



Online Ethics Center  
FOR ENGINEERING AND SCIENCE

# Values in Scientific Work (VSW)

## Author(s)

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## Description

The Values in Scientific Work (VSW) is a 35-item measure that assesses the level of importance scientists attach to different intrinsic, extrinsic, and social values that motivate the work of scientists. During VSW development, items were factor analyzed, meaning that items which measure a similar construct are clustered together in the same factor. The VSW is comprised of eight factors: 1) autonomy, 2) research ethics, 3) social impact, 4) income, 5) collaboration, 6) innovation and growth, 7) conserving relationships, and 8) job security.

## Body

The VSW has good internal consistency, with Cronbach's alphas being greater than .70 for seven of the eight factors. That is, the test is stable and reliable in its measurement of intrinsic, extrinsic, and social values of scientists. Scores on the VSW are correlated with the global values for which shared conceptual overlap is expected and are not correlated for global values that are theoretically more distinct, providing evidence for both convergent and discriminant validity. That is, the VSW accurately measures the values of scientists. The VSW can be used for professional development of scientists and in research where these values are a predictor or outcome variable of interest.

**Home Page:** <https://bioethicsresearch.org/research-services/testing-services/#vsw>

**Description:** The VSW assesses personal values in scientific research. The items in the test were derived from a review of the literature on values in science and on work values associated with scientific work, as well as validated measures of values. The developers adopted the Schwartz Portrait Values Questionnaire (PVQ) as a template (Schwartz et al. 2012). Items in the measure represent a statement about a person's values (and respondents are asked to indicate how similar that person is to themselves, from 1 (not like me at all) to 6 (very much like me) scale. All items are relevant to all scientific contexts and relevant to respondents regardless of their career stage and kind of research.

**What it Measures:** The VSW assesses the level of importance that investigators attach to different values in scientific research, including a broad range of intrinsic, extrinsic and social values that motivate the work of scientists including values specific to scientific work (e.g. truth and integrity) and more classic work values (e.g. security and prestige) in the context of science. The values assessed in the VSW are relevant to scientists regardless of their career stage and research focus. The VSW can be used for professional development of scientists and in research where these values are a predictor or outcome variable of interest.

**Format:** The VSW consists of a 34-item test with the respondent rating each statement on a six-point Likert scale. It can be delivered in a paper or electronic format.

**Disciplines:**

- Life and Environmental Sciences
- Social Sciences
- Computer, Math and Physical Sciences
- Engineering

**Audience:** Graduate, post-doc, faculty, research staff

**Access/For More Information:** Information about this assessment tool is available at the homepage of the [Bioethics Research Center](#) at Washington University in St. Louis School of Medicine. The Bioethics Research Center includes a form on their website that allows you to supply information about which test would like to administer, the context you wish to use the measure, and options for how

you would like to collaborate with the BRC, including receiving a copy of the test and user manual at no cost, or working with BRC staff to score the test and help analyze the result for a fee to cover staff time.

### **Associated References:**

1. English, T., Antes, A. L., Baldwin, K. A., & DuBois, J. M. (2018). Development and Preliminary Validation of a New Measure of Values in Scientific Work. *Science and Engineering Ethics*, 24, 393-418. PubMed link: <https://www.ncbi.nlm.nih.gov/pubmed/28597222>.

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### **Discipline(s)**

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