Student Success Analytics Initiative:
Using Predictive Analytics to Take Action for Student Success

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Movement towards a data culture
From disconnected data to actionable information

Campus data systems

Integration of data

Predictive modeling

Findings!

Actionable info in user’s hands
Improving Student Success: Retention Example

Significant gains thus far through:

- Consultants
- Best practices
- Innovative programming
- Universal supports
- Targeted supports
- Evaluation of efforts
- Early alert
- Data monitoring
- Exit surveys
- “Recruit to Retain”
- Academic Index
Evaluating Multiple Partnerships
Civitas Learning- a data science company

Bringing the science behind personalized medicine into student success
Civitas Learning “Pioneer Institutions”
Project Goals

1. Integrate 3 data sources
   - Student Information System (PeopleSoft)
   - Learning Management System (D2L)
   - Behavioral data from THINK TANK (Tutor Trac)

2. Generate new insights about students at risk of attrition

3. Improve upon current predictive abilities

4. Deploy actionable information to those who need it
Interactive dashboards = findings at our fingertips

- Leading predictors of success and risk
- Sweet spots for financial aid, interventions, programming, etc.
- Student segments for interventions
Civitas Learning Phase 1 - Illume

- **Powerful Predictors**
  - Displays most powerful predictors influencing probability of students success

- **Segmentation Filters**
  - Filters specific for UA allowing extensive segmentation and through analysis

- **Advanced Analysis**
  - In-depth analysis with effective visualizations
First actionable results

Freshman Retention by First Term GPA

- Retained
- Not retained
Civitas Learning Phase 2 - Inspire
Holistic view of student
- Likelihood to persist
- Current course engagement
- Academic Background
- Sort and Filter by characteristics
- Bulk message like students
- Log and review outreach
Civitas Learning Phase 2 - Inspire for Advisor

Scarlett is an online, undergraduate student.
Holistic view of course
- Heat map of student engagement
- Breakdown by grade
- Compare between sections
See individual student performance
- Identify trends
Email students based on predicting factors
- Targeted outreach
- Ability to include student’s advisor
Outreach History

- **Douglas Smith - Email** (South Campus) - Yesterday
  - View Email Content
  - Comment: Concerned with Scarlett’s performance in recent weeks. Reaching out to see if everything is ok.

- **Douglas Smith - Phone Call (Left Voicemail)** (South Campus) - 2 Days Ago

- **Jennifer Duckworth - Phone Call (Spoke to Student)** (Downtown Campus) - 4 Days Ago

- **Dan Fogelburg - Email** (Riverside Campus) - 7 Days Ago

Engagement Overview

**College Algebra**
MATH 133
Section # 04821-98765
Credit Hours: 3

<table>
<thead>
<tr>
<th>Engagement Range</th>
<th>Students</th>
</tr>
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<tbody>
<tr>
<td>&lt; 75%</td>
<td>0</td>
</tr>
<tr>
<td>75% - 100%</td>
<td>16</td>
</tr>
<tr>
<td>80% - 89%</td>
<td>6</td>
</tr>
<tr>
<td>90% - 100%</td>
<td>4 + 6</td>
</tr>
</tbody>
</table>

Recommended Outreach

- 5 students have low engagement and have never been contacted
- 1 student has few gradable submissions and low engagement
Civitas Learning Phase 2 – Inspire Fall Pilot

- Pilot Design
  - 84 participating advisors
  - 92 participating faculty members
  - 8 participating colleges
  - Full adoption from UA Online

- Plans for Spring
Challenges

- Data Ingestion
  - Flat files vs VPN
  - Scaling ability
- Processing time
- Maintaining production and innovation
- Modeling on aggregate and individual levels
- Participant needs/wants
- Leading the way
Looking Forward

- Live, dynamic, integrated data
- Holistic view of student
- Rapid analysis
- Nuanced understanding of risk + success
- Informed resource allocation
- Deploying actionable data to “front lines”
- Targeted, personalized student support
- Real-time testing of interventions
Thank you!