Developing engaged scientists and citizens: a network of partnerships for effective service-learning

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Overview

The Course: first-year cell & molecular biology majors

The Learning Objectives: deepen understanding of biology using a framework of core concepts and disciplinary skills described in the AAAS Vision and Change Report (1, 2)


The Service: partner with community organizations to provide biology activities and support to local youth in after-school programs based on community-identified needs

The Course Integration: integration of service into the academics of the course (and vice versa) via intentional reflection, resulting in Service-Learning (S-L)

The Collaborative Network (see Fig 1.): community organizations request partnership via a call for proposals from the University S-L Program; instructor and community partners finalize details; S-L Program trains undergraduate S-L Teaching Assistant (S-L TA) who liaises with instructor, students, and community partners; assessment cycle via concurrent feedback and post-course surveys for all participants (faculty, partners, TAs and students); all aspects of collaboration facilitated by S-L Program staff

Methods

Textual Analysis: weekly S-L blogs analyzed qualitatively for evidence of concept reinforcement & skills development

Network Analysis: concept and skill networks visualized using Simple Mapper (2), a free on-line tool developed at Cold Spring Harbor for the Genes to Cognition project

Outcomes

• First-year students
  o Engaged with the community
  o Took responsibility for authentic work products
  o Reinforced biological concepts - see Fig. 2 and Begley, 2013 (5)
  o Developed key disciplinary skills – see Fig. 3 and Begley, 2013 (5)

• Community partners
  o Found partnership for their self-identified needs
  o Extended and/or improved programs
  o Benefited from >5000 hours of service

• Undergraduate S-L TAs
  o Improved communication & management skills
  o Enhanced community awareness
  o Expanded professional network

• Instructor
  o Gained insight into community needs
  o Discovered student concept misconceptions
  o Became aware of student development challenges

References


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