

Promoting Health Science Competencies through Socioscientific Issues

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Web Resources

Pedagogy in Action, The SERC Portal for Educators

Using Socioscientific Issues-Based Instruction

<http://serc.carleton.edu/sp/library/issues/index.html>

**Provides rationale and resources, including examples and modules for SSI-based teaching*

SENCER, Science Education for New Civic Engagements and Responsibilities

<http://www.sencer.net/About/aboutus.cfm>

**“SENCER courses and programs connect science, technology, engineering, and mathematics content to critical local, national, and global challenges.”*

The website provides models for interdisciplinary STEM courses and teaching practices such as service learning and interdisciplinary learning.

PIHNet (Persistent Issues in History Network), SSI Framework

<http://156.56.1.74/pbltec/ssinetcur/ssinetframework>

**Describes use of Socioscientific Inquiry in the Classroom. Includes a biology curriculum map.*

Books

Socio-scientific issues in science classrooms: Teaching, learning and research. (2011). T.D. Sadler (Ed.) New York: Springer.

**Provides explanation of SSI, descriptions of various SSI learning environments, and outcomes of studies on SSI teaching.*

It's Debatable! Using Socioscientific Issues to Develop Scientific Literacy, K-12. (2014).

Zeidler, D.L. & Kahn, S. NSTA Press.

**Provides full SSI units for K12 education. While modules are not appropriate to college classrooms, they provide concrete examples of the types of activities that can be built into SSI lessons. Additionally, selected issues can be adapted for college classes.*

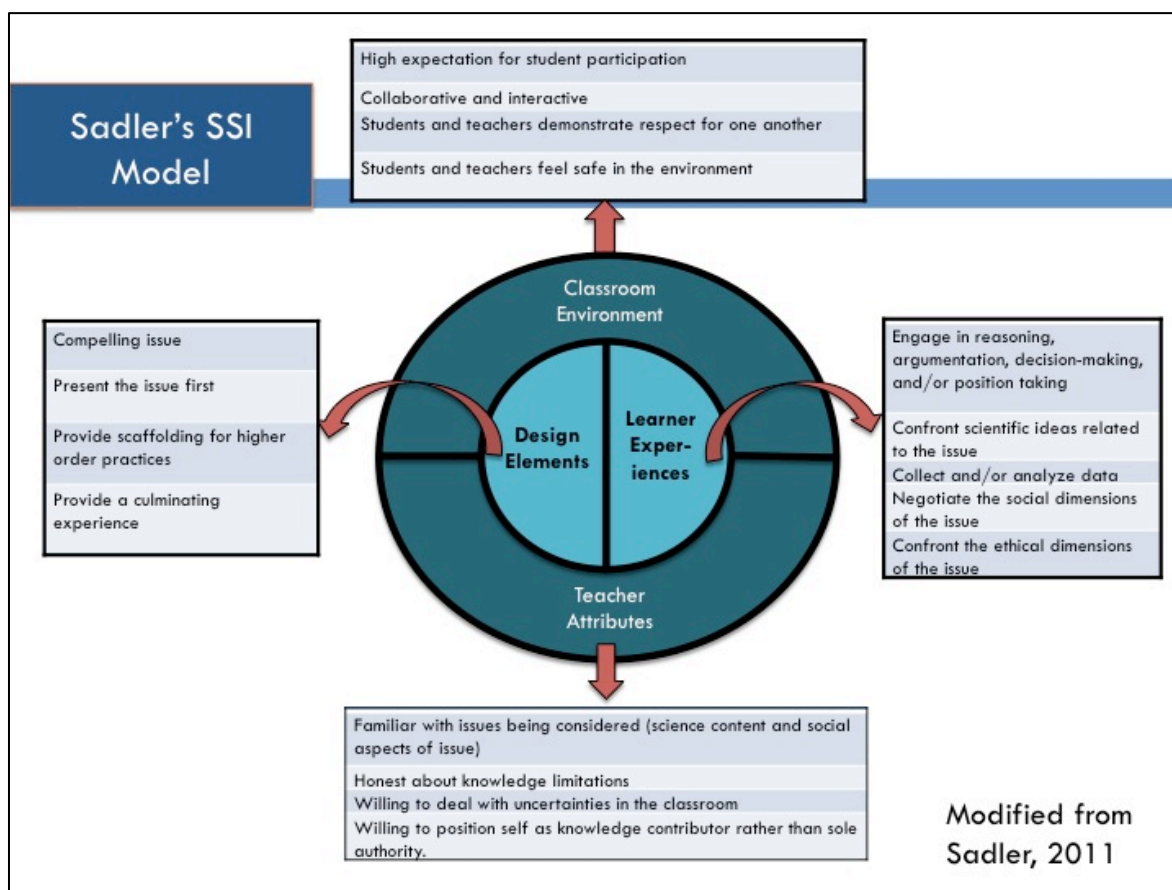
Recommended Articles

Saunders, K.J. & Rennie, L.J. (2013). A pedagogical model for ethical inquiry into socioscientific issues in science. *Research in Science Education*, 43, 253-274.

**This paper illustrates a process and multiple pedagogical techniques for engaging students in ethical reasoning around science or health issues.*

Ting Chowning, J. & Griswold, J. (2014). Beyond “my opinion versus yours,” supporting students in socioscientific argumentation. *The Science Teacher*, 81, 39-46.

**This paper is pitched to K-12 teachers, but has some wonderful principles for structuring argumentation and describes the “silent debate” activity.*



Tools & Activities for SSI

Sources

- ☐ Video clips
- ☐ Newspaper articles
- ☐ Opposing viewpoints
- ☐ Historical debates
- ☐ Case studies
- ☐ SSI resource sites
- ☐ Google News
 - ☒ Health
 - ☒ Science

Activities

- ☐ Web quests
- ☐ Analysis of primary literature
- ☐ Data collection (lab)
- ☐ Debate (silent debate)
- ☐ Stakeholder perspectives (jigsaw)
- ☐ Ethical arguments
- ☐ "Anatomy in the News"
- ☐ Poster presentations
- ☐ Role play
- ☐ Service Learning, community-based projects