Level	Input	Output	Output Measures	Outcomes	Outcome Measures
Students	1.1) SEBA provides a free afterschool STEM program designed to teach students math and science concepts paired with engineering design thinking	Students attend __% of afterschool programming per semester	Attendance sheet	Short-Term: students develop positive beliefs about and awareness of STEM and STEM careers Medium-Term: improved student academic achievement; increased engagement in school Long-Term: interest in high school math and science courses; attending college; pursuing STEM majors and careers	Post-surveys; student interviews; tracking students after graduating from SEBA
		Students are engaged and excited about SEBA programming	Observations; mentor reflections; post-programming Interviews (if we do this)		
	1.2) SEBA takes students on STEM-related field trips	Students attend __% of field trips per semester	Attendance sheet	Short-Term: students develop positive beliefs about and awareness of STEM and STEM careers Medium-Term: improved student academic achievement; increased engagement in school Long-Term: interest in high school math and science courses; attending college; pursuing STEM majors and careers	Post-surveys; student interviews; tracking students after graduating from SEBA
		Students are engaged and excited about field trips	Observations; mentor reflections; post-programming Interviews (if we do this)		
		Students are able to connect STEM learning to field trip experience	Observations		
	1.3) SEBA pairs students with undergraduate engineering mentors who help facilitate STEM curriculum and project learning	100% of students actively engage in the STEM lesson	Observations	Short-Term: students develop positive beliefs about and awareness of STEM and STEM careers Medium-Term: improved student academic achievement; increased engagement in school Long-Term: interest in high school math and science courses; attending college; pursuing STEM majors and careers	Post-surveys; student interviews; tracking students after graduating from SEBA
		Students are able to better understand the math and science concepts and connect them to the engineering design activity	Observations		
		Students can better identify as a "STEM" person	Post-survey; student focus group interviews		
	1.4) SEBA facilitates a Science Fair to give students an avenue to demonstrate their learnings from the year	100% of students participate in the Science Fair	Attendance sheet	Short-Term: students develop positive beliefs about and awareness of STEM and STEM careers Medium-Term: improved student academic achievement; increased engagement in school Long-Term: interest in high school math and science courses; attending college; pursuing STEM majors and careers	Post-surveys; student interviews; tracking students after graduating from SEBA
		Students identify as a "STEM" person through self-recognition and recognition by family	Focus group interviews		
		Students are able to explain the engineering design process of their selected project	Observations		
Mentors	SEBA provides semesterly professional development for mentors focused on pedagogy, their role as mentors, and ___	Mentors are better equipped to implement STEM lessons during the semester	Reflection responses; end of semester interview	Short-Term: Students have a positive learning experience and relationship with mentors; mentors have more nuanced understanding and appreciation of their students' lived experiences Medium-Term: Mentors continue to volunteer and/or serve as mentors in the future Long-Term: Mentors are committed to life-long service to their community, encouraging more youth from underserved communities to pursue STEM	End of semester interviews; mentor follow up interviews
		Mentors are better able to connect and facilitate STEM learning with the students	Observations; mentor reflections; end of semester interviews		
	SEBA provides a stipend for mentors	Mentors are more committed to showing up to their assigned days, evidenced by at least __% attendance	Attendance sheet	Short-Term: Students and mentors develop a strong relationship	Observations; student focus groups; end of semester mentor interviews
	SEBA creates and delivers curriculum and material kits for lessons	Mentors are able to deliver high quality lessons to students	Observations	Short-Term: Mentors have a positive teaching experience with SEBA students Medium-Term: Mentors continue serving as SEBA mentors in subsequent semesters	Observations; end of semester interviews; list of active mentors for future semesters
		Mentors are able to focus on building relationships with students as opposed to lesson planning and acquiring materials	Observations; end of semester interviews; mentor reflections		
	SEBA supports the mentors with a dedicated program manager	Mentors are better able to resolve challenges and run programming smoothly	Observations	Short-Term: Mentors have a positive teaching experience with SEBA students Medium-Term: Mentors continue serving as SEBA mentors in subsequent semesters	Observations; end of semester interviews; list of active mentors for future semesters
	SEBA facilitates collaboration meetings between mentors and pre-service teachers	Mentors have a better understanding of their role with students and with pre-service teachers	End of semester interviews; mentor reflections	Short-Term: Mentors have a positive teaching experience with SEBA students Medium-Term: Mentors continue serving as SEBA mentors in subsequent semesters	Observations; end of semester interviews; list of active mentors for future semesters
		Mentors can better support student learning	Observations		
		Mentors' experience with SEBA is more enjoyable	End of semester interviews		
	SEBA leads weekly mentor meetings	Mentors attend __% of weekly mentor meetings	Attendance sheet	Short-Term: Mentors have a positive teaching experience with SEBA students Medium-Term: Mentors continue serving as SEBA mentors in subsequent semesters	Observations; end of semester interviews; list of active mentors for future semesters
		Mentors' reflect, acknowledge areas of improvements, and make action plans	Observations; mentor reflections		
		Mentors develop camaraderie among other mentors, making a more enjoyable SEBA experience	Observation; end of semester interview		
		Mentors discuss with other mentors and SEBA program manager about their experience	Observations; mentor reflections		
	SEBA founder and lead PI regularly interfaces with mentors in SEBA as well as in the classroom and other engineering-related activities at the university	Mentors have greater loyalty to the SEBA program	Mentor reflections; end of semester interviews	Short-Term: Mentors have a positive experience with SEBA Medium-Term: Mentors continue serving as SEBA mentors in subsequent semesters Long-Term: Mentors develop positive STEM identity and persist in engineering	Observations; end of semester interviews; list of active mentors for future semesters; track graduation and job placement
		Mentors feel more connected to the university and engineering department (greater sense of belonging)	Mentor reflections; end of semester interviews		
Pre-service Teachers	SEBA facilitates collaboration meetings between mentors and pre-service teachers	Pre-service have a better understanding of their role with students and mentors	End of semester interviews; observations		
		Pre-service teachers can better support student learning	Observations; exit tickets		
		Pre-service teachers' experience with SEBA is more enjoyable	End of semester interviews		
	SEBA creates and delivers curriculum and material kits for lessons	Pre-service teachers can focus on developing classroom management skills and content delivery as opposed to developing lessons	Observations; end of semester interviews		
Parents	SEBA conducts a parent session before the start of SEBA programming	__% of parents attend	Attendance sheet	Short-Term: Parents trusts and has a positive connection with the SEBA program and staff Medium-Term: Parents are advocates of the SEBA	Observations; student attendance; communication between mentor and parent
		Parents have a better understanding of theirs and their child's commitment and expectations for participation	Observations		
	SEBA implements Saturday SEBA sessions with parents	__% of parents attend	Attendance sheet	Short-Term: Parents trusts and has a positive connection with the SEBA program and staff Medium-Term: Parents are advocates of the SEBA programming and encourages their child to persist Long-Term: Parents "see" their child as a STEM person	Observations; student attendance; communication between mentor and parent
		Parents are engaged in STEM learning with their child	Observations		
	SEBA coordiantes an end of the semester community science fair	__% of parents attend	Attendance sheet	Short-Term: Parents trusts and has a positive connection with the SEBA program and staff Medium-Term: Parents are advocates of the SEBA programming and encourages their child to persist Long-Term: Parents "see" their child as a STEM person	Observations; student attendance; communication between mentor and parent
		Parents understand what their child learned during the semester	Observations		

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