

How the ICCOC Uses Analytics to Increase Student Success



Iowa Community College Online Consortium

Introduction

Agenda

- The ICCOC (Beginning to 2004)
- Student Success: Targeting At-Risk Students (2004-2006)
- Analyzing Our Data (2006-2008)
- Accessing More Data (2009-Present)
- NGLC & Beyond

Agenda – Sharing Our Story

Major Influences for Using Data to Increase Student Success and Retention

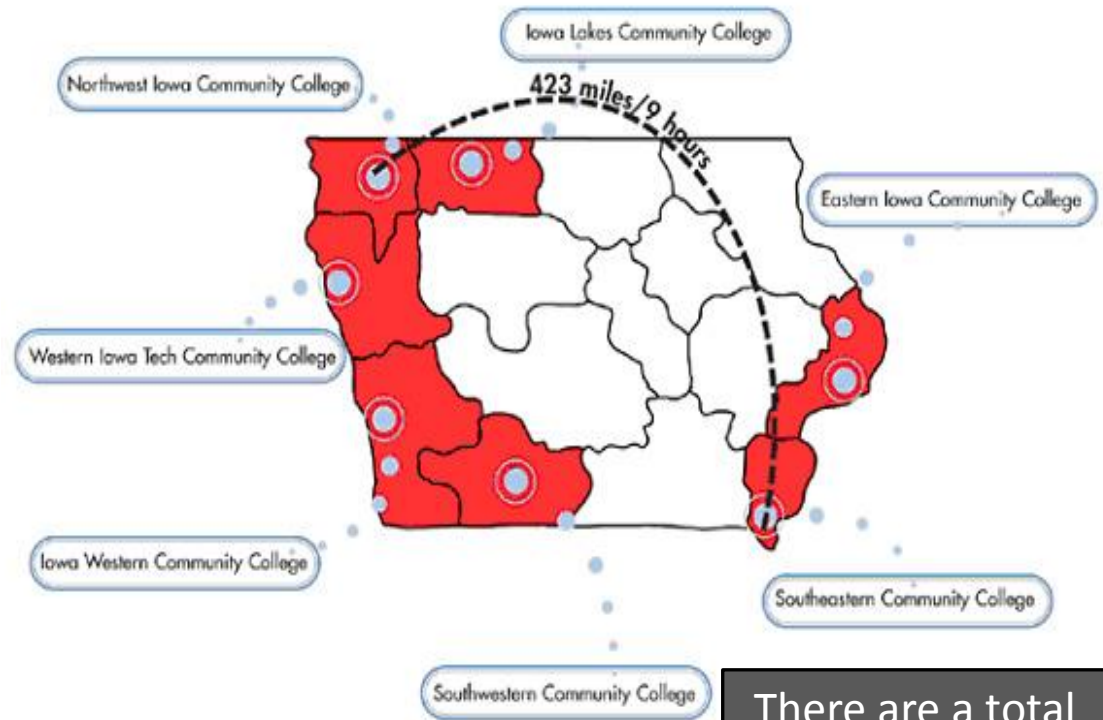
1. Title III Grant
2. Program Review Report
3. Enterprise Reporting

How This Journey Has Led Us
to Our NGLC Projects

- **Instructor At-Risk Dashboard**
 - **Retention Alert**

The ICCOC (Beginning to 2004)

- Eastern Iowa Community Colleges
- Iowa Lakes
- Iowa Western
- Northwest Iowa
- Southeastern
- Southwestern
- Western Iowa Tech



There are a total of 15 Community Colleges in Iowa.

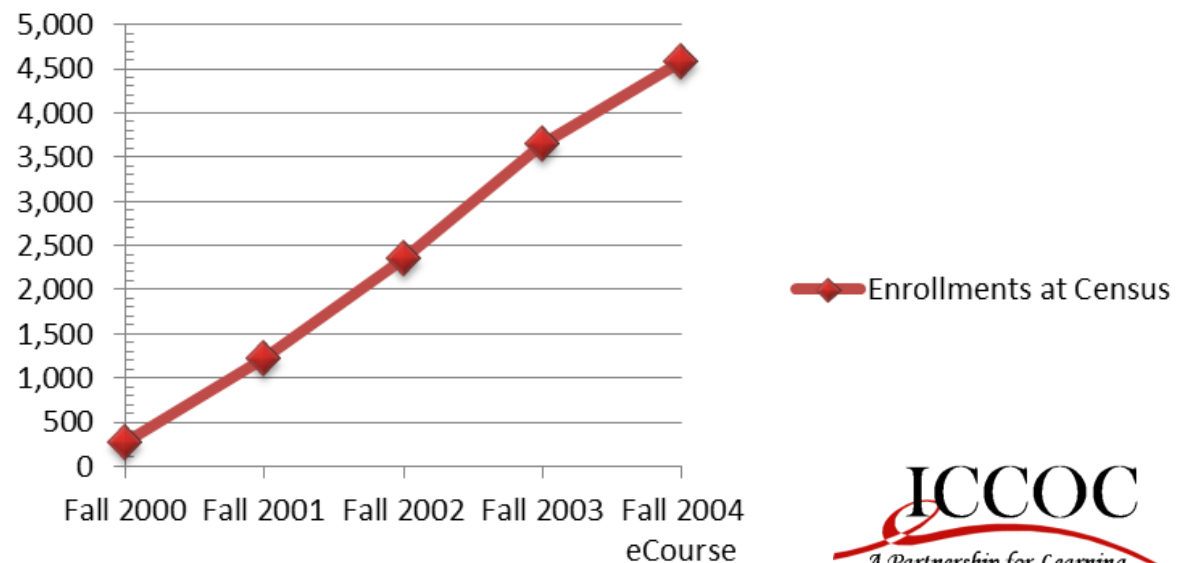
The mission of the Iowa Community College Online Consortium is to offer quality educational opportunities to online students supported by a comprehensive set of student support services.

In 1999, the seven colleges determined that it would be better to try to deliver online courses and services as a group rather than as individual institutions.

- Fall 2000—The first 11 courses were offered.
- The Consortium provides the framework for our colleges to offer online courses.
- Students enroll and earn course credit and degrees from their institutions.
- The partner colleges hire the faculty and offer the courses.
- Common course numbers and common textbooks are used.

Fall eCourse Term	Enrollments at Census
Fall 2000	272
Fall 2001	1,225
Fall 2002	2,354
Fall 2003	3,647
Fall 2004 eCourse	4,590

Enrollments at Census



Student Success: Targeting At-Risk Students (2004 – 2006)

Awarded a US Department of Education Title III Grant from 2004 -2009

- Abstract: “Strengthening Student Performance through Faculty Development and Student Services”
- Established a “user” single point of contact for accessing support services
- Established at-risk online student advising and intervention processes
- Implemented a comprehensive faculty and staff professional development program
- Measured persistence from census to term end in courses and student success as grades of C or better in each course
- Comprehensive process for identifying and personally intervening with at-risk students (piloted summer 2005; in place, fall 2005)
- Started to measure data and identify definitions



Action Taken

- Hired Full-time Student Services Concierge—Now, titled Student Services Manager
- Began Leveraging LMS Data Warehouse (Pearson eCollege)
- Identify/Track At-Risk Students
- Provide Manual Intervention

Challenges

- 2 different sources of data—Colleges have Student Information Systems & ICCOC has shared data within LMS
- Reporting capability was either custom built reports or Program Intelligence Manager—only grades, activity, completion at high level

Manual Intervention & Resources

- ✓ Personalized, Automated Welcome Email
- ✓ Student Participation Reports
- ✓ At-Risk Report
- ✓ Emails to students
- ✓ Messages via homepage of LMS
- ✓ Website
- ✓ Newsletter
- ✓ Online Tutoring
- ✓ SOS Course-Strategies for Student Online Success

At-Risk Definition

Challenges

Pre-Term versus After Start of Term

- First-time Online Student
- Enrollment Overload; registered for 3 or more classes during summer (10-week term), or 4 or more during 16-week term
- Failed course(s) during previous two terms, not including summer
- Did not log in during first week or had < 5 minutes of activity during first week
- Registered late
- Instructor expresses concerns (not participating, not understanding material, etc.)
- Grade of “D” or “F” at Midterm

- Process was manual
- Had to create document to capture emails from instructors
- Grade reports, Enrollment Reports and Student Participation Reports that were custom reports generated out of eCollege had to be assembled into new documents

At-Risk Report

Last	First	ID	Email	Phone Number	College	Completed ICCOC Demo Course	First Time Online Student	ICCOC's Reason for At Risk before Start of Term	ICCOC Reason for At Risk After Start of Term	Name of Course	Instructor Concern	Instructor Name	Date
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC					Allied Health Statistics (section 01) - Barb Foster	Not fully participating in this course.	Barb Foster	9/21/2007
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC			Registered for 4 or more courses					
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC		X						
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC		X						
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC				Did not log into online course(s) the first week	Introduction to Psychology (section 11) - Deb Gifford			
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC				Did not log into online course(s) the first week	Nutrition (section 5) - Corrine Muske			
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC		X						
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC		X		Did not log into online course(s) the first week	General Physics I (Fall 2007) - Dr. Huett			
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC		X		Did not log into online course(s) the first week	General Physics I lab (Fall 2007) - Dr. Huett			
Last	First	loginID	email address	(xxx)xxx-xxx	ICCOC				Did not log into online course(s) the first week	Western Civilization: Early Modern to Present (section 01) - Jeff Peiffer			

At-Risk Report Email

Email Sent to At-Risk Student When Faculty contact ICCOC

Subject Line: Concerned about your online course
Good Morning, *[Insert Name if not being sent to a group of student or change to afternoon depending on when email is sent]*

The Iowa Community College Online Consortium (ICCOC) is glad you have chosen to take online course(s). Our goal is to help students achieve academic success within our courses. So far, at least one of your instructors has reported a concern with your academic performance (see list below) and is concerned about your progress and successful completion of the course(s).

COURSE(S) NAME

[Insert course name, instructor's name, instructor's email address]

AREA OF CONCERN

[Insert comments that instructor has sent – see examples below]

Remember, you do have online tutoring services available to you free of charge. To learn more about this services, go to http://www.iowaconline.org/StudentServices/Online_Tutoring.htm In addition, if you are close to your home college's campus, you can ask your academic advisor if there are on campus tutors available.

If you are planning to withdrawal, please contact the Registrar's Office at your home college to complete the necessary paperwork. To find out the last day to withdrawal from a course, please go to <http://www.iowaconline.org/StudentServices/Add-Drop-Withdraw.htm>

If I can be of any assistance, please be sure to contact me. Thank you!

Rhonda McElroy
ICCOC Student Services Concierge

Student Participation Report

Initially, it was a custom report within LMS that had to be requested the day before it was needed. Report would run overnight and be available the next morning.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Term Name	Role in Course	Last Name	First Name	Login ID	Email Address	Telephone Number	User Creation Date	Display Course Code	Course Name	Course First Login Date	Course Last Login Date	Activity Minutes
2	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	4/3/2008	Course Co	Course Na	1/1/1970	1/1/1970	
3	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	12/8/2009	Course Co	Course Na	1/1/1970	1/1/1970	
4	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	1/6/2010	Course Co	Course Na	1/18/2010	1/18/2010	5.348
5	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/15/2008	Course Co	Course Na	1/18/2010	1/18/2010	12.067
6	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/13/2009	Course Co	Course Na	1/19/2010	1/19/2010	11.4
7	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/13/2009	Course Co	Course Na	1/19/2010	1/19/2010	14.666
8	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	11/19/2009	Course Co	Course Na	1/19/2010	1/30/2010	311.7
9	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/5/2008	Course Co	Course Na	1/18/2010	1/31/2010	142.567
10	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	1/2/2009	Course Co	Course Na	1/31/2010	1/31/2010	1.268
11	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	1/9/2009	Course Co	Course Na	1/18/2010	1/31/2010	233.871
12	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/21/2008	Course Co	Course Na	1/18/2010	1/31/2010	176.119
13	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/14/2008	Course Co	Course Na	1/27/2010	2/1/2010	48.885
14	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/14/2008	Course Co	Course Na	1/21/2010	2/1/2010	6.519
15	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	7/21/2009	Course Co	Course Na	1/20/2010	2/1/2010	669.472
16	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	7/20/2009	Course Co	Course Na	1/18/2010	2/2/2010	705.37
17	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/14/2008	Course Co	Course Na	1/19/2010	3/5/2010	788.302
18	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	12/4/2009	Course Co	Course Na	1/19/2010	3/5/2010	1689.69
19	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	12/4/2009	Course Co	Course Na	1/19/2010	3/5/2010	2004.297
20	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	6/23/2009	Course Co	Course Na	1/19/2010	3/7/2010	2657.329
21	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/15/2008	Course Co	Course Na	1/18/2010	3/7/2010	1020.978
22	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/21/2008	Course Co	Course Na	1/18/2010	3/7/2010	1043.59
23	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/14/2008	Course Co	Course Na	1/18/2010	3/7/2010	880.362
24	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/3/2009	Course Co	Course Na	1/18/2010	3/7/2010	2209.145
25	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	8/3/2009	Course Co	Course Na	1/18/2010	3/7/2010	2069.087
26	Spring 2010	College	Last Name	First Name	Login ID	Email	Phone	11/24/2009	Course Co	Course Na	1/18/2010	3/7/2010	747.936

Initial Data Review—Fall 2005

85% of all online students were completing courses

77% of completed students passed course with
grade of “C” or better

77% of at-risk students
completed courses

57% of at-risk students earned a
“C” or better



Analyzing Our Data (2006 - 2008)

Looked at historical data as well as detailed 12 month period—2004, 2005, 2006; Reviewed 50 courses from variety of departments

Data Assessment Findings*

Students:

- Student activity in the first week of a course has an impact on course completion rates

Faculty:

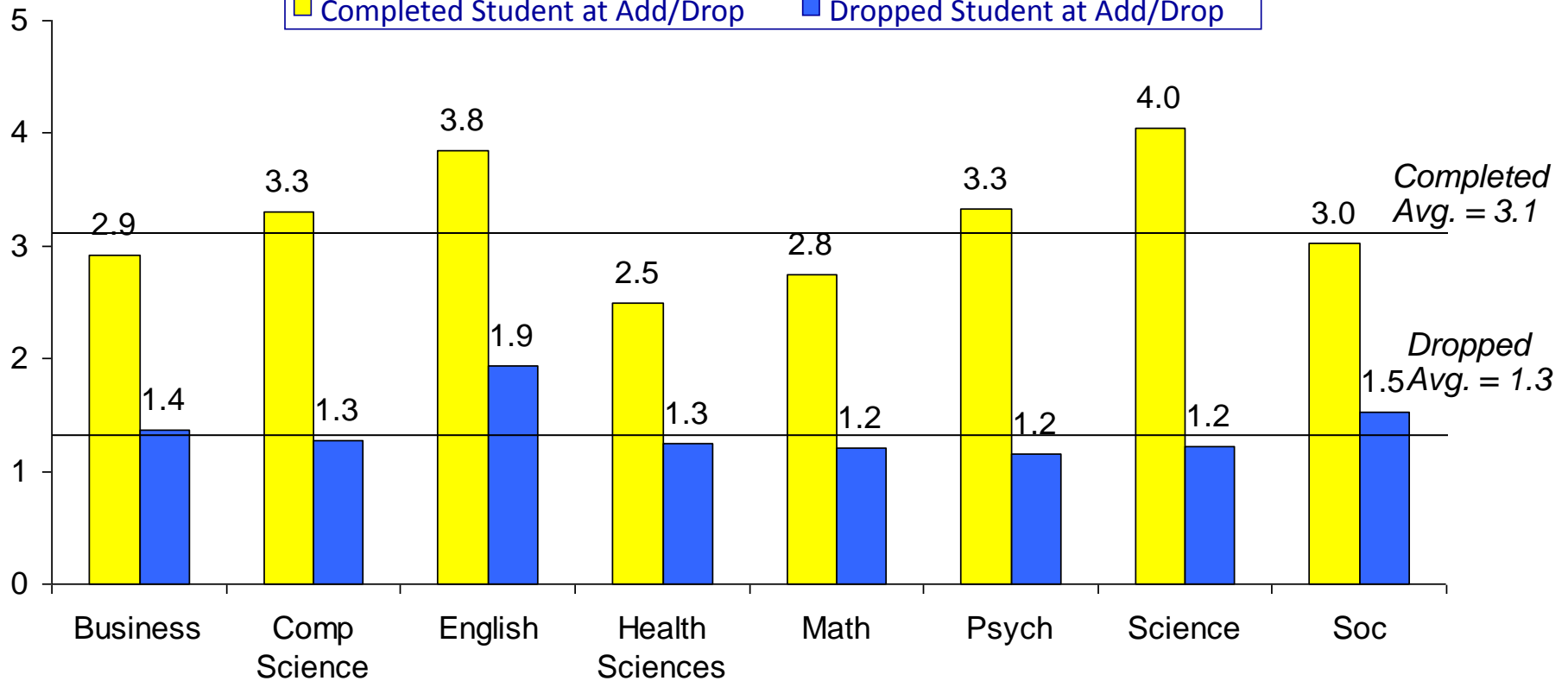
- Faculty activity in Discussions, Gradebook and other interactive elements has a positive impact on course completion rates
- Excess faculty activity in email is correlated to low course completion rates

June 2007
Program
Review
Report
By
eCollege

Program Review Report Finding: Week 1 Activity Time—Completed vs. Dropped Students

Avg. Student Activity/Section by Department (hrs)

Completed Student at Add/Drop Dropped Student at Add/Drop



Analyzing Our Data (2006 - 2008)

Looked at historical data as well as detailed 12 month period—2004, 2005, 2006; Reviewed 50 courses from variety of departments

Course Level Assessment Findings*

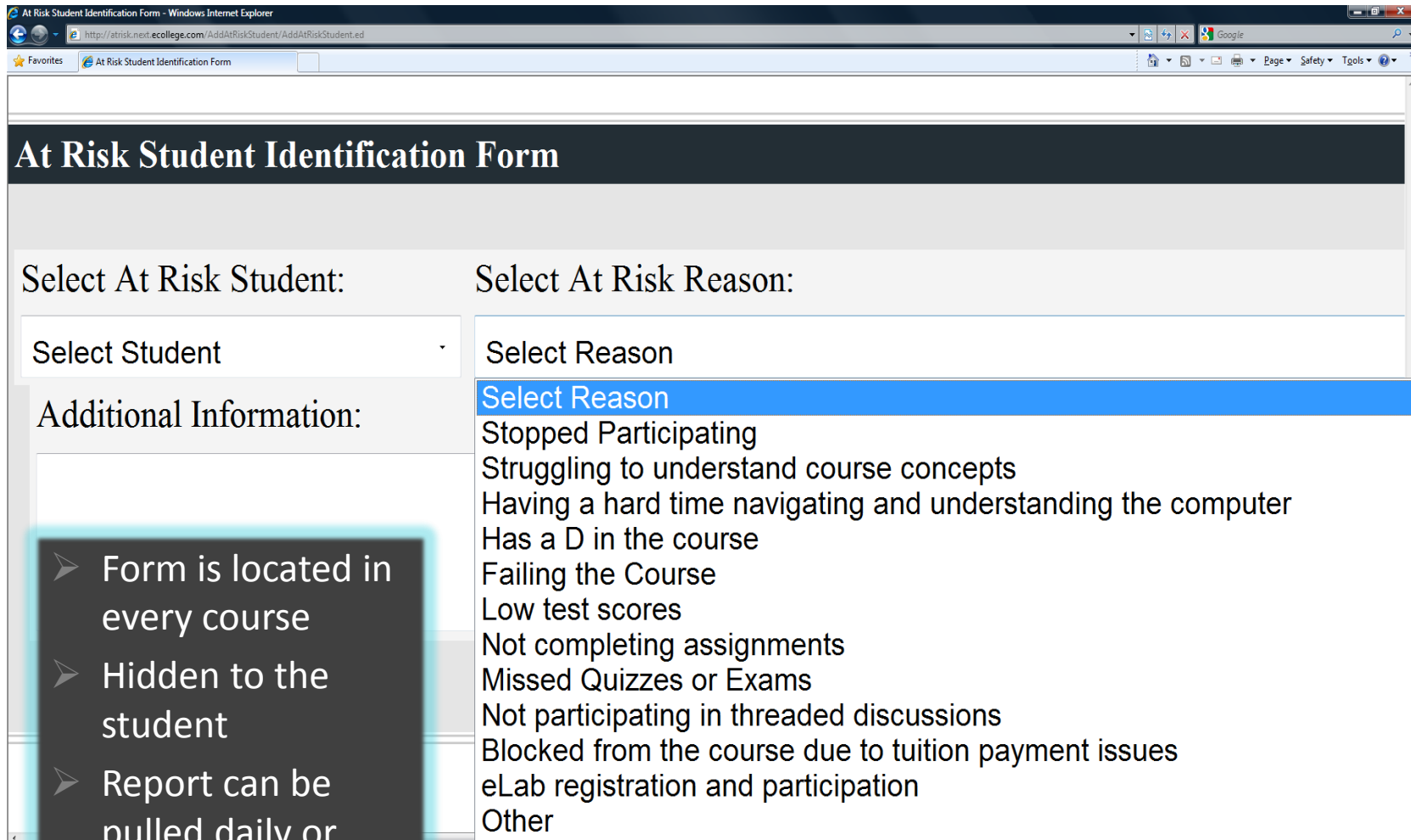
Course completion rates overall appear to be positively impacted by:

- Discussions contained in 75% of course units
- Active instructor facilitation of Discussions
- Use of Course Tools and Assessment items
- Use of assessment mix
- Instructor provision of feedback through the Gradebook

**June 2007
Program
Review
Report
By
eCollege**

At-Risk Notification Tool - Form

Fall 2007 - Custom form/report created by eCollege with Title III Funds
Available for use in online courses Spring 2008



The screenshot shows a web browser window titled "At Risk Student Identification Form - Windows Internet Explorer". The address bar shows the URL "http://etrisk.net/ecollege.com/AddAtRiskStudent/AddAtRiskStudent.ed". The browser's Favorites bar shows "At Risk Student Identification Form". The main content area has a dark header with the title "At Risk Student Identification Form". Below the header, there are two columns. The left column has a label "Select At Risk Student:" followed by a dropdown menu labeled "Select Student". Below this is a label "Additional Information:" followed by a text input field. The right column has a label "Select At Risk Reason:" followed by a dropdown menu labeled "Select Reason". This dropdown menu is open, showing a list of reasons: "Select Reason", "Stopped Participating", "Struggling to understand course concepts", "Having a hard time navigating and understanding the computer", "Has a D in the course", "Failing the Course", "Low test scores", "Not completing assignments", "Missed Quizzes or Exams", "Not participating in threaded discussions", "Blocked from the course due to tuition payment issues", "eLab registration and participation", and "Other".

Select At Risk Student:	Select At Risk Reason:
Select Student	Select Reason
Additional Information:	Select Reason
	Stopped Participating
	Struggling to understand course concepts
	Having a hard time navigating and understanding the computer
	Has a D in the course
	Failing the Course
	Low test scores
	Not completing assignments
	Missed Quizzes or Exams
	Not participating in threaded discussions
	Blocked from the course due to tuition payment issues
	eLab registration and participation
	Other

- Form is located in every course
- Hidden to the student
- Report can be pulled daily or weekly

At-Risk Notification Tool—Report

Student Name	Instructor Name	Reason for At Risk	Other Explanations	At Risk Date
Heather	Lori	Other	Did not complete Unit 1. I did get an e-mail doesn't understand how class works, needs some help.	1/23/2011
Ann	Steve	Not completing assignments	missed first quiz and first lab assignment	1/26/2011
Courtney Rose		Other	Did not participate in Week 1.	1/26/2011
Reports are pulled & sent to team of individuals at each college		Stopped Participating	She participated through week 6, has since dropped off the map and I have not received any work from her. She's not responded to e-mail.	3/16/2011

Review of the Data—Fall 2007

82% of at-risk students completed their courses

5% Improvement = 801 additional students at census
for the year



66% of at-risk students
earned grade of “C” or
better

9% Improvement

Accessing More Data (2009 – Present)

Fall 2009 – Began using Enterprise Reporting (ER)

- Access to more data at a more granular level
- Updated Student Participation Report with additional fields of data
- Created Student Activity Report for Financial Aid directors only containing even more specific student activity at the course level
- With ER, Colleges can pull own reports, but it is an all or nothing situation; so, there is limited access at colleges
- Reports can pulled same day that it is requested; data is refreshed on a daily
- Too much data?

New & Improved Student Participation Report

With Enterprise Reporting, additional data was available.

First Name	Course Last Login Date	Activity Minutes	Activity Submission Count	Course Points Earned	Course Points Possible to Date	Course Average Grade To Date
Rocky	4/28/11	722	11	133	470	28.30%
Melissa	5/8/11	3,053	35	479	530	90.38%
Megan	5/5/11	2,981	30	557	556	100.18%
Anneliese	5/7/11	5,633	66	509	585	87.01%
Bradley	5/8/11	2,613	57	508	820	70.37%
Alyssa	5/8/11	3,290	116	625	680	91.91%
Lynsey	5/8/11	2,536	72	860	1,000	88.02%
Jeremy	5/8/11	1,209	37	62	190	32.63%
Angelica	5/7/11	731	24	789	900	87.67%
Carrie	4/5/11	103	2	31	145	21.38%

Accessing More Data (2009 – Present)

Updated the Master At-Risk Report that is created and sent to colleges

- First-time Online Student (**new definition**)
- Enrollment Overload; registered for 3 or more classes during summer (~~10-week term~~ now an 8-week term) and 8-week terms, or 4 or more during 16-week term
- Failed course(s) during previous spring/summer terms or fall term ~~two terms, not including summer~~
- Did not log in during first week ~~or had < 5 minutes of activity during first week~~
- ~~Registered late~~
- Instructor expresses concerns (not participating, not understanding material, etc.) **through At-Risk Tool**
- Grade of “D” or “F” at Midterm

Current Data Review—Fall 2010

84% of at-risk students completed their courses

Additional 2% improvement in 3 years

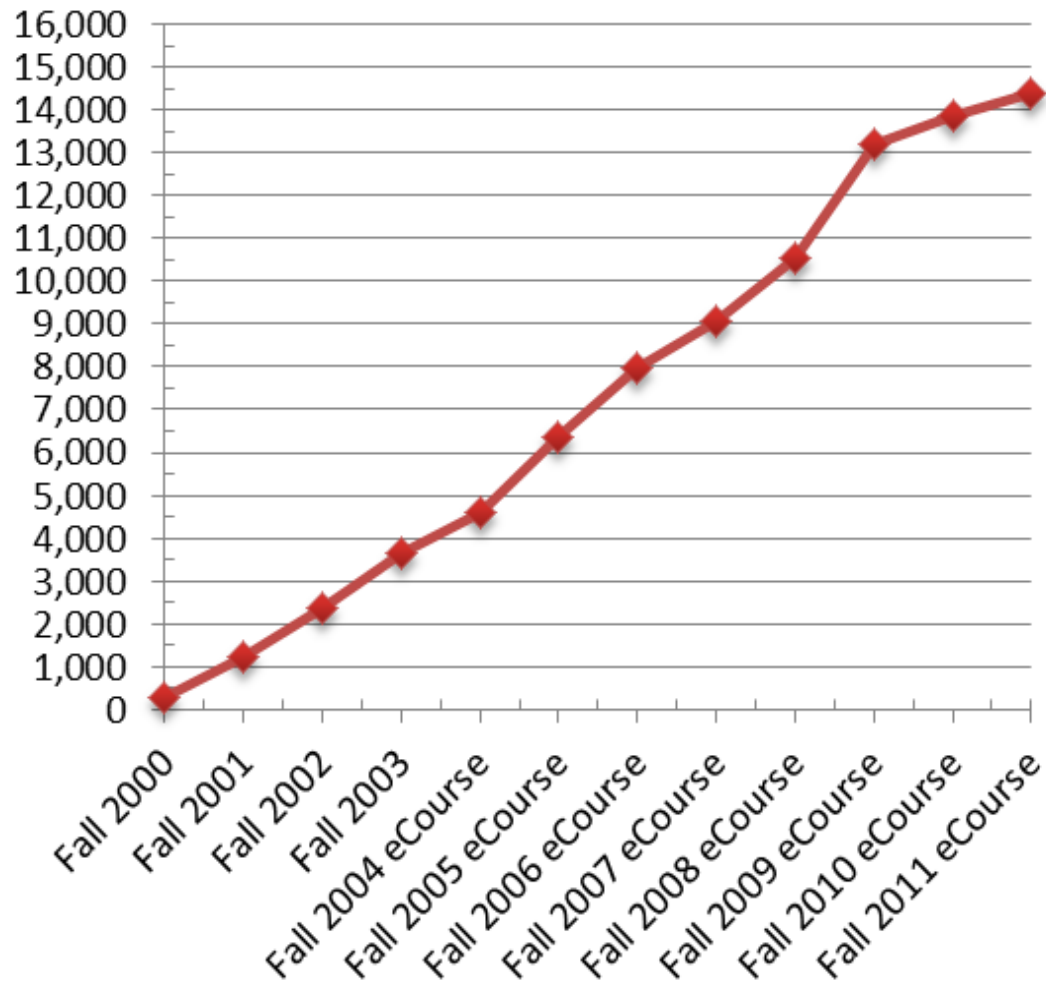


68% of successful at-risk students
completed courses with a grade of
“C” or better

Additional 2% improvement in 3
years

Enrollments in Shared Online Courses for Fall Terms

Enrollments at Census



Fall eCourse Term	Enrollments at Census
Fall 2000	272
Fall 2001	1,225
Fall 2002	2,354
Fall 2003	3,647
Fall 2004 eCourse	4,590
Fall 2005 eCourse	6,363
Fall 2006 eCourse	7,971
Fall 2007 eCourse	9,067
Fall 2008 eCourse	10,546
Fall 2009 eCourse	13,195
Fall 2010 eCourse	13,881
Fall 2011 eCourse	14,369

Due to continued enrollment growth, processes have had to change and the ICCOC has been looking for better solutions.

More communication
handled by staff at colleges

Feedback loop is incomplete

More reporting to keep
colleges informed

Reporting to instructors was
lacking



NGLC & Beyond



- ▶▶ Focus on further improving Success and Completion in English Composition, College Algebra and Math for Liberal Arts
- ▶▶ Provide simple, visual Dashboard identifying at-risk students for instructors
- ▶▶ Enhance At-Risk Case Management at our colleges
- ▶▶ Share our story with others

Instructor At-Risk Dashboard

At Risk Indicators:

1. If user has **not logged in** to the course for 5 consecutive days (120 hours) or more.
2. If user has **not submitted an assignment** for the past 10 days.
3. If a student's **Grade to Date** falls below 72% for the course.

Note: A student may be at risk in one or more categories. Any student that is deemed at risk in any category will be shown in the dashboard.

Instructor At-Risk Dashboard

E-mail:

A student's e-mail address, as stored in the eCollege system, is listed so students can be contacted to address at risk behavior.

- Instructors may send an email to one student by clicking on the student's email address; or
- Instructors may send one email message to multiple students by selecting the checkbox next to each student's name, then clicking on the "Email Selected Students" link.

The data in the dashboard can be downloaded to a .csv file and opened with Excel.

Instructor At-Risk Dashboard

Professor Name

Dashboard updated on: 5/2/2011, 10:33 AM
Displaying data from: 4/25/2011 - 5/1/2011

Email Selected Students

Term Title

expand all ▾

▲ Course Code/Title (3 at risk students)

Last Name	First Name	Last Login Date	Last Submit Date	Activity (min)		Submissions		Grade to Date	Email
				Last 10 Days	Total	Last 10 Days	Total		
Arnold	Christopher	05/02/2011	05/01/2011	354	974	0	12	87%	<input type="checkbox"/> ChristopherArnold@mail.com
Blake	Ryan	04/02/2011	04/02/2011	189	482	13	19	62%	<input checked="" type="checkbox"/> RyanBlake@mail.com

▼ Course Code/Title (8 at risk students)

Term Title

expand all ▾

▼ Course Code/Title (5 at risk students)

▼ Course Code/Title (8 at risk students)

▲ Course Code/Title (2 at risk students)

Last Name	First Name	Last Login Date	Last Submit Date	Activity (min)		Submissions		Grade to Date	Email
				Last 10 Days	Total	Last 10 Days	Total		
Collins	Wendy	04/23/2011	04/17/2011	354	974	2	12	87%	<input type="checkbox"/> WendyCollins@mail.com
Smith	Charles	04/23/2011	04/20/2011	150	210	2	11	65%	<input checked="" type="checkbox"/> CharlesSmith@mail.com

Retention Alert

- ➔ Purchased Retention Alert for 6 of 7 colleges using Datatel; will work with 7th college on custom needs
- ➔ Send Student Participation Report Data to secure FTP Folder on a daily basis
- ➔ Pull data into Retention Alert Module
- ➔ Can establish own parameters for “at-risk” including data from SIS
- ➔ Creates a case file for the student
- ➔ Investigating whether there are other options for instructor-reported data

Challenges

Closing the feedback loop

Encouraging instructors to use the Dashboard to reach out to “at-risk” students

Encouraging instructors to design courses that effectively identify at-risk students

Helping our colleges understand their processes to effectively implement the Retention Alert Module

Helping our colleges identify the most efficient and effective ways to use their scarce resources—
(i.e. people)

Questions

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www.iowacconline.org/NGLC