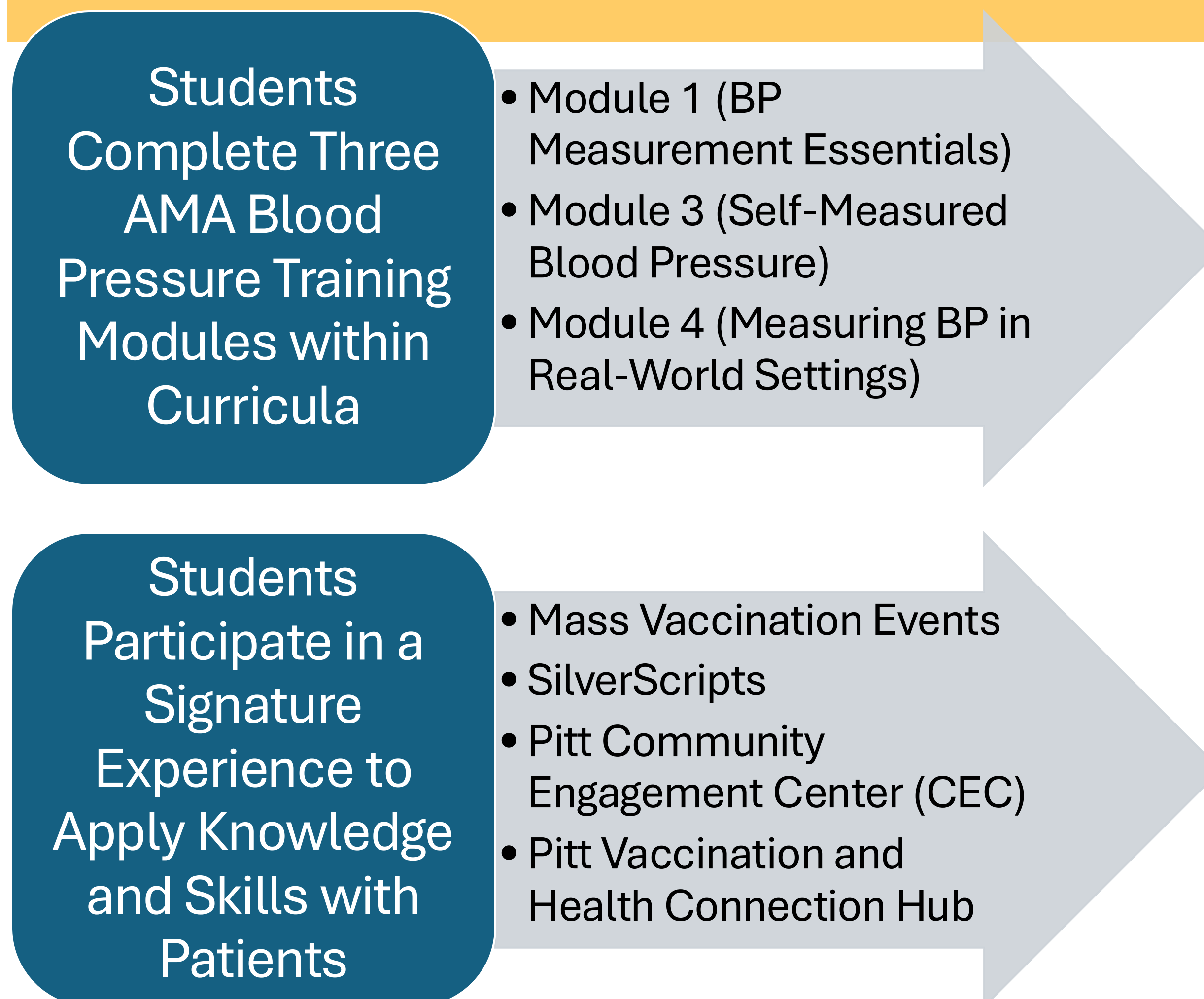


BACKGROUND

- The University of Pittsburgh has six schools of the health sciences and offers many health professional programs including in medicine, nursing, pharmacy, physician assistant studies, and a dietitian nutritionist program.
 - Each of these five programs requires students to learn blood pressure measurement skills based on accreditation standards.
- The American Medical Association (AMA) has developed five standardized training modules that cover blood pressure measurement.
- The vision of the University of Pittsburgh Schools of the Health Sciences senior leadership is to actively engage students across the health sciences to collaboratively provide patient care to people in our communities.
- The University of Pittsburgh obtained grant funding from the AMA Foundation for the Pitt BEAT (Bridging Education And Team-based Care) for Blood Pressure Measurement project in Summer 2023.

Figure 1. The Two Core Components of the Pitt BEAT for Blood Pressure Measurement Project

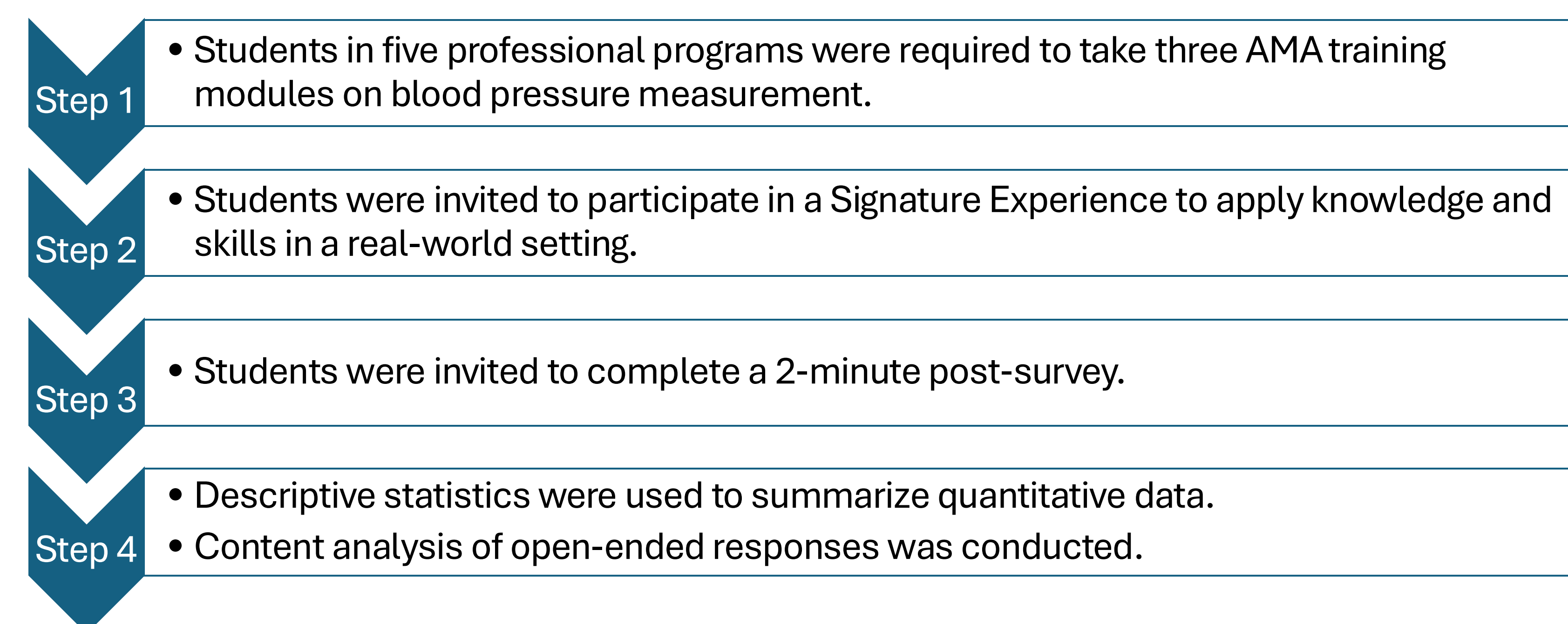


OBJECTIVE

Describe students' self-assessment of their blood pressure measurement skills and learnings following completion of standardized training and a Pitt BEAT Signature Experience, where students measure patients' blood pressure in various community settings.

METHODS

Figure 2. Stepwise Methods for Evaluation of the Pitt BEAT for Blood Pressure Measurement Project



- A cross-sectional, descriptive study design was used.
- Students in professional programs in medicine, nursing, dietitian nutritionist, pharmacy, and physician assistant studies were invited to participate.
- The survey of students included:
 - Confidence ratings on blood pressure assessment skills,
 - Demographics, and
 - Two open-ended questions to assess their learnings from the real-world experience and the impact of the training modules on the real-world experience.

Figure 4. Photograph from a Mass Vaccination Event Signature Experience



Figure 3. Select Survey Items from Pitt BEAT for Blood Pressure Measurement Signature Experience Post-Survey

Please rate your current level of confidence that you can complete the activities below:

	Very confident 1	Mostly confident 2	Somewhat confident 3	Slightly confident 4	Not at all confident 5
Properly prepare and position the patient prior to measuring blood pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Choose the correct blood pressure cuff and size	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accurately measure blood pressure using manual methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accurately measure blood pressure using automated methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your biggest learning point from providing blood pressure measurement in a real-world setting?

What is one thing you learned in the AMA blood pressure training modules that helped you provide blood pressure measurement during your experience (if you did not complete the AMA training modules before participating in a Signature Experience, please note this here)

RESULTS

Approximately 270 students completed a Signature Experience. Of those, 88 completed a post-survey.

Figure 5. Participating Health Science Students with Completed Survey

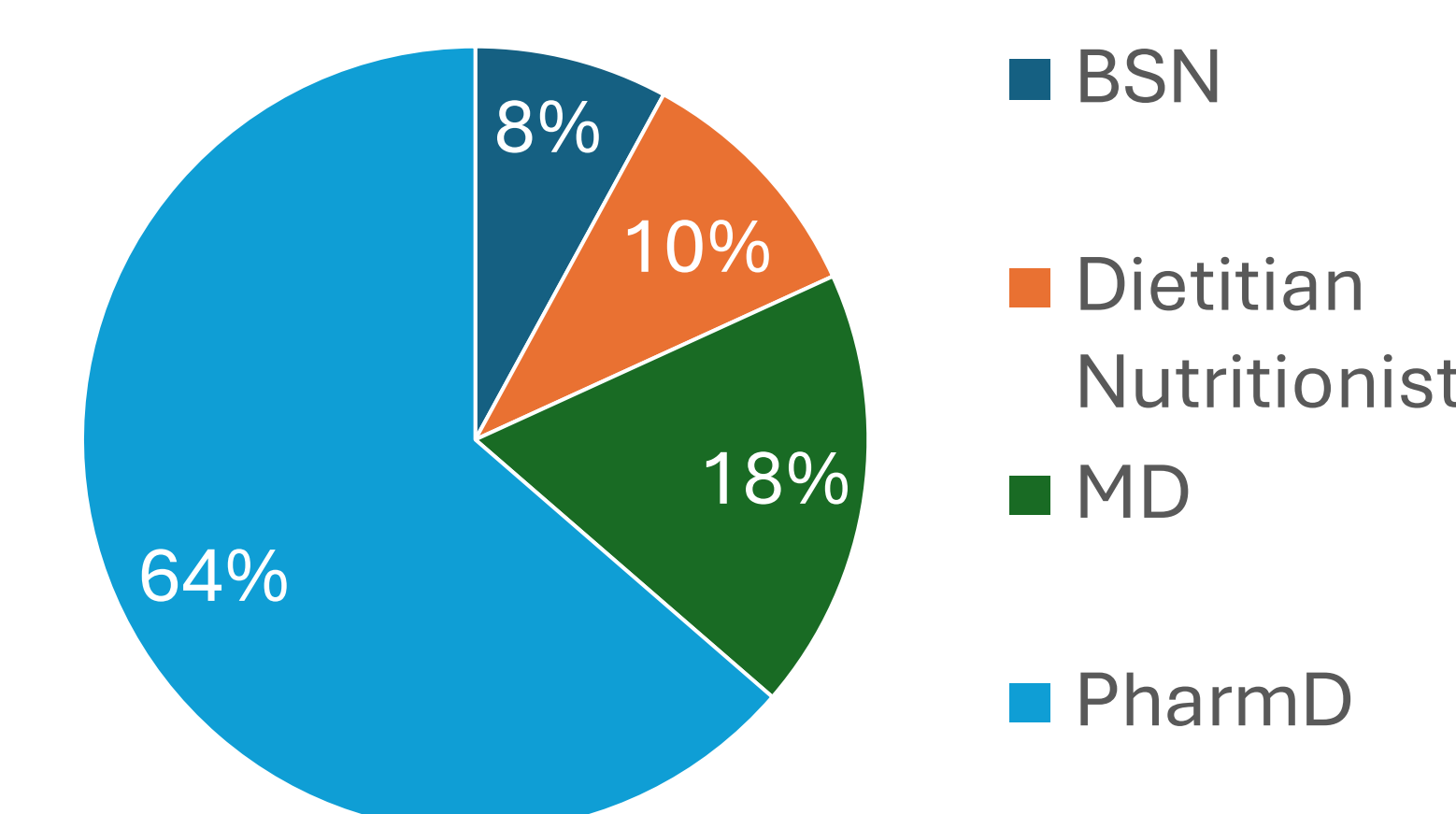


Figure 6. Number of Students Completing Each of the Signature Experiences

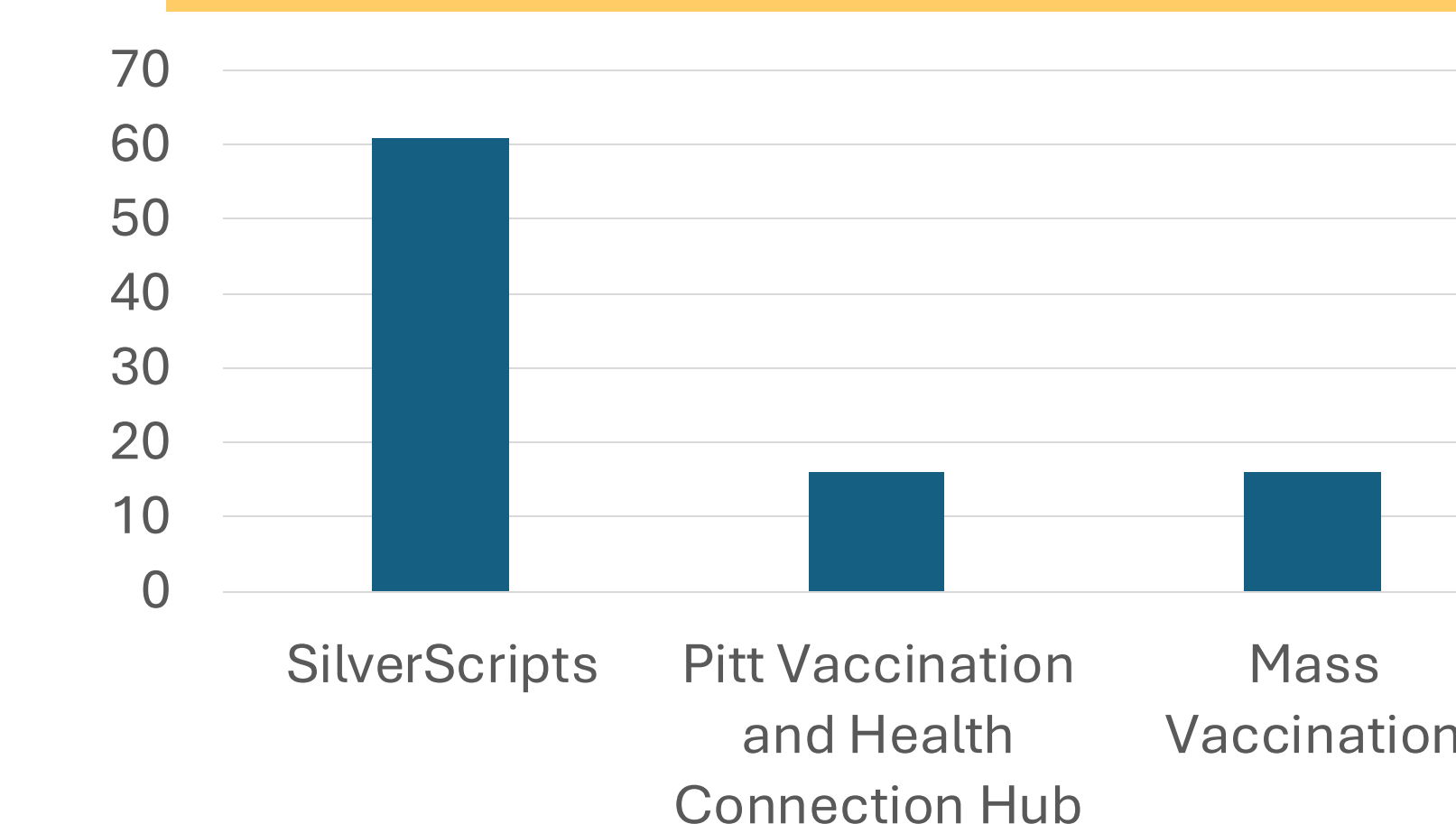


Table 1. Response Data from Likert-type Confidence Scale Items (see Figure 3 for items; 1=Very Confident; 5=Not at all confident)

Question Item	Mean	Standard Deviation
Q1: Position	1.36	0.628
Q2: Cuff Size	1.43	0.603
Q3: Manual	1.49	0.743
Q4: Automated	1.73	0.968

Table 2. Key Learning Points from Students after a Signature Experience

Gaining real-world experience practicing blood pressures improved student confidence in their ability to take blood pressures.	Real-world experience highlighted the importance of fostering patient education and comfort when taking blood pressures.	Taking blood pressures in real-world circumstances comes with challenges. Students learned to control what they can, adapt, and know how blood pressure readings can be impacted.	Selecting appropriate cuff size, properly positioning the patient, and performing proper auscultation technique are all critical to accurate blood pressure readings.

Table 3. Key Learning Points from Students Regarding How the AMA Training Modules Helped Prepare Them to Provide Blood Pressure Measurement

The modules helped students to properly position patients for blood pressure assessment.	The modules taught the students the skills they needed to use a blood pressure cuff and stethoscope for accurate blood pressure readings.	Students applied the tips for measuring blood pressure in a real-world setting that they learned in the modules.

CONCLUSIONS

- Students across four health science disciplines expressed high levels of confidence in their blood pressure measurement skills after participating in online modules and a real-world Signature Experience.
- This study demonstrates how standardized blood pressure assessment training paired with hands-on blood pressure measurement augments student learning and confidence in blood pressure assessment.