Using Noncognitive Variables in Assessing Readiness for Higher Education

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Introduction

There has been a recent focus on "college readiness" in educational literature. This is an important shift in emphasis from viewing admissions in higher education as a function separate from the wide range of attributes a student will need once enrolled (Conley, 2005). While readiness for college includes taking the appropriate courses, getting good grades, and scoring well on admissions tests, there is evidence that many other attributes will determine whether most students will succeed in higher education.

Courses

While students will continue to need courses in math, English, foreign language etc. there has been a tendency among educators and college admissions staff to feel that more is better. The logic goes that if we would just require more math courses, students would be better prepared. However, the law of diminishing marginal utility becomes relevant at some point. For example, Sawyer (2008) studied 245,175 students from 9,507 high schools who took the EXPLORE (8th grade), PLAN (10th grade), and ACT (12th grade) tests. He concluded that taking additional standard college preparatory courses in high school, taking advanced/honors courses, and earning higher grades would, by themselves, only modestly increased the percentage of students who leave high school adequately prepared to take credit-bearing courses in the first year of college. Sawyer also concluded that taking additional courses and earning higher grades mostly benefit

students who by grade eight are already well "on-target" in preparing themselves for higher education and that psychosocial variables such as motivation, self-discipline, and social connectedness were important developmental variables that also need to be considered.

In summary, up to a point, more math is useful in preparing students for higher education. Beyond that point other variables become equally important to student success. Some ideas for what these variables might be will be discussed below.

Grades

Recent literature has shown that grades are becoming increasing less useful as indicators of student achievement or as predictors of future student success. This is largely due to the statistical artifact that students at all levels of education are being assigned higher grades. Are current students just smarter and/or more accomplished than their predecessors? This seems unlikely, but even if true, it does not help us prepare students for higher education, since grades no longer appear as useful in differentiating student academic achievement as they once were. Grades have become more of a constant because of "grade inflation".

Marquardt (2009) noted that some school districts in Virginia were offering students an increase in their course grades or overall GPA as incentives to take the Commonwealth's Standards of Learning examination. Marquardt found that the mean GPA of first year students in Virginia colleges and universities rose from 3.27 to 3.56 between 1995 and 2007, compared to an increase in GPA in a national sample during that same period of 3.28 to 3.49. Additionally, many K-12 schools in the U. S. are not

assigning grades to students and are using extramural and portfolio assessments instead (Washor, Arnold & Mojkowski, 2008).

In summary, whatever the intention, grades have become a less useful indicator of student success. Due to grade inflation, and an inclusion of unwanted variance, educators and researchers have begun look elsewhere in determining college readiness for students.

Tests

Admissions tests were created initially to help select as well as advise students. They were intended to be useful to educators making decisions about students. While they were always considered to be useful in evaluating candidates, tests were also considered to be more equitable than using prior grades because of the variation in quality among preparatory schools. The College Board has long felt that the SAT was limited in what it measured and should not be relied upon as the only tool to judge applicants (Angoff, 1971).

In 1993, the verbal and mathematical reasoning sections of the SAT were lengthened and the multiple-choice Test of Standard Written English was dropped. The name was changed from Scholastic Aptitude Test to Scholastic Assessment Tests, while retaining the SAT initials. Currently it is just called the SAT-I. In 2003, the College Board announced that an essay would be added and the analogies item type removed as of 2005. Despite various changes and versions over the years, the SAT in essence measures what it did in 1926, verbal and math ability; it is basically still a general intelligence test (Sedlacek, 2003, 2004).

We seem to have come to a point where the "Big Test" has become the primary object of attention in many schools (Lemann, 2000). It has become the standard by which we judge ourselves and others. Many assume that if an individual has high ACT, SAT, or

Graduate Record Examination (GRE) scores, or if a school has high mean scores on such tests, the students must be learning something, and the school must be good. To cite that common metaphor; the tail is wagging the dog.

Standardized tests remain controversial in general, particularly their fairness (Helms, 2009). Much of the debate centers on statistical artifacts, measurement problems, and research methodology, including biased samples and inappropriate statistical analyses and interpretations (Sackett, Borneman & Connelly, 2009). While this discussion and controversy is useful and interesting to academics, we may have lost track of why tests were developed to begin with, and how they can be used. **Test results should be useful to educators, student service workers, and administrators, by providing the basis to help students learn better and to analyze their needs**.

Keeping Up With Change

We need a new approach. It is not good enough to feel constrained by the limitations of our current college readiness measures. Instead of asking; "How can we make the current measures better?" we need to ask; "What kinds of measures will meet our needs now and in the future?" The purpose of this chapter is to present the underlying logic and research supporting a method that yields such measures. We do not need to ignore our current assessment methods, we need to add some new measures that expand the potential we can derive from assessment.

Noncognitive Variables

Noncognitive is used here to refer to variables relating to adjustment, motivation, and student perceptions, rather than the traditional verbal and quantitative (often called

cognitive) areas typically measured by standardized tests (Sedlacek, 1998a,b;2004a). Standardized tests and prior grades provide only a limited view of one's potential. Below is a discussion of the eight variables recommended to be included in college readiness assessment systems (see Exhibit 1). For a more detailed discussion of each of these dimensions and the research supporting their use see Sedlacek (2004a).

Positive Self-Concept

Successful students possess confidence, strong "self" feeling, strength of character, determination, and independence. A strong self-concept seems important for students at all educational levels where it has been investigated. The student who feels confident of "making it" through school is more likely to survive and graduate. Although many students have had to overcome incredible obstacles and setbacks even to reach the point of applying to college, they need even greater determination to continue. Determination is needed precisely because they may come from a different cultural background or have had different gender-related experiences than the students and faculty members they will encounter in college.

Seeing oneself as part of the system and feeling good about it is an important component of how self-concept is used here. Feeling a part of the system is generally easier for traditional students since so much of the system is designed for them. In summary, a positive self-concept is predictive of success in higher education. While having a good self-concept is important for any student, it becomes even more important for those with nontraditional experiences because of the added complexity of dealing with a system that was not designed for them.

Realistic Self-Appraisal

Realistic self-appraisal is the ability to assess one's strengths and weaknesses and allows for self-development. Realism in self-appraisal by nontraditional persons does not connote cultural, racial, or gender deficiency or inferiority.

The successful nontraditional student is a realist based on a personal experience with unfair situations; is committed to fighting to improve the existing system; is not submissive to existing wrongs, nor hateful of society, nor a "cop out".

How we learn to handle the circumstances with which we are confronted, tells us much about our ability and potential. Learning to make the systems of society work for them is important for all students.

Long-Range Goals

Having long-range goals will predict success in college for students. Students who show evidence of having long-range goals do better in college than those without such goals.

Strong Support Person

Students who have done well in school tend to have a person of strong influence who provides advice to them, particularly in times of crisis. This individual may be in the education system, in the immediate family, but for nontraditional students it is often a relative or a community worker.

Leadership

Nontraditional students who are most successful in higher education have shown an ability to organize and influence others. The key here is nontraditional evidence of

leadership among students. Application forms and interviews typically are slanted in directions likely to yield less useful information about the backgrounds of nontraditional students. Some applicants know how to "play the game" and will have "taken-up," and then be sure to list, a wide variety of offices held in traditional school organizations. Some students will not have had the time or the inclination for such activities.

The most promising students, however, may have shown their leadership in less typical ways, such as working in their communities, through religious organizations. It is important to pursue the culture and gender-relevant activities of the applicants rather than to treat them as if they come from a homogenous environment.

Community

Having a community with which students can identify, and from which they can receive support is critical to their academic success. The community often is based on racial, cultural or gender issues but it may not be for all students. Students who are active in a community learn how to handle the system, exhibit leadership and develop their self-concepts in such groups. Therefore, those who have been involved in a community are more successful in college than those not so involved.

Nontraditional Knowledge Acquired

Some students are more apt to learn and develop using methods that are less traditional and are outside the education system. Assessing what a student learns outside school should be an important part of an evaluation program for any student.

Exhibit 1

Description of Noncognitive Variables

Variable #	Variable Name
1	***Positive Self-Concept*** • **Demonstrates confidence, strength of character, determination, and independence.**
2	***Realistic Self-Appraisal*** • **Recognizes and accepts any strengths and deficiencies, especially academic, and works hard at self-development. Recognizes need to broaden his/her individuality.**
3	***Understands and Knows How to Handle Racism; Navigate the System*** • **Exhibits a realistic view of the system based upon personal experience. Committed to improving the existing system. Takes an assertive approach to dealing with existing wrongs, but is not hostile to society, nor is a "cop-out." Able to handle current system and make system work for him/her.**
4	***Long-Range Goals*** • **Able to respond to deferred gratification, plans ahead and sets goals.**
5	***Strong Support Person*** • **Seeks and takes advantage of a strong support network or has someone to turn to in a crisis or for encouragement.**
6	***Leadership*** • **Demonstrates strong leadership in any area of his/her background (e.g. church, sports, non-educational groups, etc.).**
7	***Community*** • **Participates and is involved in his/her community.**
8	***Nontraditional Knowledge Acquired*** • **Acquires knowledge outside the education system in sustained and/or culturally-related ways.**

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