

MARQUETTE UNIVERSITY
AGREEMENT OF CONSENT FOR RESEARCH PARTICIPANTS

A Model for Human-Centered Engineering Education: Broadening Engineering Teaching with Theory-based Educational Resources (BETTER)

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You have been invited to participate in this research study. Before you agree to participate, it is important that you read and understand the following information. Participation is completely voluntary. Please ask questions about anything you do not understand before deciding whether or not to participate.

PURPOSE:

- The purpose of this research study is to explore the influence of either a Community of Practice (CoP) or self-paced learning group (SLG) modules on the development of engineering faculty's teaching beliefs, attitudes, and behaviors.

PROCEDURES:

- You will self-select into either an in-person Community of Practice being held in Milwaukee, WI at Marquette University, or a self-paced learning group, which is online and asynchronous.
- Your participation will consist of the following:
 - If you select to participate in the CoP, this will occur over the months of June through August, twice-monthly in-person sessions, 2-3 hrs per session. Transportation is your own responsibility; a lunch will be provided at each session.
 - If you select to participate in the SLG, this will occur over the summer months of June through August with asynchronous online participation. This includes completing readings and engaging with online peers in discussions. Time commitment will vary depending on participant preference of when to work on self-paced modules and time spent on these modules.
 - Qualtrics surveys: General Teaching Practices Scale will occur:
 - Prior to beginning programming and each semester post programming for two years. Duration of each survey is expected to be about 15 minutes.
 - One-to-one interviews one- and two-years post programming. Interviews will be conducted on Microsoft Teams and last about one hour.
 - Classroom Observation one-year post-programming: In the fall semester, one year post either CoP or SLG, we will arrange a classroom observation either in-person or online and recorded using Microsoft Teams. Duration of this observation is dependent on your course logistics.
- You will be video recorded using Microsoft Teams during the interview portions of the study to ensure accuracy. The recording will be transcribed immediately, and recording destroyed after transcription is verified. Any identifying information or utterances during your interview will be de-identified on the transcript.

- You will be video recorded during a classroom observation that will occur either in-person or online depending on your course logistics. The recording will be via Microsoft Teams. This recording will be de-identified as much as possible and retained for data analysis and guiding future research. The recording will be deleted once deemed no longer necessary to inform research or by 2036, whichever comes first.

DURATION:

- The duration of your participation in this study is two years.

RISKS:

- The risks associated with participation in this study are no greater than you would experience in everyday life.
- Collection of data and survey responses using the internet involves the same risks that a person would encounter in everyday use of the internet, such as hacking or information being unintentionally seen by others.
- There is a risk of breach of confidentiality.

BENEFITS:

- Completion of the surveys will provide participants insights into their own teaching and change over time.
- This research may benefit society by influencing engineering faculty pedagogical beliefs to support student learning and retention thereby increasing students entering the engineering profession. Furthermore, our approach to faculty development may serve as a catalyst for infusing evidence-based teaching practices beyond the research participants.

CONFIDENTIALITY:

- Data collected in this study will be kept confidential.
- All your data will be assigned an arbitrary code number rather than using your name or other information that could identify you as an individual.
- The PI, Dr. Young-Brice, will maintain a key linking names to ID numbers stored on her university OneDrive password protected account, separate from the study database.
- All study data will be maintained in a password protected OneDrive account and only shared with research team members, who will also provide passwords to access the database.
- The data collected in this study will be deidentified and used for future research without further consent with exception to video recorded data. Video recordings, if used for future research will include obtaining your informed consent prior to further use.
- Video recordings of your classroom observation will be secured and stored in the study database. Interview recordings will be deleted upon transcription. Classroom observation video recordings will be stored as part of the study database and will be erased when deemed no longer necessary or by 2036, whichever comes first.
- When the results of the study are published, you will not be identified by name.
- De-identified direct quotes will be used in reports or publications.

- The data will be destroyed by deleting electronic files when deemed no longer necessary or by 2036, whichever comes first.
- Although your responses will be deleted from the survey provider website upon de-identification and transfer into the study database upon survey completion, your data may exist on backups or server logs beyond the timeframe of this research project.
- Your research records may be inspected by the Marquette University Institutional Review Board or its designees, the National Science Foundation, and (as allowable by law) state and federal agencies.
- Data collected from this study may be placed in a publicly accessible repository as a requirement of publication. The study data that are stored there will not contain any links to you or your identifying information.

COMPENSATION:

- All faculty who volunteer participation in either the CoP or SLG and complete all research activities as outlined above will receive a stipend for their time and involvement.
 - Those that participate in the CoP will receive a higher stipend to account for travel/transportation at the expense of the participant. Upon completion of the CoP, you will receive at minimum \$400, and \$200 upon completion of the remaining data collection.
 - Those that participate in the SLG will receive a stipend of at minimum \$300 upon completion of the summer programming, and \$200 upon completion of the remaining data collection.

EXTRA COSTS TO PARTICIPATE:

- Participation in the in-person CoP will include transportation to and from Marquette University in Milwaukee, WI that you are responsible for. Campus parking vouchers will be provided for you to park for free on campus.

VOLUNTARY NATURE OF PARTICIPATION:

- Participating in this study is completely voluntary and you may withdraw from the study and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.
- You may skip any questions you do not wish to answer.
- Your decision to participate or not will not impact your relationship with the investigators or Marquette University.

ALTERNATIVES TO PARTICIPATION:

- There are no known alternatives other than to not participate in this study.

CONTACT INFORMATION:

- If you have any questions about this research project, you can contact Dr. Amber Young-Brice at amber.young-brice@marquette.edu or 414-288-2162.
- If you have questions or concerns about your rights as a research participant, you can contact Marquette University's Office of Research Compliance at (414) 288-7570.

I HAVE HAD THE OPPORTUNITY TO READ THIS CONSENT FORM, ASK QUESTIONS ABOUT THE RESEARCH PROJECT AND AM PREPARED TO PARTICIPATE IN THIS PROJECT.

QUALTRICS survey response options:

1. I acknowledge that I am over 18 years old, am faculty within an engineering program in either a community college, college, or university, and volunteer to participate in this study:
 - Yes
 - No (stop survey)

2. I am interested in participating in the:
 - Community of Practice which will meet over the summer, in-person at Marquette University.
I am aware I am responsible for my own transportation.
 - What is your preferred email:
 - Self-paced learning group which will occur over summer, asynchronously online
 - What is your preferred email: