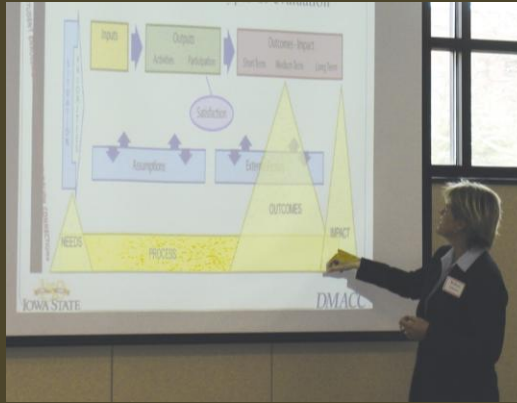
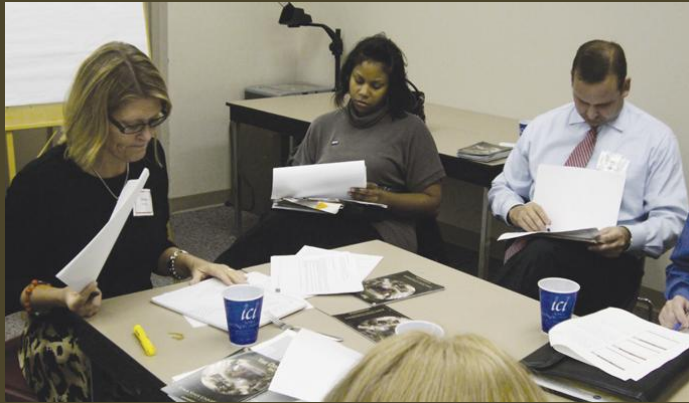


STEM Student Enrollment and Engagement through Connections



ISU Internal Advisory Board Meeting

December 3, 2010

Grant No. 0653236, July 2007–July 2012

STEM Student Enrollment and Engagement through Connections

Agenda

Introductions

Information snapshots

NSF third year review

- Panel review feedback
- SEEC response

Years 4 and 5

- Goals and sustainability: the SEEC effect and partnerships
- Discussion

STEM Student Enrollment and Engagement through Connections

SEEC Advisory Boards

ISU Institutional Advisory Board

Chair: Elizabeth Hoffman
Sandra Gahn
Doug Gruenewald
Connie Hargrave
Thomas Hill
Mary Holz-Clause
Gary Mirka

DMACC Institutional Advisory Board

Chair: Kim Linduska
Ahmed Ageyman
Harry McMaken
Randy Mead
Randy Smith
Renee White
Laurie Wolf

External Advisory Board

Chair: James Melsa
Kimberly Douglas-Mankin
Robert Driggs
Leigh Hagenson-Thompson

STEM Student Enrollment and Engagement through Connections

ISU SEEC Team

Principal Investigators

Diane Rover
Harry McMaken
(DMACC)

Co-principal Investigators

Monica Bruning
Frankie Santos Laanan
Steven Mickelson
Mack Shelley

Senior Personnel

Mary Darrow
Mani Mina
Jason Pontius
Derrick Rollins
Karen Zunkel

Other Executive Team Members

Dimitra Jackson
Joel Johnson
Marcia Laugerman
Carlos Lopez
April Walker

Extension Collaborators

Jay Staker
Holly Bignall
Nancy Franz

Other Collaborators

Tom Brumm
Paul Castleberry
Mark Laingen
Engineering academic
advisors and learning
community coordinators

PWSE Collaborators

Lora Leigh Chrystal
Carol Heaverlo

E2020 Faculty Leaders

Beth Hartmann
Doug Jacobson
Amy Kaleita
Chris Rehmann

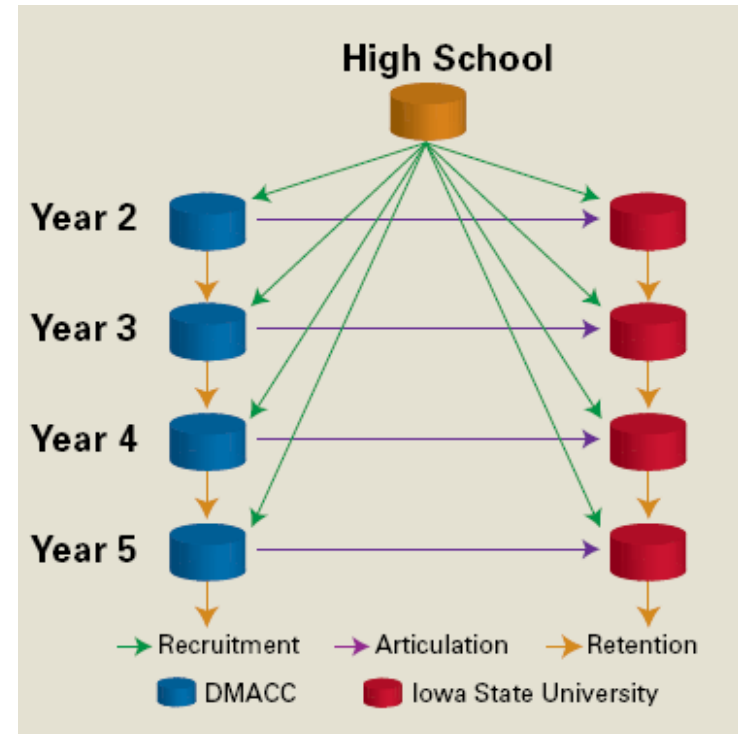
Other Personnel

Virginia Anderson
Sandy Jennings-Hammond

STEM Student Enrollment and Engagement through Connections

Overall Grant Goal

Increase College of Engineering graduates to 900, by approximately 100 per year. Included with this goal are increases in the number of pre-engineering students at DMACC and in the percentages of women and minority students in engineering at ISU and DMACC.



STEM Student Enrollment and Engagement through Connections

Information Snapshots

- New student enrollment for Fall 2010: 1758
 - Over 150 more engineering students compared to Fall 2009
 - About 100 more freshmen and over 50 additional transfer students
- Among freshmen:
 - Resident remained about the same.
 - The increase was divided between nonresident and international students.
- Among transfers:
 - The increase in number was comparable between resident and nonresident and matched by an increase in international transfers.

STEM Student Enrollment and Engagement through Connections

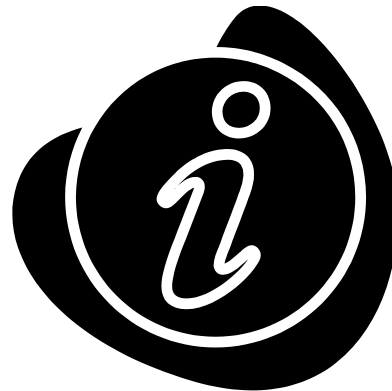
Information Snapshots

- New student diversity
 - Ethnic minority numbers increased by 5 students and female numbers by 6.
 - Decrease in freshmen women, and an increase in transfer women (from 32 to 50)
 - About one-third of the increase in new transfers were women.
 - The percentage of ethnic minority students among new students remained about the same at 10%.
 - The percentage of female students dropped from 16.4% to 15.2%.

STEM Student Enrollment and Engagement through Connections

Information Snapshots

- One-minute updates from team members



STEM Student Enrollment and Engagement through Connections

NSF Third Year Review – Panel Feedback

- Hallmark of the project: learning communities and retention
- Inter-institution learning village concept and E-APP program
- Key activities cited: networking for DMACC students, engineering orientation course at DMACC, pre-engineering and pre-professional tracks at DMACC, “Changing the Conversation”-based print and web recruiting materials, NSF S-STEM project (E2020) course and integration into learning communities

STEM Student Enrollment and Engagement through Connections

NSF Third Year Review – Panel Feedback

- Activities are based on best practices.
- PIs have been quick to learn and adapt when things do not appear to be working as anticipated.
- Use of logic models for project planning is seen as an innovative strategy.
- Meaningful partnerships have been established.
- Partnership with DMACC has been strengthened and will ensure long-term impact.

STEM Student Enrollment and Engagement through Connections

NSF Third Year Review – Panel Feedback

- Recommendations
 - RE: the percentage of women students in engineering at ISU
 - Pursue a strategy that is intellectually rigorous based on all available data.
 - RE: use of the internal advisory boards
 - Follow the NSF expectation for a meeting every six months.
 - RE: project evaluation
 - Explore ways to better measure and document the “SEEC Effect”.

STEM Student Enrollment and Engagement through Connections

NSF Third Year Review – SEEC Response

- RE: the percentage of women students in engineering at ISU
 - Pursue a strategy that is intellectually rigorous based on all available data.
 - PLTW is not part of ISU's SEEC strategy.
 - The main SEEC strategy is based on the NAE CTC study.
 - The E-TEC program with ISU Extension is ongoing.
 - Additional review and planning will be done with PWSE.
- RE: use of the internal advisory boards
 - Follow the NSF expectation for a meeting every six months.
 - Two meetings were held in 09-10 and will be held each year.
- RE: project evaluation
 - Explore ways to better measure and document the "SEEC Effect".
 - This will be discussed later in the meeting.

STEM Student Enrollment and Engagement through Connections

Years 4 and 5

- Recruitment and retention activities
- Sustainability: What is working well and should be continued?
 - The SEEC effect
 - What is it?
 - Studies to measure the SEEC effect
 - Partnerships
 - Learning Communities
 - Engineering faculty and curricula (the E2020 effect)
 - ISU Extension
 - Institutional and departmental collaboration