

## Bacteriophages Bringing Research into the Classroom – Brandl, et al. Appendix H. Health Science Research and Science Teaching Self Efficacy Questionnaires

Science Teaching Self-efficacy Health Science Research Phage Discovery Advanced Phage Discovery	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6

<i>Health Science Research</i>	
P1	I know I deliver rigorous science curriculum to my students.
P2	I am confident in my ability to design original science research studies.
P3	I have carried out health science research including collecting and analyzing data and presenting findings.

### Science Teaching Self-efficacy Subscale

E1 I'm confident that my science lessons engage students in using appropriate evidence to address scientific questions.

E2 In my teaching I successfully encourage students to create and compare alternative plausible explanations for natural phenomena, and argue their explanations based on evidence.

E3r It's hard for me to know exactly what makes a good question for scientific inquiry.

E4 I know a lot of activities that are good for getting students to gather information, organize and analyze data, and make their own interpretations or explanations based on the evidence.

E5 I'm good at helping students plan the details of their own scientific investigations – posing engaging scientifically oriented questions, finding relevant background information, using measurement tools to make observations, organizing and understanding the results.

E6r It's often hard for me to talk with students about changing their explanations to better fit the evidence.

E7r I am not very effective at getting students to generate or consider alternative explanations for evidence besides their own explanation.

E14 I am confident that I provide high quality health science research opportunities for students.

E8 Regardless of the topic, I'm confident of my ability to coach students in scientific investigations.

E9 I'm good at managing a classroom in which students are working on many different science investigation activities at the same time.

E10r In the overall curriculum, what students learn from inquiry lessons is quite limited.

E11 Whatever curriculum or text I am assigned to teach in science, I'm confident that I can transform the lessons using an inquiry approach.

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E12 Students learn more from doing their own inquiry-based projects than other ways of teaching science.

E13 I could coach other teachers about how to design and teach science using student inquiry and investigation projects.