



# TRAC - Technology Review and Adoption Committee

## Project Submission Form

**Project Name:** Assessment Data Warehouse

**Date:** January 8, 2007

**Business Owner** (Department): Assessment

**Author(s):** Brian Hales

**TRAC/Cabinet Sponsor:** Annette Fante

**Project Manager(s):** Brian Hales

**Supporting EL(s):** EL 2.0 Academic Achievement

**ITS Project Liaison:** TBD

### Problem

#### Problem Description

- The fundamental business of the Douglas County School District is to facilitate student learning. The district does not have a comprehensive information system to centrally capture and compare student learning results. The Research and Assessment division of the Learning Services department has the historic results of multiple system-wide assessments, but they are located on independent desktop computers in different formats, depending on the user (Access, SPSS, CSNAP, etc.). To support the SCORE data warehouse (which displays school and district level results) the district needs an assessment data warehouse to provide access to student learning results by student, sub-group, and teacher/classroom.
- These assessments include (but are not limited to):
  - CSAP, EPR, ACT, SAT, PSAT, AP, PLAN, MAP, DRA, COGAT, and EOC Algebra

### Cause

#### Cause Description

- This project was chartered in 2004 with the non-renewal of the Executive Intelligence contract for SAMS. Parallel projects were developed in SQL (CSNAP) and Oracle (ADW) with the adoption of CSNAP (containing only CSAP data) in 2005. When the implementation of Infinite Campus maximized the resources of the ITS department, the Assessment Data Warehouse project was temporarily suspended.

### Treatment

#### Technical Details

- Brad Bower (Assessment) has an Access database on his desktop computer that contains the general structure needed for the ADW. This database includes:
  - Student demographics (SASID, Schedule, Location, etc.) imported from Infinite Campus
  - CSAP details including student scores to the item level on each assessment
  - ACT scores (10<sup>th</sup> grade) from 2002 – present
  - SAT scores (11<sup>th</sup> grade) from 2002 – present
  - PSAT, AP, COGAT, and PLAN from 2002 – present (select locations)
  - MAP scores (select grade levels) from 2001 – present (select locations)
- CSNAP has CSAP data to the item level for all students from 2001 – present. This data is duplicated in Brad's Access database.
- Donna Morganstern (Assessment) has data in SPSS on her desktop computer. This database includes:
  - PLAN and ACT from 2002 – present
  - End of Course Algebra from 2002 – present
  - Elementary Progress Report results from 2003 – present
- All of these assessments need to be combined into a central information system that is web-accessible and deployed to the individual student level. The system needs to include periodic updates from Infinite Campus (student and course/teacher demographics) and provide strategic summary information to the SCORE. The system will need a high level of security as individual student test scores are involved. Possible solutions include expansion of CSNAP, resurrection of the original ADW in Oracle, or exploration of the Infinite Campus Assessment Cube.
- The keystone data point for all of these assessment results should be the student ID. The primary ID is the SASID which is a student ID number used for state reporting. Some of the assessments listed above are

connected to a PERSON ID (Infinite Campus) or a DISTRICT ID (randomly assigned). If the SASID is chosen as the root source some data will need to be cleaned before inclusion in the ADW.

- Functionality should include printing CSAP labels, comparison reports, historic trends, and an assessment profile for each student. Connecting test scores to grade levels, teachers, sub-groups, and locations will also be critical.
- Future enhancements of this resource might include additional district assessments (DRA, COGAT), a process to capture local common assessments, or a process to capture grade distribution information and identified measures for the End Statement to provide data for monitoring reports.

### Testing / Evaluation Plan

- Initial testing will be conducted by Assessment staff familiar with stakeholder requests for information. This testing phase will be ongoing with key milestones identified in the project plan.
- System testing will involve the creation of two focus groups. School administrators (perhaps a feeder) will form one focus group to provide leadership feedback on access and usability of the ADW. Another focus group of classroom teachers will provide similar feedback, with particular emphasis on the accuracy of the information.

### Implementation Plan

- The project will involve implementation in three phases. Phase one will involve interfacing with the SCORE data warehouse to provide strategic trend measures for school and district balanced scorecards. Phase two will involve utilization by secondary staff (leaders and teachers) of those measures specific to secondary (ACT, PLAN, SAT, etc.). Phase three will involve a roll out to all remaining staff, with particular emphasis on elementary schools.

### Training / Staff Development Plan

- Training will be designed as a “train the trainer” model to build capacity for usage of this resource. Feeders will be asked to provide one administrator per feeder to become an expert, than act as a resource for training and supporting the remaining administrators. For classroom teachers, each school will be asked to provide one representative to perform the same function for teachers in their school.
- In addition to the cadre of experts described above, the assessment office will offer some form of staff development course on the utilization of this resource as a tool for planning differentiated instruction.

## Result

### Monitoring Plan

- Once the ADW is fully implemented, the project team will conduct follow up meetings with the trainers/experts at each school or feeder. The focus groups used during the testing phase will be reconvened to provide additional information for additional training or needed changes. In addition, help desk contacts will be monitored to identify gaps in deployment of this resource.
- Ongoing, the project will be monitored periodically by the Assessment office with input from the Directors of Schools. Emphasis will be given to ease of use and accuracy of information to ensure data integrity.

### Maintenance and Support

- General maintenance of data integrity will be provided by the Assessment office. The Assessment office will also be responsible for cleaning and coordinating the entry of new data and information as it becomes available. This will involve thorough data definitions when new measures are added as well as any additional training necessary with new employees or new information.
- Technical support will be provided by the ITS help desk after completing the “train the trainer” staff development described above. ITS will also provide ongoing maintenance to the file servers and database structures as appropriate.

### Project Cost and Funding

Cost

Funding Source

Account Code:	<b>Estimate</b>	(Cap Reserve, General, Salary, etc...)
Project Cost - Software, Hardware, Services (Implementation)		
Annual Support and Maintenance Costs (Ongoing costs)		
Additional Full Time/Part Time Employee Requirements		
<b>Project Milestone</b>	<b>Date Estimate</b>	
Project Start Date	[mm/dd/yy]	
Milestone #1	[mm/dd/yy]	
Milestone #2	[mm/dd/yy]	
Project End Date	[mm/dd/yy]	

## SUPPORTING DOCUMENTS

Please attach any supporting documents that would further define this technology project including quotes, project plans, white papers, or other technical documents.

## APPROVALS

**Prepared By** \_\_\_\_\_  
Project Manager

**Approved By** \_\_\_\_\_  
TRAC/Cabinet Sponsor

\_\_\_\_\_  
CIO