

ONLINE SCIENCE AND SELF-EFFICACY

Appendix C STEBI-B—Science Teaching Efficacy Belief Instrument for Preservice Teachers (Bleicher, 2004; Enochs & Riggs, 1990)

Additional Pre-/Post-Survey Questions

DIRECTIONS: Please indicate the degree to which you agree or disagree with each statement below by circling the appropriate letters to the right of each statement.

SA = Strongly Agree, A = Agree, UN = Uncertain, D = Disagree, SD = Strongly Disagree

1. When a student does better than usual in science, it is often because the teacher exerted a little extra effort.	SA A UN D SD	STOE
2. I will continually find better ways to teach science.	SA A UN D SD	PSTEB
3. Even if I try very hard, I will not teach science as well as I will most subjects.	SA A UN D SD	PSTEB
4. When the science grades of students improve, it is often due to their teacher having found a more effective teaching approach.	SA A UN D SD	STOE
5. I know the steps necessary to teach science concepts effectively.	SA A UN D SD	PSTEB
6. I will not be very effective in monitoring science experiments.	SA A UN D SD	PSTEB
7. If students are underachieving in science, it is most likely due to ineffective science teaching.	SA A UN D SD	STOE
8. I will generally teach science ineffectively.	SA A UN D SD	PSTEB
9. The inadequacy of a student's science background can be overcome by good teaching.	SA A UN D SD	STOE
10. The low science achievement of students cannot generally be blamed on their teachers.	SA A UN D SD	STOE
11. When a low-achieving child progresses in science, it is usually due to extra attention given by the teacher.	SA A UN D SD	STOE
12. I understand science concepts well enough to be effective in teaching elementary science.	SA A UN D SD	PSTEB
13. Increased effort in science teaching produces little change in students' science achievement.	SA A UN D SD	STOE
14. The teacher is generally responsible for the achievement of students in science.	SA A UN D SD	STOE
15. Students' achievement in science is directly related to their teacher's effectiveness in science teaching.	SA A UN D SD	STOE
16. If parents comment that their child is showing more interest in science, it is probably due to the child's teacher.	SA A UN D SD	STOE
17. I will find it difficult to explain to students why science experiments work.	SA A UN D SD	PSTEB
18. I will typically be able to answer students' science questions.	SA A UN D SD	PSTEB
19. I wonder if I will have the necessary skills to teach science.	SA A UN D SD	PSTEB
20. Given a choice, I will not invite the principal to evaluate my science teaching.	SA A UN D SD	PSTEB
21. When a student has difficulty understanding a science concept, I will usually be at a loss as how to help the student understand.	SA A UN D SD	PSTEB
22. When teaching science, I will usually welcome student questions.	SA A UN D SD	PSTEB
23. I do not know what to do to turn students on to science.	SA A UN D SD	PSTEB

Coding Scheme: SA = 5 A = 4 UN = 3 D = 2 SD = 1

Science Teaching Outcome Expectancy (STOE) Subscale Items: 1, 4, 7, 9, 10, 11, 13, 14, 15, 16

Personal Science Teaching Efficacy Belief (PSTEB) Subscale Items: 2, 3, 5, 6, 8, 12, 17, 18, 19, 20, 21, 22, 23

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Additional Pre-Survey Question:

1. What would you like to learn most in this course?

Additional Post-Survey Questions:

1. What are some of the most significant skills or concepts you have learned in this course?
2. What specific parts of the course (certain activities, assignments, projects, assessments, etc.) were most helpful in your confidence about teaching science?
3. Please share any other comments/feedback/concerns/etc. about your experiences in this course.