



Developed by: Heidi Fencl and Karen Scheel

Format: Pre/post, Multiple-choice, Agree/disagree

Duration: 20 minutes

Focus: Beliefs / Attitudes (self-efficacy)

Level: Intro college

How to give the test

- Give it as both a pre- and post-test. This measures how your class shifts student thinking.
 - Give the pre-test at the beginning of the term.
 - Give the post-test at the end of the term.
- Use the whole test, with the original wording and question order. This makes comparisons with other classes meaningful.
- Make the test required, and give credit for completing the test. This ensures maximum participation from your students.
- Tell your students that the test is designed to evaluate the course (not them), and that knowing how they think will help you teach better. Tell them that correctness will not affect their grades (only participation). This helps alleviate student anxiety.
- For more details, read the **PhysPort Guides** on implementation:
 - **PhysPort SOSESC-P implementation guide** (www.physport.org/implementation/SOSESCP)
 - **PhysPort Expert Recommendation on Best Practices for Administering Belief Surveys** (www.physport.org/expert/AdministeringBeliefSurveys/)

How to score the test

- Download the answer key from PhysPort (www.physport.org/key/SOSESCP)
- The SOSESC-P score is the average Likert rating for a student agreeing with the expert response for each question. For instructions on scoring the SOSESC-P, see the **PhysPort SOSESC-P implementation guide** (www.physport.org/implementation/SOSESCP)
- See the **PhysPort Expert Recommendation on Best Practices for Administering Belief Surveys** for instructions on calculating shift and effect size (www.physport.org/expert/AdministeringBeliefSurveys/)
- Use the **PhysPort Assessment Data Explorer** for analysis and visualization of your students' responses (www.physport.org/explore/SOSESCP)

SOSESC—Physics

Please indicate how strongly you agree with each of the following statements about your experiences *in this course* (including labs, if applicable.)

1. I received good grades on my assignments in this class.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
2. My mind went blank and I was unable to think clearly when working on assignments.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
3. Watching other students in class made me think that I could not succeed in physics.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
4. When I came across a tough physics question, I worked at it until I solved it.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
5. Working with other students encouraged and motivated me in this class.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
6. I have usually been at ease in this class.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
7. Listening to the instructor and other students in question-and-answer sessions made me think that I could not understand physics.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
8. I found the material in this course to be difficult and confusing.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
9. I enjoyed physics labs/activities.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
10. My instructor's demonstrations and explanations gave me confidence that I could solve physics-related problems.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree
11. I was rarely able to help my classmates with difficult physics problems.
1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

12. My instructor encouraged me that I could use physics concepts to understand real life phenomena.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

13. I usually didn't worry about my ability to solve physics problems.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

14. I had difficulty with the exams/quizzes in this class.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

15. I am poor at doing labs/activities to explore physics questions.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

16. The instructor in this course encouraged me to put forth my best efforts.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

17. I rarely knew the answer to the questions raised in class.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

18. Physics makes me feel uneasy and confused.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

19. I identified with the students in this class who did well on exams/quizzes.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

20. I got positive feedback about my ability to recall physics ideas.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

21. I got a sinking feeling when I thought of trying hard physics problems.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

22. I learned a lot by doing my physics assignments/activities.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

23. During this course, I admired my instructor's understanding of physics.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

24. In-class discussions and activities helped me to relax, understand, and enjoy my experience in the course.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

25. My instructor's feedback discouraged me about my ability to perform well on physics exams/quizzes.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

26. It was fun to go to this class.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

27. I could relate to many classmates who were involved and attentive in class.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

28. No one in class has encouraged me to go on in science after this course.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

29. I got really uptight while taking exams/quizzes in this class.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

30. I can remember the basic physics concepts taught in this class.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

31. Classmates who were similar to me usually had trouble recalling details taught in class.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

32. My peers in this course encouraged me that I had the ability to do well on class projects/assignments.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

33. I was attentive and involved in what was going on in class.

1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree