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Developed by: Christine Lindstrøm and Manjula Sharma Format: Pre/post, Agree/disagree Duration: 5 minutes Focus: Beliefs / Attitudes (self-efficacy) Level: Intro college

How to give the assessment

- 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 PSEQ implementation guide (<u>www.physport.org/implementation/PSEQ</u>)
 - PhysPort Expert Recommendation on Best Practices for Administering Belief Surveys (www.physport.org/expert/AdministeringBeliefSurveys/)

How to score the assessment

- Strongly disagree is coded as 1, disagree as 2, neutral as 3, agree as 4, and strongly agree as 5. Each student's response is summed over all 5 items. Physics self-efficacy scores range between 5 (lowest) and 25 (highest).
- See the **PhysPort Expert Recommendation on Best Practices for Administering Belief Surveys** for instructions on calculating shift and effect size (<u>www.physport.org/expert/AdministeringBeliefSurveys/</u>)

Physics Self-Efficacy Questionnaire

This questionnaire probes students' attitudes towards their physics studies. Please note that:

- Participation is completely voluntary, and
- No information about individual answers or your identity will be given to people teaching or assessing the course.

For the following questions, think about the statement in each box and respond by marking your level of agreement with the statement according to the following scale:

SD	D	Ν	Α	SA
Strongly Disagree with the statement	Disagree with the statement (possibly with some reservations or qualifications)	Neutral In-between agreeing and disagreeing	Agree with the statement (possibly with some reservations or qualifications)	Strongly Agree with the statement

Student ID _____

		Please circle one only				
1.	I generally manage to solve difficult physics problems if I try hard enough	SD	D	N	А	SA
2.	I know I can stick to my aims and accomplish my goals in physics	SD	D	Ν	А	SA
3.	I will remain calm in my physics exam because I know I will have the knowledge to solve the problems	SD	D	N	А	SA
4.	I know I can pass the physics exam if I put in enough work during the semester	SD	D	N	А	SA
5.	The motto 'If other people can, I can too' applies to me when it comes to physics	SD	D	N	А	SA

Thank you very much!