A Perfect Storm: Campus Wide Course Re-Design at an American R1 University Meets the Pacific Rim

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A PERFECT STORM:

CAMPUS WIDE COURSE RE-DESIGN AT AN AMERICAN R1 UNIVERSITY MEETS THE PACIFIC RIM

• Chantal Levesque-Bristol, Ph.D., Purdue University

• Charles A. Calahan, Ph.D., Purdue University

• David B. Nelson, Ph.D., Purdue University
The Large Lecture Experience
IMPACT

- INSTRUCTION
- MATTERS:
- PURDUE
- ACADEMIC
- COURSE
- TRANSFORMATION
IMPACT

Redesigned Foundational Courses

- Best Practices and Sound Research
- Faculty Learning Communities (FLC) cohort community
- IMPACT support team
- Course redesign plan
- Emphasis on learning outcomes and assessment
- Reflect on Results
- Innovative Pedagogies Supported by Technologies

Emphasis on learning outcomes and assessment

Reflect on Results

Innovative Pedagogies Supported by Technologies

Redesigned Foundational Courses
Faculty learn about active and collaborative learning

Design activities for a student-centered learning environment

Outcomes: student engagement, confidence, and increases in specific learning outcomes and higher-order critical thinking
CAMPUS-WIDE SUPPORT

- Office of the Provost
- Information Technology @ Purdue
- Purdue Libraries
- Purdue Extended Campus
- Discovery Learning Research Center
- Center for Instructional Excellence
NUMBER OF COURSE TRANSFORMED

Number of Courses

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STUDENTS IMPACTED
INTERNATIONAL STUDENTS AT PURDUE

Students Enrollment at Purdue

International Students

- International
- National

Number of Chinese Students

International Students

- China
- Other

2007
2012

ESL
Non ESL
PILOT STUDY WITH INTERNATIONAL STUDENTS

• Reading centered course

• Use of technology enhanced pedagogies

• Use of ESL-friendly pedagogies

• 119 students
  – 39 International students (33%)
PERCENT OF POINTS REQUIREMENT

- Total
- Final
- Pre Quiz
- Post Quiz
- Activities
- Exams

International
National
DISTRIBUTION OF LETTER GRADES

- International
- National
DISTRIBUTION OF TOTAL POINTS
POL 101 IMPACT CLASS

• Large service course (N = 171)

• International students (N = 12 or 7%)

• Use of technology enhanced pedagogies (Hotseat)

• Use of active learning “mini-research projects”
**IMPACT ON FINAL EXAM SCORES**

- Successful active learning mini-research projects improved performance

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Predicting Performance on Final Exam
IMPACT ON FINAL EXAM SCORES

- “Payoff” of active learning mini-research projects greater for International students

Graph:
- US Students (yellow line)
- International Students (black line)

Effect present even after controlling for class attendance
IN SUM...

• IMPACT active learning strategies are beneficial

• Especially for International students