

Let's Talk About Assessment Warehouses: NEAIR

Discussion Group Notes

November 6, 2023 (<https://rb.gy/ikudx>)

Breakout Group Discussion Notes

Jump to your group's "handout" to take notes about your discussion so that it can be shared with the larger group. Any person/institution identification has been removed from these, as needed, for these linked versions of the group discussion notes.

- [Group #1](#)
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After the Breakout Group Discussions (aka [Next Steps and Planned Follow-up](#))

- [Overall Group Discussion Notes](#)
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Next Steps and Planned Follow-up

Overall Group Discussion Notes

Q1. What does an “assessment warehouse” mean and what is your experience with how one is developed or implemented?

Possible Specific Follow-up Questions:

1. What does it look like (platform, file types, etc.)?
2. Who maintains it (IT, IR, Assessment, IE, cross-unit team/access, etc.)?
3. What goes into it (data included, key identifiers, etc.)?
4. What can you pull out of it (e.g., reporting, dashboards, analyses across direct/indirect measures, longitudinal analyses, etc.)?

Group Feedback

- Many groups did not have a clear understanding of assessment warehouses. The presenters reminded them that an assessment warehouse can be considered a specific type of data warehouse, but whose purpose is specifically related to collecting, linking, and reporting on assessment-specific efforts of the institution. Examples of what can be included in an assessment warehouses are course evaluation surveys, student learning outcome assessments (surveys, standardized assessments, rubric results, etc.; from programs/Academic Affairs), course-related data (from Registrar), demographic-related data (from SIS/IR), student success metrics (graduation, retention, career, etc. from SIS/IR, alumni/advancement offices, career services office), etc. that are pulled from various owners/offices on campus into a single repository that allows greater power in analysis and reporting.
- The majority of the participants did not have an assessment warehouse at their institutions and were looking to find out more about them in this session.
- The following is what was described by participants that did have a data warehouse/assessment warehouse:
 - Oracle database:
 - Only two people on campus (in IT?) that can work with it directly, because need to know SQL programming
 - One table/data source and then connect across views with SQL
 - PowerBI and Tableau “sit on top of” the Oracle database for reporting
 - Only basic info can be pulled from this
 - Easier for IR to access/manipulate/pull
 - Otherwise, for more in-depth reporting, need SQL programming/IT staff support
 - LMS → Smartsheets → R (data manipulation/clean-up) → Oracle database
 - IR and IT (at least)
 - Canned/census/snapshots of data used as source, but pushback from IT - which would prefer live/synced data
 - Qualtrics and NSSE survey data → Watermark (Planning & Self Study), but can’t get major requirements in there
 - Nuventive (artifacts deposited) → Sharepoint → homegrown assessment warehouse with departments/programs input of assessment data into the LMS (dept/program leaders are “students” in the LMS assessment course)
- Overall shared responses to the follow-up questions, by all participants:
 - What does it look like?
 - Unsure, but are interested and want to know more

- Have software/platform, but unsure if they can be considered “assessment warehouses”
- Some software/platform/data sources across campus, but need to collect/connect manually in a “homegrown” assessment warehouse, if that is possible at all (e.g., from programs annually/as part of program review in a document repository (SharePoint, Google Drive, Inventive, Nuventive, Portfolium, etc.), but hard/impossible to connect to course/student information)
- Data warehouses that serve as assessment warehouses (see above, under bullet #3)
- Who maintains it?
 - Academic Affairs
 - Assessment office
 - Business Intelligence (BI)
 - Institutional Effectiveness (IE)
 - Institutional Research (IR)
 - Programs (chairs, unit leaders, etc.)
- What goes into it?
 - Data from Admissions
 - Data from Registrar, such as course- or curriculum-related (graduation requirements, major requirements)
 - Program review-related data
 - Data from IE office
 - Data/information re: strategic plan
 - Benchmarking assessments
 - Student surveys from student services, course evaluations, etc.
 - Question bank database
 - Key performance indicators (KPIs)
 - Outcomes/measures (student learning outcomes, time-to-graduation, retention, etc.)
 - Additionally, either built into the assessment warehouse or as a separate document, a data dictionary should be created that details all related data (e.g., field names, values, vocabulary, cross-walks, etc.)
- What can you pull out of it?
 - Dashboards
 - Reports

Q2. How has this tool been used to identify what is working well or what could be improved?

Possible Specific Follow-up Questions:

1. Alternatively, if the assessment warehouse is still in planning or development: How could this tool be used to identify what is working well or what could be improved?
2. Who has access to the data and any outputs from them (dashboards, reports, etc.)?
3. What analyses have been used?
4. What is the frequency or schedule for looking at the data, interpreting it, and sharing it with stakeholders?
5. What evidence has been derived?
6. How were interventions implemented (e.g., academic, student development, or unit-based)?

Group Feedback

- Most participants were not able to address this, but could speculate on what they would want and how they would like to use an assessment warehouse to identify what is working well or what could be improved.
- Other participants shared their current experiences, whether or not they had an assessment warehouse:
 - Depending on source of data, might need other units that “own” the data/database (e.g., IT if Oracle) to pull data or create reports. Otherwise, IR, Assessment, IE, or other related offices tended to have access to the data and were able to pull reports.
 - Dashboards, reports, etc. were generated based on the data
 - AEFIS → academic program directors/chairs who then use those data/reports as evidence in their requests to the curriculum committee, when a need for improvement is warranted
 - Evidence collected in common repositories (e.g., dept/program assessment data) was used for IE, accreditation, strategic planning, etc.
 - Annual access/updating process/timeline

Q3. What experiences or lessons learned can you share that would be helpful to know during planning, development, or implementation of an assessment warehouse?

Possible Specific Follow-up Questions:

1. Is there a need for or issues with maintaining confidentiality?
2. Do faculty have privacy concerns (e.g., course evaluations)?
3. What thresholds are used or limitations occur for data disaggregation for DEI analyses and reporting?
4. Where have resources (technology, funding, personnel support, etc.) been problematic or had limitations?

Group Feedback

- Potential institutional-specific limitations or challenges:
 - Institutional policy for anonymous student surveys, so cannot link to student identifier and other data in the assessment warehouse
 - Lack of coordination between units (e.g., IT, IR)
 - Use of canned vs. live data sources
 - Developing custom reports
 - Limited access to database (e.g., requires SQL)
 - Limited personnel associated with it (e.g., ½ position from IT; student workers organizing surveys, etc.)
 - Limited reporting by IR using standard tools (e.g., Tableau, PowerBI)
 - No course evaluations used at the institution
 - Limited access/expertise of current data sources (e.g., old SIS system, data only available on individual's computers, etc.)
- Shared challenges, which warrant further discussion:
 - As a part of institutional data governance, need to set clear goals and expectations at the beginning of assessment warehouse planning to guide development, access/use, maintenance/support, etc.
 - What if some offices do not want to share their data or how to structure the assessment warehouse to avoid breaking laws (e.g., re: HR-related data, FERPA, etc.)?
 - How to drill down into demographic groups (wanted by/for programs/offices/groups) when it leads to decreased sample size?
 - Can we instead use averages for groups (instead of counts) when presenting data for small sample sizes? If so, can we automate that based on a predetermined threshold?
 - How to ensure/improve buy-in and use of the assessment warehouse or resulting outputs by campus leaders?
 - What are the best practices and important considerations for designing the assessment warehouse (e.g., data structure/organization, data tables to include, how to link data tables, etc.)?
 - How to deal with maintenance of and regular reporting schedule from the assessment warehouse?
 - How to make the process/system more automated?
 - How to get surveys (e.g., NSSE, HERI, etc.) to be shorter and/or consistent from year-to-year?
 - Changing questions and/or their labels from year-to-year is highly problematic in terms of updating the data dictionary and tracking responses to them over time.
 - If the surveys won't be shortened, can institutions shorten them on the back-end of the process? Are all the questions important to the institution? Should only the ones that are aligned with the mission, strategic plan, student learning outcomes, student outcomes, etc. be imported into the assessment warehouse? What are these and who decides/reviews/aligns these?
 - How to ensure quality of data in the assessment warehouse and/or check its validity and reliability?
 - How to make the assessment warehouse sustainable, viable, and useful?

Questions about Next Step and Follow-up

What other questions do you have about assessment warehouses?

Time Permitting

- Any additional questions you have for your colleagues about assessment warehouses?
- If we don't get to these during our NEAIR discussion group session, then we can follow-up with the members of this group or with a broader audience to ask these, as needed.

Group Feedback re: Additional Questions

1. Have institutions participated in a data inventory?
 - a. Who has what data?
 - b. Will they share it?
 - c. What data of the ones available would go into the warehouse (to increase efficiency and decrease time/effort/resources)? Who decides that?

What follow-up would you like?

Potential Options:

- ☐ Follow-up email sent to members of this discussion group, including:
 - ☐ the powerpoint presentation
 - ☐ link to this notes GoogleDoc
 - ☐ anything else?
- ☐ Survey to the group members with any questions that were not answered in the breakout discussion groups or in the overall group discussion
- ☐ Survey to broader community
 - ☐ Which communities/platforms (e.g., NEAIR discussion board, ASSESS listserv)?
 - ☐ Which questions?
- ☐ Others?

Group Feedback

- The group participants wanted a copy of the presentation, including a link to this GoogleDoc. Additionally, in the future, efforts to find out more from NEAIR (listserv or future conferences) or other groups would be useful for the group as they continue to investigate and consider assessment warehouses at their institutions.