

Mar 5th, 7:00 PM - 9:00 PM

Positive impacts of a STEM-centered university service-learning course

Gretchen D. Perkins

University of Georgia, gperk001@uga.edu

Ashley Collins

University of Georgia, ash2009@uga.edu

David Knauff PhD

University of Georgia, dknauff@uga.edu

Nick Fuhrman PhD

University of Georgia, fuhrman@uga.edu

Follow this and additional works at: <https://digitalcommons.georgiasouthern.edu/stem>

Recommended Citation

Perkins, Gretchen D.; Collins, Ashley; Knauff, David PhD; and Fuhrman, Nick PhD, "Positive impacts of a STEM-centered university service-learning course" (2015). *Interdisciplinary STEM Teaching & Learning Conference*. 58.
<https://digitalcommons.georgiasouthern.edu/stem/2015/2015/58>

This event is brought to you for free and open access by the Conferences & Events at Digital Commons@Georgia Southern. It has been accepted for inclusion in Interdisciplinary STEM Teaching & Learning Conference by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact digitalcommons@georgiasouthern.edu.

Positive impacts of a STEM-centered university

service learning course

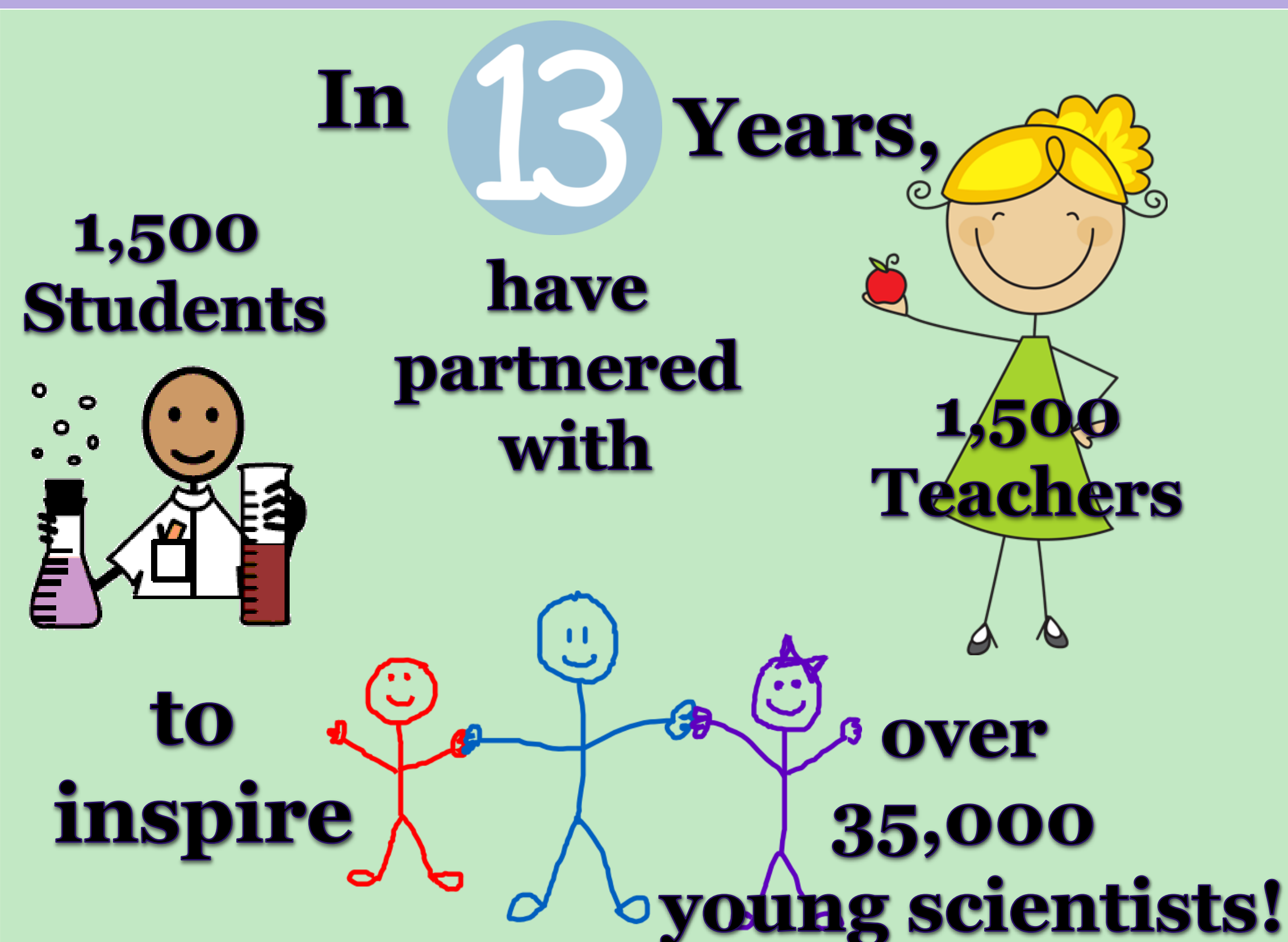
Gretchen D. Perkins, Ashley D. Collins, David Knauft, PhD., and Nick Fuhrman, PhD.

What is Project FOCUS?

Fostering Our Community's Understanding of Science

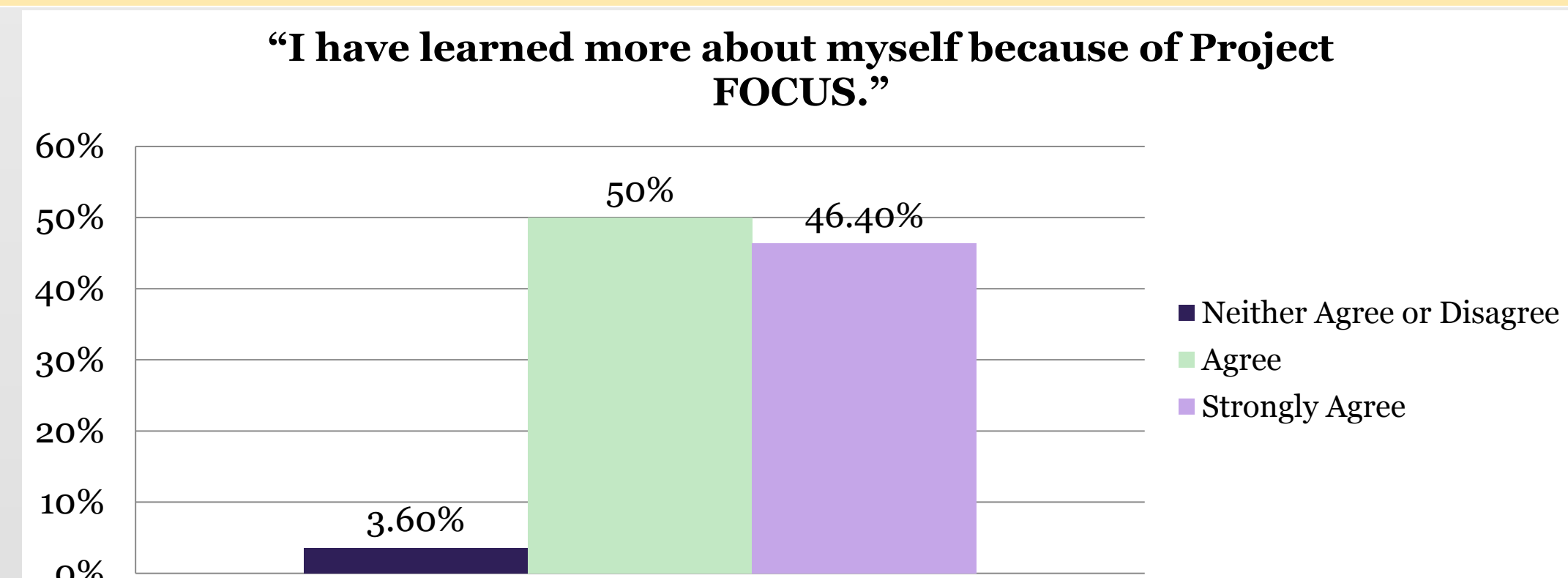
(Project FOCUS) is a service-learning program that began in 2002. Undergraduate students majoring in science and science-related fields are paired with a local teacher for a semester to help in the classroom by teaching hands-on, interdisciplinary science lessons.

"Service-learning is so transformative and powerful. Everyone should take a service-learning course at least once in their college career."



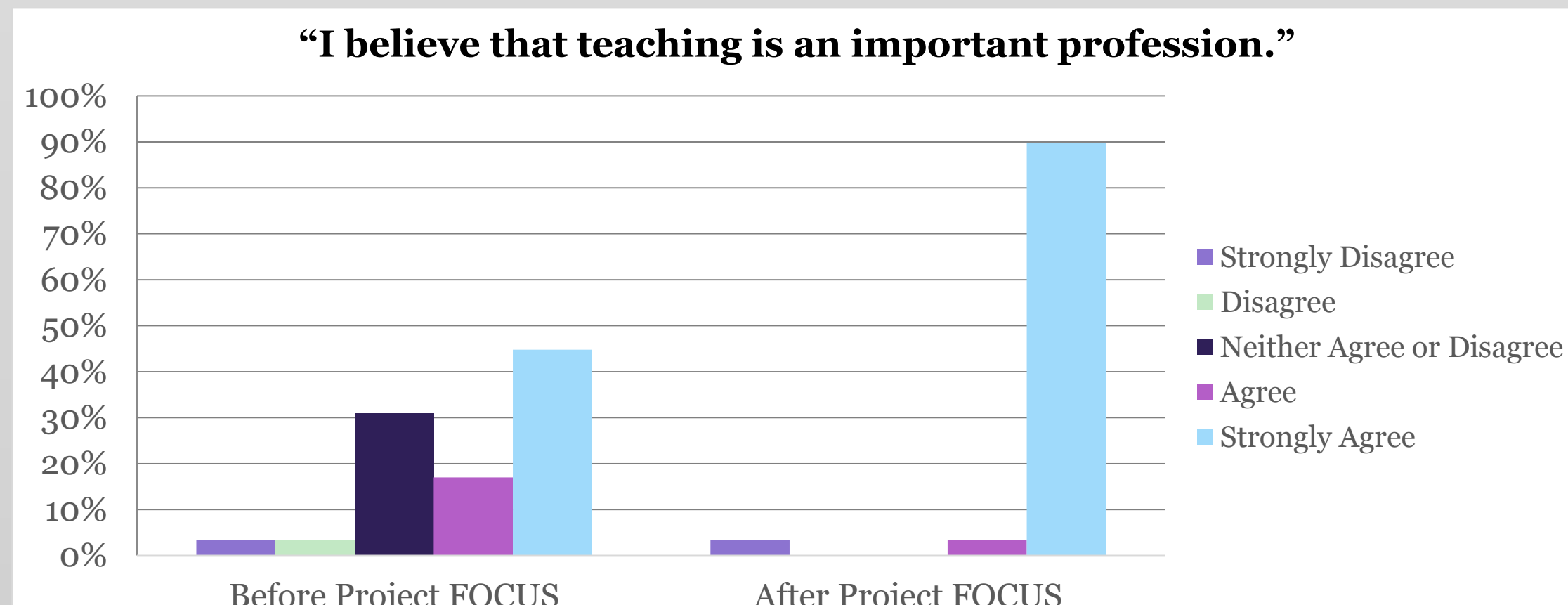
Positive Impacts

Students learned about themselves through participation in Project FOCUS.



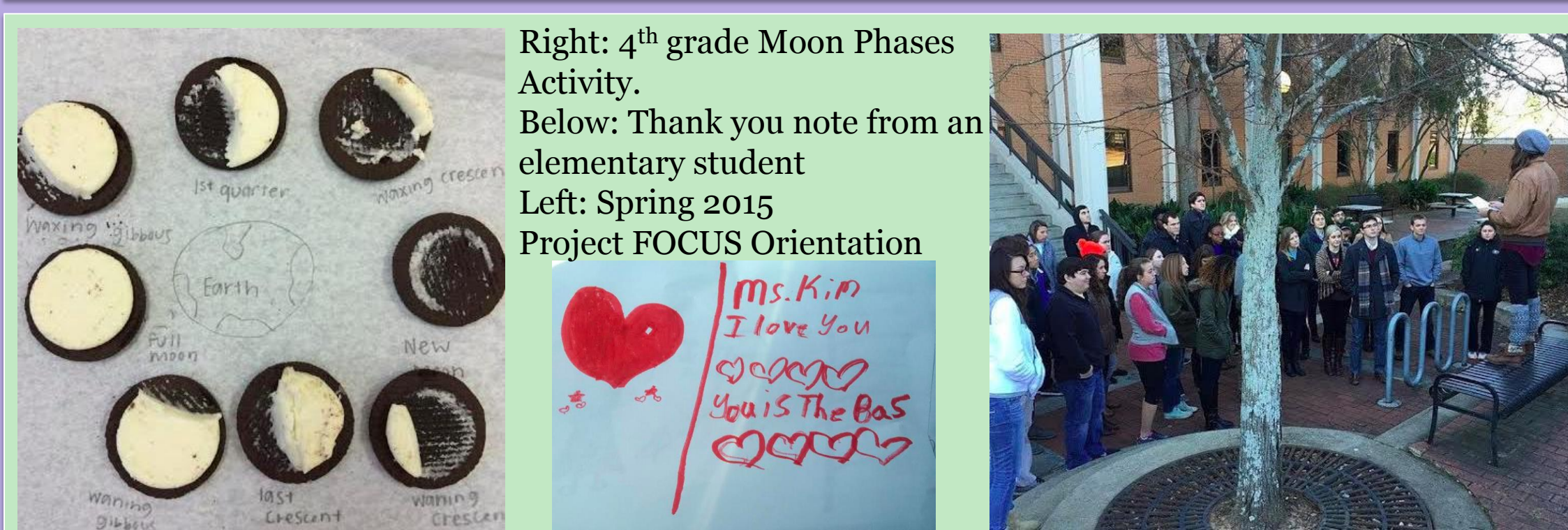
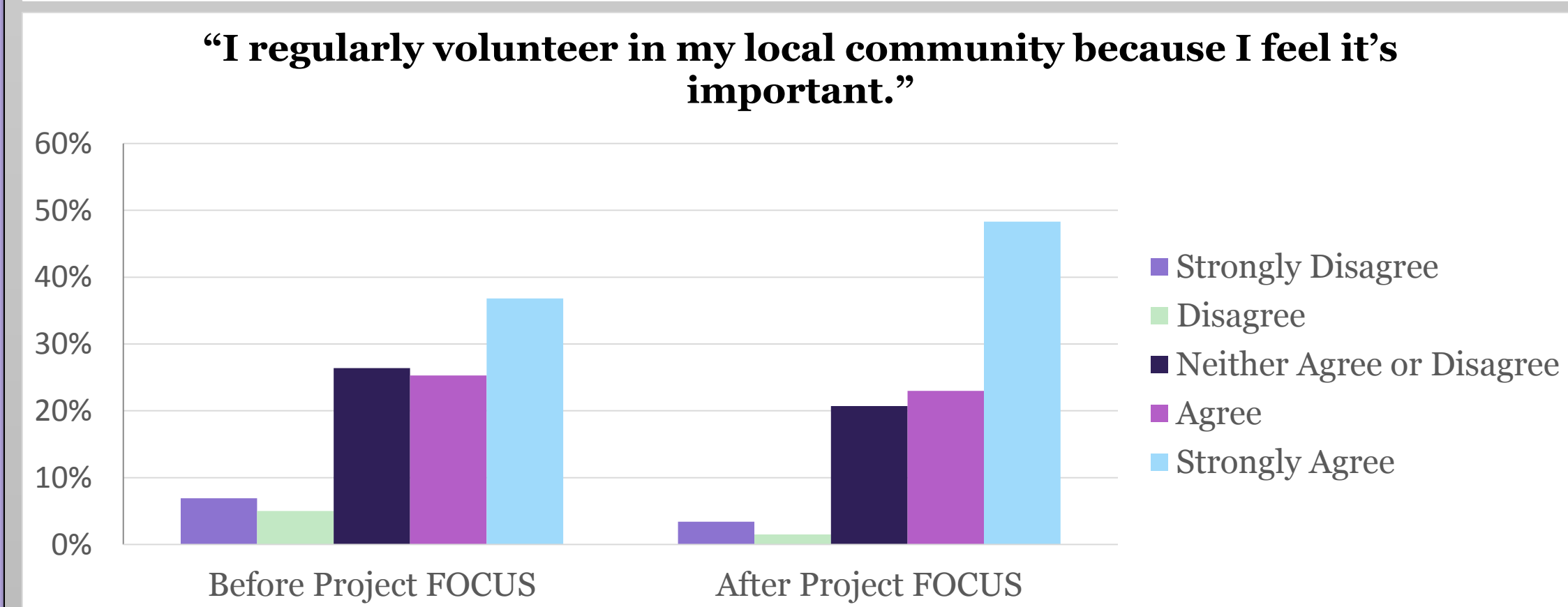
"I was unprepared for how emotionally moved I would become by simply getting to know my students and, subsequently, how motivated I would become to give them a positive educational experience whenever I was teaching."

Students have a greater appreciation for teachers and teaching.



"I realize now that elementary teachers are the true renaissance men and women of the world because they are responsible for such a varied amount of knowledge."

Project FOCUS encourages community engagement.



Student Reflections

"Project FOCUS was one of the best programs I've been involved in. I loved teaching science to the kids. It was really a shock to me to see firsthand what a child living in Athens who is not that well off has to deal with."

"The most enjoyable part of teaching for me was when a student had that "light bulb moment" and finally understood the concept I was teaching."

"As a pre-medical student, I know this experience will be valuable in helping to teach patients about their health."

"Being able to make a sincere bond with students in the class I volunteered in was really powerful. The way they looked up to me and enjoyed my time with them was very empowering. I always wanted to go above and beyond for them and give them the best experience possible."

Recommendations

- Start small (with one school) and expand to others as your program grows
- Recruit students from **all majors** who are:
 - Highly motivated
 - Interested in working with the community
 - Sophomores, Juniors, or Seniors
 - Involved in science courses, clubs, or work
- Include an application process to help screen for specific candidates
- Host a mandatory orientation
- Weekly reflection section as a support group for students covering various topics in education

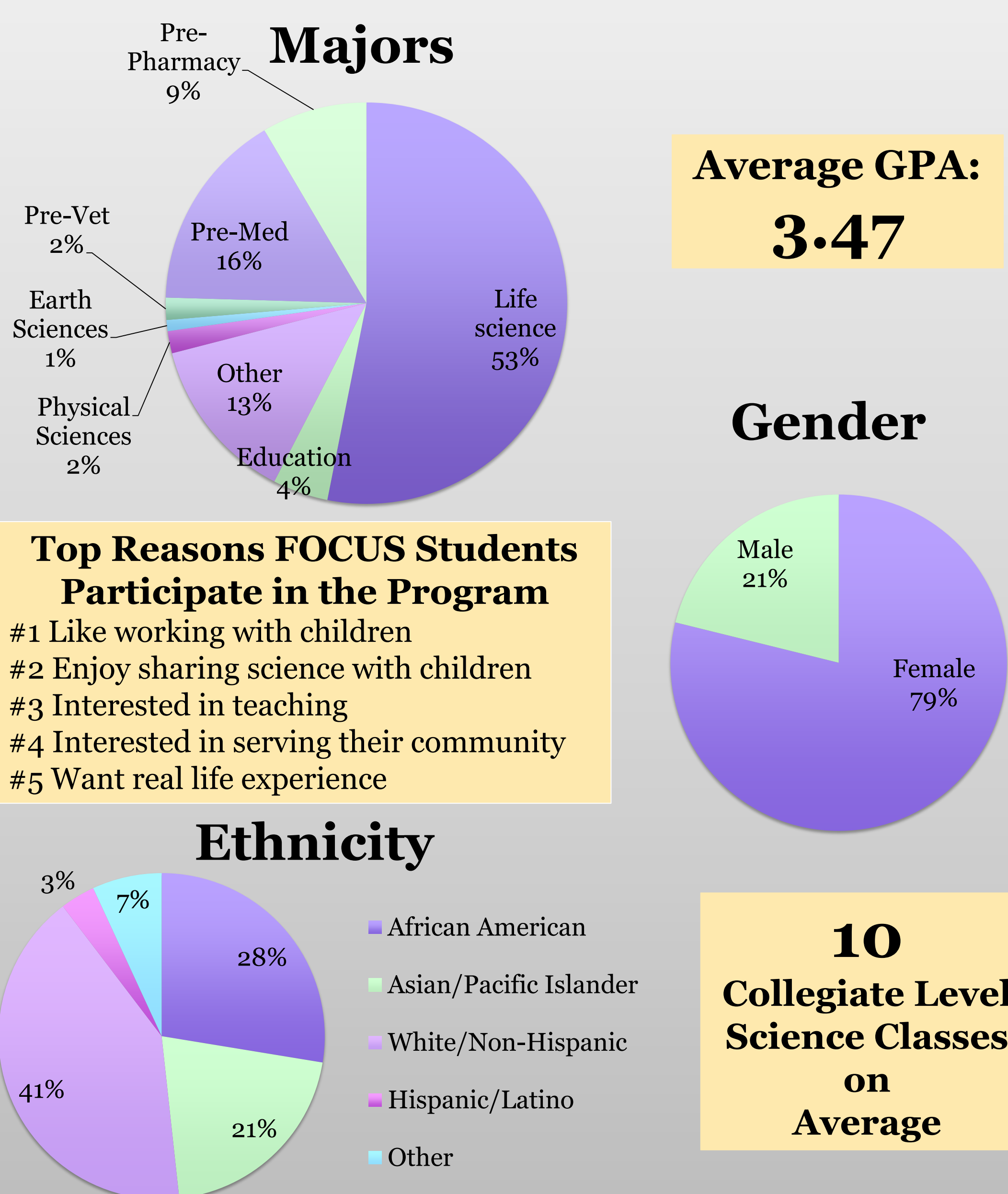
"Project FOCUS is A MUST-TAKE CLASS, especially if you are REMOTELY interested in teaching. It will definitely give you a look into what teaching is like to help you decide if you want to pursue it as a career!"

Data Sources

Multiple data sources were analyzed:

- Quantitative Data
 - Background Info Survey of former FOCUS students, 229 participants
 - Service Learning Survey of former FOCUS students, 28 responders
- Qualitative Data
 - Student assignments, Fall 2014
 - Course Evaluations, Spring & Fall 2014

Who Takes Project FOCUS?



Course Requirements

- **≥ 3 hours** per week in a K-8 classroom
- **Reflection Section Attendance**
- **14 Reflections**
 - Educational Perspective
 - 12 Weekly Reflection
 - Summary Reflection
- **Portfolio Project**
 - Teaching Philosophy
 - 3 Lesson Plans with Reflection
 - Student Case Study
- **Recruitment Presentation**