

NextWaveSTEM User Study

Teacher Attitudes, Encouragement of Students into STEM / Emerging Technologies Careers, Increase of Teaching Instructional Strategies and Effectiveness of Curriculum in Meeting STEM Goals.



NextWaveSTEM conducted teacher user surveys to determine the effects of teaching with NextWaveSTEM curriculum on their:

- Confidence in teaching emerging technologies
- Likelihood in encouraging students to pursue STEM / emerging technologies careers
- Skill set in teaching STEM strategies
- Skill set in teaching engineering, engineering design, and innovation strategies
- Skill set in teaching computer literacy, AI and coding strategies
- Effectiveness of NextWaveSTEM curriculum in meeting STEM goals

Topline Report

Conclusion NextWaveSTEM curricular materials are highly successful in growing teachers confidence and STEM/emerging teaching strategies skill sets. Teachers who prior to using NextWaveSTEM were very unlikely to encourage students to pursue STEM careers are now likely to encourage students to pursue these careers. Finally, NextWaveSTEM curriculum is effective or very effective at advancing the STEM goals of almost all of the users of the study.

Confidence in Teaching Emerging Technologies

Respondents were asked how confident they were in teaching emerging technologies before and after teaching the NextWaveSTEM course in emerging technologies. Before teaching the course, 66% of teachers said they had **No Confidence** or **Little Confidence** in teaching emerging technologies. After using the NextWaveSTEM Lesson Plans that use the researched-based and highly effective 5E instructional design and teaching the curriculum, teacher respondents reported they were **83% Confident** or **Very Confident** in teaching emerging technologies.

Likelihood in Encouraging Students to Pursue STEM / Emerging Technologies Careers

Respondents were asked how likely they were to encourage students to pursue a career in emerging technologies before and after teaching the NextWaveSTEM course. Respondents were evenly split between **33% Not Very Likely, Likely, and Very Likely** to recommend STEM careers before teaching NextWaveSTEM Courses. Teaching with NextWaveSTEM moved the needle and **eliminated all of the Not Very Likely Responses** to either Likely or Very Likely.

Effectiveness of NextWaveSTEM Curriculum in Meeting STEM Goals

Respondents were asked how effective - using a scale of not effective, a little effective, effective, or very effective - was the NextWaveSTEM curriculum in helping them achieve their STEM goals. **92% of respondents reported that NextWaveSTEM courses were either effective or very effective in helping them to achieve their STEM goals.**

STEM Teaching Strategies Skill Set

83% of respondents reported that their STEM teaching strategies skill set has increased.

Engineering, Engineering Design, and Innovation Teaching Strategies Skill Set

66% of respondents reported that their engineering, engineering design, and innovation teaching strategies skill set has increased.

Computer Literacy, AI and Coding Teaching Strategies Skill Set

83% of respondents reported that their computer literacy, AI and coding, teaching strategy skills set has increased.