Building and sharing dashboards in Insight

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Presented by:

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Agenda

Insight Overview

What are dashboards?

Dashboard components
- Visualizations
- Measures and metrics
- Dimensions and slices
- Expressions
- Effective on

Available Resources

Sharing dashboards
Activity: Build your dream dashboard

Take 10-15 minutes

Include the following:

• Title
• 3-5 visuals (bar graph, line graph, table, donut, etc.)
ANTHOLOGY INSIGHT

- Connect the data dots

Bring your data together in one solution. Get a holistic picture of what’s working and why through a connected data ecosystem. Understand the overall landscape of the learner experience, provide access to that information, and identify those once-hidden influential factors critical to mission fulfillment.
Dashboards

- Collection of visualizations used to answer questions, explore trends, and analyze institutional phenomena.
- May contain multiple views; each view can contain between 1-9 visualizations.
- May contain toggles to further “slice” (filter/segment) data.
Tactical Note

• Our series will use the Training Data Enrollments Insight Resource to teach fundamentals.
• This Insight Resource is available to all institutions and does not “interact” with any institutional data.
• Feel free to use it to experiment and explore.
Visualizations

• Graphical representation of measures in tiles, tables, charts, figures, and bars.
Process for Building a Visualization

1. Ask a question
2. Build a Measure
3. Segment the Measure via Dimension
To answer the question, we’ll first build a measure - a count of English 101 enrollments - which we will then segment by the dimension of specific final grades.
How many students earned final grades of D, F, W, or I in English 101?

А measure is the final value to be segmented via dimensions and/or displayed in the visualization.

Count the enrollments in English 101

199
A **measure** is the final value to be segmented via dimensions and/or displayed in the visualization.

A **measure** is made of either a single **metric** or a combination of **metrics** using expressions (more on expressions to come later).

A **metric** is the aggregate of a single field (column) from an Insight Resource that will be counted, summed, averaged, etc.
A **measure** is the final value to be segmented via dimensions and/or displayed in the visualization.

A **measure** is made of either a single **metric** or a combination of **metrics** using expressions (more on expressions to come later).

A **metric** is the aggregate of a single field (column) from an Insight Resource that will be counted, summed, averaged, etc.

**Metric**: We have asked Insight to count the fields of data within the Enrollment ID column on the Training Data Enrollments resource.
# Pre-built vs. Custom Measures

<table>
<thead>
<tr>
<th>Pre-built</th>
<th>Custom</th>
</tr>
</thead>
</table>
| - Pre-defined by Anthology.  
- Quick aggregates of frequently used metrics and dimensions.  
- Starting points that will likely require adjustments. | - When pre-built does not meet your needs.  
- Utilize and aggregate any data within your resources. |

**Update Measure**

- Course Evaluations
- Course Section
- Credit Hours
- Outcomes
- Student Retention
- Student Enrollment
- My Measures
- Custom
Building our Measure in Anthology Insight

Ask a question:
How many students earned final grades of D, F, W, or I in English 101?

Build a Measure:
Count the enrollments in English 101

199
Process for Building a Visualization

Ask a question

How many students earned final grades of D, F, W, or I in English 101?

Build a Measure

To answer the question, we previously built a measure - a count of English 101 enrollments.

199

Segment the Measure via Dimension

Now we will segment the measure by the dimension of final grades.
Slices and Dimensions
Basic Recipe for a Visualization

Segment the Measure via Dimension

Determine the dimension(s) by which the measure will be segmented.

Dimensions are categories, broken down by smaller slices.

Slices are the individual segments that make up a dimension.

- Dimension: Final Grade
  - Slices: D, F, W, I

- Dimension: Terms
  - Slices: Fall 2018, Spring 2019
Two methods for creating Dimensions

1. Within the visualization itself.

2. Within the Dimensions Library itself.
Two methods for creating Dimensions

1. Within the visualization itself.

   - **Dimension:** Final Grade
   - **Slices:** D, F, W, I
Two methods for creating Dimensions

- **Dimension:** Terms
- **Slices:** Fall 2018, Spring 2019

Toggling on “Shared” will allow Creators to use, view and copy your dimensions (provided they have access to the Insight resources within your visualization).

By default, Admin users will always be able to use, view, copy, and edit all dimensions that exist within Insight.
Example:

*Walkthrough using Dimensions in Insight*

1. Building within visualization
2. Building in library
View Data Details

To easily view row-level information captured by a visualization, select the View Data Details button.

In the example shown here, this function has been used to show row-level details of enrollments with a final grade of Incomplete (“I”).
Expressions and Measures
Starting with Questions

Ask a question
What percentage of students enrolled in an online section of ENG 101?

Ask a question
What percentage of students enrolled in each section type (online, lecture, etc.) for Fall ‘18 and Spring ‘19?

22.61
Building Measure(s): Introducing Expressions

Ask a question

What percentage of students enrolled in an online section of ENG 101?

To calculate a percentage as our measure, we will need to build an expression.

Build Measure(s)

22.61
What are Expressions?

- Expressions are combinations of two or more metrics using math, calculated at the aggregate level.
- Examples may include (and are not limited to) calculations like...

**Percentage Of**
- Students who earned a DFW
- Student who were assessed
- Students who were retained

**Percent Change Of**
- Number of events from last year to this year
- Number of alerts from week to week

**Average**
- Event attendance
- Course enrollment
Building an Expression – Percentage Example

What percentage of students enrolled in an online section of ENG 101?

One measure using combination of metrics

Number of students who enrolled in ENG 101 where Section Attribute is Online

Number of all students who enrolled in ENG 101

Part (Metric A) / Whole (Metric B) * 100 = Percentage
Example:
Walkthrough building expressions
Multiple Measures

More than one **measure** can be defined in a visualization.

**Ask a question**

What percentage of students enrolled in each section type (online, lecture, etc.) for Fall ‘18 and Spring ‘19?
Process for Building an “Advanced” Visualization

Ask a Question
Build Measure(s)
Segment the Measure(s) if Necessary

What percentage of students enrolled in each section type (online, lecture, etc.) for Fall ‘18 and Spring ‘19?

Determine the dimension(s) by which the measure will be segmented. Dimensions are categories, broken down by smaller slices.

Slices are the individual segments that make up a dimension.

- **Dimension**: Term Name
  - **Slices**: Fall 2018, Spring 2019
Using the Save As feature within visualizations allows us to re-purpose the measures we’ve built to answer new questions as they emerge.

What percentage of students enrolled in each section type (online, lecture, etc.) for Fall ‘18 and Spring ‘19?

What percentage of students enrolled in each section type (online, lecture, etc.) earned Final Grades of D, F, W, and I?
Example:
Walkthrough building advanced visualization in Insight & setting up a dashboard
Insight
Demographics
How Insight Processes and Stores Demographics

- Demographic file received by Anthology
- Each row of user data is compared to current data in Insight
- If a difference exists between new data and existing data, a new row is created
- Each row is time-bound by Effective and Expiration dates
- Each row attaches to the correct activities, occurring in that time-frame

Important for accurate analytics
How Insight Processes and Stores Demographics

Examples

- Enrollments: beginning date of section
- Outcome Results: term end date
- Rubric Entry Details: evaluation creation date
- Beacon Notification: success notification creation
- Engage Event Attendance: event start date time

Each row attaches to the correct activities in that timeframe.
Demographics example

<table>
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<tr>
<th>External ID</th>
<th>Effective Time</th>
<th>Expiration Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>0625511</td>
<td>Dec 4, 2018 3:36 PM</td>
<td>Dec 31, 2018 3:00 AM</td>
</tr>
<tr>
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Original demographics: Undeclared; No academic status

Note the consistent External ID. Each row you see here is the same individual.
## Demographics example

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Note the consistent External ID. Each row you see here is the same individual.

Student currently is a Psychology major with a Sociology minor, in Good Standing.

- Original demographics: Undeclared; No academic status
- Student became a Biology major.
- Student became a Psychology major.
- Academic status changed to “Probation”
- Academic status changed to “Good Standing”
- Added Sociology minor. **No expiration time:** current record.
Insight Resources
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...

### Outcome Result

- Outcome Score
- Outcome Achievement Level
- Creation information (time, etc.)
- Assessment details (method; scoring method; collection method, etc.)
- Academic Program
- Student demographics*

### Course Evaluation Quantitative Response

- Numeric / Text Answer
- Question Text, Category, Subcategory
- Course Number, Section, Name
- Rotation
- Administration
- Demographics of Evaluator

### Engage Event Attendance

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

*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
Activity:

*Build 3-5 visualizations and add them to a dashboard*

*Include at least 2 dimensions in the dashboard*
Sharing Dashboards

• Once constructed and saved, dashboards may be shared both externally and/or within the Anthology Insight application itself.

  – Externally:
    • Linked to or embedded. Examples include...
      – Anthology Planning
      – Anthology Accreditation
      – Anthology Program Review
      – Public websites
  – In-application:
    • Within Anthology Insight’s user interface.
Sharing Dashboards

• To share a dashboard:
  – Save the dashboard. Select “Edit.” Select “Share.”
Example: walkthrough sharing dashboards in Insight
Sharing Dashboard

After selecting “Share,” you will be able to share both externally and in-application.

To share **externally**
- Toggle on “Make available to public”
- Copy “Public URL” or “Embedded Code”
- Save
- Paste “Public URL” or “Embedded Code” in desired external space

Linked-to and embedded instances of dashboards cannot be copied.

Consumers of dashboards shared this way can “Export” the dashboard, producing a static image of the dashboard for download.

To share **in-application**
- Search for the user’s account in the “Share with another user” box
- Save

Dashboards shared in-application can be copied by users with appropriate permissions.
Takeaways