Learning at a Distance

Engaged or Not?

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Overview

- Introduction
- Beliefs about Distance Education
- Effective Educational Practices
- Methods
- Results
- Conclusions
What are our commonly held beliefs about distance education?
Distance vs. Campus-based

- Effective Educational Practices
- Student Engagement
  - Academic Challenge
  - Active and Collaborative Learning
  - Student-Faculty Interaction
  - Enriching Educational Practices
  - Supportive Campus Environment
Research Questions

What are the engagement patterns, self-reported learning and personal development outcomes, and satisfaction of:

- Distance learners and campus-based learners?
- Traditional-age (<25) and adult (>24) distance learners?
Definition

Distance learners
Undergraduate students who took *all their courses* in the current academic term via the Internet.
Instrument & Sample

- Instrument:
  - National Survey of Student Engagement 2006

- Sample 1: NSSE 2006
  - 3,894 distance learners
    (First-year=33%, Senior=67%)
  - 185,431 non-distance learners
  - 367 U.S. four-year colleges and universities
Sample 2: Additional questions on distance learning

- 14 distance education related items
- 37 institutions
- 791 distance learners (First Year = 25%, Senior=75%)
Variables

- **NSSE Benchmarks**
  - Level of Academic Challenge (.75)
  - Active and Collaborative Learning (.74)
  - Student Faculty Interaction (.72)
  - Enriching Educational Experience (.71)
  - Supportive Campus Environment (.77)

- **Deep Learning Scales**
  - Higher Order Thinking (.87)
  - Integrative Learning (.70)
  - Reflective Learning (.81)
Variables

- **Student Self-Reported Gains**
  - Gains in Practical Competence (.83)
  - Gains in Personal and Social Development (.88)
  - Gains in General Education (.85)

- **Satisfaction** (.81)
Data Quality

- **Reliability**
  - NSSE Benchmarks (.71 ~ .77)
  - Deep Learning Scales (.70 ~ .87)
  - Gains Scales (.83 ~ .88)
  - Satisfaction (.81)

- **Validity**
  - Language bias against distance learners
  - How often is often
Methods of Analysis

- Descriptive Statistics
- Multivariate Analysis of Covariance (MANCOVA)
  - Independent variable: distance learner (1), campus-based (0)
  - Dependent Variables (scaled 0-100):
    - NSSE benchmarks (5)
    - Deep learning scales (3)
    - Self-reported gains scales (3)
    - Overall satisfaction
  - Covariance
    - Gender & Enrollment Status
## Results: Who are Distance Learners?

<table>
<thead>
<tr>
<th></th>
<th>First-year</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DE</td>
<td>Campus</td>
<td>DE</td>
<td>Campus</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>46%</td>
<td>36%</td>
<td>40%</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>Median age</td>
<td>25</td>
<td>18</td>
<td>32</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Full-time student</td>
<td>56%</td>
<td>96%</td>
<td>50%</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td>First-gen student</td>
<td>62%</td>
<td>40%</td>
<td>64%</td>
<td>43%</td>
<td></td>
</tr>
<tr>
<td>Grades (self-rept): ‘A’ avg</td>
<td>48%</td>
<td>38%</td>
<td>52%</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>7%</td>
<td>7%</td>
<td>10%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>6%</td>
<td>5%</td>
<td>4%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>62%</td>
<td>75%</td>
<td>69%</td>
<td>76%</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Foreign</td>
<td>6%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>14%</td>
<td>7%</td>
<td>11%</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>
Results: Why Study at a Distance*

- More convenient for my sched: 96%
- I can work at my own pace: 77%
- I like to learn on my own: 70%
- No colleges nearby have my courses: 34%
- Online learners are more my age: 27%
- Less expensive than on-campus: 21%
- Grading online is easier: 8%

* Percent “agree” or “strongly agree”
How many hours do you spend in a typical 7-day week providing care for dependents living with you?

Campus Seniors
- 67%: 0 hour
- 13%: 1-5 hours
- 11%: 6-10 hours
- 6%: 11-15 hours
- 3%: More than 15 hours

DE Seniors
- 42%: 0 hour
- 30%: 1-5 hours
- 12%: 6-10 hours
- 9%: 11-15 hours
- 7%: More than 15 hours
Percentage of Students Spending More than 30 Hours per Week Working for Pay

- **Non-Distance Ed. Students**
  - First-year: 4.7%
  - Senior: 15.0%

- **Distance Ed. Students**
  - First-year: 43.5%
  - Senior: 59.9%
Results:

Campus v Distance Learners

Level of Academic Challenge

Controlled for gender and enrollment status

F=10.3; p<.01

F=52.0; p<.001
Results:

Campus v Distance Learners

Student-Faculty Interaction

Controlled for gender and enrollment status

F = 36.5; p < .001

F = 18.7; p < .001
Higher Order Learning

Results:
Campus v Distance Learners

Means adjusted by gender and enrollment status

F=1.9; n.s.  F=36.1; p<.001
Reflective Learning

Results:

Campus v Distance Learners

Means adjusted by gender and enrollment status

F=16.7; p<.001  
F=27.2; p<.001
Active and Collaborative Learning

Results:

Campus v Distance Learners

Controlled for gender and enrollment status

F=39.4; p<.001

F=235.3; p<.001
Gains in General Education

Results:
Campus v Distance Learners

Means adjusted by gender and enrollment status

F=4.4; p<.05
F=18.2; p<.001
Results:

Campus v Distance Learners

Gains in Personal/Social Development

Means adjusted by gender and enrollment status

FY

SEN

F=42.4; p<.001

F=70.9; p<.001
Overall Satisfaction

Means adjusted by gender and enrollment status

Campus v Distance Learners

FY

Campus  Distance

74  76

SEN

Campus  Distance

74  77

F=10.3; p<.01  F=52.0; p<.001
1. For distance learners, postsecondary education is but one of many priorities in their lives.

2. The engagement of distance education learners compares favorably with that of campus-based learners.
Results: Traditional v Older Distance Learners

Academic Challenge

Means adjusted by gender and enrollment status

F=3.1; n.s.  
F=39.6; p<.001
Enriching Educational Experiences

Results: Traditional v Older Distance Learners

Means adjusted by gender and enrollment status

F=11.8; p<.01
F=83.3; p<.001
Higher Order Learning

Results: Traditional v Older Distance Learners

Means adjusted by gender and enrollment status

F=5.0; p<.05
F=28.6; p<.001
Results: Traditional v Older Distance Learners

Active/Collaborative Learning

Means adjusted by gender and enrollment status

\[ F=30.5; \ p<.001 \]

\[ F=44.6; \ p<.001 \]
Gains in Practical Competencies

Results: Traditional v Older Distance Learners

Means adjusted by gender and enrollment status

F=11.4; p<.01

F=26.3; p<.001
Results: Traditional v Older Distance Learners

Gains in General Education

Means adjusted by gender and enrollment status

F=8.8; p<.01
F=27.7; p<.001
1. Older distance learners report more deep learning and gains, but fewer enriching experiences and active and collaborative learning.

2. Older distance learners differ from younger online students in ways that are understandable given their different life experiences.
Limitations

- Baccalaureate institutions only
- No online institutions represented
- Students randomly sampled, but not institutions
Questions and Discussion

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