

Project Closeout Report



Project Name:	Business Intelligence
Project Team Leads:	Mike Noel and Guangming Du
Project Manager:	Rebekah Ahrens
TeamDynamix Project Number:	241117

Project Overview

Business Intelligence (BI) is an enabling technology on campus providing faster and better decision making. BI can deliver greater insight into institutional performance, enable faster and better informed decisions, and can provide information for quicker response to opportunities and threats. BI Solutions can scale across organizational boundaries in order to represent significant cost savings.

Self-service BI solutions empower end users to do their analysis and reporting reducing the need for local or central reporting support. The University has recently adopted the Microsoft BI stack, including Excel PowerPivot and PowerView, as the set of self-service BI tools. This project will encourage the adoption of these new tools to provide self-service reporting.

This project initially consisted of 5 subprojects, including –

- Developing Division of Continuing Education Student Records Self-Service BI Solution
- Developing Campus Financial Summary Reports
- Developing Admissions Office Applicant and Prospect Self-Service BI Solution
- Developing General Ledger Self-Service BI Solution
- Performing a Campus BI Needs Assessment

Due to resource capacity, supportability, and overlapping solutions the General Ledger Self-Service BI Solution subproject was deferred until a later date. It was decided close out the BI project now given that 4 out of 5 of the projects were successfully completed. The General Ledger Self-Service BI Solution could be restarted at a later date.

With the completed OneIT BI subprojects, we have addressed some immediate needs, we have developed a foundation from which to grow other solutions, and created momentum to become a more data-driven institution.

Project Result

Outcomes and deliverables of the various subprojects are detailed below.

Division of Continuing Education Student Records Self-Service BI Solution

Provided Division of Continued Education (DCE) staff with a Business Intelligence solution that has easy access to distance learning courses, students and programs of study. The solution is a self-service model allowing self-discovery of data and quick access to ad-hoc metrics with MS Excel BI features such as Power Pivot and Power View.

Campus Financial Summary Reports

Leveraging existing financial reports created by College of Liberal Arts & Sciences, provided enhanced financial summary reports to campus administrators, specifically budget officers. IT staff from FBIS,

Project Closeout Report

CLAS, and ITS collaborated to provide the financial reporting solution.

Admissions Office Applicant and Prospect Self-Service BI Solution

Provided the Admissions Department with access to Prospect and Applicant data in a self service model allowing for self-discovery of data and quick access to ad-hoc metrics via MS Excel BI features such as Power Pivot and Power View.

Campus BI Needs Assessment

Thirty high-level university executives we interviewed about their strategic and operational information needs. From those interviews, sixteen themes were derived then grouped into three categories. More than fifty potential strategies to address the themes, and seven recommendations developed to leverage BI solutions in order to become a more data driven university. The BI Needs Assessment Project process, themes, potential strategies, and recommendations are captured in the BI Needs Assessment Summary Report([insert link to OneIT BI Web site](#)).

What went well?

Division of Continuing Education Student Records Self-Service BI Solution

- Engagement by the clients was helpful in driving the projects forward. Feedbacks from users are critical in validating the data model. End user engagement in data verification of the solution was fundamental to success.
- Communication between the tech team and the business/functional side was fluid and open.
- Integrity of data and quality of measures were of highest priority and IT satisfied the customer's standards and definitions.
- Inclusion of both technical and business partners from both the IT and the DCE side was beneficial and critical to the success of the project.
- ETL process is well designed to keep the right amount of data in the balance of performance and the needs of the analysis model.

Campus Financial Summary Reports

- Collaboration between various central (AFR) and campus (CLAS & Educ) functional staff as well as IT (ITS DBAs, FBIS Developers, and CLAS) to utilize existing product and knowledge base to improve product released to all campus financial users
- Having DBAs directly involved with project
- Shared project management tool (JIRA) to help identify progress and responsibilities
- Started with a product (leveraged CLAS MAX Reports)

Admissions Office Applicant and Prospect Self-Service BI Solution

- Technical evaluation of Tabular technologies and the DAX capabilities were thoroughly explored with this project.
- Integrity of data and quality of measures were of highest priority and satisfied the customer's standards and definitions.
- End user excitement and engagement in data verification of the solution.
- Development of core count excel spreadsheets to be used as example by end users by project team and student resource.

Campus BI Needs Assessment

Project Closeout Report

- Good collaborative effort with team members and campus.
- Deriving themes and associated strategies made for a more complete and useful document
- Vetting themes and strategies with key stakeholders was very useful.

What could have been improved?

Division of Continuing Education Student Records Self-Service BI Solution

- Better resource and time management would be helpful at the early stage of the project.
- Involvement of more team members and engagement at the deeper level would be beneficial.
- Better communication and close collaboration with the upstream operational system would have been and will be beneficial to the report model development. Timely introduction of new data elements from the operational system would be helpful with the model design and enhance the usability.

Campus Financial Summary Reports

- Didn't have all team members involved up front
- Requirements determined/evaluated throughout process rather than the beginning

Admissions Office Applicant and Prospect Self-Service BI Solution

- Scope of the project, especially related to technical limitations of new Tabular technology, should have been narrower.
- Resource allocation and expectations/needs of resources should have been established earlier in the project with appropriate commitments agreed upon.
- Functional user expectations and training requirements could have been anticipated and prepared for.
- Collaboration and communication amongst resources involved in project as it related to disparate responsibilities and objectives.

Campus BI Needs Assessment

- We under estimated the time and effort that was required to perform the interviews, analyze results, and write the summary report
- Developing strategies for the themes was a little scope creep but worth the extra time and effort.

Recommendations for Further Action

Data governance is a collaborative effort that engages campus leadership, functional data owners, and technical experts in institutional data management and to ensure business intelligence solutions align with campus priorities. Data governance is a critical success factor for establishing and driving the campus BI strategies. More formal data governance should be implemented as part of campus and OneIT governance initiatives.

With the completion of the OneIT BI subprojects, we have addressed some immediate needs, we have developed a foundation from which to grow other solutions, and created momentum to become a more data-driven institution. Processes should be developed to ensure that the subproject's BI reporting and self-service solutions are supported through their lifecycle and upgraded as necessary.

Project Closeout Report

A significant amount of thought and effort went into performing the BI Needs Assessment special consideration should be given to implementing the BI Needs Assessment Summary Report recommendations.

Recommendations for Process Improvements

- ETL strategy should be designed in a manner that allows for partitioning and loading of only new objects.
- Model and technical platform should be determined based on scope of need of customer, or scope should be modified if technical platform is driving solution.
- Team creation and roles, resource needs should be clearly communicated.
- End user objectives and needs should be clearly understood so that the right solution is developed, i.e. self-service vs dashboard development.
- Better communication and close collaboration with the upstream production system would have been and will be beneficial to the model development. Timely introduction of new data elements from the production system and feedback from the data warehouse consumers work well if the flow is free. It facilitates model design and enhances the usability greatly.