USING BI To Help NAU’s GEAR UP Program:
BI Lessons Learned from the NAU GEAR UP Data Management System

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Ackoff’s Knowledge Pyramid

Data and information age rapidly; knowledge has a longer life-span; understanding has an aura of permanence; wisdom is permanent.

Hart’s IT System Bullet Points

► Nobody likes their software system.

► Technology and mythology are intertwined; tech is notorious for over-promising and under-delivering.

► You have to walk before you can run.

► Don’t use a sledgehammer to swat a fly.

► State-of-the-art systems require state-of-the-art users in order to achieve intended results.

► Just because you can answer a business question with your IT system doesn’t mean that you must.
OVERVIEW: GEAR UP 2006-12

History/Purpose
- 1999 Higher Ed Opportunity Act
- College preparation/access

How It Works
- 6 (or 7)-year awards from USDOE
- Higher Ed + K-12 Partnerships
- Cohort model (7th -12th Grade)
- 1:1 Match

GEAR UP in AZ (NAU)
- 2000-06: NAU administered 2 successful grants, 19 schools, 4,000+ students statewide
- 2006-12: NAU is administering, 18 schools, 1,700+ students
- Multiple interventions managed by Site Coordinators
OVERVIEW: GEAR UP 2012-19

- RFP Released by USDOE in June 2011; Proposal Submitted by NAU July 2011; award notice pending(?)
  - 7-year awards (services to be continued into first year of college)
  - Higher Ed / K-12 Partnerships
  - Cohort model (7th - 12th Grade + 1st year of college)
  - NAU “appointed” State Grant Applicant by AZ Governor
  - School partners are in place (9 rural communities statewide + other statewide initiatives)
  - USDOE providing technical assistance
  - Similar project design as previous projects (multiple interventions, managed by Site Coordinators), more schools, more students served than the current (2006-12) project design
OVERVIEW: GEAR UP 2012-19

- NAU’s Application Included a Data Management Plan
  - Derived mainly from Project Design, Evaluation Plan
  - Impacts Project Budget
  - Data is collected so that NAU can measure/demonstrate project outcomes in support of overarching project goals & objectives
DATA MGMT: Current

Overview
- Custom application (built by NAU ITS)
- Oracle/.Net environment
- SAP Business Objects XI R2 / WebI
- App. Server: Dell Poweredge 2950
- Webserver
- Current volume: 2,500(?) records, 5 screens of data, multiple yrs per screen
- 62MB disk space; prod & qa

Web Connection
- Password-protected
- Participation data (activity type and duration) gathered by Coordinators, entered centrally by an Admin Assistant
- Academic Impact data (courses/grades, attendance, GPA, etc.) transmitted electronically by schools, uploaded via custom utility
DATA MGMT: Current (continued)

Student Data Tracked

- Demographic data (entered once when a student joins the cohort)
- Academic data (files uploaded each semester)
- Enrollment data (entered as enrollment changes occur, mostly at the end of each school year when students are promoted or retained)
- Participation data (entered weekly)
- Postsecondary Education Planning Session (PEPS) data

Parent participation in GEAR UP activities is also entered into the database on a weekly basis, as it occurs.

A View Student Record inquiry screen presents a detailed screen shot of all data captured on a given student record.

NAU ITS recently added screen-to-screen navigation capability.
DATA MGMT: Current (continued)

- Users

- Currently 6 "power" users (report developers/designers):
  - 2 GEAR UP Assistant Directors (do most of the B/O rpt-writing)
  - 1 GEAR UP Admin Assistant (some B/O rpts + heavy data entry)
  - 1 GEAR UP Assistant Director (uploads + liaison for tech issues)
  - 1 GEAR UP Evaluator (annual evaluation / APR)
  - 1 InfoSol consultant (complex B/O reporting tasks)

- Currently 12 “casual” users: 9 GEAR UP Coordinators (1 Coolidge, 2 Flagstaff, 1 Globe, 1 Miami, 2 Phoenix, 2 Yuma); 1 GEAR UP Assistant (Yuma); and 2 GEAR UP Liaisons (Yuma)
DATA MGMT: Current (continued)

- Maintenance (provided by NAU ITS)
  - Required for database and server software, security and environmental controls
  - Weekly full back-up
  - Daily incremental back-ups
  - Daily schema export
DATA MGMT: Current (continued)

- Reports showing student-level data, organized per user-specifications, are created using Business Objects.
- Currently, there is 1 defined Business Objects production universe and 72 WebI documents defined and usable by NAU project staff and evaluator.
- A desktop moderated by NAU ITS allows remote access to a local testing environment; as directed by NAU GEAR UP, InfoSol consultant remotely accesses the local test system to design and test complex reports before they are exported to Live.

Reports allow project staff and evaluator to link achievement data with participation to evaluate the effectiveness of interventions and to guide the targeting of services.
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DATA MGMT: InfoSol’s Role

Major NAU GEAR UP BI Challenges Resolved in Collaboration With InfoSol 2010-12

- Identify GEAR UP student(s) who had not yet received a service or intervention (so that follow-up could be done)

- More deftly analyze AIMS scores (i.e. sift through them to determine students’ highest AIMS scores after multiple attempts; determine the % meeting / exceeding AIMS standards each year; etc.)

- Determine the % of students completing the more rigorous college preparatory curriculum

- Systematically compile and analyze students’ postsecondary choices and scholarship offers
QUESTIONS?

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