

**THE NATIONAL ACADEMIES
NATIONAL RESEARCH COUNCIL
DIVISION OF BEHAVIORAL AND SOCIAL SCIENCE AND EDUCATION**

Planning Meeting on Teaching Social, Behavioral and Economic Sciences in K-12 Education

House of Sweden, Alfred Nobel Room
2900, K Street, NW, Washington, DC

MEETING AGENDA

November 17-18, 2011

Meeting Overview and Goals

Recently states have been working together to develop common standards that can serve as a mechanism for improving K-12 education. This process has stimulated discussion about strategies for increasing attention to the social, behavioral, and economic (SBE) sciences across K-12. The goals of this planning meeting are to examine the state of practice and research on teaching social, behavioral and economic sciences in K-12 education, and to explore future directions and possible roles for the National Research Council (NRC) in supporting the teaching of SBE in K-12.

The meeting will explore:

- What are the goals and rationales for including SBE sciences in K-12 education?
- To what extent (and how) are the SBE sciences currently included in K-12 education and in the standards used by states?
- What is known from research about the teaching and learning of SBE sciences in K-12?
- What are options for strengthening and expanding coverage of SBE sciences across the K-12 curriculum? Where may it be possible to integrate SBE with other disciplines such as life sciences, statistics, engineering, math, earth science, and health?
- What are possible strategies for beginning to implement feasible options? What empirical, practical, and systemic conditions affect how to approach the various options?
- What are possible roles and activities for the NRC related to the teaching and learning of SBE sciences in K-12?

Day 1

8:30-8:45 Welcome, breakfast available

Robert Hauser, Executive Director, Division of Behavioral and Social Sciences and Education (DBASSE), National Research Council

8:45-9:00 Setting the Context and Overview of the Agenda

Meeting Co-Facilitators:

Lorraine McDonnell, Department of Political Science, University of California Santa Barbara

9:00-10:30 Session 1: History of Efforts to Include SBE Sciences in K-12 Education: Rationales, Goals, and Empirical Basis

In this session representatives of the SBE sciences (psychology, sociology, geography, economics, political science, anthropology) discuss efforts that have been undertaken to include these disciplines in the K-12 curriculum.

Questions to consider are: What are the goals and rationales for teaching SBE sciences at different grades in K-12? What are the underlying empirical arguments for the inclusion of SBE sciences in K-12, what to teach, and how to teach it? What strategies have been used to advocate for the inclusion of SBE sciences in K-12? What is the status of these efforts? What challenges have been encountered?

Panelists:

Roger Downs, Department of Geography, Pennsylvania State University
Cynthia Belar, Education Directorate, American Psychological Association
William Bosshardt, Council for Economic Education, Florida State University
Caroline Persell, Department of Sociology, New York University

Commentator

Felice Levine, American Educational Research Association

Discussion

Meeting co-Facilitator, Lorraine McDonnell

10:30-10:45 Break

10:45-12:30 Session 2: The State of SBE Sciences in K-12 Education

This session begins to look at the extent to which SBE sciences are included in K-12, and if they are included, how. This type of examination is needed to determine the complexity of efforts that may be needed to expand and strengthen the teaching of these disciplines in K-12. Panelists present initial findings on the inclusion of SBE in national and state efforts to develop standards and related supports to enhance the teaching of social studies, health, and the physical and natural sciences.

Questions to consider are: What topics or core ideas related to the SBE sciences appear in the standards and related policy documents of other disciplines? What SBE sciences topics or ideas that are important to the education of K-12 students are missing from these efforts? In what areas might the inclusion of SBE sciences strengthen teaching related to existing standards? What additional standards might be useful to pursue in light of the rationales and goals for teaching SBE sciences in K-12?

10:45-11:00 Presentation: NRC Framework for K-12 Science Education
Heidi Schweingruber, Board on Science Education, DBASSE, NRC

11:00-11:10 Q&A

11:10-11:30 Presentation of commissioned paper, *An examination of SBE sciences in the social studies curriculum and systemic consequence*
Diane Massell, University of Michigan

11:30-11:40 Q&A

11:40-11:55 Discussant: Scott G. Grant, School of Education, Binghamton University

11:55-12:30 Discussion

Meeting co-Facilitator, Christine Massey

12:30-1:30 Lunch

1:30-2:45 Session 3: Research on Teaching and Learning in the SBE Sciences

This session explores what is known from research about the teaching and learning of SBE sciences at different grades in K-12. The disciplines to be discussed include psychology, sociology, anthropology, geography, political science, and economics.

Questions to consider are: What are the implications of the research for what to teach and how to teach it across grades in K-12? What is known from this research about what is appropriate for students to learn at different points in their development? To what extent does the research point to principles of conceptual change or learning progressions? To what extent does the research support development of core ideas (as defined in the NRC framework for science education)? What approaches other than core ideas might be considered for the SBE sciences given the available evidence on what concepts to teach and how to teach them across grades? What research is needed to advance knowledge of teaching and learning of SBE sciences in K-12 and to develop the related systemic supports (i.e., standards or frameworks, curricula or curriculum enhancements, student assessments, teacher education and professional development)?

Panelists

(Each panelist offers a 10 minute commentary on the state of research and needs for building a research base on teaching and learning in each of the SBE disciplines.)

Economics, William Walstad, Department of Economics, University of Nebraska-Lincoln

Michael Watts, Department of Economics and Center for Economic Education, Purdue University

Geography, Roger Downs, Department of Geography, Pennsylvania State University

Michael Solem, Education Affairs Director, Association of American Geographers

Psychology, Nora Newcombe, Department of Psychology, Temple University

Sociology, Barbara Schneider, Department of Sociology, Michigan State University

Discussion

Meeting co-Facilitators, Lorraine McDonnell and Christine Massey

2:45-3:00 Break

3:00-4:45 Session 4: Options for Inclusion or Expansion of SBE Sciences in the K-12 Curriculum

Small groups 3:00-4:00

Participants meet in small groups to examine where the teaching of SBE sciences may fit in the curriculum structure for each grade. Options may include: integrate with K-12 social studies (e.g., social science and social studies); integrate with other K-12 sciences; include in health education; develop courses in the SBE discipline for middle school students; strengthen high school SBE courses that mirror introductory college courses; develop more SBE advanced placement courses; develop a stand-alone sequence of instruction at higher grades.

Questions to consider are:

- What strategy for teaching SBE in K-12 may be most feasible and desirable in light of possible goals for teaching the SBE sciences?
- What issues, challenges or advantages are associated with this strategy?
- What are the immediate next steps for advancing the strategy?

Each group will be asked to report out which strategy they identified, 2 key challenges or advantages associated with the strategy, and the most important next step.

Reconvene and discuss: 4:00-4:45

Small groups re-convene to discuss strategies and consider the steps that would be needed to develop core ideas and tools needed for teaching and learning SBE sciences in the context of the most feasible K-12 options.

Meeting co-Facilitators, Lorraine McDonnell and Christine Massey

4:45 Wrap-up comments and adjourn

Robert Hauser, Executive Director, Division of Behavioral and Social Sciences and Education (DBASSE), National Research Council

Day 2, November 18, 2011

8:30-8:45 Welcome/Review of previous day, *breakfast available*
Robert Hauser, Executive Director, Division of Behavioral and Social Sciences and Education (DBASSE), National Research Council

8:45-10:30 Session 5: Strategies and Lessons from Other Disciplines

Representatives from non-SBE disciplines present the systematic efforts that have been undertaken to include these disciplines in the K-12 curriculum. Panelists discuss: the goals of these efforts, the strategies and conceptual approaches that were used, the various groups that were engaged, results of the efforts to date, the challenges that were encountered, how the challenges were resolved, and pitfalls to be avoided in similar efforts. A Q&A session with participants follows.

Panelists:

Environmental Education, Bora Simmons, University of Oregon
Engineering Education, Beth McGrath, Center for Innovation in Engineering & Science Education, Stevens Institute of Technology
Statistics, Roxy Peck, California Polytechnic State University
Earth science, Dan Barstow, TERC

Q&A: Moderator, Christine Massey

10:30-10:45 Break

10:45-11:45 Session 6: Reflections and Possible Next Steps

Information and ideas presented thus far are summarized to support discussion of possible next steps toward greater inclusion of the SBE sciences in K-12.

Questions to consider are: What sustained strategies might be used to implement feasible options to include or strengthen the teaching of SBE sciences in K-12? What short term and long term goals might be included in an incremental strategy? What empirical work is available or needed to plan and support the strategies? What research is needed to advance knowledge of teaching and learning of SBE sciences in K-12 and develop the related systemic supports (i.e., curricula or curriculum enhancements, student assessments, teacher education and professional development)?

Panelists:

Deborah Olster, Deputy Director, Office of Behavioral and Social Sciences Research, National Institutes of Health
Felice Levine, Executive Director, American Educational Research Association
Mark Weiss, Division Director, Division for Behavioral and Cognitive Sciences, Directorate for Social, Behavioral and Economic Sciences, National Science Foundation

Discussion: Meeting co-Facilitators, Lorraine McDonnell and Christine Massey

11:45-12:00 Wrap-up and Adjourn

Robert Hauser, Executive Director, Division of Behavioral and Social Sciences and Education (DBASSE), National Research Council

12:00-1:00 Lunch and Informal Discussion