

2023-2024 PDSAs - WVU

- Campus Clubs
- STEM Professor Panel
- Listserv
- Embedded Students (Gen Chem I)
- Professional Development Workshop Series
- Donuts with Deans (and Dog)
- Enhance Student Voices
- Pilot PDSAs - Professor Study Help & WV Science Bowl

2024-2025 PLANNED PDSAs

- Campus Club
- STEM Professor Panel
- Listserv
- Enhance Student Voices (student steering committee reps on STEM Foundational Collaborative)
- Broadened Use of Institutional Resources/REACH Center
- Learning Assistants in Chemistry

PDSA PROCESS

We value the resources provided by the Improvement Science Team (IST), including PDSA coaching and shared metrics across institutions. We also value the leadership provided by High Rocks staff and encourage our scholars to contribute to student-focused Network events such as 2024 Legislative Ambassadors and the 2024 Appalachian Regional Commission's Annual Meeting. We continue to contribute to the slate of promising practices offered by the First2 Network and share the news of PDSA successes by giving presentations about our PDSA work within the Network and beyond.

PDSA COACHING EXPERIENCE

The Listserv, Enhance Student Voices, STEM Professor Panel, and Professional Development workshop series PDSAs, have received exit coaching and are complete. Two other PDSAs, CHEM 115 Embedded Student and Donuts with the Deans (and Dog) are in the Study phases. The Campus Club PDSA is between the Do and Study phases. Our Team understands the process so that each PDSA has specific data that will be collected with the onus on collecting the minimal amount of data needed to "test" and "study" the change idea. For most PDSAs, shared data will be data that would be presented in a poster or oral presentation, or that would be provided in a peer-reviewed paper.

SUMMARY

The **STEM Professor Panel PDSA** will be repeated in 2024-2025. Our team will promote faculty-to-student communication by continuing the **Listserv PDSA** on opportunities, events, and activities of interest to STEM students. We will adapt the **Enhance Student Voices PDSA** as funded scholars have been invited to serve as representatives on the 2024-2025 student steering committee for the STEM Foundational Collaborative. In collaboration with WVU's Student Success initiatives, we will test a new change idea involving the underutilized REACH Center called **Broadened Use of Institutional Resources PDSA**. We will also implement learning assistants (LAs) in and outside the classroom to help STEM students succeed (**Learning Assistants PDSA**).

HIGH LEVEL FINDINGS

STEM Professor Panel

The Panel supported students feeling a stronger sense of belonging in STEM. Seventy-eight students completed a Belongingness Pre/Post Survey and students' feelings of belongingness in STEM increased overall. For all 12 statements, responses of "Strongly Agree" and "Agree" increased between the pre and post survey.

PHOTO HIGHLIGHTS

STEM Professor Panel



DATA

STEM Professor Panel

| Sample of Questions from the Belongingness Survey: | Pre-Survey Strongly Agree or Agree | Post-Survey Strongly Agree or Agree |
|--|------------------------------------|-------------------------------------|
| I feel accepted in my campus's STEM community. | 82.0% | 90.4% |
| I feel a sense of belonging when I am in science or mathematics classes. | 71.5% | 84.9% |
| I feel comfortable in science or mathematics classes. | 76.9% | 83.3% |

DISCUSSION & CONCLUSION

STEM Professor Panel

Six (6) Instructor Panelists!

- Kevin Barry (Biology)
- Krista Bresock (Math & Data Science)
- Dana Huebert Lima (Biology)
- Paul Miller (Physics)
- Josh Osbourn (Chemistry)
- Trina Perrone (Chemistry)

Over 100 students attended!

Panelists mentioned/discussed

- ✓ imposter syndrome
- ✓ STEM belongingness
- ✓ work-life balance
- ✓ failure
- ✓ overcoming challenges
- ✓ rebounding from low grades
- ✓ time management
- ✓ trauma bonding

The Panel supported students feeling a stronger sense of belonging in STEM.

TIPS FOR OTHER INSTITUTIONAL TEAMS

Explore other avenues to fund the institutionalization of its activities, including writing grants to funding agencies and foundations and connecting with industry partners for student internships and fellowships. This will ensure **active participation and communication between the Institutional Team and First2 Network backbone organization** in improving science progress, dissemination opportunities and information sharing, institutional and student tracking data requests, student voice, and reporting.