Student Readiness Inventory

Institutional Report

prepared for

Dalton State College

based on Fall 2006

ACT®

Executive Summary

The Student Readiness Inventory (SRI) is a multiple domain measure of psychosocial and study skill factors, mainly *Motivation and Skills to Succeed*, *Social Engagement*, and *Self-Management*. The SRI is a low stakes tool to assist postsecondary institutions in identifying and intervening with students who are at risk for either persistence (i.e., drop out) or performance (i.e., low academic GPA) reasons.

The SRI is comprised of 10 scales (i.e., Commitment to College, Goal Striving, Academic Discipline, General Determination, Study Skills, Communication Skills, Social Activity, Social Connection, Academic Self-Confidence, Emotional Control) whose 108 items are written to be face-valid, amenable to change through intervention, and associated with a variety of retention and/or performance outcomes. For example, research has found that the SRI scales are as predictive of retention and academic performance as standardized achievement tests, such as the ACT Assessment. Research also has found the SRI to be useful in predicting academic performance at the individual course level, such as Freshman English Composition.

A total of 1016 Dalton State College questionnaires were scored. Demographic characteristics and descriptive statistics of SRI scores are presented. With the exception of Social Activity, where students scored significantly higher, Dalton State College students' average scores were commensurate with those of universities with similar institutional characteristics. SRI scale scores, as well as the retention and academic success indices, are presented by percentile range (low, medium, high). For intervention purposes, Dalton State College may want to concentrate on some (or all) of the low-scoring students, as these students are most at risk of academic and retention difficulties.

The utility of the SRI scales in outcome prediction has important implications for students and institutions. With the assistance of the SRI risk indices, postsecondary institutions can pro-actively identify students who are at-risk for academic difficulty and/or drop out early in students' course of study. Subsequently, an institution may provide developmental interventions to assist such students.

Background

The development of the Student Readiness Inventory (SRI) is based on the results of a meta-analysis and reviews of the personality and industrial-organizational psychology literatures, containing theories and models of performance and retention. The broad domains of the SRI, *Motivation and Skills to Succeed*, *Social Engagement*, and *Self-Management*, resemble the higher-order constructs that predict academic performance and retention in the meta-analysis, namely *Motivation*, *Social Engagement*, and *Academic-Related Skills* (Robbins, Lauver, Le, Davis, Langley, & Carlstrom, 2004). Results of the meta-analysis including 109 studies from the educational psychology literature suggest that, after controlling for traditional predictors such as high school GPA, ACT/SAT assessment scores, and socioeconomic status, students who score high on psychosocial and skill measures are more likely to perform well in college and remain in school (Robbins et al., 2004).

Construction and Validation of the SRI

The findings from the Robbins et al. (2004) meta-analysis, along with reviews of relevant personality and organizational literatures, were used to construct an inventory of psychosocial and skill factors (see Le, Casillas, Robbins, & Langley, 2005, for details on the development procedure). To validate the SRI, ACT developed a study to predict three types of important college outcomes: overall academic performance as evidenced by GPA, retention, and success in specific courses (e.g., English composition, College algebra). We recruited 48 postsecondary institutions (23 two-year and 25 four-year) that ranged in geographic location, demographic composition of their student bodies, and selectivity. A total of 14,464 incoming first-year students from the aforementioned institutions completed the SRI. In addition, ACT had access to these students' ACT Assessment and/or COMPASS standardized test records. Further, institutions provided GPA and retention information for each student at the end of first and second semesters.

For each outcome considered, SRI scores were significant predictors, even after controlling for institution, demographic effects, and prior academic achievement. As expected, generalized motivational factors as measured by Academic Discipline, Commitment to College and General Determination were consistently associated with one or more college outcomes. Further, Academic Self-Confidence and Social Activity were also consistently associated with outcomes.

These findings were strong across institutional type and achievement level (Robbins, Allen, Casillas, Peterson, & Le, 2006). An important reason that psychosocial and skill factors are such important predictors of college success is their relative independence with standardized achievement test scores. Since the SRI scales measure personality and social factors that are not necessarily tapped by standardized achievement tests (i.e., ACT Assessment, SAT), using the SRI greatly enhances an institution's ability to predict collegiate success.

Implications for Students and Institutions

The strength of the SRI scales in outcome prediction has important implications for students and institutions. For example, a two-standard deviation increase in Academic Discipline is associated with a 0.42-point increase in first semester GPA (4-point scale) at four-year institutions and a 0.35-point increase at two-year institutions. Because of these large effects, psychosocial and skill factors are a key source of information for identifying at-risk students, especially when coupled with prior academic achievement. Risk indices, based on multiple regression models using SRI and prior achievement measures, have been developed to flag those students whose probability of either academic difficulty or drop-out reach unacceptable levels from an institution's perspective.

In practice, the results of the SRI research and development program imply that higher education institutions can pro-actively identify students who are at-risk for academic difficulty or dropping out. Knowledge of essential psychosocial and skill factors measured by the SRI is likely to aid institutions in prescribing effective intervention strategies. In addition, students can use their SRI scores to identify personality and skill characteristics that may benefit from further development and thus enhance students' opportunities for success in college.

Understanding the SRI

The SRI is composed of ten scales. The following paragraphs feature brief definitions of the scales, along with sample items. Table 3 features additional information about each scale, such as the number of items, score range, and internal consistency reliability.

Academic Discipline

Academic Discipline is defined as the amount of effort a student puts in to his/her schoolwork and the degree to which the student sees him/herself as hardworking and conscientious. A sample item is: I consistently do my school work well.

General Determination

General Determination reflects the extent to which one strives to follow through on commitments and obligations. A sample item is: It is important for me to finish what I start.

Goal Striving

Goal Striving is defined as the strength of one's efforts to achieve objectives and end goals. A sample item is: I bounce back after facing disappointment or failure.

Commitment to College

Commitment to College is defined as a student's commitment to staying in college and getting a degree. A sample item is: A college education will help me achieve my goals.

Study Skills

Study Skills measures the extent to which students believe they know how to assess an academic problem, organize a solution, and successfully complete academic assignments. A sample item is: I summarize important information in diagrams, tables, or lists.

Communication Skills

Communication Skills is defined as attentiveness to others' feelings and flexibility in resolving conflicts with others. It measures how well a student knows how to handle interpersonal problems effectively and can work cooperatively with others in team/group settings. A sample item is: I'm willing to compromise when resolving a conflict.

Social Connection

Social Connection is defined as a student's feelings of connection and involvement with the college/school community. A sample item is: I feel part of this college.

Social Activity

Social Activity measures one's comfort in meeting and interacting with other people. Very low or very high levels of social activity are associated with lower GPAs and rates of retention. A sample item is: I avoid activities that require meeting new people. (reverse-scored)

Academic Self-Confidence

Academic Self-Confidence is characterized by a belief in one's ability to perform well in school. A sample item is: I achieve little for the amount of time I spend studying. (reverse-scored)

Emotional Control

Emotional Control measures one's responses to strong feelings. Students who score in the middle of the Emotional Control scale report that they can effectively control their emotions and keep those emotions from negatively impacting other activities. However, both high and low scores are associated with poor academic performance. A sample item is: I have a bad temper. (reverse-scored)

Summary of Your Institution's Results

We received a total of **1016** usable questionnaires from Dalton State College during the Fall of 2006.

Table 1 includes a descriptive report of the demographic characteristics of Dalton State College students who completed the SRI. You may want to use this information to assess whether this sample seems representative of a typical first-year student cohort at Dalton State College.

Table 2 contains average scores on how this sample of Dalton State College students scored on the 10 scales of the SRI. For comparison purposes, this table contains average scores for students at four public universities from our norming sample with institutional characteristics similar to Dalton State College.

Figure 1 features a graphical representation of Dalton State College students' scores on each scale broken down by the percentile range in which the student scored. These ranges were "low" (1st to 25th %ile), "medium" (26th to 75th %ile), and "high" (76th to 100th %ile), with the exception of Social Activity, which contained a "very high" (86th to 100th %ile) range, and Emotional Control, in which the "high" range was from 86th to 100th percentile. For intervention purposes, Dalton State College may want to concentrate on some portion of low-scoring students, as these students are most at risk of academic and retention difficulties.

Figures 2 and **3** feature information about the retention and academic success indices included in counselor reports and institutional databases. These indices are on a scale from 0 to 100, with larger values representing less risk of dropping out or of poor academic performance (i.e., GPA < 2.0), respectively. Since baseline retention and academic performance rates vary across institutions, these indices should not be interpreted as explicit predicted probabilities of retention or academic performance; rather, these indices are approximate measures of how each student's psychosocial factors lend themselves to persistence and academic performance after the first year of college.

References

Le, H., Casillas, A., Robbins, S., & Langley, R. (2005). Motivational and skills, social, and self-management predictors of college outcomes: Constructing the Student Readiness Inventory. *Educational and Psychological Measuremen*t, *65*, 482-508.

Peterson, C. H., Casillas, A., & Robbins, S. B. (2006). The Student Readiness Inventory and the Big Five: Examining social desirability and college academic performance. *Personality and Individual Differences, 41, 663-673*.

Robbins, S., Allen, J., Casillas, A., Peterson, C., & Le, H. (2006). Unraveling the Differential Effects of Motivational and Skills, Social, and Self-Management Measures from Traditional Predictors of College Outcomes. *Journal of Educational Psychology*, *98,* 598-616.

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Table 1

Participating Students' Demographic Characteristics

Characteristic	Descriptive Statistics/Frequencies	
Age	$M = 21.2$	$SD = 0.7$
Gender		
Female	57.3%	
Male	41.7%	
Prefer not to respond	1.0%	
Ethnicity		
African American	3.1%	
American Indian/Alaskan Native	0.3%	
Asian American/Pacific Islander	1.0%	
Caucasian	78.1%	
Native Hawaiian/Other Pacific Islander	0.0%	
Mexican American/Chicano	5.5%	
Multiracial	2.1%	
Other	1.3%	
Prefer not to respond	2.7%	
Puerto Rican, Cuban, Other Hispanic	6.0%	
Self-reported HS GPA and test scores		
(A- to A) 3.5 and above	26.6%	
(B to B+) 3.0 - 3.4	34.4%	
(B- to B) 2.5 - 2.9	18.9%	
(C to B-) 2.0 -2.4	9.4%	
(C- to C) 1.5 - 1.9	2.3%	
(D to C-) 1.0 - 1.4	0.4%	
(D- to D) 0.9 or lower	0.2%	
Prefer not to respond	7.9%	
ACT and SAT test Scores		
ACT[a]	$M = 20.0$	$SD = 3.5$
SAT[b]	$M = 982.1$	$SD = 188.6$

Note. $N = 1,016$; [a] $n = 214$; [b] $n = 328$. M = Mean; SD = Standard Deviation.

Table 2

Your Students' Scores Compared to Students from Peer Institutions

Scales	Dalton State College Students[a]		Students at Other 4-yr Institutions[b]	
	M	*SD*	*M*	*SD*
Commitment to College	55.4	5.9	52.7	7.7
Goal Striving	52.5	5.4	50.9	6.8
Academic Discipline	50.4	7.0	46.6	8.2
General Determination	60.1	5.5	57	7.3
Study Skills	56.0	9.0	53	9.3
Communication Skills	51.7	6.1	49.9	6.7
Social Activity	51.0	9.4	41.3	9.9
Social Connection	42.3	7.8	48.6	9
Academic Self-Confidence	54.6	9.4	51.6	10
Emotional Control	53.7	9.8	48.5	10.7

Note. [a]*N* for Dalton State College = 979. [b]*N* for comparison = 1,362 (based on four peer institutions from norming study). *M* = Mean; *SD* = Standard Deviation.

Refer to Table 3 for scale ranges. Lower scores reflect more risk.

Table 3

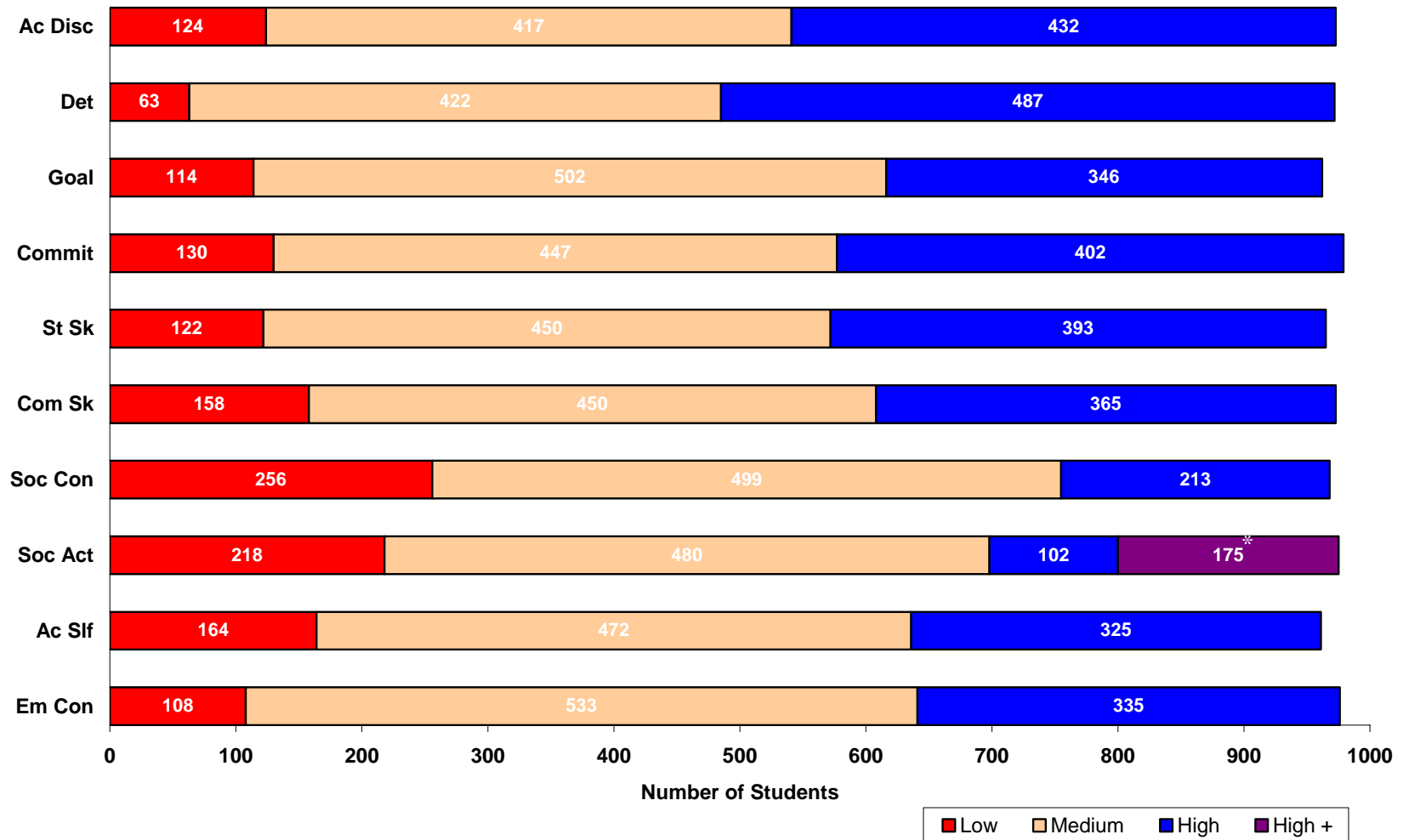Number of Items, Range, and Internal Consistency of the SRI Scales

Scale	# of items	Range	Alpha
Commitment to College	10	10-60	.85
Goal Striving	10	10-60	.84
Academic Discipline	10	10-60	.83
General Determination	11	11-66	.87
Study Skills	12	12-72	.84
Communication Skills	10	10-60	.82
Social Activity	10	10-60	.85
Social Connection	11	11-66	.81
Academic Self-Confidence	12	12-72	.83
Emotional Control	12	12-72	.83

Note. Students responded to items using the following scale:

1	2	3	4	5	6
strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree

Figure 1

Frequency of Percentiles by Range for all SRI Scales

Scale	Low	Medium	High	High +
Ac Disc	124	417	432	
Det	63	422	487	
Goal	114	502	346	
Commit	130	447	402	
St Sk	122	450	393	
Com Sk	158	450	365	
Soc Con	256	499	213	
Soc Act	218	480	102	175*
Ac Slf	164	472	325	
Em Con	108	533	335	

Number of Students

Legend: ■ Low □ Medium ■ High ■ High +

*These individuals received a note on their interpretive report encouraging them to balance their social activity with their academics

Figure 2

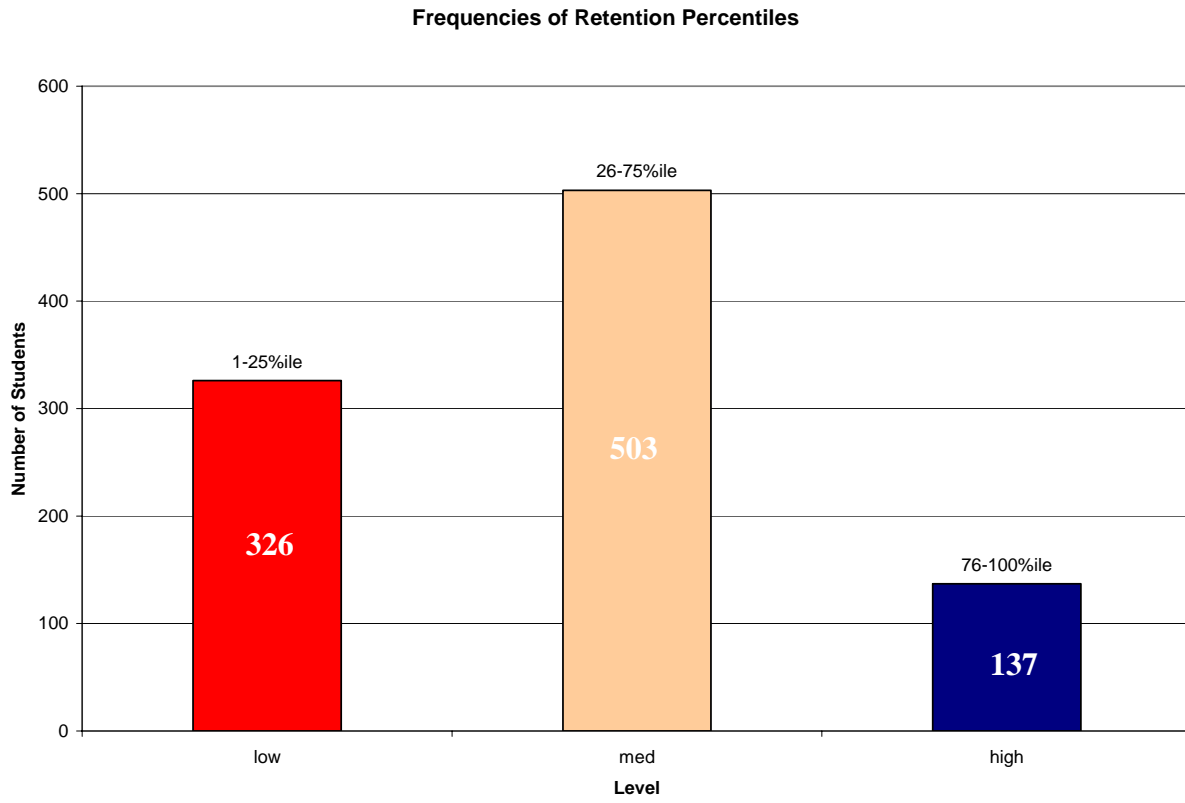**Frequencies of Retention Percentiles**

Figure 3

Frequencies of Academic Performance Percentiles