Cutting through the clutter

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CUSTOMER RELATIONSHIP INDEX INC.

Ready!

Ready! Set! Go!

Three ways to increase success rates
for students
entering post-secondary education

SEMM Forum November 2016

Background

- Almost half the students who quit university without a degree do so in the first year of their studies. The situation is likely the same or worse in colleges.

- Students quit for many reasons, not all "reasonable." An underlying weakness in student preparedness can be exacerbated by an unrelated circumstance. The circumstances are the "reason" the student quits; the underlying weakness created the psychological conditions for quitting.

- Many existing intervention strategies to identify students at risk are back-end loaded: exam marks from mid-term and end term, surveys at year end, exit interviews with leavers to probe for reasons, etc.

- CRi's research shows that students who reach out to professional resources for help and advice are more likely to persist. Leavers are often students who don't reach out (*I'm not worth it, This isn't for me, I tried…*), who don't know where to go, or who go to the wrong resources like friends and family. Takeaway: Creating pathways to help for at-risk students is one key benefit of the three programs outlined here.

Does the world need another survey program?

- Yes, if the program can help save at-risk students:

  o Gather insights about the preparedness of entering students at the start of the year, well before they seriously start to think about quitting.

  o Link what you learn about incoming students to your campus resources

  o Reach out to at-risk students immediately. Build intervention programs right into your Orientation program. It is critical to be proactive right from the beginning of the year.

  o Another plus: the data you gather helps the individual students you gather it from, unlike mid-year or end of year surveys that mostly benefit the group of students entering next year.

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The impact of raising retention rates

- The average Ontario university attrition rate of 16.4% means that for every 1,000 students entering first year, 164 won't return and 836 will return.

- By identifying at-risk students early and getting them the help they need, you might reduce attrition to 15.4%. That means 154 students won't return and 846 will return for a net gain of 10 second-year students.

- Before you dismiss 10 students as unremarkable, look at the effect over time:

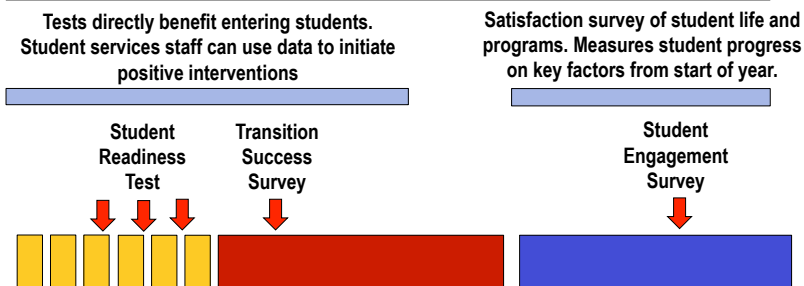|	Y2 of study	Y3 of study	Y4 of study
Fall 1 after intervention	+10 students		
Fall 2 after intervention	+10 students	+10 students	
Fall 3 after intervention	+10 students	+10 students	+10 students
Fall 4 after intervention	+10 students	+10 students	+10 students

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The *Ready! Set! Go!* Program

- Designed to identify at-risk students entering post-secondary education and provide the resources and help they need to make a successful transition to school. Goal is to increase retention by identifying problems before students become discouraged or fall into bad habits that will lower their chances of success.

- The program designed by CRi consists of three parts; they can be used together or independently depending on your needs and appetite for student information.

  o Student Readiness Test: administered in the summer before and during Orientation as students arrive on campus

  o Transition Success: administered in weeks 4 to 7 of the first term

  o Continuous Retention Reinforcement: incorporates an Attrition Predictive Test with above programs

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The *Ready! Set! Go!* Program

Continuous Retention Reinforcement adds predictive analysis & assessments of the effectiveness of your intervention strategies to continuously improve retention rates.

Tests directly benefit entering students. Student services staff can use data to initiate positive interventions

Satisfaction survey of student life and programs. Measures student progress on key factors from start of year.

Student Readiness Test **Transition Success Survey** **Student Engagement Survey**

The *Ready! Set! Go!* program benefits the students who participate, not just the students who start the following year.

Component 1
Student Readiness Test

Student Readiness Test: the mechanics

- The Test measures each student's capabilities on 7 non-cognitive skills:

  1 Academic habits
  2 Academic confidence
  3 Persistence and grit
  4 Comfort with social interactions
  5 Interpersonal skills
  6 Stress management
  7 Financial preparedness

- Readiness Test is administered before and during Orientation so results are available at the start of classes. Allows for planning for early intervention. The Test can be integrated in an existing online onboarding process.

- A weakness in one or more non-cognitive skills is a top reason many non-traditional students run into trouble.

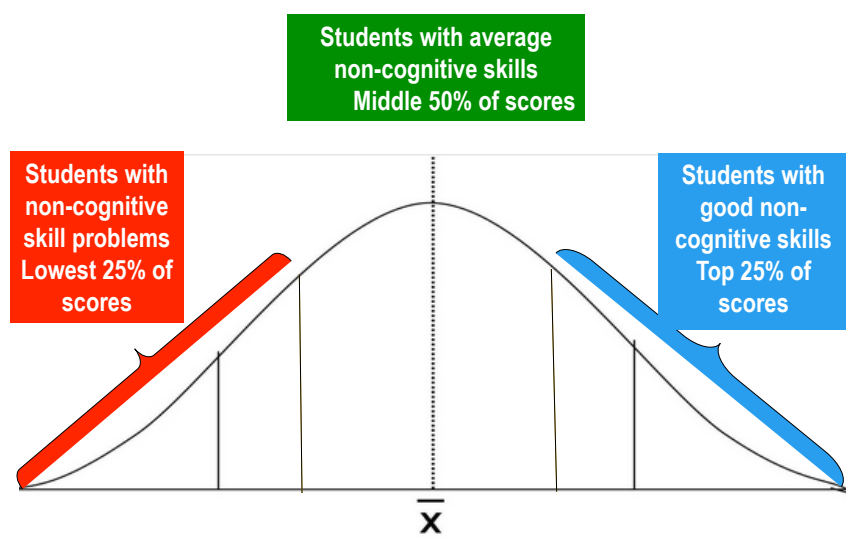# Student Readiness Test: sample questions

Please circle the response that best describes you for each of the statements below.

	never like me	once in a while like me	some-times like me	often like me	always like me
I have overcome setbacks to conquer an important challenge.	1	2	3	4	5
I organize my thoughts before beginning an assignment.	1	2	3	4	5
I react first and ask questions later.	1	2	3	4	5
I am a fast learner.	1	2	3	4	5
I make friends easily.	1	2	3	4	5
It is important to me to finish what I start.	1	2	3	4	5
I always turn in my assignments on time.	1	2	3	4	5

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Student Readiness Test: at risk group

Students with average non-cognitive skills Middle 50% of scores

Students with non-cognitive skill problems Lowest 25% of scores

Students with good non-cognitive skills Top 25% of scores

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Student Readiness Test: reports

- There are two types of reports; you can choose one or both:

- 1. Report with aggregate scores only
  - o Students are grouped by the number of non-cognitive skills where they are weak. The areas of weakness are listed for each student.

- 2. Personalized report to student and faculty advisor
  - o A personalized report for each student with details on their performance on each skill is prepared using scripted texts:
    - ➢ a student in the top 25% on a skill gets positive feedback
    - ➢ a student in the middle 50% on a skill gets positive feedback and links to campus resources if they want to develop that skill further
    - ➢ a student in the bottom 25% on a skill gets an explanation of why the skill is important, how a low score might impact their success, links to campus resources and an invitation to meet their advisor to discuss further.

Student Readiness Test: follow-up

- In either report option, each student with one or more scores in the bottom 25% of a skill should be contacted about meeting an advisor.

- Interventions can range from having a student enroll in a remedial class to seminars to setting up meetings with counselling, financial assistance or health services.

- Seminars: financial planning, stress management, identifying interests and clubs so students can make friends

- Not all students will respond.

Component 2
Transition Success

Transition Success

- A successful transition to a new school means that a student is **engaging** with their peers, professors, staff and with their new institution and its mission. Students who transition successfully engage with their environment; those who don't are less engaged

- Studying transition is like studying student engagement. "Engagement" rests on a body of tested theory and practice that guide how to measure it and how to identify needed changes in existing processes.

- A successful transition to post-secondary education hinges on having students begin to engage on a number of levels:
  - o **personally** in their programs and environments with good access to concrete resources
  - o **socially** with their peers in academic and extracurricular group activities
  - o **hierarchically**, connecting to leaders, role models and resources that offer experience, encouragement, and problem-solving support.
  - o **institutionally**, as students begin to identify with and share the school's values.

Transition Success = Engagement
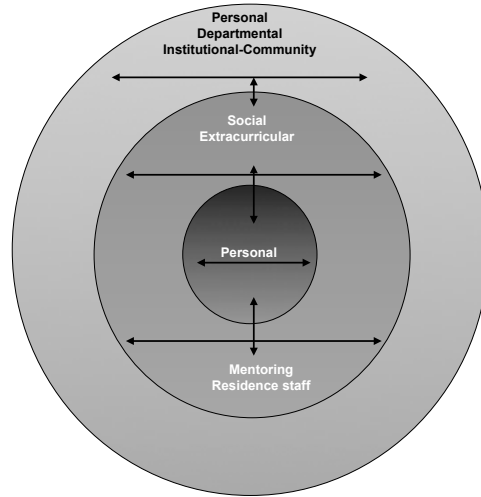
Transition Success: mechanics

- The survey is administered 4 to 7 weeks into first term. Length depends on issues that need to be covered. It is also possible to integrate an initial evaluation of residence life programs for students living in residence.

- Four levels of engagement are covered:
  o students' involvement in orientation activities, what they took away from the experience and whether intended learning outcomes were achieved

  o measurement of student performance on habits linked to future academic success

  o students' perceptions of the performance of advisors/residence life/ student services staff

  o sense of personal safety and security, success in making friends and creating a peer support group, initial encounters with drugs and alcohol

Transition Success: sample questions

1) Orientation questions
- The orientation program help me feel connected and part of the school.
- I have a better understanding of the resources available to me if at any time I need help while I am studying.
- I feel much more comfortable about being a student now that I have experienced orientation and the first few weeks of classes.

2) Key indicators of future success
- How many of your scheduled classes have you missed so far this year?
- How much time are you spending studying, reading or preparing for each of your courses?
- Have you found a group of fellow students to study with?

3) Sample questions on personal safety and security and alcohol use
- How often do you consumer alcohol in a typical week?
- When you consume alcohol, how may drinks do you typically consume? (1 drink = a glass of wine, a mixed drink or a regular sized beer or cider)

Transition Success: key learning & reports

1) At the level of the individual student
- Report on individual performance on habits that predict academic success
- Measure of the level of engagement for each student
- Report on individual behaviour around alcohol and drug encounters (depending on institutional privacy guidelines)

2) Aggregate report
- Identify and prioritize the key drivers of each level of engagement: personal, social, mentoring, institutional
- Measure performance on each driver using the aggregate feedback of all students
- Identify those that require additional effort to improve student engagement

Component 3
Turning retention into a "learning" system

The issue with a static approach to attrition

- The solutions presented earlier propose a methodology for identifying students at risk and some of the problems that must be addressed to retain them.

- In a best case scenario, you can learn from your early efforts at interventions so that later at-risk students benefit from your increased skill in dealing with problems and identifying roadblocks to successful interventions.

- BUT, while the learning is very useful in the short term, it is not systematic, rigorous or fully validated by data.

- Now, imagine a retention system that actually learns year after year to do a better job of both **identifying students at risk** and **identifying intervention strategies that really work better** than alternatives.

Continuous Retention Reinforcement System

- The Continuous Retention Reinforcement System (CRRS) provides schools with the tools to **continuously increase their retention rates over time**, by identifying both students at **highest risk** of becoming Leavers, as well as the approaches that are **most effective** at mitigating their risk.

- The CRRS is statistically robust, validated by real-world empirical evidence, and undergoes continuous improvement.

- No test can accurately predict behaviour of an individual student. But research has shown empirically that students can be placed on a scale of risk categories, ranging from low to high probability of quitting.

- Students with similar risks of quitting can be grouped into Risk Bands; the likelihood of students in each Risk Band actually quitting can, as a whole, be fairly accurately predicted.

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CRRS: the mechanics

- The CRRS uses an Attrition Predictive Test based on 7 years of research with 14,000 Persisters and Leavers.

- The short 12 question Test is combined with the Student Readiness Test and inserted into your online course registration as a mandatory requirement for newly entering students to register for courses.

- Each student's Student Readiness profile and Attrition Risk Score are calculated automatically.

- The student's profile and Risk Scores are inserted directly into her or his student record. Results can also be compiled and sent as an Excel report to the student services group.

- Aggregate statistics are generated for regular reports.

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Attrition Risk Test: an early example

- The Test includes both attitudinal variables ("I love what I'm studying") and situational variables ("I took a year off before starting my studies.") An early example of such a Test:

Attitudinal variables used as part of an Attrition Risk Score	
I entered the program of my choice at this University.	**Predict Persister**
My family places a high degree of importance on getting a higher education.	
I need to finance my own education.	**Predict Leaver**
I'm worried about my lack of recent educational experience.	
My current debt really puts pressure on my ability to afford university.	
I have carefully prepared a budget for my time at university and I know exactly how much I can spend each month.	

Risk Bands

- Students with similar Risk Scores are grouped into Risk Bands. Each band has a different likelihood of quitting before second year:

- Bands 1+2+3 below have a combined Leaver Rate of 25%

Band	Attrition Risk Score	Students in Band		Prediction for Band	
		N	%	Persisters	Leavers
6	50 or less	94	76	98.8%	1.2%
5	51 to 100	276	21%	93.6%	6.4%
4	101 to 150	416	31%	86.7%	13.3%
3	151 to 200	340	25%	77.9%	22.1%
2	201 to 250	160	12%	75.2%	24.8%
1	250 to 400+	50	4%	54.6%	45.4%
	Total	1337	100%	83.5%	16.4%

CRRS: predictive models that get smarter

- In the CRRS, year 1 entering students are tested and assigned to a Risk Band with other students with similar risks of quitting.

- Each Risk Band predicts the proportion of students who will quit before Year 2 and the proportion that will stay.

- Students from the high Risk Bands are randomly assigned to the intervention strategies that a school wants to test that year: do nothing, send emails inviting students to seminars and/or meetings with advisors, active outreach from advisors to at-risk students with appeals for meetings, etc.

- In the fall of Year 2, the actual Leavers and Persisters are identified and matched back to the predicted results for each Risk Group.

- The model is then refined to improve its predictive ability for each Risk Band.

CRRS: retention strategies that get smarter

- In fall Year 2, the intervention strategies tried in Year 1 are examined to measure how effective each was in retaining students. The most effective program is retained; the others are discarded.

- In Year 2, the most effective Year 1 program is tested against a new intervention strategy. In fall Year 3, the best is kept, the other discarded. Etc.

- CRRS gets better at identifying which intervention programs really worked because every fall, the system "learns" from the previous year's interventions by measuring actual effectiveness of each program.

- Improvements identified at one school can be shared across all the schools in the CRRS network.

- There may also be school-specific learning touching on programs and initiatives that reflect a school's unique characteristics and situation. At the discretion of the school, these may or may not be shared.

Where's the learning in CRRS?

- CRRS drives continuous improvement by learning from actual measured experience at each school.

  - Predictions from one year are tracked against actual outcomes the next year and the predictive model for each Risk Band is adjusted.

  - The effectiveness of the different intervention strategies is measured. The best strategies are kept and tested against new strategies.

  - CRRS learns from what occurs across all schools involved in the study and shares that learning with all participants in the CRRS network.

Bottom line

- However you decide to address attrition, it's clear that successful interventions benefit at-risk students, the schools they attend and the society they live in.

- There are also clearly financial benefits that range from increased revenues from tuition and grants per additional FTE to savings in recruitment costs (you don't need 1,000 students to guarantee the right 2nd year enrolment) and in student services costs as you evaluate and refine interventions that truly work and eliminate those that don't.

Takeaways
What you can do
on your own

Takeaways

- To have the best chance of retaining students likely to quit before second year, you need to start early. Waiting for mid-term grades is too late.

- Be proactive: push help to identified at-risk students. Even if only some of the students are actually at risk, there is a benefit to engaging with all of them. Focus on creating "pathways to help" for at-risk students.

- You can't save 100% of at-risk students. Some won't interact with you. Practice triage: dedicate resources where they have the biggest impact. As you get better at intervention, widen your target population. Or, save some, learn from the experience and then save more.

- Research is useless without follow-through. Knowing who's at risk is worth nothing if you don't intervene. *Hope and 50 cents will get you a cup of coffee.*

- There are escalating financial benefits from successfully reducing attrition.

- You can duplicate CRi's methodologies with the right resources.

For more information or next steps…

For more information on any existing CRi research program or to discuss how CRi can help you get the insights you need to solve an operational problem, please contact

Kirk Kelly
Partner, CRi Inc.

- o by email kkelly@cri-facts.com

- o by phone 514 488-7987

- o by text 514 250-4495

New website: www.crifacts.squarespace.com

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