Planning, Implementing, and Using Assessment Results: A Case Study Approach
Part II Case Studies

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Case Study 1

Assessing a Summer Program
Summer Success Academy

• [http://www.wishtv.com/dpp/news/education/Freshmen_getting_a_jump_start_at_IUPUI_20090721](http://www.wishtv.com/dpp/news/education/Freshmen_getting_a_jump_start_at_IUPUI_20090721)
2009 Summer Success Academy
- Special Projects

Designed to help Students:

• Develop critical thinking skills.
• Learn to interact effectively in group settings.
• Gain an understanding for the Principles of Undergraduate Learning (PULs).
• Feel welcome to (IUPUI).
• Provide students with the resources and support necessary for collegiate success.
• Enhance Students’ Sense of Belongingness and Organizational Commitment.
Mixed-Method Design

- Employed qualitative and quantitative methods.
- Attempted to understand how Summer Success Academy influences students’ success levels (e.g., persistence rates, academic performance, and learning outcomes).
- Employed to triangulate or determine if findings converge.
- Used complimentary techniques.
- Qualitative methods were used to enhance understanding regarding what program components made most meaningful contributions to learning and academic success outcomes.
Multiple Measures

A mixed-method design allowed for the measurement of direct student learning outcomes as well as students’ attitudes, perceptions, and intended behaviors. Methods included:

1. Post Program Academic Success
2. Students’ Sense of Belongingness, Self-Efficacy, and Organizational Commitment Questionnaire (Pre and Post)
3. Sample of Special Projects (direct measure of student learning)
4. Writing Reflection Task (Pre and Post)
5. Student Satisfaction Questionnaire
6. Student Peer Mentor Perspectives Questionnaire (added in 2010)
Qualitative Research

“Qualitative assessments are underused and underappreciated, but they help discover problems - and solutions – that can’t be found through quantitative assessments alone” (Linda Suskie, 2009).
Theory Based Assessment

- *Basic principles of curriculum and instruction* (Tyler 1949)
  - Evaluation based on theory is necessary to ascertain not just whether learning took place, but how.
  - The aim of evaluation should be to discover the mechanisms by which a curriculum succeeded or failed.
Underlying Theories

❖ Sense of Belongingness

• “We suggest that belongingness can be almost as compelling a need as food and that human culture is significantly conditioned by the pressure to provide belongingness” (Baumeister & Leary, 1995, p. 498).

• “Individuals with a high sense of belongingness may assign more importance to the collective and its goals, increasing their willingness to comply with its rules and help other members of the group”. (Hartog et al, 2007, p. 1132).

❖ Institutional Commitment

• Institutional commitment is a “strong positive predictor of intent to re-enroll” (Milem and Berger, 1997, p.397).
Underlying Theories

Social Learning Theory

- "Human behavior can be learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action." (Bandura, 1977, p. 22).
- Peer mentoring aspects of the program.
Theories Underlying Our Assessment

❖ Self Efficacy

- Students’ evaluation of their competence to successfully execute academic tasks necessary to reach desired outcomes (Zajacova, Lynch, Espenshade, 2005; Bandura, 1993).
- Unlike self-esteem, self-efficacy is not tied to individuals’ global perceptions of themselves. Instead, one’s perceived self-efficacy is a belief about one’s ability in a certain domain (i.e. Group Work).
Results: Participants and Academic Success (Grade Performance and Retention Rates)
2009 Summer Preparatory Fall Course Enrollment

• 146/179 (80%) students who completed the program enrolled in a Math course in the Fall (M -100, 110, 111, 118, 153, 165, 221). Math Course GPA = 2.07.

• 46/62 (74%) students who completed the writing component enrolled in an English Course in the Fall (English 105, W130 or W131). English course GPA = 3.04.
<table>
<thead>
<tr>
<th>Category</th>
<th>Mean (M)</th>
<th>Standard Deviation (SD)</th>
<th>Count (%)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Course Load</td>
<td>13.16</td>
<td>1.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Age (range 18 – 21)</td>
<td>18.83</td>
<td>.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAT Total</td>
<td>899.00</td>
<td>118.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAT Math</td>
<td>444.84</td>
<td>72.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School GPA</td>
<td>2.69</td>
<td>.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First-Generation</td>
<td>48%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>73%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>18%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Writing Participants (N=62 Conditionally Admitted Students)

- M=13.35, SD=1.38 - Average Course Load
- M=18.81, SD=.44 - Average Age (range 18 – 20)
- M=933.44, SD=128.764 - SAT Total
- M=400.50, SD=72.54 - SAT Verbal
- M=2.66, SD=.19 - High School GPA
- 45% - First-Generation
- 65% - Female

Ethnicity
- 66% - Caucasian
- 26% - African American
- 5% - Latino
- 3% - Other
2010 Program

• 210 Participated
  – 188 Required
  – 22 Optional

• All participated in math and writing components.

• Revised program based on 2009 assessment results.
Post Program Fall Semester GPA
Math and Special Projects

Based on Regression Equation

Predicted GPA = -1.244 + .001*SAT + .944*H.S. GPA

Means are significantly different based on a one sample t-test \( p < .05 \)
Post Program Fall Semester Math Course GPA
Math and Special Projects

Based on Regression Equation
Predicted GPA = -1.197 + .0001*SAT + 1.09*H.S. GPA

Means are significantly different based on a one sample t-test, p < .01
Post Program Fall Semester English Course GPA

Based on Regression Equation
Predicted GPA = -0.163 + 0.0001*SAT + 0.900*H.S. GPA

Means are significantly different based on a one sample t-test, $p < 0.001$
## 2009 SSA Required Participants and Optional Non-Participants

<table>
<thead>
<tr>
<th>SSA Program Required and Completed</th>
<th>Enrolled at Census</th>
<th>Average SAT</th>
<th>Average H.S. GPA</th>
<th>Cum. GPA</th>
<th>% Above 2.0</th>
<th>Fall-to-Fall Retention</th>
</tr>
</thead>
<tbody>
<tr>
<td>179</td>
<td>899</td>
<td>2.69</td>
<td>2.16</td>
<td>60%</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>SSA Program Recommended - Did Not Attend</td>
<td>392</td>
<td>914</td>
<td>3.06</td>
<td>2.29</td>
<td>61%</td>
<td>66%</td>
</tr>
</tbody>
</table>
Pre-Post Questionnaire
Questionnaire (Pre & Post)

• The questionnaire was designed to measure students’ thoughts and opinions in five domains:
  • 1) Sense of Belongingness; 2) Institutional Commitment to IUPUI;
    3) Individual Academic Self-Efficacy; 4) Group Work Self-Efficacy; and 5) Intention to Graduate from IUPUI.
  • In 2010 added Mathematics and Writing Self-Efficacy items.

• A factor analysis served to confirm dimensional groupings created based on theory:
  • The resulting questionnaire items were grouped by domain and an average score was created for the purpose of conducting paired samples t-tests in order to measure growth.
## 2009 Paired T-Test Results for Students Opinions About College Questionnaire

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Pre</th>
<th>SD Pre</th>
<th>Mean Post</th>
<th>SD Post</th>
<th>Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of Belongingness</td>
<td>4.46</td>
<td>0.738</td>
<td>4.77</td>
<td>0.833</td>
<td>&lt;.001</td>
<td>0.379</td>
</tr>
<tr>
<td>Group Work Self-Efficacy</td>
<td>5.16</td>
<td>0.738</td>
<td>5.03</td>
<td>0.817</td>
<td>0.094</td>
<td>0.152</td>
</tr>
<tr>
<td>Individual Academic Self-Efficacy</td>
<td>5.14</td>
<td>0.713</td>
<td>5.24</td>
<td>0.649</td>
<td>0.075</td>
<td>0.147</td>
</tr>
<tr>
<td>Institutional Commitment (to IUPUI)</td>
<td>4.55</td>
<td>0.760</td>
<td>4.51</td>
<td>0.737</td>
<td>0.494</td>
<td>0.059</td>
</tr>
<tr>
<td>Intention to Complete Degree at IUPUI (Intent not to transfer)</td>
<td>4.57</td>
<td>1.063</td>
<td>4.48</td>
<td>1.074</td>
<td>0.145</td>
<td>0.118</td>
</tr>
</tbody>
</table>
2009 Primary Components, Factor Analysis for Students Opinions About College Questionnaire

<table>
<thead>
<tr>
<th>Sense of Belongingness</th>
<th>α= .76</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel that I can share personal concerns with other students</td>
<td>.71</td>
</tr>
<tr>
<td>2. I am able to develop close friendships with other students</td>
<td>.72</td>
</tr>
<tr>
<td>3. I am able to make connections with a diverse group of people</td>
<td>.59</td>
</tr>
<tr>
<td>4. I feel so distant from the other students *</td>
<td>.43</td>
</tr>
<tr>
<td>6. I can relate to my fellow classmates</td>
<td>.63</td>
</tr>
<tr>
<td>7. I have some close friendships with IUPUI students</td>
<td>.55</td>
</tr>
<tr>
<td>8. I am comfortable working in groups</td>
<td>.51</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group Work Self-Efficacy</th>
<th>α=.78</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. I have no sense of togetherness with my peers *</td>
<td>.66</td>
</tr>
<tr>
<td>9. I don't feel I can successfully participate with anyone or any group *</td>
<td>.81</td>
</tr>
<tr>
<td>10. I am confident that I can work effectively in groups</td>
<td>.47</td>
</tr>
<tr>
<td>11. I am certain that I can accomplish group projects</td>
<td>.44</td>
</tr>
<tr>
<td>12. I am not sure if I can get along with other students when working on group projects *</td>
<td>.72</td>
</tr>
</tbody>
</table>
Highlights

- Significant positive gains were made in two of the five domains.
  - Suggests that changes in the students’ perceptions in these areas were not due to chance alone.
- Sense of Belongingness showed the highest growth with a moderate effect size of (.38) as estimated by a Cohen’s D.
- Individual Academic Self-Efficacy showed the second highest growth with an effect size of (.15).
Analyses of Student Work
Assessment of Student Work: A Direct Measure of Learning

• “No assessment of knowledge, conceptual understanding, or thinking or performance skills should consist of indirect evidence alone” (Linda Suskie, 2009).
Sample of Special Projects (Examples)

• One group conveyed their understanding of Critical Thinking by creating a crossword puzzle challenging viewers to match core concepts of the principle to a related definition.

• Another group conveyed their knowledge of Understanding Society and Culture by creating a poster depicting a “cake recipe” where all ingredients of the cake mixture represented a different demographic group.
Sample of Special Projects 2009 (Actual Student Work Products)

- Student participants worked together in small groups to plan and develop a *Special Project*.
  - Allowed students to demonstrate their understanding of a specific general education outcome (PULs).
  - Three days each week all students were allotted specific time (1 hour) to work individually with their team members in an effort to develop a Special Project.
  - Many of the Special Projects were in the form of Power Points and poster presentations.
- A sample of (13) projects were randomly selected for evaluation.
  - Evaluated by two separate assessment team members using a rubric to enhance inter-rater reliability.
## Summer Success Academy: Post- Task Group

### Special Projects

**Scored Component**

<table>
<thead>
<tr>
<th>Scored Component</th>
<th>N</th>
<th>0'</th>
<th>1's</th>
<th>2's</th>
<th>3's</th>
<th>4's</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understands the meaning and content associated with the PULs.</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>3.00</td>
<td>0.82</td>
</tr>
<tr>
<td>Critical Thinking, Uses examples to apply the PUL to academic and/or real life scenarios</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>3.23</td>
<td>0.73</td>
</tr>
<tr>
<td>Creativity, Subjective Judgment</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>3.23</td>
<td>0.73</td>
</tr>
</tbody>
</table>
Pre-Post Writing Task
Writing Reflection Tasks (Pre and Post)

- Student participants voluntarily completed an open-ended Writing Reflection Task at the beginning and at the end of the Summer Success Academy (SSA).
  - Students were informed that their responses would remain confidential and not count toward a course grade.
  - A total of 149 individual student Writing Reflection Tasks were able to be paired with their pre/post counterpart.
- The goal of the task was to directly measure participants’ understanding of the general education outcomes (PULS).
- One research team member scored all pre and post task writing assignments separately using a rubric.
  - Another research member scored a sample of 20 pre and post task writing assignments as a check for inter-rater reliability.
## 2009 Summer Preparatory Program: Pre- and Post- Task Writing Reflection Assessment

<table>
<thead>
<tr>
<th>Scored Component</th>
<th>Pre Test Frequencies</th>
<th>Post Test Frequencies</th>
<th>Aggregate Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent (%), Total Individual Student Scores / Rounded to Nearest Whole</td>
<td>Percent (%) Total Individual Student Scores / Rounded to Nearest Whole</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean St. Dev Mean</td>
<td>Mean St. Dev Mean</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N = 149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands the roles and purposes associated with the PULs.</td>
<td>1% 30% 40% 24% 5%</td>
<td>0% 20% 36% 37% 7%</td>
<td>0.261+ 6.55%+ 0.00</td>
</tr>
<tr>
<td>Displays an understanding of how PULs can be applied to real-life scenarios.</td>
<td>22% 18% 39% 16% 4%</td>
<td>13% 13% 40% 305 4%</td>
<td>0.382+ 9.56%+ 0.00</td>
</tr>
<tr>
<td>Communicates the importance of the PULs to the educational experience.</td>
<td>9% 26% 41% 20% 3%</td>
<td>9% 16% 34% 34% 7%</td>
<td>0.288+ 7.22%+ 0.004</td>
</tr>
<tr>
<td>Communicate the importance of PULs in greater life, outside of formal education contexts.</td>
<td>28% 12% 34% 24% 2%</td>
<td>19% 15% 33% 28% 4%</td>
<td>0.208+ 5.2%+ 0.00</td>
</tr>
</tbody>
</table>
## 2010 Summer Success Academy: Pre- and Post- Task Writing Reflection Assessment

<table>
<thead>
<tr>
<th>Scored Component</th>
<th>Pre Test Frequencies</th>
<th>Post Test Frequencies</th>
<th>Aggregate Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3 4 St. Dev  Mean</td>
<td>0 1 2 3 4 St. Dev  Mean</td>
<td></td>
</tr>
<tr>
<td>Understands the meaning and content associated with the PUL's.</td>
<td>1% 22% 56% 17% 4% 0.757 2.022</td>
<td>0% 11% 45% 36% 8% 0.784 2.413</td>
<td>-0.391 0.000 0.506</td>
</tr>
<tr>
<td>Critical Thinking, Uses example to apply the PULs to academic and/or real life scenarios.</td>
<td>1% 21% 56% 21% 2% 0.726 2.034</td>
<td>0% 12% 50% 29% 10% 0.812 2.363</td>
<td>-0.330 0.000 0.430</td>
</tr>
<tr>
<td>Writing Quality, Provides a response that is organized and presents well developed and supported ideas. Response uses accurate grammar and is of appropriate length.</td>
<td>1% 25% 50% 24% 1% 0.746 2.006</td>
<td>0% 18% 44% 32% 6% 0.825 2.268</td>
<td>-0.263 0.000 0.330</td>
</tr>
</tbody>
</table>
2010 Summer Success Academy: Pre- and Post- Task Writing Reflection Assessment Inter-rater Reliability Analysis

<table>
<thead>
<tr>
<th></th>
<th>Understanding the PULs</th>
<th>Critical Thinking</th>
<th>Writing Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>Interrater Reliability(^1)</td>
<td>0.770</td>
<td>0.779</td>
<td>0.829</td>
</tr>
<tr>
<td>Interrater Absolute Agreement(^2)</td>
<td>0.626</td>
<td>0.638</td>
<td>0.709</td>
</tr>
</tbody>
</table>

\(^1\) Cronbach's Alpha
\(^2\) Two Way Random Interclass Correlation
Highlights

• Results from both years suggest that the program had significant positive effects on students’ understanding in all scored components at the 99% confidence level.
  • 2009 effect sizes were in the low to moderate range.
  • 2010 effect sizes were larger, falling in the moderate to high range.

• For 2010, the rubric was simplified from four to three scored components, resulting in very favorable inter-rater reliability and agreement.
Quantitative and Qualitative Results

Questionnaire Designed to Assess Students’ Perceptions of the Program
### Special Projects Sessions, Student Satisfaction Questionnaire, 2009

<table>
<thead>
<tr>
<th>Please indicate how satisfied you were with the Summer Special Projects sessions in the following areas:</th>
<th>Very Dissatisfied</th>
<th>Dissatisfied</th>
<th>Neutral</th>
<th>Satisfied</th>
<th>Very Satisfied</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Classroom activities that helped me learn</td>
<td>1 0.6%</td>
<td>14 7.8%</td>
<td>52 29.1%</td>
<td>89 49.7%</td>
<td>23 12.8%</td>
<td>179</td>
<td>3.66</td>
<td>0.82</td>
</tr>
<tr>
<td>2. Meaningful class discussions</td>
<td>2 1.1%</td>
<td>12 6.7%</td>
<td>66 36.9%</td>
<td>71 39.7%</td>
<td>28 15.6%</td>
<td>179</td>
<td>3.62</td>
<td>0.87</td>
</tr>
<tr>
<td>3. Meaningful in-class exercises</td>
<td>3 1.7%</td>
<td>15 8.4%</td>
<td>56 31.3%</td>
<td>76 42.5%</td>
<td>29 16.2%</td>
<td>179</td>
<td>3.63</td>
<td>0.91</td>
</tr>
<tr>
<td>4. Projects that contributed to my learning</td>
<td>4 2.3%</td>
<td>15 8.5%</td>
<td>57 32.2%</td>
<td>68 38.4%</td>
<td>33 18.6%</td>
<td>177</td>
<td>3.63</td>
<td>0.96</td>
</tr>
<tr>
<td>5. Group activities that contributed to my learning</td>
<td>5 2.8%</td>
<td>17 9.6%</td>
<td>40 22.5%</td>
<td>83 46.6%</td>
<td>33 18.5%</td>
<td>178</td>
<td>3.69</td>
<td>0.98</td>
</tr>
<tr>
<td>6. Effectiveness of project group work</td>
<td>4 2.2%</td>
<td>11 6.2%</td>
<td>42 23.6%</td>
<td>87 48.9%</td>
<td>34 19.1%</td>
<td>178</td>
<td>3.76</td>
<td>0.91</td>
</tr>
<tr>
<td>7. Instruction on the meaning of the Principles of Undergraduate Learning (PULs)</td>
<td>6 3.4%</td>
<td>10 5.6%</td>
<td>40 22.6%</td>
<td>86 48.6%</td>
<td>35 19.8%</td>
<td>177</td>
<td>3.76</td>
<td>0.95</td>
</tr>
<tr>
<td>8. Instruction on how to integrate the PULs into my future role as an IUPUI student</td>
<td>5 2.8%</td>
<td>12 6.7%</td>
<td>38 21.3%</td>
<td>87 48.9%</td>
<td>36 20.2%</td>
<td>178</td>
<td>3.77</td>
<td>0.94</td>
</tr>
<tr>
<td>9. Opportunities to learn from other students</td>
<td>4 2.2%</td>
<td>6 3.4%</td>
<td>42 23.5%</td>
<td>89 49.7%</td>
<td>38 21.2%</td>
<td>179</td>
<td>3.84</td>
<td>0.87</td>
</tr>
<tr>
<td>10. Opportunities to form friendships with other students</td>
<td>0 0.0%</td>
<td>2 1.1%</td>
<td>17 9.5%</td>
<td>76 42.5%</td>
<td>84 46.9%</td>
<td>179</td>
<td>4.35</td>
<td>0.70</td>
</tr>
<tr>
<td>11. Interactions with other students</td>
<td>3 1.7%</td>
<td>2 1.1%</td>
<td>11 6.1%</td>
<td>95 53.1%</td>
<td>68 38.0%</td>
<td>179</td>
<td>4.25</td>
<td>0.76</td>
</tr>
<tr>
<td>12. Interactions with student mentors</td>
<td>1 0.6%</td>
<td>6 3.4%</td>
<td>32 18.1%</td>
<td>90 50.8%</td>
<td>48 27.1%</td>
<td>177</td>
<td>4.01</td>
<td>0.80</td>
</tr>
<tr>
<td>13. Development of supportive relationships with IUPUI student mentors</td>
<td>3 1.7%</td>
<td>9 5.0%</td>
<td>48 26.8%</td>
<td>82 45.8%</td>
<td>37 20.7%</td>
<td>179</td>
<td>3.79</td>
<td>0.89</td>
</tr>
<tr>
<td>14. Overall feelings of a sense of community at IUPUI</td>
<td>0 0.0%</td>
<td>5 2.8%</td>
<td>27 15.2%</td>
<td>96 53.9%</td>
<td>50 28.1%</td>
<td>178</td>
<td>4.07</td>
<td>0.74</td>
</tr>
<tr>
<td>15. Overall, how satisfied were you with the Special Projects sessions?</td>
<td>7 3.9%</td>
<td>26 14.6%</td>
<td>40 22.5%</td>
<td>74 41.6%</td>
<td>31 17.4%</td>
<td>178</td>
<td>3.54</td>
<td>1.06</td>
</tr>
<tr>
<td>16. Would you recommend the Special Projects sessions to other students? Yes (n)</td>
<td>Yes 101 56.4%</td>
<td>Yes 78 43.6%</td>
<td>Total N 179</td>
<td>Mean 1.44</td>
<td>Std. Dev. 0.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Students’ Open Ended Responses

• **2009 & 2010**

• 2009 – Focused on perceptions of the “Special Project Sessions”.

• 2010 – Focused on perceptions of the entire SSA program.

• Faculty and staff gain an understanding of participants’ perceptions and opinions of the program – *in students’ own words*.

• Atlas.ti aided in the coding process (atlasti.com)
Most Valued Aspects of SSA, 2009 (n = 179)

• Meeting New People and Forming Friendships
  – “The friendships I formed with other students.”
  – “Connecting well with classmates.”

• Gaining a Greater Understanding for the PULs
  – “Going over the PUL's and discussing them.”
  – “Learning the specifics about the PUL's.”

• Participation in Group Activities
  – “I liked all of the games/activities that exemplified the PUL’s.”
  – “The group-work because we applied what we learned.”
Least Valued Aspects of SSA, 2009 (n =166)

• Completing Special Projects
  – “Sometimes the project felt pointless.”
  – “I felt like making projects was not valuable.”

• Participation in Group Activities
  – “Some of the early group activities such as the ice breakers.”
  – “Playing pointless games in the morning.”

• Time Commitment / Concern
  – “Just the time length. It never took us an hour.”
  – “I just didn't like having the class so early in the morning.”
Suggestions for Improvement, 2009 (n =166)

• **Less Time Commitment / Restraints**
  – “Make breaks and classes shorter.”
  – “To start class at a slightly later time.”

• **More Project Support / Time for Completion**
  – “Have more time for planning on projects.”
  – “Describe the special project expectations more in-depth.”

• **More Group Activities**
  – “Maybe having more activities to do.”
  – “More PUL activities.”
Open Ended Responses
Continued
2010
Most Valued Aspects of SSA, 2010 (n=194)

• Mathematics Components
  – “I valued the math class the most.”
  – “The pre Alg. helped me remember A LOT of stuff.”

• English Writing Components
  – “The writing portion because that is where I struggle.”
  – “I learned new ways to write an essay.”

• Meeting New People and Developing Friendships
  – “Meeting new people.”
  – “I found that meeting new friends was the most valuable thing.”
  – “Meeting other students in the same situation academically as ourselves.”
Least Valued Aspects of SSA, 2010 (n=190)

- **UCOL Course**
  - “I found the UCOL was least valuable.”
  - “I didn’t think the UCOL class was all that helpful.”

- **N/A, None, Nothing**
  - “Everything was valuable.”
  - “I honestly have no complaints.”

- **Mathematics Component**
  - “The math class was too easy.”
  - “Math mostly review just extremely easy.”
  - “The math class because most of it was all review.”
Suggestions for Improvement, 2010 (n=184)

• Less Time Commitments & Restraints:
  – “Not so early.”
  – “Just start the class 1 or 2 hours later.”

• N/A, None, Nothing
  – “N/A.”
  – “None.”

• More Mentor Interaction & Support
  – “Get the mentors more involved.”
  – “More motivated UCOL mentor!”
Highlights – Open Ended Responses

2009

• **Most Valuable**: Meeting New People & Forming Friendships / Gaining a Greater Understanding for PULs.
• **Least Valuable**: Group Activities / Special Projects.
• **Suggestions**: Time Commitments & Restraints, Greater Project Support & Directions.

2010

• **Most Valuable**: Mathematics & English Components / Meeting New People & Forming Friendships.
• **Least Valuable**: UCOL Course / Nothing / Mathematics.
• **Suggestions**: More Mentor Interaction & Support / Time Commitment & Restraints.
### Highlights, SSA 2010 (N=196)

<table>
<thead>
<tr>
<th>Item</th>
<th>% Satisfied or Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom activities that helped me learn</td>
<td>81%</td>
</tr>
<tr>
<td>Opportunities to learn from other students</td>
<td>78%</td>
</tr>
<tr>
<td>Interactions with student mentors</td>
<td>69%</td>
</tr>
<tr>
<td>Overall feelings of sense of community</td>
<td>88%</td>
</tr>
<tr>
<td>Overall Satisfaction</td>
<td>78%</td>
</tr>
</tbody>
</table>

84% would recommend the program to other students
Implications

• Students seem to react positively to early interventions that facilitate positive connections, interactions, and equip them with skills necessary to effectively adjust to college.
• Early interventions may help students feel a sense of belongingness and enhance academic self-efficacy beliefs.
• Early interventions may help students understand the purpose and importance of general education outcomes.
• Early interventions may help students adjust to college and perform better academically during their first-semester, especially in math and writing courses.
• Programs that are tailored to meet the diverse needs of students are optimal.
• Examining students’ work products helps enhance understanding of learning outcomes.
Implications

• An effective practice in future implementations may be for instructional teams to share rubrics with students in advance and provide clearer Special Projects instructions. With this in mind, students will have clearer expectations and may show greater improvements in intended student learning outcomes.

• Students may benefit from more instruction and guidelines regarding how to work effectively in groups.
Next Steps:
Section Variation Analyses

- Notable variation between sections.
- Conducted an analyses to identify the most effective or “high performing” sections.
- Began process to identify evidence-based best practices.
- Ideal process for faculty and professional development as well as program improvement.
Next Steps

• Employ longitudinal research designs to enhance understanding of long-term effects.

• Use focus groups and interviews to enhance understanding of students’ in-depth perceptions.

• Continue to examine student work to increase understanding of direct student learning outcomes.

• Currently evaluating SSA 2010.
  – Examined differences between sections in an effort to identify evidence-based best practices.
  – Incorporated mentors’ perspective to understand effects of program from multiple sources.
Case Study 2

Assessing a Critical Inquiry Course
Critical Inquiry Courses

Figure 1. Fall 2001 Expected verses Actual Fall GPAs (excluding CI grade) for Conditional Beginning Freshman

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Predicted GPA</th>
<th>Actual GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI Participant</td>
<td>115</td>
<td>2.17</td>
<td>2.36</td>
</tr>
<tr>
<td>Not CI Participant</td>
<td>907</td>
<td>2.24</td>
<td>2.21</td>
</tr>
</tbody>
</table>

![Chart showing predicted vs actual GPAs for CI participants and non-CI participants]
### Fall 2002 Impact of Participation in a Critical Inquiry Course for Beginning Freshmen

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Average Fall GPA</th>
<th>Adjusted Fall GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Inquiry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participants</td>
<td>87</td>
<td>2.83</td>
<td>2.95</td>
</tr>
<tr>
<td>Non-Participants</td>
<td>1621</td>
<td>2.59</td>
<td>2.57</td>
</tr>
<tr>
<td>Overall</td>
<td>1708</td>
<td>2.59</td>
<td></td>
</tr>
</tbody>
</table>
Please describe what you found most valuable about this:

- “Learning how to read scholarly text and actually understand it.”
- “I learned a lot on the CI method because it helped me go beyond the text.”
- “Everything. I would recommend this class for everyone.”
- “Discussion of lectures from linked course.”
- “The instructor. The extra help—those are hard concepts and texts to understand.”
Students Would Recommend CI to Other Students

• Liberal Arts sections = 90%

• Science sections = 80%

• Overall = 86%
Delivering and Ensuring Use of the Bad News!
Establish Ground Rules at the Beginning of Assessment Planning

- Establish at the beginning of assessment planning that you are committed to conducting a sound, valid assessment, even if that entails having to report results that do not fit with the assumptions and hopes of all stakeholders.
Use Multiple Sources of Information

- Use multiple sources of information – faculty members’ and students’ voices and stories can be extremely powerful and meaningful, particularly when they support quantitative findings.
Involve Faculty and Other Key Stakeholders

• Involve key stakeholders in the assessment planning:
  – Selecting measures, assessment tools, questionnaires, and other instruments.
  – Deciding on research designs.
  – Establishing time frames.
  – Determining assessment goals.
  – Interpreting early findings.
Agreed Upon Plans and Goals

• Establish an agreed upon written assessment plan with clear goals at the beginning!
The Bad News!
Conditionally Admitted Students and Grade Performance

- Conditionally admitted students participating in spring 2006 Critical Inquiry courses did not have significantly higher spring semester grade point averages (1.99) compared to non-participating conditionally admitted students (1.95) while controlling for significant predictors of spring grade point average (spring course load, and fall semester grade point average).
2007 Results

- Conditionally Admitted African American CI participants had a lower spring cumulative grade point average (1.37) compared to Conditionally admitted non-participating African Americans (1.44, both excluding grade earned in a C.I. course).

- Conditionally admitted African American CI participants were retained at about the same rate as non-participating African Americans (58% and 57%, respectively).
Students’ Perceptions of C.I. in Spring 2009

- Students in Spring CI 2009 who completed course evaluations (N= 89) were NOT notably positive about their CI experiences.
  - Slightly less than one-half the students were "satisfied or very satisfied" with their overall experience (48%).
  - Only 43% would recommend the course to other students.
  - Only 38% would be interested in taking a Critical Inquiry class linked to another academic course in the future.
Efforts to Improve CI Based on Assessment Findings

- A CI Project site was developed to ensure that CI faculty members are engaged with each other through a Community of Practice.
- Increased training and support for all faculty.
- Brown bag forums were held to discuss CI format and structure, goals and purposes.
Students’ Voices
Qualitative Assessment

Qualitative strategies should not be considered merely ancillary components to an assessment process.

We believe that some of the best assessment strategies are mixed method in design; employing a variety of both qualitative and quantitative strategies that….

*work in and with one another.*
Critical Inquiry (CI)

Students’ Open-ended Responses

2008
CI Most Valued Aspects, 2008 (n=135)

Group Activities & Discussions
• “Activities that gave other perspectives.”
• “Definitely the class discussions.”

Assistance with Linked Course Content
• “It helped me when I didn’t understand in the linked class.”
• “Going over the linked class.”
• “How it linked me to my A104. I was always a step ahead.”

Reading, Writing, and Vocabulary Assistance
• “How to think more about readings.”
• “The way we broke down the readings in class.”
• “Learning how to delve more into and challenging reading topic.”
CI Least Valued Aspects, 2008 (n=123)

Specific Course Assignments
• “The outlines that were done a couple of times.”
• “The learning journals.”
• “Document project.”

Unnecessary Class
• “Everything, please eliminate this class.”
• “The class was not needed.”
• “Waste of a 3-hour course.”

Group Activities and Discussions
• “Some of the activities we did, did not help.”
• “The discussions in class weren’t always good.”
• “Discussions that weren’t helpful and felt irrelevant.”
Suggestions for Improvement (n=111)

Nothing
• “Nothing.”
• “Nothing overall good class”.
• “None.”

Greater Connection with Linked Course
• “Work more towards integrating the linked class material.”
• “Relate the material more closely to the linked instructor’s class.”

Less Time Commitment / Constraints
• “Shorter class periods not 3 hours a week.”
• “Make sessions of overall class shorter.”
• “Make it once a week.”
Critical Inquiry (CI)

Students’ Open-ended Responses

2009
CI, Most Valued Aspects, 2009 (n=60)

Instructor Team Support
• “I liked how the teacher taught the class.”
• “A helpful and enthusiastic instructor.”

Reading, Writing and Vocabulary Assistance
• “Improved my writing and speech skills.”
• “Critical thinking skills while reading and writing.”
• “Rhetoric strategies.”

General Material Review & Comprehension
• “What I found most valuable about this class is that he gives a lot of details and explains the lesson well.”
• “The class discussions and an alternative explanation of course content.”
CI Least Valued Aspects, 2009 (n=57)

Specific Course Assignments
• "Art interpretation."
• "Final exam."
• "Learning Journal."

Nothing
• "Everything helped."
• "Nothing."

Everything
• "The whole class."
• "Basically everything else."
• "Everything."
Suggestions for Improvement, 2009 (n=46)

More Assistance with Assignments

“Nothing really, just more help on papers.”
“More focus on Rhetoric analysis.”

Less Time Commitments & Restraints

• “Maybe have it once a week twice a week is useless.”
• “Meet only once/week since it’s only 1 credit.”

Allot More Credit Hours for Completion

• “Increase credit hours since we are here longer than an hour week.”
• “More credit hours for the class.”
• “Increase the credit hours or reduce class time.”
Needs Assessment
Assessing Unmet Needs

“Assessing unmet need to a basic first step before any program planning can begin. Program planning involves the consideration of a variety of alternative approaches to meet needs”

– Emil Posavac and Raymond Carey
Needs Assessment Defined

• Systematic process to acquire an accurate, comprehensive picture of the strengths and weaknesses of an institution, program, or service that can be used in response to the academic needs of students for improving student achievement and meeting challenging academic standards.

• Process that collects and examines information about programs and services and then utilizes that data to determine priority goals, to develop a plan, and to allocate funds and resources.

• Students, parents, faculty, administrators, and other community members should be included in gathering data.

  – Source: http://www.dpi.state.nd.us/grants/needs.pdf
Purpose of Needs Assessment

• Determine …
  – current and future needs of the institution, students, faculty, advisors, and the community
  – How well the current processes meet students’ needs
  – The ways in which the institution, program, or course are changing.
  – The root causes of problems.
  – The types of programs and services that will be needed in the future
Needs Assessment Techniques

- Direct observation
- Questionnaires
- Consultation with persons in key positions, and/or with specific knowledge
- Review of relevant literature
- Interviews
- Focus groups
- Tests
- Institutional records & previous reports
- Existing Surveys (Entering Student Surveys, NSSE, Non-Returning Student Surveys, Faculty & Staff Surveys)
Recommended Strategies

1. Incorporate proven local initiatives.
2. Have clear learning outcomes.
3. Place faculty at the center of design and delivery.
4. Address the specific concerns of YOUR students and THEIR families.
Recommended Strategies

5. Create collaborative decision-making processes.
6. Use careful and planned assessment.
7. Grow slowly.
8. Consider participation in multiple programs.
Case Study 3

A Program Review
Improving Service Units: Fostering On-Going Internal Learning

• On-Going Communication of UC Mission, Program Goals, and Assessment Findings
• Faculty Fellowships
• Gateway Group
• Involvement in Foundations Of Excellence in The First College Year National Project
• Program Reviews
Institutional Objectives for Program Review

- Provide planning information
- Direct internal resource allocation
- Provide monitoring to ensure quality
- Offered as an internal review process
Elements of Program Review

• Self Study
• Review by Respected Peers (program directors asked to select experts in field)
• Recommendations
• Follow-up
Program Review

Examines:

Resources

Processes

Outcomes
Examples of Service Unit Outcomes

• Students Retained and Graduated
• Students Achieve Learning Objectives
• Students Successfully Transition into Degree Granting Schools
• Students Adjust to College
• Students Academically Prepared
• External Recognition
Following the Review

- Unit reviews the recommendations
- Unit prepares written response
- Unit presents response in administrative hearing
- Responsible administrators agree upon responsive action(s)
- Responsive actions are implemented
- Re-review ensures action
Recommendations from Literature Review

“If the review does not result in a program change, innovation or improvement, then it has not been used”

Barak & Breier, 1990
Service Unit Program Reviews: Fostering Empowerment and use of Results

- Unit director empowerment through active and on-going participation (the self-study).
- Reviewer feedback promotes collaboration, dialogue, and collective analysis.
- Active learning and discovery fostered by critical reflection process.
- Data-driven action plans developed following review.
New Student Orientation

- Dynamic one-day program that has evolved over the years.
- Designed to provide incoming students with the resources and information they need to successfully meet university demands and to acclimate to a new environment.
- Faculty involvement in program design and delivery.
- Student-lead orientation team.
- Serves over 5000 students per year.
- Programs for transfer students and parents.
Application One: Program Review of New Student Orientation

- **Focus**: Assessment of new students’ needs, program processes, and student learning outcomes related to orientation.
- **Stakeholders**: perspectives from all major stakeholders (faculty, advisors, student affairs, and students)
- **Self-Study**: Focus groups with all major stakeholders and questionnaires administered to students three months after start of fall semester.
Program Review as Lever for Change in New Student Orientation

- Strategies developed to make orientation process more efficient.
- More clearly defined goals and learning objectives established.
- Expanded tour and technology sessions added.
- Increased opportunities for interactions and making connections included.
- More in-depth advising model implemented.
- Support for unit director’s professional development opportunities recommended.
Learning Center

• The Center strives to improve academic success among students through academic support programs such as Structured Learning Assistance and the Resource Desk.
• Programs are based on a belief that highly successful academic students can play an integral role in the academic development of their peers.
• Collaborative learning, role modeling, peer interaction, and peer support are all components.
• Training mentors and providing continuous mentor support are considered critical to the Center’s success.
Application Two: Learning Center Review

• Focus: Assessment of center administrative processes; resources; relationships with other units and faculty; and student learning outcomes related to mentoring programs.
• Self-Study: Documentation of center resources and program process; web-based surveys from multiple stakeholders (faculty, peer mentors, and students receiving mentoring).
Program Review as Lever for Change in Learning Center

• New perspectives on the benefits of peer mentoring campus-wide.
• More institutional support for program expansion.
• Ability to secure resources to implement proposed improvements.
• Modification of the Supplemental Instruction mentoring program.
• Improved mentor training.
• Redesigned instruments to more effectively measure student learning outcomes.
Unit Director’s Perspective

• “The program review process gave me a unique perspective to actually give some intentional effort to the quality of the Learning Center programs. I know as a practitioner, it seems like we barely have time to keep our programs running, but it was a wonderful opportunity the university gave me to focus on my program more holistically and determine what courses of action to take in order for our unit to thrive in the future by allowing experts in the field to come to campus and actually view our operations first hand.”
Benefits Of Program Reviews for Service Units

• Establishes atmosphere of openness and trust regarding assessment data.
• Creates positive affect regarding usefulness of assessment.
• Leverages university “opposing” forces.
• Brings external legitimacy to the service unit.
Assessment Challenges

- Defining and measuring learning.
- Using assessment results to improve teaching and learning.
- Identifying what program components have the most positive educational outcomes and for what groups of students.
- Communicating results in a timely manner so they are used when decisions are made.
- Ensuring accountability in planning, conducting, using results.
- Communicating and publicly reporting the bad news.
Assessment Challenges (continued)

- Some of units or programs embrace assessment plans while others do not.
- Some areas lend themselves to assessment better than others.
- Assessing programs that are experiencing or will experience significant growth or change is difficult.
- Determining the right time to begin a review can be challenging.