Student Involvement

Gary MacGillivray
Mathematics and Statistics
gmacgill@uvic.ca

August 31, 2012
The 2008 student satisfaction survey

Eight questions:

1. How happy are you with the support offered?
2. How often do you visit the help centre?
3. How often do you go to office hours?
4. What percentage of graded work did you submit?
5. What percentage of recommended work did you do?
6. How many times per week do you study Math?
7. How many classes did you miss?
8. How happy are you with your performance?
The 2008 student satisfaction survey

Eight questions:
1. How happy are you with the support offered?
2. How often do you visit the help centre?
3. How often do you go to office hours?
4. What percentage of graded work did you submit?
5. What percentage of recommended work did you do?
6. How many times per week do you study Math?
7. How many classes did you miss?
8. How happy are you with your performance?

The responses are essentially uncorrelated.
Some data from Math 122

<table>
<thead>
<tr>
<th>When</th>
<th>F%</th>
<th>N%</th>
<th>% Miss &gt; 1 CW</th>
<th># students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 05</td>
<td>13.6</td>
<td>11.4</td>
<td>25.2</td>
<td>88</td>
</tr>
<tr>
<td>Fall 07</td>
<td>32.0</td>
<td>11.7</td>
<td>39.1</td>
<td>128</td>
</tr>
<tr>
<td>Spring 08</td>
<td>26.5</td>
<td>3.8</td>
<td>35.6</td>
<td>132</td>
</tr>
<tr>
<td>Fall 08</td>
<td>21.7</td>
<td>4.2</td>
<td>35.0</td>
<td>120</td>
</tr>
<tr>
<td>Spring 09</td>
<td>31.5</td>
<td>11.5</td>
<td>32.3</td>
<td>130</td>
</tr>
</tbody>
</table>

Students who do all of the course work outperform the ones who miss at least 2 pieces of course work by about 20% on the common final exam. What should we do?
The experiment

Use regression: figure out which combination of questions from the Survey predict doing the course work, and try to affect those.

The interventions:

- Attempt to create a positive, supportive atmosphere from day 1 (welcome letter, study tips)
- new, more readable (we felt) textbook
- more weight on the assignments and less on the common final exam
- in-class work (for a small number of marks)
- rethink the structure of the assessments
The failure rate has crept up in subsequent terms, but remains significantly lower than before (currently around 18%).
Students at risk

At risk means missed 3 of 9 pieces of course work in September (1 take home asmt, 8 in-class asmts).

- 11 of 65 students in A01 met the criteria
- 13 of 65 students in A02 met the criteria, and were emailed; 3 responded

The effort seems to have paid off.
Students at risk

At risk means missed 3 of 9 pieces of course work in September (1 take home asmt, 8 in-class asmts).

- 11 of 65 students in A01 met the criteria
- 13 of 65 students in A02 met the criteria, and were emailed; 3 responded

- A01: 8 drops, 2 Ns, 1 D
- A02: 2 Fs, 1 N, 1 D, 2 Cs, 3 C+, 1 B-, 2 B

The effort seems to have paid off.
Everything matters when trying to get students involved

- How the learning outcomes are achieved and examined
- The materials the students use
- How the class and office hours are conducted
- Whether the students believe you care
- Whether the students believe the course is relevant
- Whether the students can be persuaded that the course is enjoyable
- and ...