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Research Tool: STS Assessment Survey Instrument

Karen A. Rader
Virginia Commonwealth University

Cynthia Gibbs
Science Pub RVA

STS ASSESSMENT INSTRUMENT
CONSTRUCTS and ITEMS
Notes on constructing cafe surveys from this complete instrument:
1. This is a complete list of all potential questions we would ask café participants. In the complete instrument, there are three main STS assessment constructs and multiple items within each construct; items within constructs are redundant (i.e. they assess the same things). 2. To reduce redundancy and also allow for variation (so repeat science cafe attendees and participants don't get bored or complacent) and to insure survey participants have roughly 10 min completion of the survey, the PI and research team will make a varied selection of around 5 questions from the different constructs/items to include on each survey at each cafe. 3. All surveys developed from this complete instrument will include some or all demographic and science background/preparation questions listed. 4. The open-ended inquiry/prompt following each potential question ("why do you say that?" or "How?" or "Why?") may or may not be included in the survey presented to participants. 5. The font design, size and attributes (e.g. italic, bold, ink color, etc.) may be presented differently than documented below.

Construct B: Science as a Human Endeavor: What does it take to be a scientist? What does it mean to do something scientifically or to do scientific work?

M1A: Connecting with the STS scholar tonight changed my view of what scientists' work is like.
1 2 3 4 5 6 7 Strongly Disagree
1 Neutral Strongly
Agree
How so?

M1B: From your interaction with tonight's STS scholar, list 2 things you learned that are new or surprising about how scientists do their work.

1) 2)

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Construct C: Complexities in the Development of Scientific Ideas Where do scientific ideas come from? What shapes the growth of scientific knowledge?

M2A: It is good to try experiments more than once to make sure of your findings.
1 2 3 4 5 6 7 Strongly Disagree
2 Neutral Strongly
Agree
Why?

M2B: Good scientific answers are based on evidence from many different experiments.
1 2 3 4 5 6 7 Strongly Disagree
Neutral Strongly
Agree
Why do you say that?

M2C: It is good to have an idea before you start an experiment.
1 2 3 4 5 6 7 Strongly Disagree
Neutral Strongly
Agree

Why do you say that?
M2D: Ideas about science experiments come from being curious and thinking about how things work.
1 2 3 4 5 6 7 Strongly Disagree
Neutral Strongly
Agree
Why do you say that?
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M2E: In science, there can be more than one way for scientists to test their ideas.
1 2 3 4 5 6 7 Strongly Disagree
3 Neutral Strongly
Agree
Why do you say that?
M2F: A good way to know if something is true is to do an experiment.
1 2 3 4 5 6 7 Strongly Disagree
Neutral Strongly
Agree
Why do you say that?
M2G: Ideas in science can come from your own questions and experiments.
1 2 3 4 5 6 7 Strongly Disagree
Neutral Strongly
Agree
Why do you say that?
M2H: With the same background knowledge, two scientists can develop the same theory independently of each other.
1 2 3 4 5 6 7 Strongly Disagree
Neutral Strongly
Agree
Why do you say that?
M2I: The scientist's individuality does NOT influence the content of a theory.
Option one: (Same as above)
1 2 3 4 5 6 7 Strongly Disagree
Neutral Strongly
Agree
Why do you say that?
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M2J : The scientist's individuality does NOT influence the content of a theory.
Option one 2: What do you believe?
1 2 3 4 5 6 7 The scientist's
4 Neutral A scientist's individuality
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individuality will NOT influence the content of a theory.
5 WILL influence the content of a theory.
Why?
M2K: Scientific observations made by competent scientists will usually be different if the scientists believe different theories.

1 2 3 4 5 6 7 Strongly Disagree
Neutral Strongly
Agree
Why do you say that?

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Construct A: Engagement with Science and Technology How engaged are you with science and technology in your lives?

Before tonight's event, where would you have placed your interest level in [fill in the night's topic]?

1 2 3 4 5 6 7 Zero Very High

And Now?

1 2 3 4 5 6 7 Zero Very High

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Science backgrou nd and demographic qu estions:

Science-wise, how do you classify yourself?
(Please select JUST ONE category.)

_____ Not really that into science _____ Science enthusiast

_____ Student_____ _____ Science degreed, but not a scientist

_____ Scientist _____ _____ Educator (Professional at any institution including librarian, museum, and K-12 school or college)

Among the below, how do you classify yourself?

_____ Without a physical disability _____ With a physical disability

Census-wise, how do you classify yourself?

(You are welcome to circle more than one category.) *Optional phrasing that may be above or below: "The National Science Foundation, funders of this research project, asks that we report this data."*

American Indian, Native American, or Alaska Native Asian (East, Central, North, South and Southeast) or Asian-American Black, African, African American, or Negro Native Hawaiian or Pacific Islander White or Caucasian Other _____

Are you Hispanic or Latino?

_____ Yes _____ No

How many candles should have been on your last Birthday Cake?

_____ 18 to 20 _____ 41 to 50 _____ 71 to 80

_____ 21 to 30 _____ 51 to 60 _____ 81+

_____ 31 to 40 _____ 61 to 70 _____ Other

Anything else you would like to say?

_____