Analyzing survey data in Insight

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Presented by:

Jordan Obleton
Data Strategy Consultant
Anthology Data Solutions Team
Agenda

Survey Collection Process

Metrics
• Measurement scales
• Qualitative vs. quantitative

Available survey data
• Surveys in Insight
• Using Reveal
• Creating visualization

Understanding results
• Disaggregating by demographic
• Benchmarking
• Identifying trends and satisfaction

Bias and Considerations
• Target population
• Sample size
• Response rate

Adding survey data
Survey Collection Process
Purpose of Surveying

Gives power to groups impacted by decisions (students, faculty, staff)

Student feedback is an important resource for universities

Enhance programs, operations, and drive student success

Informed decision making and strategic direction
Example Survey Objectives and Goals

- Graduating seniors satisfaction
- Program and College satisfaction
- Retention rates
- Student performance
- Quality of Professor instruction
- Early Intervention
- Budgeting decisions
Setting Up a Survey

Before you collect data...

Who is the population?

What do you hope to achieve?

How will results be distributed?
Question Selection

• Focused, direct, and specific. Make them count
• Make every question count (reduce survey fatigue)
• NPS Style questions – Likelihood and satisfaction
• Avoid leading and biased questions
• Clear and understandable language
• Consult with focus groups and specialists
Bias and Considerations
Ensure quality data by following equitable practices in collection and processing

Follow appropriate survey standards
Sample size and population

Appropriate sample size for statistically significant results

Too small sample = skewed results

or

Too large sample = complex, time-intensive
Survey Sampling Bias

Non-sampling bias

Response Bias

Interviewer bias
Analyzing Surveys in Insight
Available Insight surveys

NSSE Surveys – 2020
Graduating Senior Survey
Intramural Sports Survey – Spring 2021
Project CEO – 2020
Anthology Insight Resources

• This image gives a general overview of data-sets one may have access to within Anthology Insight.

• These data-sets are known as “Insight Resources.”

• The Insight Resources your specific institution will have access to are dependent upon your Anthology contract.
Insight Resources

• Insight Resources are the sources of data available for analysis and visualization within Insight.

• They are composed of data provided by your institution (ex: student demographics, enrollment, etc.) as well as data generated through your institution's usage of Anthology tools (ex: assessment results, student ratings of instruction, etc.).
Smart Insight Resources Allow for Easier Analytics

- Connects data that belongs together through modeling
- Aligns demographics with student activity

For example, with each of the resources below, we can disaggregate by....

<table>
<thead>
<tr>
<th>Outcome Result</th>
<th>Course Evaluation Quantitative Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome Score</td>
<td>Numeric / Text</td>
</tr>
<tr>
<td>Outcome Achievement</td>
<td>Question Text, Category, Subcategory</td>
</tr>
<tr>
<td>Level</td>
<td>Course Number, Section, Name</td>
</tr>
<tr>
<td>Creation information (time, etc.)</td>
<td>Rotation</td>
</tr>
<tr>
<td>Assessment details (method; scoring method; collection method, etc.)</td>
<td>Administration</td>
</tr>
<tr>
<td>Academic Program</td>
<td>Demographics of Evaluator</td>
</tr>
<tr>
<td>Student demographics*</td>
<td></td>
</tr>
</tbody>
</table>

Engage Event Attendance

<table>
<thead>
<tr>
<th>Associated Event</th>
<th>Event Details (ex: Start Time, Theme, etc.)</th>
<th>Location and/or Online Location</th>
<th>Organization who held the event</th>
<th>Branch of the Organization</th>
<th>Student demographics of attendee</th>
</tr>
</thead>
</table>

*Provided data not collected in aggregate
Leveraging your Resources: Insight Data Dictionary

- The Insight Data Dictionary is a resource you will have access to which defines each of the fields within your Insight Resources.
- Knowing the data you have access to within the Insight Resources will enhance your ability to make effective visualizations and dashboards.
Reveal
Reveal Details

- Total values located at the bottom
- View respondent details by selecting row data value
- Shows all the field values
Reveal Filter

- Filter by field in the survey or account level field
- Example: filter Graduating Senior Survey to show respondents who selected Psychology as their major in the survey
Exporting Insight Data

1. Select Resource
2. Export by file type
3. View previous exports under “My Exports”
Visualizing Insight Data

Create visualizations and dashboards to view survey data in Insight

Graduating Seniors Survey 2021 - Anth

<table>
<thead>
<tr>
<th>College Graduates by Major Satisfaction</th>
<th>Total graduates</th>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>No response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letters Arts &amp; Social Sciences</td>
<td>429</td>
<td>199</td>
<td>195</td>
<td>10</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>Engineering</td>
<td>155</td>
<td>65</td>
<td>56</td>
<td>8</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CBE</td>
<td>226</td>
<td>74</td>
<td>134</td>
<td>9</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Agriculture &amp; life sciences</td>
<td>162</td>
<td>75</td>
<td>72</td>
<td>7</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>science</td>
<td>150</td>
<td>45</td>
<td>75</td>
<td>7</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Education, health &amp; human sci</td>
<td>139</td>
<td>56</td>
<td>65</td>
<td>7</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Natural resources</td>
<td>106</td>
<td>64</td>
<td>38</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Art and architecture</td>
<td>52</td>
<td>52</td>
<td>47</td>
<td>5</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Dissatisfied: 400
Total Colleges: 1,400

2021 Graduates Major Satisfaction by College

Total Graduates: 2,000
Total Dissatisfied: 100
Total No response: 20

Colleges with most scholarship recipients: engineering, letters arts & social sciences
Insight Dashboard Components

- Collection of visualizations
- May contain multiple views; each view can contain between 1-9 visualizations.
- May contain toggles to further “slice” (filter/segment) data.
Navigating dashboards

**Views**
- Go between pages on the dashboard

**Slice By:**
- Toggle filters used to disaggregate results shown on dashboard visualizations
- Filters applied to all visuals on the dashboard
Filtering Data

- **Where** used to filter results based on field values
- Applied using logic
Disaggregating Data: Creating Dimension

Slice By: ☑ Select All

Ethnicity

Update Slice

→ Back

Update Slice

Athletics

Campus

Student Academics

Student Demographics

Student Success

Custom

→ Academic Standing

Add All

Good Standing

Probation

1st Disqualification

Disqualification
Activity: Discuss survey dashboard observations
## Graduating Seniors Survey 2021 - Anth

### 2021 Grades Major Satisfaction

<table>
<thead>
<tr>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>No response</th>
</tr>
</thead>
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<td>7</td>
<td>1</td>
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<tr>
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<td>69</td>
<td>7</td>
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Creating Survey Visualization:
walkthrough setting up visual of NSSE data and disaggregating results
Identifying satisfaction

“Overall, 95% of 2021 graduating seniors are satisfied”
<table>
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<th>Quantitative</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Responses expressed as words</td>
<td>• Numbers and graphs</td>
</tr>
<tr>
<td>• Used to understand thoughts, concepts, and experiences</td>
<td>• Closed-ended survey questions</td>
</tr>
<tr>
<td>• In-depth insights</td>
<td>• Statistical analysis on data to draw conclusions</td>
</tr>
</tbody>
</table>
Avoiding Bias with Data Interpretation

- Multiple interpretations
- Participants review results
- Verify with multiple data sources
- Alternative explanations
- Review findings with peers
- Use statistical software to check for bias
Uploading Surveys to Insight

- Export data from survey platform
- Transform/clean data
- Send data file to Sara
- Survey processed and uploaded