

Participating in professional development workshops focusing on our web applications improves the teachers’ dispositions toward the science of sound and waves.

**New Challenges & Next Steps**

*The next challenges are A) Disseminating the experience in the research community. B) Working with teachers to evaluate the children’s experience, particularly considering the teachers’ different implementations of the program. C) Reaching less motivated and burnt-out teachers.*

**Equity**

*For the professional development, our recruitment has focused on teachers serving underrepresented populations, and reaching approximately 30,000 underrepresented children. We are following up with the teachers to learn from their experience and improve the curriculum so it can be more easily implemented by other teachers serving underrepresented populations.*

**Lessons Learned & Insights Gained**

*Teachers are oftentimes insecure about teaching the physics of sound. We have offered online and in-person professional development workshops in which teachers learn about the physics of sound using the web-applications and curriculum developed by our team. Participation increases their confidence and enthusiasm toward teaching the subject.*

**Engaging Teachers in the Physics of Waves through the Connections with Music**

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NSF Award Number​: 2048930 Dates: 2021-2025

Project type:​ DTI

Project URL: www.listeningtowaves.com

Our project has created a series of web applications connecting STEM and music. Our work in the classroom showed children improve their science attitudes through exploring those connections. Our project is now reaching students through training teachers.