

Assent Form for 14 to 17 years old

Title of Study: Developing STEM Identity in Rural Audiences through Community-based Engineering Design (eIRB # 20719)

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We are inviting you to participate in a research study about gaining a better understanding of what factors lead to greater interest in science, technology, engineering and mathematics (STEM) careers among rural middle school students.

Your parent(s)/guardian(s) know we are talking with you about the study. This form will tell you about the study to help you decide whether or not you want to participate in this research.

What is the purpose of this research study?

The purpose of the study is determine the level of interest, self-efficacy (a person's belief in his or her ability to successfully perform a given task or behavior), knowledge of STEM subjects and STEM career awareness of rural middle school students before and after completing a series of engineering design-focused elective courses. The goal is to determine whether participating in these courses will have a positive impact on those factors.

What will I do in this study?

If you decide to be in the study, we will ask you to do all of the following:

1. Take a 20-25 minute online survey once at the beginning of the engineering design course and again at the end of each year of the program.
2. Take a 20-25 minute STEM content knowledge assessment once at the beginning of each engineering design course and again at the end of each course.
3. Take a short 5-10 minute course feedback survey at the end of each engineering design course.
4. Participate in interviews/focus groups 1-2 times per year to talk about their experiences in the engineering design courses and be observed by researchers 1-2 times per year during informal visits to the course. The interviews/focus groups will last no more than one hour in duration, and will be held either in-person at your school, or virtually via Zoom.
5. Allow researchers to access your 5th grade and 8th grade End of Grade (EOG) science test scores from school administrators, if available. These test scores will only be used to measure your knowledge of science before and after taking the engineering design classes.
6. In the event no EOG science test scores are available, take a 60 minute online EOG Science released exam to measure your knowledge of science before (5th grade) and possibly after (8th grade) taking the engineering design classes.

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Informed Consent/Assent for Participation in Research

We expect that you be in this research study for each year that you are enrolled in one of the three engineering design elective courses. If you enroll in all three courses then you will be a part of this research study for three years.

Can I participate in this study?

You are invited to participate in this study if you agree to be in this study, your parent or guardian allows you to participate in this study, and you are enrolled in one of the engineering design elective courses.

You cannot participate in this study if you do not want to participate in this study, your parent or guardian does not want you in this study, or you are not enrolled in one of the engineering design elective courses.

What benefits do I get for participating in this study?

Taking part in this study does not have direct benefits to you, but it will help us learn about what factors increase the interest of rural middle school students in careers in science, technology, engineering and mathematics.

Can anything bad happen if I am in this study?

There are minimal foreseeable risks; some teens, however, may not feel comfortable answering questions about their school. If you do not want to answer a question, you can skip it.

Will anyone know what I said or did in this study?

If you decide to be in the study, we will not tell anyone else how you respond or act as part of the study. This means that no one outside of the researchers will know that it is you. Even if your parents or teachers ask, we will not tell them about what you say or do in the study. Confidentiality cannot be guaranteed during the focus groups, but we will ask participants not to share responses outside of the group. Everything will remain private. In the rare and unusual circumstance that we think you are being hurt by someone else or in danger, we are required by law to tell someone only enough information in order to help you be safe.

Will you share what you learn about/from me with other people?

We plan to share information that we learn from you with others. Any information that could reveal your identity will be removed prior to sharing with others. We also want to keep the information that we learn about you indefinitely for future research purposes.

You do not have to agree to share your information with others in order to be in this study.

Please initial if you agree to share your information with other people: _____.

Do I have to be in the study?

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No, you do not. The choice is yours. No one will get angry or upset if you do not want to do this. You will not lose out on anything if you do not want to do this. You can also change your mind anytime if you decide you do not want to be in the study anymore.

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What if I have questions?

If you have questions about the study, you can ask us now or anytime during the study. You can also call Dr. Tameshia Baldwin at 919-515-3263 or email at tsballar@ncsu.edu.

If you have any questions about your rights as a participant in this research or if you feel you have been hurt by this research, you can contact the IRB Office at irb-director@ncsu.edu or (919) 515-8754. You will receive a copy of this form for your records.

Printing your name below means that you have read this form or have had it read to you and that you want to be in this study.

Participant's printed name _____

Participant's signature _____ Date _____