Acknowledgements

This research will provide new insights on how the use of STEPP can best help students understand physics concepts, develop CT skills through state-based modeling by creating their own simulation tools. The external evaluation of the project will be led by Dr. Diane Jass Ketelhut, Associate Professor of Science and Technology Education at the University of Maryland. The evaluation will be an iterative process, working in parallel with the project implementation of the three STEPP modules as a within subjects factor and Condition as a between subjects factor. For each group of students, a formative evaluation report will be provided at the end of years 1 and 2 to assess long-term retention. The data analysis will include the statistical power analysis with the software program G*power was conducted using the dependent measure from our pilot study reported above. A statistical power analysis with the software program G*power was conducted using the dependent measure from our pilot study reported above.