High Impact NSSE* Variables and Student Success

*National Survey of Student Engagement

Mark Troy

What are high impact variables?

- Map onto the core competencies
- Highly related to learning outcomes
- Represent deficiencies needing correcting
- Represent strengths that can be strengthened

A TAMU Graduate will:

- Master the depth of knowledge required of a discipline.
- Demonstrate critical analytical skills.
- Communicate effectively in writing and speaking.
- Provide ethical leadership in a global and diverse society.
NSSE Gains: To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?
- Acquiring a broad general education (GNGENLED) MASTERY
- Acquiring job or work-related knowledge and skills (GNWORK) MASTERY
- Writing clearly and effectively (GNWRITE) WRITE
- Speaking clearly and effectively (GNSPEAK) WRITE
- Thinking critically and analytically (GNANALY) ANALYTIC
- Analyzing quantitative problems (GNQUANT) ANALYTIC
- Using computing and information technology (GNCMPTS)
- Working effectively with others (GNOTHERS) DIVERSE
- Voting in local, state, or national elections (GNCITIZN)
- Learning effectively on your own (GNINQ)
- Understanding yourself (GSELF)
- Understanding people of other racial and ethnic backgrounds (GNDIVERS) DIVERSE
- Solving complex real-world problems (GNPROBS) ANALYTIC
- Developing a personal code of values and ethics (GNETHICS) DIVERSE
- Contributing to the welfare of your community (GNCOMMUN) DIVERSE

NSSE Benchmarks: Five "Clusters" of Effective Educational Practice
- Level of Academic Challenge (LAC)
- Active and Collaborative Learning (ACL)
- Student/Faculty Interaction (SFI)
- Enriching Educational Experiences (EEE)
- Supportive Campus Environment (SCE)

AAUDE Universities, 2007
- Case
- Indiana
- Iowa St
- Kansas
- Maryland
- Michigan St
- N Carolina
- Nebraska
- Ohio St
- Pittsburgh
- Purdue
- Texas
- Texas A & M
- UC Berkeley
- Washington
Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote high levels of student achievement by emphasizing the importance of academic effort and setting high expectations for student performance.

- Preparing for class (studying, reading, writing, rehearsing, etc. related to academic program) ANALYTIC
- Number of assigned textbooks, books, or book-length packs of course readings
- Number of written papers or reports of 20 pages or more, number of written papers or reports of 10 to 19 pages, and number of written papers or reports of fewer than 10 pages WRITE
- Coursework emphasizing analysis of the basic elements of an idea, experience or theory ANALYTIC
- Coursework emphasizing synthesis and organizing of ideas, information, or experiences ALLODIN
- Coursework emphasizing the making of judgments about the value of information, arguments, or methods ANALYTIC
- Coursework emphasizing application of theories or concepts to practical problems or in everyday life ALLODIN
- Working harder than you thought you could to meet an instructor’s standards or expectations ALLODIN
- Campus environment emphasizing time studying and on academic work ANALYTIC
Number of written papers or reports between 5 and 19 pages:
- FY: 41% (A&M), 15% (AAUDE)
- SR: 15% (A&M), 9% (AAUDE)

Number of assigned textbooks, books or book-length packets:
- 10 or more:
  - FY: 33% (A&M), 38% (AAUDE)
  - SR: 23% (A&M), 35% (AAUDE)
Active and Collaborative Learning

- Students learn more when they are intensely involved in their education and asked to think about what they are learning in different settings.
- Collaborating with others in solving problems or mastering difficult material prepares students for the messy, unscripted problems they will encounter daily during and after college.
  - Asked questions in class or contributed to class discussions WRITE/SPEAK
  - Made a class presentation WRITE/SPEAK
  - Worked with other students on projects during class
  - Worked with classmates outside of class to prepare class assignments MASTERY
  - Tutored or taught other students ANALYTIC
  - Participated in a community-based project as part of a regular course
  - Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)
### A&M First Year Performance on ACL Benchmark Items Relative to AAUDE 2007 Schools

#### ACL(FY)

<table>
<thead>
<tr>
<th>Item</th>
<th>A&amp;M FY</th>
<th>A&amp;M SR</th>
<th>AAUDE FY</th>
<th>AAUDE SR</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUTOR</td>
<td>-0.6</td>
<td>-0.4</td>
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<tr>
<td>OCCIDEAS</td>
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<td>0.4</td>
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<tr>
<td>COMMPROJ</td>
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<td>0.4</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>CLASSGRP</td>
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<td>0.4</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>CLPRESEN</td>
<td>0.4</td>
<td>0.4</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>CLQUEST</td>
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<td>0.4</td>
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</tr>
</tbody>
</table>

### A&M Senior Performance on ACL Benchmark Items Relative to AAUDE 2007 Schools

#### ACL(SR)

<table>
<thead>
<tr>
<th>Item</th>
<th>A&amp;M FY</th>
<th>A&amp;M SR</th>
<th>AAUDE FY</th>
<th>AAUDE SR</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUTOR</td>
<td>-0.3</td>
<td>-0.2</td>
<td>0</td>
<td>0.1</td>
</tr>
<tr>
<td>OCCIDEAS</td>
<td>-0.2</td>
<td>0.2</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>COMMPROJ</td>
<td>0</td>
<td>0.2</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>CLASSGRP</td>
<td>0.2</td>
<td>0.2</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>CLPRESEN</td>
<td>0.3</td>
<td>0.3</td>
<td>0</td>
<td>0.3</td>
</tr>
<tr>
<td>CLQUEST</td>
<td>0.3</td>
<td>0.3</td>
<td>0</td>
<td>0.3</td>
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### Active and Collaborative Learning

<table>
<thead>
<tr>
<th>Activity</th>
<th>A&amp;M FY</th>
<th>A&amp;M SR</th>
<th>AAUDE FY</th>
<th>AAUDE SR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asked questions in class</td>
<td>Never</td>
<td>FY</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Made a class presentation</td>
<td>Never</td>
<td>FY</td>
<td>41%</td>
<td>21%</td>
</tr>
<tr>
<td>Tutoring or taught other students</td>
<td>Never</td>
<td>FY</td>
<td>15%</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>SR</td>
<td></td>
<td>25%</td>
<td>40%</td>
</tr>
</tbody>
</table>
Students learn firsthand how experts think about and solve practical problems by interacting with faculty members inside and outside the classroom.

As a result, their teachers become role models, mentors, and guides for continuous, life-long learning. Discussed grades or assignments with an instructor
- Talked about career plans with a faculty member or advisor
- Discussed ideas from your readings or classes with faculty members outside of class WRITE
- Worked with faculty members on activities other than coursework (committees, orientation, student-life activities, etc.)
- Received prompt written or oral feedback from faculty on your academic performance MASTERY
- Worked with a faculty member on a research project outside of course or program requirements MASTERY
Enriching Educational Experiences

- Complementary learning opportunities enhance academic programs.
- Diversity experiences teach students valuable things about themselves and others.
- Technology facilitates collaboration between peers and instructors.
- Internships, community service, and senior capstone courses provide opportunities to integrate and apply knowledge.

- Participating in co-curricular activities (organizations, publications, student government, sports, etc.)
- Fraternities, internships, field experience, co-op experience, or clinical assignments
- Community service or volunteer work
- Foreign language coursework & study abroad

- Reflective senior experiences: capstone course, senior project or thesis, comprehensive exam, etc.
- Serious conversations with students of different religious beliefs, political opinions, or personal values
- Participating in co-curricular activities (organizations, publications, student government, sports, etc.)
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Supportive Campus Environment

- Students perform better and are more satisfied at colleges that are committed to their success and cultivate positive working and social relations among different groups on campus

- Campus environment provides the support you need to help you succeed academically ANALYTIC DIVERSE
- Campus environment helps you cope with your non-academic responsibilities (work, family, etc.) DIVERSE
- Campus environment provides the support you need to thrive socially ANALYTIC DIVERSE
- Quality of relationships with other students DIVERSE
- Quality of relationships with faculty members
- Quality of relationships with administrative personnel and offices
Effect Sizes, TAMU-AAUDE
Environment Factor

Competency: Master the depth of knowledge required of a discipline.
- Weaknesses
  - Received prompt written or oral feedback from faculty on your academic performance (FACFEED)
  - Coursework emphasizing analysis of the basic elements of an idea, experience or theory (ANALYZE)
  - Coursework emphasizing synthesis and organizing of ideas, information, or experiences into new, more complex interpretations and relationships (SYNTHESZ)
- Strengths
  - Worked with classmates outside of class to prepare class assignments (OCCGRP)
  - Encouraging contact among students of different economic, social, ethnic backgrounds (ENVDIVRS)
  - Helping you cope with non-academic responsibilities (ENVNACAD)
  - Providing the support you need to thrive socially (ENVSOCAL)

Competency: Communicate effectively in writing and speaking.
- Weaknesses
  - Asked questions in class or contributed to class discussions (CLQUEST)
  - Made a class presentation (CLPRESEN)
  - Number of written papers or reports of between 5 and 19 pages (WRITEMED)
  - Coursework emphasizing synthesis and organizing of ideas, information, or experiences into new, more complex interpretations and relationships (SYNTHESZ)
  - Study abroad (STDABRO)
- Strengths
  - Helping you cope with non-academic responsibilities (ENVNACAD)
  - Providing the support you need to thrive socially (ENVSOCAL)
**Competency: Demonstrate critical analytical skills.**

- **Weaknesses**
  - Coursework emphasizing analysis of the basic elements of an idea, experience or theory (ANALYZE)
  - Coursework emphasizing synthesis and organizing of ideas, information, or experiences into new, more complex interpretations and relationships (SYNTHESIZ)
  - Foreign language study (FORLANG)
  - Study abroad (STDABRO)

- **Strengths**
  - Encouraging contact among students of different economic, social, ethnic backgrounds (ENVIRONMENTAL DIVERSITY)
  - Helping you cope with non-academic responsibilities (ENVIRONMENTAL ACADEMIC)
  - Providing the support you need to thrive socially (ENVIRONMENTAL SOCIAL)
  - Tutored or taught other students (TUTOR)

**Competency: Provide ethical leadership in a global and diverse society.**

- **Strengths**
  - Worked with classmates outside of class to prepare class assignments (OCCUPATIONAL GROUPS)
  - Quality of relationships with other students (ENVIRONMENTAL STUDENTS)
  - Encouraging contact among students of different economic, social, ethnic backgrounds (ENVIRONMENTAL DIVERSITY)
  - Helping you cope with non-academic responsibilities (ENVIRONMENTAL ACADEMIC)
  - Providing the support you need to thrive socially (ENVIRONMENTAL SOCIAL)

**What's next?**

- NSSE launched at beginning of March
  - Please remind students in your classes to look for emails from Dr. Jeffrey Vitter, “Texas A&M University wants your feedback!”
- FSSE (Faculty Survey of Student Engagement)
  - Provide a context for interpreting NSSE results
  - Provide data for supporting the A&M initiatives in writing
Contact

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