Attitudes, Skills & GRIT: Oh My

ITEST STELAR Webinar
Research and Evaluation Working Group

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Karen Peterman Ph.D.

karen peterman
CONSULTING

Attitude Measures

Expectancies & Values Scale (Simpkins, Davis-Kean, & Eccles, 2006)

Sub-scale	Likert scale questions (7 points)
Science-related self-concept	• How good are you at science? (Not at All Good – Very Good) • Compared to most of your other school subjects, how good are you at science? (A Lot Worse – A Lot Better) • If you were to list all of the students in your science class from worst to best in science, where would you put yourself? (One of the Worst – One of the Best)
Perceived importance of science	• In general, how useful is what you learn in science? (Not at All Useful – Very Useful) • For me, being good at science is: (Not at all Important – Very Important)
Interest in science	• How much do you like doing science? (A Little – A Lot) • In general, I find working on science assignments: (Very Boring – Very Interesting)

The Cornell Lab of Ornithology

Program Development and Evaluation

USER'S GUIDE FOR

EVALUATING LEARNING OUTCOMES FROM CITIZEN SCIENCE

Tina Phillips
Marion Ferguson
Matthew Minarchek
Norman Porticella
Rick Bonney

Currently available from DEVISE:

- Interest in Science & Nature (adult version)
- Nature Relatedness Scale (short version)
- Self-Efficacy for Science
- Self-Efficacy for Environmental Action
- Motivation for Science
- Motivation for Environmental Action

To request the scales go to:
http://www.birds.cornell.edu/citscitoolkit/evaluation/instruments

Self-Efficacy for Environmental Action

Please indicate how much you DISAGREE or AGREE with each of the following statements about your influence on the environment by checking the appropriate column. Please respond as you really feel, rather than how think "most people" feel.

	Strongly Disagree, 1	2	3	4	Strongly Agree, 5
1. I feel confident in my ability to help protect the planet.	○	○	○	○	○
2. I am capable of making a positive impact on the environment.	○	○	○	○	○
3. I am able to help take care of nature.	○	○	○	○	○
4. I believe I can contribute to solutions to environmental problems by my actions.	○	○	○	○	○
5. Compared to other people, I think I can make a positive impact on the environment.	○	○	○	○	○
6. I don't think I can make any difference in solving environmental problems.	○	○	○	○	○
7. I believe that I personally, working with others, can help solve environmental issues.	○	○	○	○	○
8. It's hard for me to imagine myself helping to protect the planet.	○	○	○	○	○

Think about some of the things you do to protect nature or help solve environmental problems. Why do you do these things?

	Strongly Disagree, 1	Disagree, 2	Neither Agree nor Disagree, 3	Agree, 4	Strongly Agree, 5
1. Because I think it's a good idea to do something for the environment	○	○	○	○	○
2. Because other people will be disappointed in me if I don't	○	○	○	○	○
3. Because I'm concerned about what could happen to people I care about if I don't do anything	○	○	○	○	○
4. Because I would feel guilty if I didn't do anything for the environment	○	○	○	○	○
5. Because I enjoy doing it	○	○	○	○	○
6. Because I'm concerned about what could happen to me if I don't do anything	○	○	○	○	○
7. For the pleasure I experience while doing it	○	○	○	○	○
8. Because people I look up to think it's a really good thing to do	○	○	○	○	○
9. Because I think it's a good idea to protect nature	○	○	○	○	○

NOW IT'S
YOUR TURN.

Skill Measures

learn3.com

21st Century Skills Assessment

Features and Benefits

- Aligned to the 24 performance indicators of the ISTE Standards-S
- Four levels of proficiency for each standards category: advanced, proficient, basic, and below basic
- Full reports at the district, school, teacher, class, and student levels, with comparative national data
- Automatically prescribes lessons and projects from EasyTech to address identified knowledge gaps
- Pre-tests and post-tests provide data to pinpoint challenges

Peterman, K, Pan, Y., Robertson, J. & Glenn Lee, S. (2014). Self-report and academic factors in relation to high school students' success in an innovative biotechnology program. *Journal of Technology Education 25*(2), 35-51.

Look at the list of skills below and indicate how well you think you can perform each. We know you may not have learned about some of these yet, and that is okay – just check the box for how well you think you could perform each skill if you were doing it today.

Mark locations using a handheld GPS unit

Using a microscope

Develop investigable questions for an inquiry-based project

Pipetting

Making solutions

Use storyboarding

Handling microorganisms

Create place marks in Google Earth

Using Standard Operating Procedures (SOPs)

Edit in iMovie (or other video program)

Quality Assurance Testing

Observing enzymatic activity

Export data from the eMonitor to a spreadsheet for analysis

IT'S
YOUR TURN.

GRIT-S

The Grit-S Scale

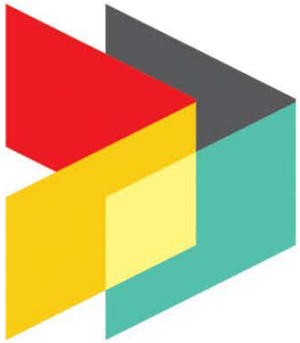
Please respond to the following 8 items. Be honest – there are no right or wrong answers!

	Very much like me	Mostly like me	Somewhat like me	Not much like me	Not like me at all
New ideas and projects sometimes distract me from previous ones.	○	○	○	○	○
Setbacks (delays and obstacles) don't discourage me. I bounce back from disappointments faster than most people.	○	○	○	○	○
I have been obsessed with a certain idea or project for a short time but later lost interest.	○	○	○	○	○
I am a hard worker.	○	○	○	○	○
I often set a goal but later choose to pursue (follow) a different one.	○	○	○	○	○
I have difficulty maintaining (keeping) my focus on projects that take more than a few months to complete.	○	○	○	○	○
I finish whatever I begin.	○	○	○	○	○
I am diligent (hard working and careful).	○	○	○	○	○

How do we balance the need to evaluate the multiple moving parts of ITEST projects?

karen peterman

C O N S U L T I N G



Karen Peterman, Ph.D.
karenpetermanphd@gmail.com

(919) 627-2676

2706 Stuart Drive
Durham NC 27707

www.consultkp.com