## Early Alert Intervention at Queensborough Community College

## Elisabeth Lackner

Director of Institutional Research and Assessment


Early Alert Intervention at Queensborough Community College

- Why Early Alert
- How Early Alert
- Assessment of the Early Alert (Informative and Summative)


## Institutional Profile

- Enrollment of 16,291 students
- Minority Serving Institution
- Hispanic Serving Institution
- Fall 2013 incoming students (143 countries, 84 languages)



## ACADEMES

The Queensborough Academies use a three-pronged approach:

> Advisement
> High Impact Practices
> Technology
to cultivate a culture of completion and transfer.


## Early Alert aims and methods

- Why?
- Support of the expanded Academy model
- Single technology with extensive functionality
- How?
- Clearer communication of student issues
- Flags to Advisers, Referrals to Learning Centers
- Documented follow-up
- Measurable outcomes for assessment of system and implementation effectiveness


## Evolution of the Early Alert System at Queensborough

- Original Early Alert system - IBM grant - fall 2010 - system piloted in spring 2011
- Scaled up through in-house developed solution Fall 2012 and Spring 2013 37\% of faculty participation
- CUNY SSRGrant (Student Success Research) grant - assessment of effectiveness of system (spring 2013)
- Gates Foundation grant - disseminate information to faculty and staff (summer 2013).
- Starfish Early Alert with referrals to learning centers launched Fall 2013, 53\% faculty participating.


## Functionality of Early Alert System

1. Flags, Kudos, Referrals
2. Faculty complete Academic Progress Surveys
3. Faculty can raise individual concerns
4. Advisors and student support personnel review flags and referrals and take action
5. The process is documented and faculty are notified
6. The system allows for reports on all activities

## Starfish Flags for the Fall 2013 Semester

| Flag Name | Description |
| :--- | :--- |
| Lateness Concern | Raise this when a student is coming late to class regularly |
| Attendance Concern | Raise this when a student isn't attending class regularly |
| Unprepared for Class | Raise this when a student is not prepared for class such as <br> (Homework, Class materials) <br> missing homework or projects, textbooks or handouts |
| Poor Class Performance | Raise this when a student receives a poor grade on a quiz or <br> test, does not participate in class and/or misses assignments |
| In Danger of Failing | Raise this when a student is in danger of failing a course |

## Starfish Kudos for the Fall 2013 Semester

| Kudo Name | Description |
| :--- | :--- |
| Keep Up the Good Work | Raise this kudo for students who are performing well |
| Outstanding Academic <br> Performance | Raise this kudo when a student has outstanding academic <br> performance |
| Showing Improvement | Raise this kudo when a student has shown improvement |

## Starfish Referrals for the Fall 2013 Semester

| Referral Name | Description |
| :--- | :--- |
| Academic Literacy Center | Tutoring assistance for all BE courses, and for students who <br> wish to improve reading comprehension, and ability to write <br> clearly |
| Campus Writing Center | Tutoring assistance for all English (EN) coursework, as well as <br> any writing-related or WI assignment across the curriculum |
| Math Learning Center | A tutoring and self-study facility which provides assistance for <br> all mathematics and computer science courses |
| Student Learning Center | The SLC offers free academic tutoring services for Art History, <br> Biology, Business, Chemistry, Education, Foreign Languages, <br> Geology, Health Sciences, History, Nursing, Physics and the <br> Social Sciences |

## Academic Progress Surveys to faculty

## Email notification sent to instructors, includes survey instructions, and a listing of the semester's course load

## Dear Lucian Makalanda,

As you know, we are utilizing Starfish to help us make the process of reporting on the academic progress of our students as easy and efficient as possible. Through a Progress Survey you will have a quick way to inform us of your students' progress in class.

To access the Progress Survey for your course(s):

1. Login to Starfish.
2. A link to your Outstanding Surveys will be displayed at the top of your Starfish homepage.
3. Once you reach the survey grid, simply check the box next to the particular student's name for whom you would like to report progress. You will have options to add comments.
4. Click Submit. If you don't have any progress to report, it is important that you click Submit, so we know you reviewed the survey. You will receive a confirmation email.
5. Items you raise will be addressed by the appropriate individuals from our institution.

You have 5 surveys which need to be completed.

## Outstanding Surveys:

1. Copy of Survey Test 2 - STATISTICS - 9/10/2013
2. Copy of Survey Test 2 - STATISTICS - 9/10/2013
3. Copy of Survey Test 2 - ANL GEOM \& CALC I - 9/10/2013
4. Copy of Survey Test 2 - ELEM ALGEBRA - 9/10/2013
5. Copy of Survey Test 2 - COLLEGE ALGEBRA - 9/10/2013

## View Surveys in Starfish!

Your responses will help us know which students to reach out to and offer help.

## Faculty complete Academic Progress Surveys

| MY STUDENTS | TRACKING | ATtendanc | Progre | SS SURVEYS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Survey: STATISTICS (MA.336.D24B.FA13): Fall $2013 \mathrm{~F}^{2}$ |  |  |  |  |  |  |  |  | - Save Draft | Never Mind |  |
| STATISTICS (MA.336.D24B.FA13): Fall 2013 Progress Survey/Early Alert \#5 |  |  |  |  |  |  |  |  |  |  |  |
| STATISTICS (MA.336.E4B.FA13): Fall 2013 Progress Survey/Early Alert \#5 ANL GEOM \& CALC I (MA.441.B124.FA13): Fall 2013 Progress Survey/Early Alert \#5 ELEM ALGEBRA (MA.10.F12A.FA13): Fall 2013 Progress Survey/Early Alert \#5 t COLLEGE ALGEBRA (MA.119.J24A.FA13): Fall 2013 Progress Survey/Early Alert \#5 |  |  |  |  |  | by checking the appropriate boxes. Your feedback will be used by by Academy Advisors to reach out to and advisors will see these comments). Example of comments: "see instructor" or "go to tutoring". You :he survey) Using this system will save you the time and effort you would normally spend trying to |  |  |  |  |  |
| Search: Name | Name |  |  |  | Select <br> Course |  |  |  |  |  |  |
| Name - | No Feedback | FlagAttendance Concern (1) | Flag-Poor Class Performance (1) | FlagUnprepared for Class (Homework, Class materials) | Surve <br> Flag-In Danger of Failing (b) | Kudo- Keep Up the Good Work (1) | KudoShowing Improvement (1) | Referral-Acad Literacy Center (1) | ReferralCampus Writing Center (1) | Referral-Math Learning Center (1) | ReferralStudent Center (1) |
|  | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| 家 maminn | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | 0 | $\square$ | $\square$ |
| 色 cranele milt | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
| \% mbanemiti | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |
|  | $\checkmark$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ | $\square$ |

## Faculty can raise individual concerns



# Faculty can raise individual concerns 



# Advisors and student support personnel review flags and take action 



## Advisors and student support personnel review flags and take action

| Calendar Manager |  |
| :---: | :---: |
| Appointment Types |  |
| All Appointments | $\checkmark$ |
| $\square$ Available Only |  |
| $\checkmark$ My Calendar |  |
| Calendars I Manage |  |
| $\checkmark$ Binyaminov, Emmanuel |  |
| - Boka, Mitchelle |  |
| $\checkmark$ Chen, Jiazhe |  |
| $\checkmark$ Chen, Xue |  |
| - Choi, Tsun Wai |  |
| - Chunmin, Rui Richardo |  |
| $\checkmark$ Dai, Shilun |  |
| Dingiri Banda M, Nilmini |  |
| $\checkmark$ Dong, Hanying |  |
| $\checkmark$ Dong, Xinlong |  |
| $\checkmark$ Ellis, Jillian |  |

## Chen, Jiazhe <br> Chen, Xue

Choi, Tsun Wai
Chunmin, Rui Richardo Dai, Shilun
Dingiri Banda M, Nilmin

## Walk-in (c)

Dong, Hanying
Dong, amlonBook appointments
Ellis, Jillian for center tutors
Fan, Xiaobin
Feng, Xi
Fromme, Charles
Guo, Jianing Huerfano, Steve LEE, ANDREW LOZANO, VICTOR
Lafaurie, Daniel
Ledesma, John
Lee, Keum Sook

$\qquad$ | Walk-in (4) \&s |
| :--- |
| Walk-in (4) |

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## The process is documented

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Add Appointment |  |  | Never Mind | Submit |
| SCHEDULING | OUTCOMES | SPEEDNOTES |  |  |
| Date Actual Start Time $\square$ to Actual End Time <br> Attendance Student missed appointment <br> Comments |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| Comments are notes about the appointment, viewable only by you and other people with whom the appointment is shared. These notes can be edited only by you before or after the appointment for record-keeping purposes. |  |  |  |  |
| Email $\square$ Send a copy of note to student |  |  |  |  |
| Student View: This appointment and the notes associated with it are disclosable to the student under FERPA. <br> Permissions: People with the following roles may be able to see this appointment if they have a relationship with the student(s): <br> \% Instructor <br> \% All Academy Students <br> * SLC Staff <br> \% My Academy Students <br> * SLC Tutor <br> More... |  |  |  |  |
|  |  |  | Never Mind | Submit |

## Faculty are notified



## QUEENSBOROUGH <br> COMMUNITY COLLEGE

## Campus-wide Intervention

## Statistics on Participation

(Fall 2012, Spring 2013, Fall 2013, Spring 2014)

The Early Alert intervention is a campus-wide intervention reaching over a third of all students enrolled.

|  | Fall <br> 2012 | Fall 2012 | Spring <br> 2013 | Spring <br> 2013 | Fall 2013 | Fall 2013 | Spring <br> 2014 | Spring <br> 2014 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Count | $\%$ | Count | $\%$ | Count | $\%$ | Count | $\%$ |
| Participating <br> faculty * | 362 | $37 \%$ | 347 | $37 \%$ | 477 | $53 \%$ | 392 | $47 \%$ |
| Total unique <br> students with <br> a tracking <br> item** | 5019 | $32 \%$ | 5209 | $34 \%$ | 9,168 | $56 \%$ | 6,854 | $43 \%$ |

*Participating faculty percentages refer to percentage of faculty teaching non-lab courses
**Total unique students with tracking item percentages refer to percentage of term enrollment

## Campus-wide Intervention

## Statistics on Participation

Starfish Early Alert Fall 2013, Spring 2014
Over 30,000 alerts were processed.

| Alert |  | Fall 2013 | Spring 2014 |
| :--- | :--- | :--- | :--- |
| Total Flags | $\#$ | 21,024 | 25,739 |
|  | \% | $69 \%$ | $72 \%$ |
| Total Kudos | $\%$ | 6,324 | 6,522 |
|  | $\#$ | $21 \%$ | $18 \%$ |
| Total Referrals | \% | 3,156 | 3,602 |
|  | $10 \%$ | $10 \%$ |  |
| Total Alerts |  | 30,504 | 35,863 |

Starfish Early Alert Periods Fall 2013, Spring 2014


## Courses where most flags were issued

Heavy users: Math, English, Academic Literacy (remedial Reading and Writing), Foreign Languages, Social Sciences, Business, and Speech courses.

Fall 2012


## Assessment of the Early Alert Intervention



## Examples of Assessment and Preliminary

## Findings

## Informative:

Connecting early alerts (flags and referrals) to actual tutoring activities
Faculty feedback through survey and focus group
Advisor feedback through focus group
Student feedback through survey
Summative:
Course level outcomes
Student level outcomes

## Informative

Is the system effectively directing students with needs to the right resources?
Students who receive a referral by itself or in addition to a flag are much more likely to receive tutoring than students who were only flagged.


## Informative

## Examples of Faculty Feedback through Survey

$\mathrm{N}=277$
The percentage of "All" refers to the average survey response.


Enter Comments to Advisors and Counselors


## Informative

## Examples of Faculty Feedback through Focus Group Interview

## Faculty had very positive appraisals of the system

- The system helped them communicate with disengaged students.
- The system created a "paper trail" of faculty efforts to reach students.
- "It's not babying students, its informing them."

They also noticed some changes in student behavior as a result of using the system

- Students "discovered" the Student Learning Center and other available support.
- Faculty noticed that students took Early Alert messages more seriously than one-on-one interactions or emails messages send by the professor.

Faculty had lingering misconceptions of how to use the system.

- Faculty were not sure who saw the comments they left in the system.
- There was also uncertainty regarding the effects of flagging students on their financial aid.
- Some faculty were unaware that the system could be used outside of the scheduled alert periods.


## Informative

## Examples of Advisor Feedback through Focus Group Interview

- Early Alert helps to follow up with at risk students.
- Flags are a conversation starter.
- Targeted outreach to students.
- Many students don't read their school email messages.
- Behavior of students is hard to change; to some extend the system identifies students who are already tuned out.
- Technical issues with a new software.
- Faculty should leave more detailed comments.


## Informative

Example of Student Feedback through Survey

|  | Spring 2013 | Fall 2013 | Spring 2014 |
| :--- | ---: | ---: | ---: |
| Participation | 927 | 474 | 917 |
| "I was contacted by an adviser" | $46 \%$ | $64 \%$ | $77 \%$ |

More female, full-time and Asian students participated in the survey

## Informative

## Student Survey - After contact <br> (Spring 2013, Spring 2014)

- The majority students were happy to have been contacted by an advisor
- The most frequent action taken was to set an appointment for in-person meeting



## Informative

## Student Survey - Academic standing (Spring 2013 and Spring 2014)

- The majority of students felt much better or somewhat better about their academic standing after being contacted by an advisor
$\mathrm{N}=\mathbf{9 3 4}$
$\square$ Much better $\quad \square$ Somewhat better $\square$ About the same
$\square$ Somewhat worse $\square$ Much worse



## Summative Assessment Outcome Measures

- Course Completion Rates
- Course Pass Rates for Developmental Courses
- Rates of C or higher for Credit Bearing Courses
- Unofficial Withdrawal Rates
- Student Semester GPA


## Summative

## Example of a Course Level Outcome Analysis

Developmental Reading, Writing, Math
Differences in Course Outcome over Time between Course Sections Participating in Early Alert and Course Sections Not Participating in Early Alert

| Early Alert Term: | Fall '12 |  |  | Spring '13 |  |  | Fall '13 |  |  | Spring '14 |  |  | Four Terms Combined |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Outcome <br> Measures | Part | Non <br> Part | Diff | Part | Non <br> Part | Diff | Part | Non <br> Part | Diff | Part | Non <br> Part | Diff | Part | Non <br> Part | Diff |
| Percent P of all enrolled | 42.2\% | 48.2\% | -6.0\% | 38.6\% | 35.0\% | 3.6\% | 40.2\% | 40.1\% | 0.1\% | 39.9\% | 33.8\% | 6.1\% | 40.2\% | 39.3\% | 1.0\% |
| Percent P of all completers | 51.8\% | 57.3\% | -5.5\% | 48.1\% | 45.7\% | 2.4\% | 50.4\% | 53.1\% | -2.7\% | 53.6\% | 45.7\% | 7.9\% | 51.0\% | 50.4\% | 0.5\% |
| Completed of enrolled | 81.5\% | 84.1\% | -2.6\% | 80.3\% | 76.5\% | 3.8\% | 79.7\% | 75.5\% | 4.2\% | 74.5\% | 74.0\% | 0.4\% | 79.0\% | 77.5\% | 1.5\% |
| Official Withdrawal Rate | 7.5\% | 6.5\% | 1.0\% | 7.3\% | 9.5\% | -2.2\% | 12.2\% | 14.2\% | -2.0\% | 12.5\% | 13.7\% | -1.3\% | 9.9\% | 11.0\% | -1.1\% |
| Unofficial Withdrawal Rate | 10.9\% | 9.4\% | 1.5\% | 12.5\% | 14.0\% | -1.5\% | 8.2\% | 10.3\% | -2.1\% | 13.1\% | 12.3\% | 0.8\% | 11.2\% | 11.5\% | -0.3\% |

## Summative

## Example of a Student Level Outcome Analysis

Tracking the outcome measures by four distinct student groups

|  | Tutoring |  |
| :---: | :---: | :---: |
| Flagged | Yes | No |
| No | Student was not <br> flagged and had <br> tutoring | Student was not <br> flagged and had no <br> tutoring |
| Yes | Student was flagged <br> and had tutoring | Student was flagged <br> and had no tutoring |

## Summative

## Example of a Student Level Outcome Analysis

Tracking the outcome measures by four distinct student groups

|  | Tutoring Effect |  |
| :---: | :---: | :---: |
| Flagged | Yes | No |
| No | Student was not <br> flagged and had <br> tutoring | Student was not <br> flagged and had no <br> tutoring |
| Yes | Student was flagged <br> and had tutoring | Student was flagged <br> and had no tutoring |

## Summative

Tutoring Effect: The percentage point difference between students who received tutoring and students who did not receive tutoring.


## Summative

Tutoring Effect: The percentage point difference between students who received tutoring and students who did not receive tutoring.

Tutoring Effect seen in Regular Credit Bearing Courses


## Summative

Does Early Alert make a difference for at risk students?

| Definition of "At Risk Student" |  |
| :---: | :---: |
| Freshman | Continuing Students |
| Incoming first-time <br> freshmen with a <br> remedial need in <br>  <br> math | Continuing degree <br> students with a |

Summative
At Risk Freshmen (triple remedial):
Fall 12, Spring 13, Fall 13 combined

■ Flag \& tutoring

- Flag but no tutoring
Semester Remedial Credits Withdrawal credits - yes Passed => 5

Semester Average GPA


## Summative

At Risk Continuing Degree Students (Cum GPA <2.0):
Fall 12, Spring 13, Fall 13 combined
■ Flag \& tutoring
$\square$ Flag but no tutoring

Passed At Least 75\% of Completed Courses in Semester

## Cumulative GPA

$>=2$


## In Conclusion

| Informative | Summative |
| :--- | :--- |
| - Campus wide use of the system. | - Positive outcomes for at risk students. |
| - More referrals might increase |  |
| effectiveness and allow for a more <br> targeted student support. | Early Alert in the form of "flags" <br> alone is not a "treatment". |
| - Customization of the system ongoing. |  |$\quad$ Long term effects to be observed.

We are still analyzing ...

Elisabeth Lackner: elackner@qcc.cuny.edu

Community College

