Does the SENCER approach improve retention in Developmental Math?

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What you’ll hear about in the next 30 minutes...

- SENCER
  - What it is
  - Why it is
  - How it’s been used at HWC
- What is meant by Developmental education at HWC
- The HWC Childhood Obesity Cohort
Science
Education for New Civic Engagements and Responsibilities

Infuses current capacious problems into standard college courses in hopes of…
SENCER: What and why?

Science
Education for New Civic Engagements and Responsibilities

getting more ‘underrepresented’ groups of students into the STEM fields
Science

Education for New Civic Engagements and Responsibilities

Began as a grant from the NSF for an intro Bio course focusing on the theme of HIV/AIDS
SENCER: What and why?

Science

Education for

New

Civic

Engagements and

Responsibilities

Currently

SENCER

course topics

include...
SENCER: What and why?

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Global Warming
SENCER: What and why?

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Engagements and
Responsibilities

Nutrition
SENCER: What and why?

Science
Education for
New
Civic
Engagements and
Responsibilities

Sleep
SENCER: What and why?

Science
Education for
New
Civic
Engagements and
Responsibilities

Nanotechnology
SENCER: What and why?
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Education for
New Civic
Engagements and Responsibilities

Slow Food
SENCER: What and why?

Science
Education for
New
Civic
Engagements and
Responsibilities

Addiction
SENCER: What and why?

Science

Education for

New

Civic

Quantitative Literacy

Engagements and

Responsibilities
- Urban asthma
- Childhood Obesity
- HIV/AIDS
- Genetics (coming soon)
- Sleep (coming soon)
A quick plug…

SENCER Summer Institute (SSI) 2009

• Hosted by HWC
• 280 people attending from 89 institutions
• August 6-10

• More info at www.sencer.net
Components of a learning community

Quick Facts

- Students must enroll in all courses in the cohort.
- Courses share the common theme.
- Teachers work in tandem to create interdisciplinary learning experiences.
Developmental English

- Basic Reading and writing
- ≈ 60% of students place into it
- Passing rate ≈ 55%
- Retention rate ≈ 91%
Developmental Education at HWC

Developmental Math

- Arithmetic
- Elementary/Intermediate Algebra
- ≈ 90% of students place into it
- Success rate ≈ 45%
- Retention rate ≈ 80%
Courses in the Cohort

- Math 98 (Elements of Algebra with Geometry)
- Integrated Communication 100
  (formerly English 100/Reading 125)
- Child Development 107
Essential Questions and Learning Goals

(in addition to those for each particular course)

- Who is responsible for childhood obesity?
- How does the mass media portray childhood obesity?
- What is a healthy body image for children?
- How does the national crisis of childhood obesity affect us?
- What steps can we take to address this problem?
- Why do we as a nation need to address this epidemic?
- What are ways in which we can improve the nutrition of our nation’s children?
Childhood Obesity Cohort at HWC

Essential Questions and Learning Goals
(in addition to those for each particular course)

- Examine the economic and social issues involved in nutrition.
- Explore our nation’s “food issues” and analyze their relationship to obesity.
- Analyze their own nutrition/activity levels.
- Calculate their food intake and energy outputs.
- Apply this learning to their future good nutritional practices.
- Read and interpret the information on a nutrition label.
- Calculate and apply BMI and BMR.
- Analyze the financial implications of childhood obesity on society.
An Integrated Study of Childhood Obesity

Successes of Obesity Cohort and Overall

- Transfer of knowledge between classes
- Team mentality
- Continued contact after cohort
- Interdisciplinary collaboration
- Avenue into STEM for developmental students
- Ability to apply what they’re learning to real life
Challenges for Obesity Cohort and Overall

- Success rate comparable to typical courses
- Sometimes difficult to relate theme to particular topic (i.e. factoring polynomials, grammar, etc…)
- Obesity is a sensitive topic.
- Potential for conflict among students (especially in small group)
- Marketing and eligibility
- Time management (meeting course goals)
So does the SENCER approach improve retention in Developmental Math?

<table>
<thead>
<tr>
<th>Class/semester</th>
<th>Retention All</th>
<th>Retention SENCE</th>
<th>Success Rate All</th>
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Thank You!

Questions?