

CENTER OF INQUIRY IN THE

**Liberal Arts**

AT WABASH COLLEGE

# The Impact of Teaching and Institutional Conditions on Student Learning

Austin, Texas  
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## *The Center of Inquiry in the Liberal Arts*

- Mission - To collaborate with institutions to gather and use evidence to strengthen liberal arts education
- Located at Wabash College
- Focus on assessment and research
- Funded by the Lilly Endowment and the Teagle Foundation



## *Partners*

- Quantitative component
  - Ernest Pascarella, Tricia Seifert, and Kathleen Goodman (University of Iowa)
- Qualitative component
  - Patricia King (University of Michigan) and Marcia Baxter Magolda (Miami University)
- Indiana University Center for Postsecondary Research
  - Jillian Kinzie, Todd Chamberlin, and George Kuh
- Wabash/Teagle Assessment Scholars
  - Deborah Butler (Wabash College) and Steve Weisler (Hampshire College)

## *Wabash National Study details*

- 26 institutions
  - 14 liberal arts colleges, 10 universities, 2 community colleges
  - at least 15 more institutions in 2008
- 7,500 students
- Longitudinal
  - Follow one class for *at least* 4 years
- Purpose
  - To examine teaching practices and institutional conditions that impact critical thinking, moral reasoning, openness to diversity, leadership, psychological well-being, need for cognition

## *Longitudinal approach*

- Look at where students start and gauge how much they change
  - Take into account what students bring with them
    - ▶ SAT/ACT, academic motivation, gender, ethnicity, parental education and income, high school grades and activities, etc.
- Current data - the first year
- Key question – What experiences promote student growth?
  - The study is not designed to *evaluate* institutions or programs
  - *The focus is on improvement*

## *What do students take when they enter the study?*

- Survey questions on
  - Broad *and* practical long-term goals
  - High school experiences
  - Economic and social background
- Outcome surveys and tests
  - CAAP Critical Thinking
  - Defining Issues Test
  - Need for Cognition
  - Ryff Scales of Psychological Well-Being
  - Miville-Guzman Universality-Diversity Scale
  - Socially Responsible Leadership Scale
  - Additional short scales

## *What do students take at the end of their 1<sup>st</sup> & 4<sup>th</sup> year?*

- Questions about student experiences
  - National Survey of Student Engagement (NSSE)
  - Additional questions about student experiences
- Outcome surveys and tests
  - CAAP Critical Thinking
  - Defining Issues Test
  - Need for Cognition
  - Ryff Scales of Psychological Well-Being
  - Miville-Guzman Universality-Diversity Scale
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## *How did we identify experiences that matter?*

- Examined all questions that asked students about their experiences and identified clusters of questions that
  1. Held together statistically and pointed to an element of student experience
  2. Predicted growth on outcomes
  
- Cautions
  - We have only examined the first year of college
  - Good experiences do not guarantee good outcomes and vice versa

## *Six facets of what students report about their experiences*

- Good teaching and high quality interactions with faculty
- Academic challenge and high expectations
- Diversity experiences
- Frequency of interactions with faculty and staff
- Interactions with peers
- Cooperative learning

## *Good teaching and high quality interactions with faculty*

- Students report they
  - Have faculty who are interested in teaching
  - Have faculty who are good at teaching
    - ▶ Give clear explanations, summarize material well, use good illustrations, use class time effectively, and have command of what they are teaching
  - Have faculty who are interested in helping students grow personally and professionally
  - Get prompt feedback
  - Have meaningful interactions with faculty outside of class
- Unique positive impact on 24/28 outcome measures

## *Academic challenge and high expectations*

- Students report that they
  - Work hard both in terms of the quantity and difficulty
  - Get exams and assignments that require them to write and think
  - Are asked challenging questions by faculty and students
  - Are asked to integrate, synthesize, and interpret information and ideas
- Unique positive impact on 24/28 outcome measures

## *Diversity experiences*

- Students report that they
  - Attend lectures and debates on political and social issues
  - Participate in multicultural awareness workshops
  - Have meaningful conversations and interactions with students and staff who are different from themselves
- Unique positive impact on 17/28 outcome measures
  - Negative impact on academic motivation

## *Interactions with peers*

- Students report that they
  - Spend time on co-curricular activities
  - Have positive interactions with peers
    - ▶ Develop close personal relationships and friendships
    - ▶ Have peer interactions that influence personal growth, attitudes and values
    - ▶ Have peer interactions that influence intellectual growth and interest in ideas
    - ▶ Share values with most students at their institution
- Unique positive impact on 13/28 outcome measures
  - Well being and leadership
  - Negative impact on academic motivation, need for cognition

## *Frequency of interactions with faculty and staff*

- Students report that they
  - Frequently discuss
    - ▶ Grades and assignments
    - ▶ Career plans
    - ▶ Ideas and readings from class
  - Frequently interact with faculty and staff on committees or other out-of-class activities
- Unique positive impact on 5/28 outcome measures
  - Academic motivation, interest in the arts and sciences
  - Negative impact on critical thinking, moral reasoning

## *Cooperative learning*

- Students report that they
  - Have students as teachers in class in addition to faculty
  - Are encouraged by faculty to work in study groups
  - Participate in study groups
  - Work with other students on projects in class
- Unique positive impact on 5/28 outcome measures
  - Leadership measures, interest in contributing to science, interest in post college professional success, and binge drinking

## *Other findings*

- How pervasive are high impact good practices?
  - Most students report experiencing them only occasionally
  
- Are some students more likely to experience high impact good practices than others?
  - White students are less likely to have diversity experiences
  - No other differences based on race/ethnicity
  - No differences based on SES except father's education
    - ▶ Students whose fathers have a 4-yr degree experience higher levels of the good practices

## *Other findings*

- Do students experience greater levels of high impact practices across different types of institutions?
  - Good teaching and academic challenge
    - ▶ Liberal arts colleges > Research & regional universities
    - ▶ Liberal arts colleges = Community colleges
  - Diversity
    - ▶ Liberal arts colleges > Research universities & community colleges
    - ▶ Liberal arts colleges = Regional universities

## *Other findings*

- Do students who take more arts & sciences courses experience greater levels of high impact conditions?
  - A very small positive effect
  
- Surprises?
  - The impact of academic motivation
    - ▶ Working hard to learn even if it does not improve grades
    - ▶ Interest in learning complicated new ideas
    - ▶ Talking with teachers outside of class about ideas presented in class
    - ▶ Reading extra material
    - ▶ Desire to get good grades
    - ▶ Viewing academic experiences as important and enjoyable

## *Conclusions*

- There is clear evidence that the following practices promote growth over the first year of college
  - Good teaching
  - Faculty/staff concern about student development and growth
  - Hard work
  - Synthesis, analysis, interpretation
  - Having meaningful interactions with people who differ from you
- Structure is not as important as what happens within the structure
- The pervasiveness of these high impact practices is much lower than most of us hope or believe