that will be installed on a wall especially built for them at Cicely Tyson School this fall.*

*The panels represent four disciplines in the arts, valued and chosen by the school district: Music, Visual Arts, Dance and Theatre. GlassRoots instructors helped teachers and students in the creation of the panels, from initial design to completed mosaics, working with over 100 students over the three years.*

### **DEMOGRAPHICS:**

**Grade/Age:** At 67%, eighth graders represent the largest number of participants in long-term mosaic programs; the second largest group of participating students were 12<sup>th</sup> graders, at 21%, and the 3<sup>rd</sup> largest group were 10<sup>th</sup> graders, at 12%.

**Racial/ethnic identity:** The racial/ethnic breakdown of respondents was: 88% Black/African American, 16% Hispanic/Latino, and 6% White/Caucasian. 9% chose not to answer the question.

91% of respondents speak English as their first language.

**Gender:** 62% of respondents identified as female, while 38% identified as male.

## **PROGRAM SATISFACTION**

- 81% of participants reported they were “Very Satisfied” or “Satisfied” with the program.

## **PROGRAM IMPACT: Measuring 21<sup>st</sup> Century Skills**

Several questions were designed to measure growth in social-emotional skills and 21<sup>st</sup> century skills (teamwork, communication, collaboration and problem solving). Across these three questions, students reported an increase in creativity and resilience and executive functioning skills.

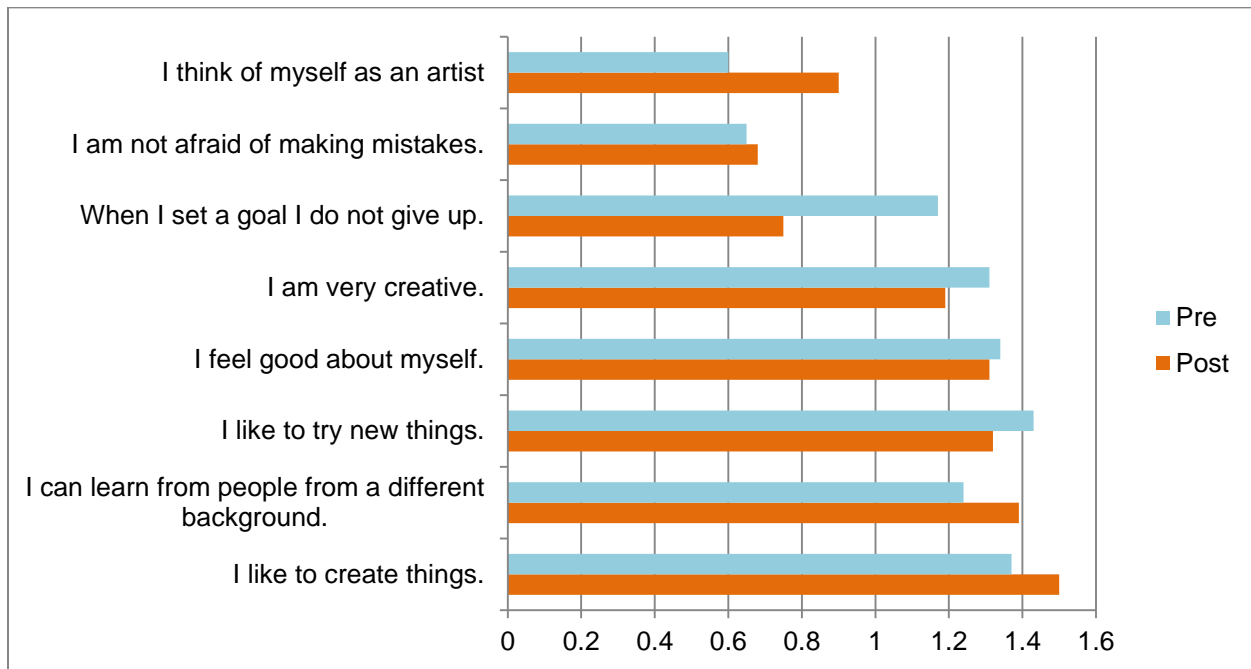
We see gains in these four measurements:

- “I am not afraid to make mistakes”
- “I think of myself as an artist”
- “I can learn from people from a different background,” and
- “I like to create things”

Additionally, participants reported themselves to be, post-program, more:

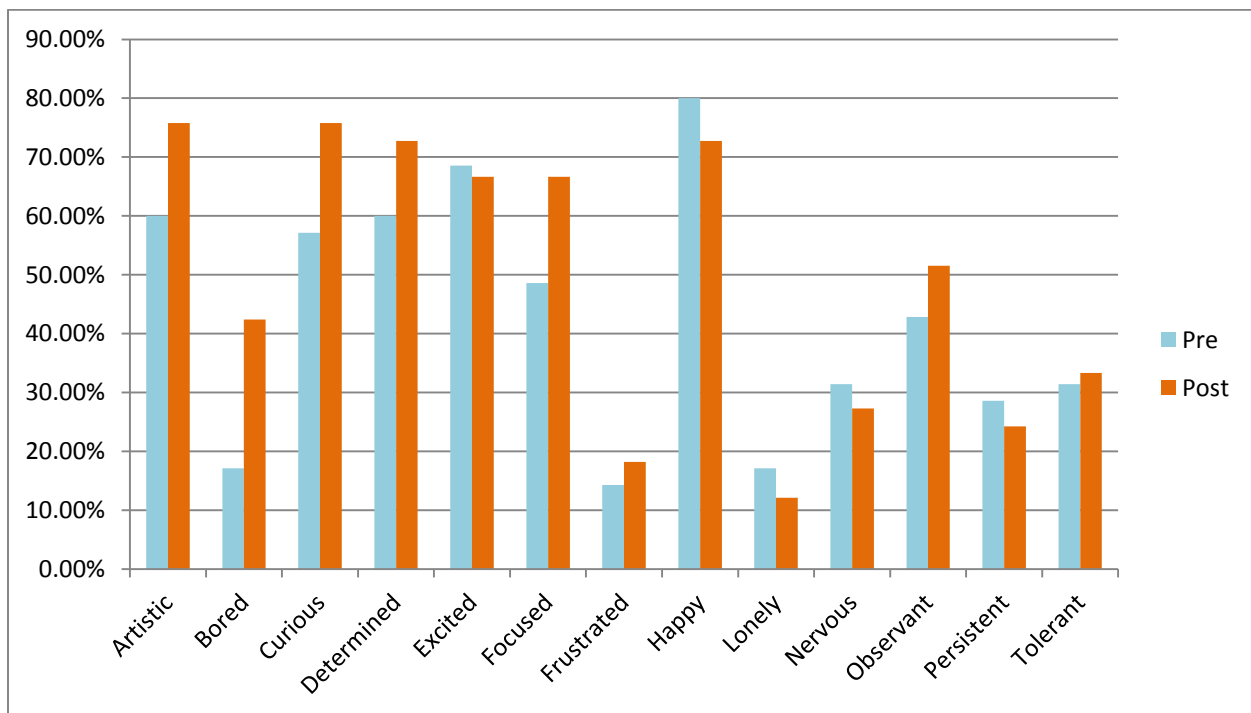
- artistic
- curious
- determined
- focused
- observant
- tolerant

**QUESTION: Please tell us whether you Agree or Disagree with the following statements**



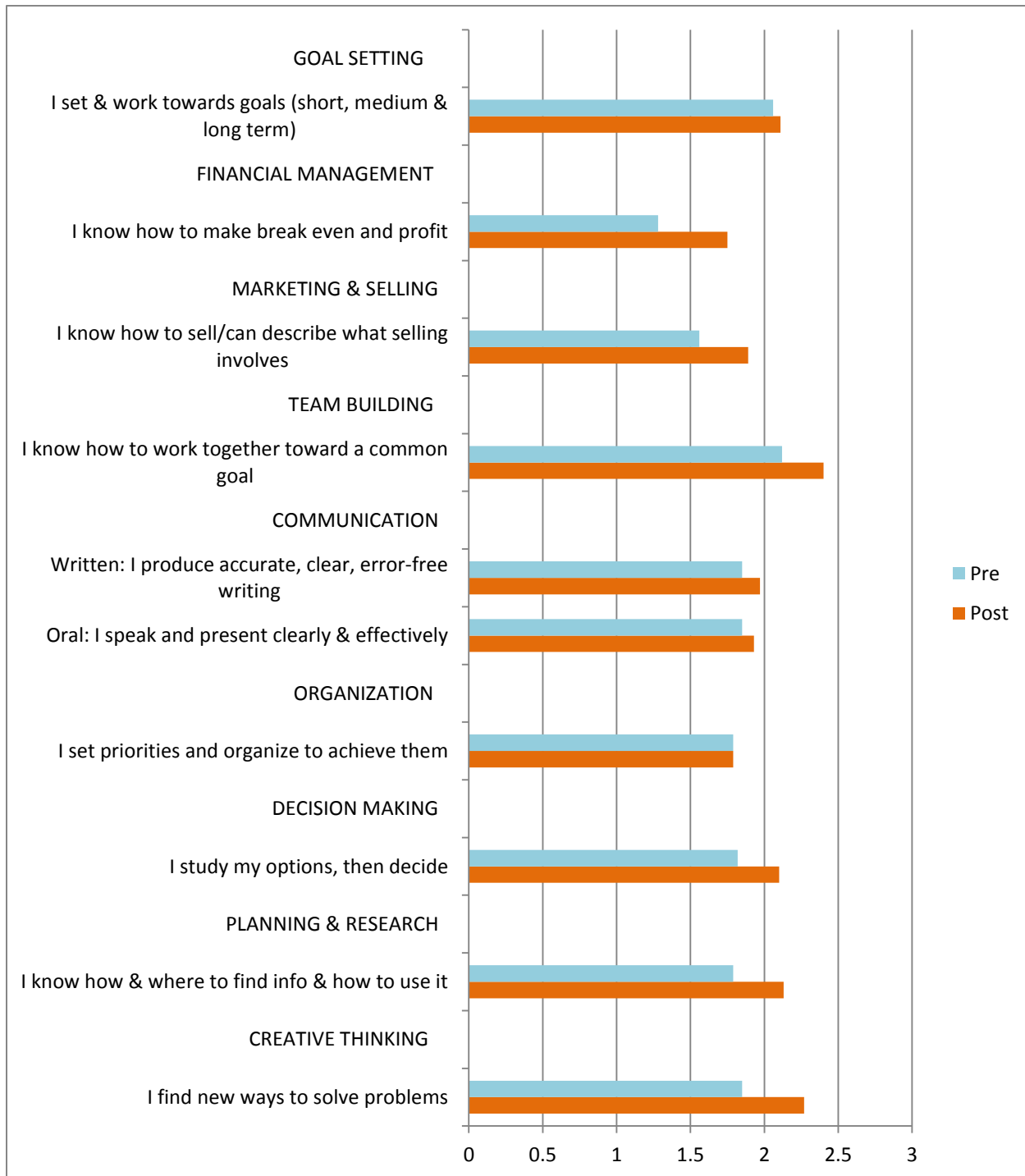
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**QUESTION: Check the words that best describe you (check all that apply)**



**QUESTION: Measuring skill levels, “not developed at all” to “very capable (I could teach/assist)”**

With the exception of “organization,” respondents reported an increase in all skill levels.



Reading the chart: 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.



## YOUTH LEADERSHIP CORPS



Each year teenagers from Newark's summer employment program participate in GlassRoots' Youth Leadership Corps training program, gaining skills in glass-art making and leadership.

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

*Program Highlight* Each year GlassRoots works in partnership with the City of Newark's One Stop Summer Youth Employment Program, offered to residents ages 14 to 21, to act as a job site and youth training partner. Our continued participation in this robust summer program allows us to deepen and strengthen our commitment to provide career and college-readiness learning for Newark youth. Some YLCs come back for our after-school business and entrepreneurship program, allowing our teachers to further develop their relationships with students. 2017 marked the third year of the programming in its current format.

**SURVEY GROUP:** 7 respondents. Of this cohort, six of the students are Newark residents, and participants in the Summer Youth Employment program. One student from a neighboring community enrolled independently.

### **DEMOGRAPHICS:**

**Grade/ age:** Three students were high school sophomores, two were high school seniors. Three students came to us from East Side High School, one from Science Park High School and one from People's Prep Charter School,

all in Newark. One student was a first-year college student, attending Alfred University; the other was a college sophomore at Fairleigh Dickinson.

**Racial/ethnic identity:** Three students identified as Hispanic/Latino; the remaining four students preferred not to answer the question.

**Gender:** Five of our participants identified as female and two as gender neutral.

**PROGRAM SUMMARY AND IMPACT**

★★★★★★★★★★

*Q: Please tell us what you liked most about this program.*

*A: EVERYTHING! Y'all da bomb!"*

★★★★★★★★★★

GlassRoots Youth Leadership Corps (YLCs) provides in-depth training on leadership/mentorship skills preparing participants to serve as mentors in our summer glass-experience program.

In this 6-week summer work/internship program, high school students receive on-site and on-the-job training and experience that helps ready them for college and/or the workforce, while not losing the gifts and uniqueness of our glass-art program. The YLCs create, learn, and grow intellectually, socially and emotionally and can apply this experience to their resumes and school applications. With a focus on developing communication, teamwork, personal identity, professionalism, and project management, the YLCs complete the

summer having developed the skills they need to succeed.

YLC's completed 24 sessions, or a total of 96 hours of training. Training included two field trips, one to the NY Botanical Gardens to see the Dale Chihuly exhibit and one to the Newark Print Shop, where students learned the silk screening process.

**PROGRAM IMPACT**

By working together in trainings, production, and in assisting classes, the YLC's became a close knit group. Together they successfully developed and executed several Lead Projects (described below), demonstrating their abilities and growth in communication, leadership, and problem solving skills. Additionally, the YLC's demonstrated a proficiency in glass-art making, creating products for sale in each of the studios.

## Development of 21<sup>st</sup> Century Skills

Each of the six weeks of training was devoted to the development of a specific skill;

- ✓ Week 1 - Goal Setting
- ✓ Week 2 – Leadership
- ✓ Week 3 – Collaboration
- ✓ Week 4 – Communication
- ✓ Week 5 - Career Planning
- ✓ Week 6 - Problem Solving

GlassRoots board and staff, and community members, contributed to the training of the YLC's in these focus areas, providing lessons in financial literacy, resume writing, and goal setting. Students were given opportunities to practice these skills by assisting in classes, representing GlassRoots at outside events and in the creation of their Lead Projects.

## Lead Projects



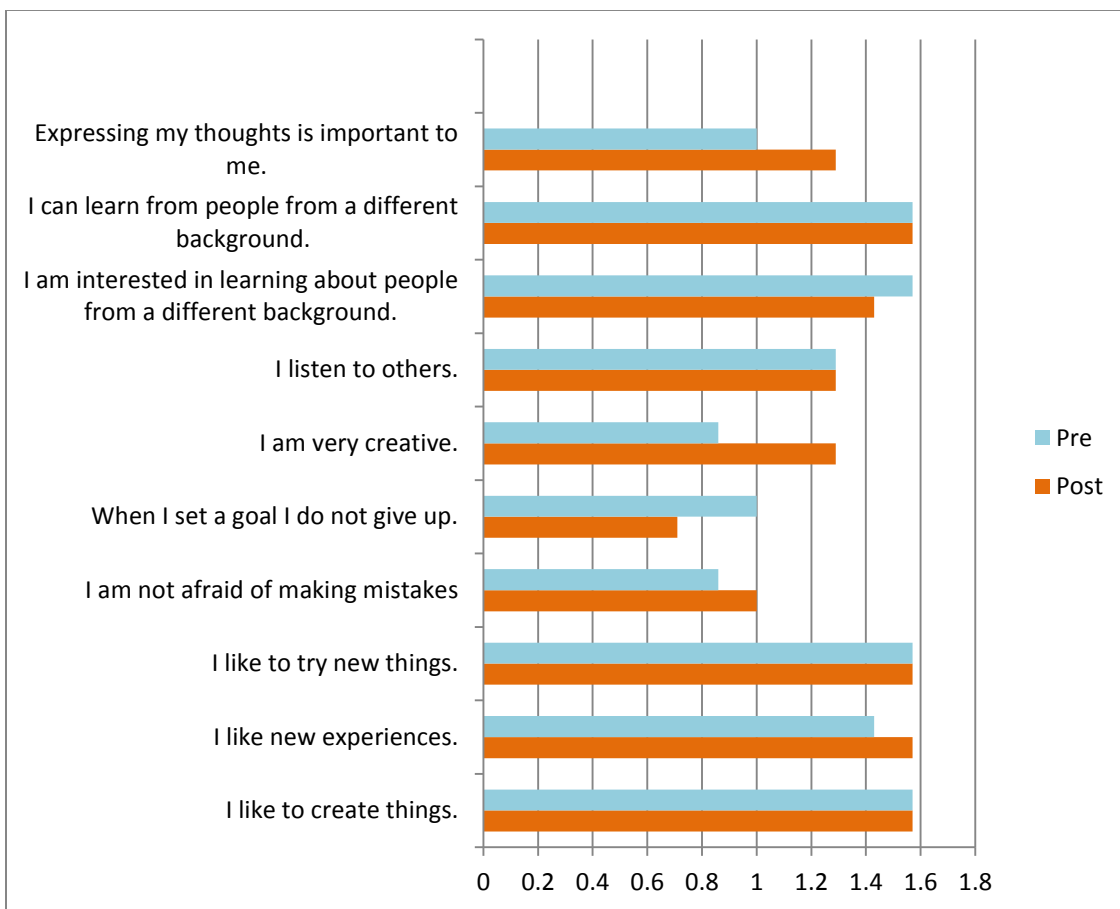
Fred's live glassblowing demonstration at midnight on Facebook had more than 700 views --- the most watched live-streamed video that GlassRoots has ever produced!

The Lead Projects were intended to provide an opportunity for the YLC's to practice their 21st century skills, especially leadership. They had to design, implement and market an independent activity, demonstration or lecture, that would help create greater awareness of GlassRoots' programs, in Newark and beyond:

- Yaneline's tree-inspired paperweight was the most visited product in our Etsy Store
- 15 people watched Aureyanna's goblet presentation and demonstration in our studios
- Rina's Instragram Takeover posts earned 508 Likes
- Stephanie taught 15 students from Newark YMCA beadmaking
- Ayoade taught mosaics to 13 Newark Museum Summer Campers
- Jasmine's bead tutorial was watched over 16 times

Post program, respondents rated themselves as more Excited, Curious, Happy, Observant and Tolerant. Also post-program, respondents reported high confidence (Strongly Agree) with the following statements:

- "I am very creative."
- "I am not afraid of making mistakes," and "I like new experiences."



Reading the chart: 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.

## ONE DAY FIELD TRIPS



Students from Flex School in Berkley Heights, NJ, a school dedicated to “gifted and twice-exceptional student,s” visited GlassRoots for the first time this spring.

Our one-day field trips are our way of exposing students to the wonders of glassmaking, a unique art-form not readily available to most elementary and secondary students. Our participants this year came from 51 towns in 8 New Jersey counties.

### **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:**

537 respondents following participation in 2-3 hour programs. Among the data we collect, data for one-day field trips represents our largest sample size.

### **DEMOGRAPHICS:**

**Grade/ Age:** The largest number of students is in middle school (53%); with 36% of students in high school and 11% of students in grades 4 or 5 (elementary school). Grade/age of students served for one-day field trips also remains consistent in the three years we have been collecting data.

**Racial/ethnic identity:**

- 40% identified as Black/African American, vs. 24% last year
- 32% identified as Hispanic/Latino, vs. 43% last year
- 24% as White/Caucasian, vs. 22% last year

**Gender:**

- 56% of respondents identify as female
- 39% identify as male and
- 5% identify as gender neutral

Gender identification for students served by one-day field trips remains consistent in the three years we have been collecting data.

**PROGRAM SATISFACTION**

Satisfaction for programming in our one-day field trips remains high and has increased since last year.

- 96% of respondents reported that they were “Very Satisfied” or “Satisfied” with their GlassRoots experience, vs. 93% reporting last year.
- 98% of respondents said they would recommend GlassRoots to friends and family.
- 98% of respondents said Yes they would like to come back to GlassRoots.

*Last year 65% responded Yes to this question, a significant statistical increase.*

**STUDENT SNAPSHOT: Who did we serve in one day field trips this year?**

GlassRoots’ field trip participants continue to represent the diverse constituency of Newark and surrounding communities, as evidenced by the demographic self-reporting to cultural identity, as well as reporting on where students live and what schools they attend.

- 95% of respondents were first time visitors to GlassRoots.
- 16% of respondents reported that English is not their first language.

- The top four cities or towns served by one-time visits or field trips are:
  - Newark (194 students)
  - West Orange (59 students)
  - East Orange (33 students)
  - Paterson (24 students)
- There are 70 public schools in Newark; 46 of which have children over 10 years old, our demographic. We served 28% of these 46 schools.
- Within Newark, the top three neighborhoods we have served through one-time visits are:
  - The Ironbound (65 students)
  - Forest Hill/Mt. Pleasant (30 students)
  - Roseville (29 students)
- Participation in other art-related activities:
  - 76% respondents reported having visited an art gallery or museum at least once.
  - 59% reported having attended a dance or musical performance.

## **PROGRAM SPECIFICS AND IMPACT**

In a typical three-hour, one day field trip, participants work in our Flame and Flat shops, creating pieces they can take home the same day, and witness a glassblowing demonstration. This year:

- 34% of respondents reported, “I have a good understanding of the science of molten glass.”
- 21% of respondents reported, “I think of working with molten glass/glassblowing as both art and science.”
- 18% of respondents reported, “I think of working with molten glass/glassblowing primarily as an art.

## **QUESTION: Please tell us if the program impacted you in the following ways (top 5 most popular responses):**

- “I enjoyed this experience.” 95%
- “This experience made me feel happy.” 68%
- “I am going to tell my parents/family about this experience.” 67%
- “The experience inspires me to create art.” 55%
- “The experience made me more interested in the arts.” 52%

**QUESTION: Tell us one thing you liked about this program**

★★★★★★★★★★

*“The let us do everything but touch the fire.”*

Responses included feedback on whether and how much participants liked the program, and what it was like to work with fire and glass.

Responses also included feedback on how the program influenced students’ feelings about themselves, as well as how they felt about GlassRoots staff.

★★★★★★★★★★

**Impact/influence on self:**

- *“How nice it is when you make something you thought you’d never (make).”*
- *“One thing I liked about this program was that I could be myself.”*
- *“It made me think about engineering.”*
- *“I like how the learning curve in this class was not too steep.”*
- *“I felt safe the entire time. The people that work here are awesome.”*
- *“It made me calm. I really liked it.”*

**● Feedback on GlassRoots’ staff:**

- *“I liked that the instructors helped us at first, but then let us try it by ourselves and be independent.”*
- *“I really liked how hands-on the activities were and how nice the people were.”*
- *“I really liked how when we needed help they were there to help us out, and they are very friendly.”*
- *“The people here are so kind.”*
- *“Everyone was so helpful.”*
- *“You demonstrated three times to make sure that we did it right.”*

**Two other, unique responses that stood out:**

- *“I like where it was located, because this is the hood.”*
- *“I liked how I made glass-art, like Cardi B.”*

*\*This was a reference to a 2016 episode of the TV show “Love and Hip Hop”, where performer Cardi B. took her friends to a glassblowing class!*



★★★★★★★★★★

*“The art being created inspires me. I believe I found my Zen.”*

★★★★★★★★★★

**QUESTION: Would you like to come to another program like this?**

**Why or why not?**

98% of respondents said **Yes**, they would like to come to another program like this.

Of the 374 free-form answers to this question nearly, 85% were some variation of: *“It was fun/awesome/interesting/unique!”*

Other responses were grouped along these sentiments:

- **The program opened my mind:**

- *“You can learn and create things (from) your imagination.”*
- *“It opened my eyes to a fun thing to do.”*
- *“It was something new and exciting, that wouldn’t get old.”*
- *“This experience was very different and opened my mind up to trying things like this more.”*
- *“I loved it and seeing glass change in front of me was cool.”*

- **I want more:**

- *“I would love to come to the flatshop to make another mosaic and beads related to my mosaic.”*
- *“I wanted to do glassblowing, not (just) watching.”*
- *“I would like to come back for a longer program.”*
- *“I want to work with fire and glass in a safe way!”*
- *“I’ve been wanting to take a class here for a while, now I definitely want to because I can’t do this anywhere else and it’s amazing and beautiful and so cool to learn how to do this.”*

- **It positively impacted how I feel about myself/my future:**

- *“Because it helps me focus.”*
- *“It was fun and exciting for me. It also gave me a better spirit.”*
- *“I’d like to come to another program like this because it helped me get out of my shell and try new things.”*
- *“It ties into the job/career I want to do.”*

## ONE DAY FIELD TRIP: TEACHER EVALUATIONS

**SURVEY GROUP:** All teachers and chaperones for One Day Field Trips are asked to complete surveys.

This year, thirty-three participants completed the survey:



Teachers try their hand at torchwork making glass beads at a Teacher Open House.

- 52% reported they are high school teachers  
26% middle school teachers  
7% elementary school teachers and  
15% reported that they are other educators of some kind (teacher assistants or aides) or school administrators
- 28% of teachers responding taught art (vs. 48% last year)  
21% of teachers responding taught science and  
10% of teachers responding taught math

### SUCCESES:

- 97% of teachers reported satisfaction with their GlassRoots experience
- 97% said that they would recommend GlassRoots to other educators
- 97% of teachers reported that their students thoroughly enjoyed the GlassRoots experience
- 94% of teachers responded 'strongly agree' and 'agree' that, based on their experience, they would return to GlassRoots

- 97% of teachers responded ‘strongly agree’ and ‘agree’ that their students were engaged and interested in the learning process

When asked to rate one’s agreement with the impact of GlassRoots’ Arts programs, respondents reported that they “Agree” and “Strongly Agree” with the following statements:

Answer Options	% Strongly Agree + Agree
It increases student self-confidence.	97%
It improves a student's ability to express ideas.	91%
It results in students having a more positive attitude toward learning.	91%
It increases student appreciation of the Fine Arts.	91%
It results in students having a better cooperative learning experience.	88%
It results in students having better peer relations.	88%
It increases student critical thinking skills.	85%
It results in students having a more positive attitude about school.	79%

### Free Form Responses

1. *“This was an incredible workshop! The students were highly engaged all day and thoroughly enjoyed the day. Many expressed a desire to return for another visit. They all said it was the best field trip event.”*

### Program Highlight

This comment came from the lead teacher for students from JFK Special Needs School in Newark. In April of this year two groups of JFK students participated in a typical field trip where they made glass beads using the torch in the flame shop, created mosaics in the flat shop and witnessed a glassblowing demonstration. Some students attending had obvious physical challenges -- one young woman used a wheelchair, a few students could not climb stairs. Additionally, the teacher informed us, 100% of the students at JFK are cognitively impaired, with the highest reported IQ in the school’s population at 70, and the average IQ at 50. After the workshop was over, the teacher wrote to tell us that she has been a special-education/needs instructor for eighteen years and had never had a student group ask to return to a program. Laura also thanked us for the patience, compassion and excellence of our staff.

2. *"My students had an awesome time at GlassRoots! It was so much better than going to a museum because of the hands-on learning aspect. Every activity was engaging and educational. The instructors were very friendly and knowledgeable. Thank you!"*

3. *"I would love to develop an on-going program that my students could combine what we have going on in our clay studio with glass. We can put our heads together, there are many possibilities. I have two different time frames with students, full year and semester."*

**ROOM FOR IMPROVEMENT:**

- 66% of teachers said that GlassRoots' instructors explained our mission and history
- 47% of teachers said that our in-studio program was relevant to the school curriculum
- *"Try to work scientific concepts more thoroughly into the lessons."*
- *"Adults should also be part of the experience."*
- *"If we were here longer the children could have had outside break time between activities, (and) would have had the chance for each experience to soak in."*

## ONE DAY FIELD TRIP: GLASS VOLCANO EXPERIENCE WORKSHOP

This year, thanks to a generous grant, we were able to offer special one day field trips entitled, “The Glass Volcano Experience,” to ten school groups.



Bruce Street School students from Newark, who have hearing impairment and/or deafness, were accompanied by ASL interpreters on their field trip to our studios.

The Glass Volcano Experience is a hands-on STEAM-based workshop that uses molten glass to teach 6-12<sup>th</sup> grade students about the science and behavior of volcanoes. Originally funded by the National Science Foundation as part of its Opportunity for Enhancing Diversity in the Geosciences grant program, the Glass Volcano Experience is a collaboration between Rutgers University-Newark’s Department of Earth and Environmental Sciences and GlassRoots, and was piloted at GlassRoots in the spring of 2015.

The Glass Volcano Experience is a two-hour workshop designed to accommodate up to 25 students and includes four interactive components:

- A video presentation describing volcanoes and their behavior;
- A hands-on *Flame Shop* experience in which students work with fire and glass to simulate lava behavior by creating “Pele’s tears” and “hair,” products of Strombolian volcanic eruptions;
- A *Flat Shop* experience in which students learn about obsidian, aka volcanic glass, and are able to smash glass causing a ripple pattern that mimics that of volcanic rocks; and

- A *Hot Shop* experience observing molten glass that is heated to 2000 degrees simulating lava flow and how it reacts to various environmental features.

## PROGRAM IMPACT

In the short-term, at the end of this lesson students should be able to:

- Describe the volcano models.
- Communicate their observations to another person.
- Understand how the models changed after eruption.
- Ask questions about volcanoes that indicate a higher level of understanding about them.

According to the educators accompanying these students, our program served as the introduction to this topic for the majority of participants. Thus, we are pleased with the level of knowledge demonstrated in this first exposure.

Volcano Knowledge	% of respondents answering correctly
<b>Q:</b> How hot do you think it would be inside a volcano? <b>A:</b> 2000 degrees Fahrenheit	74%
<b>Q:</b> Can lava take on the properties of glass? <b>A:</b> YES	78%
<b>Q:</b> How does lava come out of a volcano? <b>A:</b> It can come out in different ways.	62%
<b>Q:</b> How dangerous is a lava flow? <b>A:</b> It is dangerous to things within many miles of its path.	58%
<b>Q:</b> How quickly does lava (flow) move? <b>A:</b> Its speed varies depending on a variety of factors.	52%
<b>Q:</b> What happens when the lava cools? <b>A:</b> It changes texture (from liquid to solid).	52%
<b>Q:</b> What do you call a scientist who specializes in the study of volcanoes? <b>A:</b> A geologist. <i>*Our favorite answers to this question: "A brave person," and "Amazing."</i>	40%

Additionally, participating students were asked the following questions about the Glass Volcano Experience:

- **How would you describe your interest in learning more about volcanoes?**
  - 67% responded *Extremely or Very Interested*
  - 23% responded *Somewhat Interested*
  
- **How did the Volcano Experience affect you? (top five answers)**
  - “I learned things about volcanoes I never knew before.” 73%
  - “I’ve learned things about molten glass I never knew before.” 51%
  - “Working with molten glass made learning about volcanoes a fun experience.” 48%
  - “Working with molten glass made me understand how volcanoes function.” 30%
  - “Combining science and art is a good way for me to learn.” 26%
  
- **What was your favorite and least favorite part of the Volcano Experience?**
  - “Using the blow torch and making stuff, and the lava maker. My least favorite thing is being hot.”
  - “Favorite part was making the tears. Least favorite part was that we couldn’t make more than two.”
  - “My favorite part was when we were in the Flameshop. There was no ‘least favorite’ part.”
  - “The people here are very nice. My least favorite part was sitting in the room talking about rocks.”
  - “My favorite part is when we see how far the glass can go. My least favorite part is when we went in (to the Hot Shop) – it was hot!”
  - “All, because it is fun and cool.”

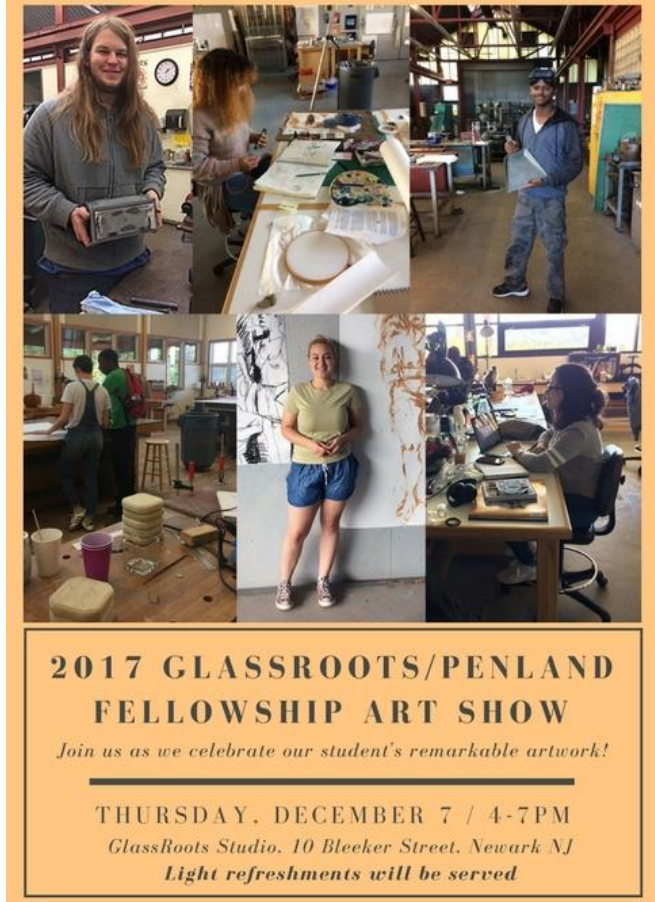


## GLASSROOTS-PENLAND FELLOWSHIP

2017-18 was the second year of the GlassRoots-Penland Fellowship, a college readiness program which is a unique collaboration between GlassRoots and the Penland School of Crafts in Penland, North Carolina. Each year six students are chosen for the thirteen week Fellowship, guided by two mentors from GlassRoots and the Penland School.

In year two we expanded the mentoring and preparation period at GlassRoots' studios from two weeks to three, which included studio and life skills training.

At the end of the three weeks of preparation, students traveled to Penland for an 8-week intensive craft workshop in one discipline. The program concludes with one week of de-briefing at GlassRoots, including a program evaluation by students and instructors, completion of college applications and an art show of completed works. Each student who successfully completed the program received up to nine transferrable college credits.



### PROGRAM 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.

#### **DEMOGRAPHICS:**

**Survey Group:** 6 respondents.

**Grade/age:** At the time of the program's start, four participants were 18 years old, 1 student was 19 and 1 student was 20 years old.

**Racial/ethnic identity:** 3 participants identify as Hispanic or Latino, 2 identify as Black or African American and 1 participant identifies as White/Caucasian.

100% of participants are residents of Essex County.

**Gender:** Three participants identified as female and three identified as male.

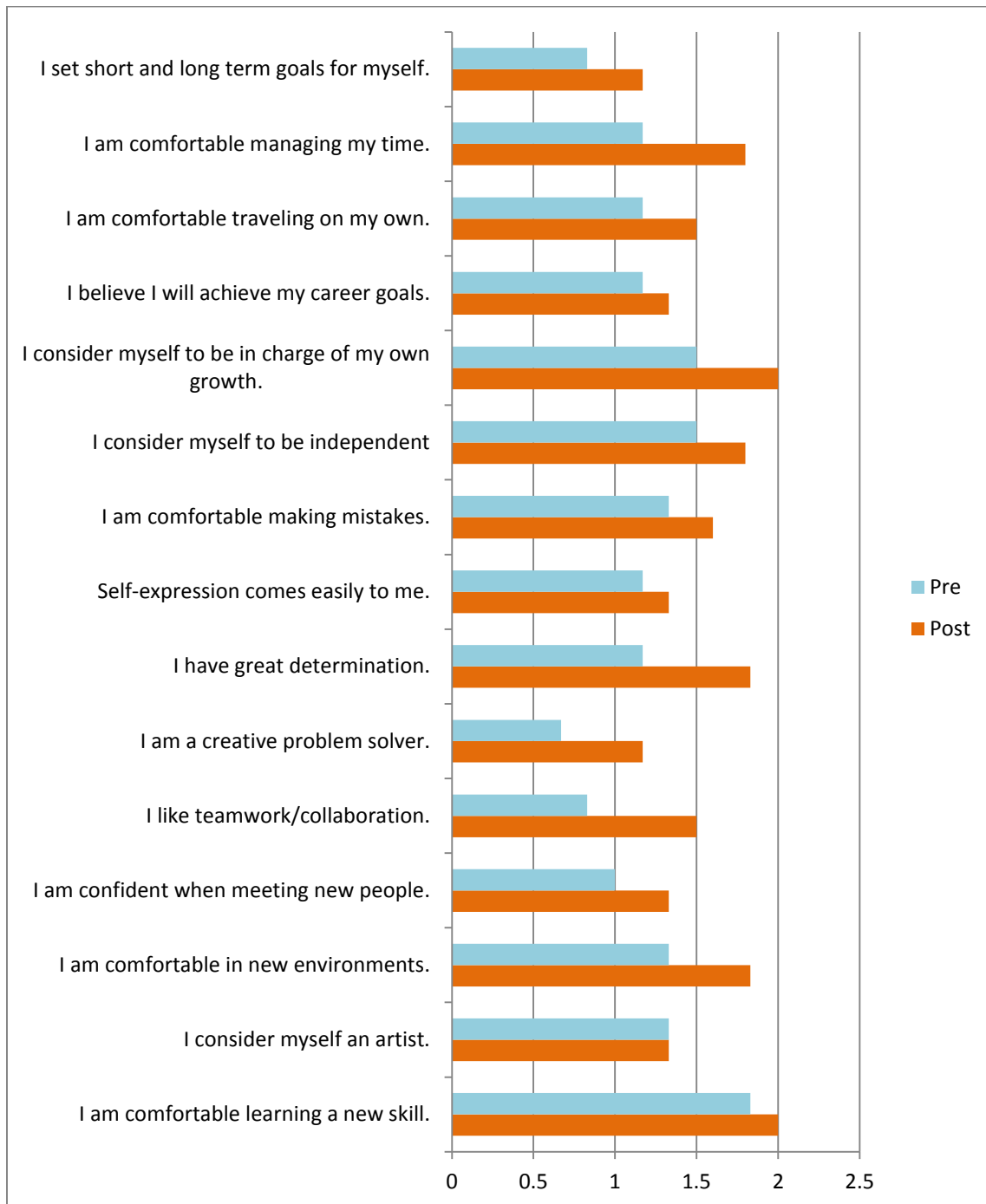
**Concentration:** Two students studied ironwork, two students studied 2D art (painting/illustration), 1 student studied woodworking and 1 student studied photography. 40% of participants reported a familiarity with the concentration they chose.

#### **PROGRAM IMPACT:**

##### **Successes:**

- 100% of participants reported they were Very Satisfied or Satisfied with the program.
- Five of the six participants would recommend the Fellowship to friends and family.
- 100% of participants reported that they Strongly Agreed with the statement, "I have acquired new artistic skills that I will continue to use."
- 100% of participants reported that their experience in the Fellowship made them want to do the following:
  - go to college
  - learn more about other people and
  - try or learn new art forms/new materials

Also post-program, Fellowship participants reported gains in 14 of 15 measurements assessing Confidence, Resilience, Independence and Artistic Interest or Ability:



Reading the chart: 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.



*Don't waste a second -- and enjoy!*



## **PARTICIPANT TESTIMONIALS**

### **On achieving goals/biggest successes:**

*"(Coming to understand) my connection with art and installation."*

*"(Being able) to complete a body of work."*

*"Being able to pick an art medium for college (that I'm confident in)."*

*"Expanding my knowledge of the craft."*

*"Being able to work independently, with little to no help."*

*"I plan to study photography in college thanks to Penland."*

### **On challenges/ how we can improve the program:**

*"(It was a challenge) having to be constantly inspired and making."*

*"Getting on the schedule and getting up on time."*

*"Find a way to show/explain the different (available) courses (more effectively) pre-program."*

*"Make (doing) laundry easier."*

### **Advice to Future Fellows:**

*"Don't be afraid to make mistakes."*

*"Visit all the classes and make as many connections as possible."*

*"It will get overwhelming to do art everyday, so get your brain ready."*

*"Prepare for the unexpected and network as much as you can."*

*"Bring warm clothes."*

## THE BEAD SHOP



Bead Shop participants receive instruction in making glass-beads, which will be used in jewelry they design and assemble.

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

**SURVEY GROUP:** Of the nine participants enrolled in Bead Shop, seven completed our “Jewelry in a Box” workshops, each workshop running for two consecutive weekends, or four days.

### DEMOGRAPHICS:

**Grade/age:** 45% reported being 18-24 years old, 33% reported being 35 to 44 years old and 22% reported being 55 to 64 years old.

**Racial/ethnic identity:** 88% of the students identify as Black or African American, 11% identify as Hispanic or Latino, and 11% preferred not to answer the question.

100% of participants are residents of Essex County.

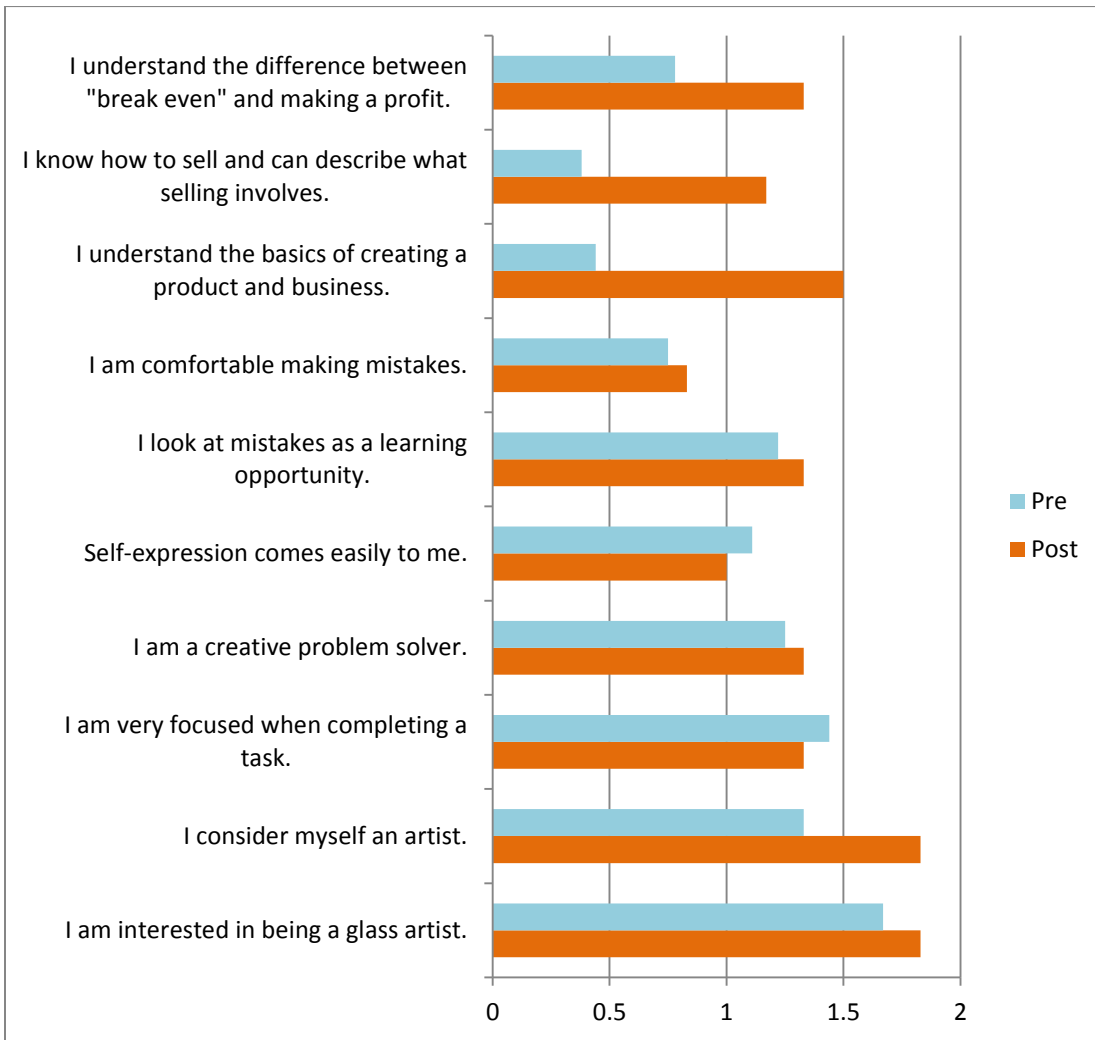
**Gender:** Six participants identified as female, two as male and 1 as gender neutral.

**PROGRAM IMPACT:**

Post-program, participants reported the following:

- 100% of participants said the program met their expectations.
- 100% said they would tell friends and family about GlassRoots’ programs.

Also post-program, respondents reported gains in 8 of 10 measurements (“Agree” or “Strongly Agree”) assessing knowledge in business concepts, resilience and artistic interest or ability.



Reading the chart: 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.

## SUMMARY AND RECOMMENDATIONS: Going Forward

### ROOM FOR IMPROVEMENT

The open-ended responses we collect in our program evaluation continue to help support the quantitative data we collect, and provide specific feedback on how we can improve programs and processes. Guided by this data we incorporate suggestions, wherever possible, in our program planning.

Comments	Action(s)
<p>In 2017 teachers asked that our instructors provide a more in-depth explanation of GlassRoots' mission and history during student orientation and introduction. This year only 66% of teachers responding said our introduction was sufficient.</p>	<ul style="list-style-type: none"> <li>✓ <i>Provide GlassRoots instructors with a brief narrative of our history and mission, to be used in workshop introductions.</i></li> <li>✓ <i>Provide teachers with an informational sheet/flyer which includes GlassRoots' mission and history.</i></li> </ul>
<p>Achieving 100% participation rates for completing surveys in our long-term residencies is difficult, as we depend upon assistance from on-site program administrators to help us collect responses, often at the busy end of a semester or school year.</p>	<ul style="list-style-type: none"> <li>✓ <i>Provide surveys in digital format (links) as well as on paper.</i></li> <li>✓ <i>Set dates to administer and collect surveys one or two weeks before programs officially end.</i></li> </ul>
<p>In 2017 we recognized the need to provide our program materials and applications into multiple languages.</p>	<ul style="list-style-type: none"> <li>✓ <i>Find volunteers to translate our materials.</i></li> </ul>
<p>Only 47% of teachers said that our in-studio program was relevant to the school curriculum, and incorporated relevant scientific concepts.</p>	<ul style="list-style-type: none"> <li>✓ <i>Provide program curriculum to teachers that show connection to New Jersey State Learning Standards.</i></li> </ul>

## SUCCESES

For a third year, both our quantifiable and anecdotal data show that both our one-day and long-term programs are successful in these ways:

### GlassRoots Programs Have a Positive Impact

- Participants continue to report high satisfaction rates for each program and as well as their intent to return for more classes or workshops, and to recommend our programming to family and friends.
- Mastery of social-emotional skills and 21<sup>st</sup> century skills such as collaboration, communication and cooperation continues to increase from pre-program to post-program measurement.

### GlassRoots Programs Fulfill Our Mission

- Our demographic data indicates that our programs continue to serve our mission; to engage the underserved youth and young adults of Newark.

