



Broadening the definition of at-risk students

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Community colleges are uniquely positioned to support at-risk students, including students who have challenges in reading, writing, and technology. A complete definition of the at-risk student is a necessary first step in conducting research that covers the characteristics of students who need support in today's community colleges. Through a review of extant literature on the topic, researchers critique current research including literature on the at-risk online student. Broadening the definition of "at-risk student" involves incorporating background characteristics (including technology proficiency), internal characteristics, and environmental factors into a set of variables which may be used in quantitative and qualitative research.

COMMUNITY COLLEGES have historically included services and programs for a diverse student population. Elliott, in *The Urban Campus*, asserts that "to their everlasting credit, it was these institutions—the junior and community colleges—that first embraced the New Majority populations and worked diligently to meet their needs" (1994). Given the needs of many New Majority students—displaced workers, single parents, immigrants, first generation or older than 18–24 year old students—community colleges must understand the variety of people they serve to create effective programs and services.

Community colleges enroll almost half of all first-time freshmen. According to the American Association of Community Colleges, thirteen million students with an average age of 29 attend 1,157 U.S. community colleges. Some are adults preparing for work, displaced workers, some are high school non-completers who have fallen out of the normal de-

velopmental progression and need training, or require basic education or ESL training (Creighton & Hudson, 2002). A large percentage (53%) of low income, adult students attend community colleges and are single parents compared to 21% of middle- to upper-income adult students. Many of them work full time (57%) compared to 33% of traditional 18-24 aged students, causing 45% of them to enroll half time or less (NCES, 1992; Kazis 2002). Community colleges serve the needs of a diverse student population through vocational-technical, continuing education, academic transfer, developmental education, and community service (Cohen & Brawer, 2003).

The at-risk student is becoming a significant part of the community college mission for a variety of reasons. The present economy is plagued with lay-offs, both in private companies and public organizations such as municipalities. The largest impact of the economic changes is on laborers in industrial centers such as Michigan. At the same time, competition for high-skill jobs has become greater since workers may be found all over the world (Friedman, 2005). American workers must continually learn new skills to compete. Lifelong learning is now a necessity. Community colleges, with their mix of program offerings, are uniquely positioned to support workforce development for the at-risk population.

At-risk student research gives insight into an important segment of the workforce. No longer does

the term "at-risk" simply mean race and class; it encompasses a variety of limitations to learning. The higher education literature defines "at-risk" as a term with origins in K-12 education meaning students that "are poorly equipped to perform up to academic standards" (Quinnan, 1997, 31). The following discussion presents research that identifies three categories of definition for the at-risk student: background characteristics, internal characteristics, and environmental factors. Also, the researchers will address literature on the lack of technology skills as a defining characteristic of at-risk students. It is important to note that the definitions are not discrete. Most often, students fall into several categories of the definitions. For example, a student may be low-income, academically under-prepared, and lacking technology skills. After discussing the limitations of the research, the authors will offer suggestions for new approaches to research on the at-risk student population in community colleges.

Identifying at-risk students by background characteristics

Considerable attention has been given to identifying the characteristics of at-risk students. Traditional definitions found in the research primarily address students in the K-12 educational system. In an attempt to identify the needs of at-risk adult students and improve

their retention and ultimate academic success, a number of scholars and researchers have provided additional defining characteristics (Astin, 1982; Kaufman & Bradby, 1992; Tabb, 1991). Not surprisingly, at-risk students are labeled as academically underprepared, in part, and having unrealistic goals based on desire for instant gratification.

Controlling for racial-ethnic group differences, Chen and Kaufman (1997) identified five risk factors. They considered students at-risk if they had one or more of the following characteristics:

- low socio-economic status
- from a single parent family
- an older sibling dropped out of school
- the students themselves changed schools two or more times
- had average grades of “C” or lower from sixth to eighth grade
- repeated a grade.

The results of the study indicate that those identified as at-risk in high school remain at-risk when seeking entry into post-secondary institutions. Several reasons were listed: (a) by 10th grade they were less likely to aspire to attend college, (b) they were less likely to be academically prepared, (c) they were less likely to take entrance exams, and (d) if they took entrance exams, they were less likely to apply to four-year colleges.

At-risk students who enrolled in postsecondary institutions were students less likely to exhibit behaviors consistent with persistence. Persistence indicators were identified as completion of “gatekeeping” or remediation courses, seeking assistance with college application processes, exhibiting a significant level of involvement with their peers and their parents. Chen and Kaufman concluded that those students who completed remedial courses—specifically math—and exhibited strong indicators of persistence in postsecondary institutions were most likely to succeed. Ruff’s (1993) findings were similar in that risk factors such as language and cultural barriers, dysfunctional family dynamics, and residing in economically disadvantaged communities predicted adverse educational outcomes.

Other characteristics in the higher education literature that identify at-risk students are poor K-12 experiences, English as a second language, adult learners who return to school after extended absences, physically challenged students, and emotionally impaired students (Malnarich, 2005; McCabe, 2003; Walsh, 2003).

Broadening the definition to include lack of technology skills

Research on the at-risk distance learning student has emerged in the last five years. The advent of the Internet has made learning flexible and convenient. Since

the nineties, enrollment in online courses has increased exponentially. The growth rate of online courses (18.2%) exceeds the overall growth rate in the total postsecondary education student body, making online courses part of the mainstream of colleges in terms of the number and breadth of distance education offerings (Allen and Seaman, 2005). Now, more than ever, it is necessary to ask questions about ways to assist online students to be successful. The following research investigates factors affecting online student success and persistence.

Influenced by earlier works of Parker (1999), Giles (1999), and Osborn (2001), Muse (2003) conducted a study of 1,028 students and found that technology issues contributed to the dropout of online students while five factors were significantly related to student success: grade point average, study environment, age group, last college course, and background preparation. Responses to open-ended questions about reasons for dropping out cited computer software or technical issues that left the students concerned about successfully completing the course. Muse concludes that academic integration, readiness to take an online course, comfort with using the software, and a stable learning environment are essential to success for online students.

Menager-Beeley (2001) conducted a study to identify why students may drop out of an online course. Using a survey of 150 students that measured the ability of task

values (i.e., interest, importance, and utility) to predict task choice (i.e., commitment), the researcher found that older students and students who had poor English grades prior to the survey were not likely to stay in the online course. A strong correlation between task values and task choice showed that students who reported these tendencies were likely to persist in the online course.

Based on the work of Tinto (1975, 1997), Kennedy and Powell (1976), Kember (1995), and Billings (1989), Osborn (2001) developed a framework for researching variables indicating student persistence in online and videoconferencing courses. The framework involves three categories: entry characteristics, social integration, and academic integration. Of the 501 students surveyed, most were at the graduate level and in web-based courses. The at-risk students had lower GPAs, weaker motivation, unstable study environments, and less computer confidence than the students who completed courses.

In a study of 73 online students, DeTure (2004) found that differences in cognitive style and computer confidence did not predict success in online courses. The author notes, however, that 74% of students achieved an "A" or "B" grade, which could have had an effect on the results. The present researchers recommend further study exploring student characteristics and instructional design variables such as course structure.

Identifying at-risk students through internal characteristics

Roueche and Roueche (1993) describe at-risk students as those who are not only academically under-prepared for college, but also have a weak self-concept. The student's self concept coupled with prior school experiences may result in a student's being wary of the educational surroundings. The student's disbelief in his or her own ability may lead to a self-fulfilling prophecy of failure. The failure is manifested in the student's behavior, such as not having proper supplies, incomplete assignments, hostility towards peers and instructors, or not participating in class activities. According to these authors, unlike the traditional academically prepared student who is motivated and goal oriented, the at-risk student has unrealistic goals and is motivated not by success, but by failure, driven by harsh economic conditions. It is the barrier of weak self-concept, however, that causes the most resistance; the person rebels against becoming more actively engaged in the learning experience.

Earlier research by Seligman (1975) resulted in the term "learned helplessness." It describes those with extreme external locus of control and a belief that they have no influence over their own destiny. The result is lack of confidence and diminished autonomy. Grimes (1997) states that some students use

learned helplessness as a self-defense mechanism to view positive outcomes as internal and negative outcomes as external.

Identifying at-risk students by environmental factors

Research has identified at-risk students by environmental factors that limit or support their academic success. Bowl (2001) cites the role of student services as an environmental factor. In a Perceptions of Student Services survey, students reported that they did not understand what advice and support was offered by advisors. Additionally, many found the information that they received from these offices vague and confusing. Many were embarrassed to seek tutoring; and when they did, many did not obtain the results expected.

Another obstacle identified by the participants in the study was the fragmented approach to financial aid processing which involved inconsistent or incomplete information. The participants felt that this caused delays in obtaining monies to register for classes; the constant follow-up required was frustrating for both themselves and the staff. Lack of adequate access to student services, specifically counselors on evenings and weekends, was also a concern. Overall, services provided by admissions, records and registration, counseling, tutoring and financial aid were less than positive. Timarong, Temaungil, and Sukrad (2002) identified the inability to

obtain financial aid, poor financial planning, lack of counseling services, lack of flexible class scheduling, and lack of support from employers as limitations to the academic success of adult learners.

A report by the Learning Skills Council (2004) found that adult learners identified the following impediments to their academic success: high travel times and costs, limited course offerings, facilities accommodations, educational resources, and lack of community partners to support learning opportunities such as field placements and internships. A 2005 report indicated that academic scheduling remains a major problem. Academic institutions continue to develop their schedules based on the traditional learner. Adults need flexible schedules to include evenings and weekends. In addition, adults benefit from flexible offerings such as fast track and distance learning courses.

A new definition of at-risk student

The above referenced literature indicates that the definition of “at-risk student” should be extended beyond background characteristics to include technology proficiency variables as well as internal characteristics and environmental factors. Policies and programs for improving non-traditional/at-risk student outcomes are traditionally based upon the characteristics previously cited for this population of students. Yet, the heterogeneous diversity of today’s students who

use the Internet and personal digital assistants for learning experiences must be taken into consideration. A literature review by Funk (2005) advocates removing the barriers to online education for adult learners, as well as learners who fall into other categories. Single parenthood, poor health, limited access to technology, social status such as immigrant, and secondary school influence on youth as they approach college constitute additional at-risk categories. The barriers may be removed by altering instructional methods in an online class, accommodating students with impairments through course design techniques and instructor mentoring of online students. The recommendations can be evaluated and improved through further research.

Research has pointed out that an internal locus of control is important to the retention and persistence of students. Additionally, the importance of social integration is well-documented. An unfamiliar campus environment often threatens returning adult students. The absence of positive social integration leads to several negative outcomes including isolation and attrition. By including these variables, practitioners will be able to determine the effectiveness of intervention programs designed to support students through tutoring; goal setting; tailored financial aid programs; mentoring by faculty, support personnel and peers; as well as on-going academic advisement.

Combining the disparate cate-

gories of background characteristics including technology proficiency, internal variables, and environmental factors under one umbrella yields a robust definition of at-risk student (see Table 1). Armed with an expanded definition, researchers can conduct studies which will provide a better understanding of factors that influence the retention and persistence of at-risk learners.

Recommendations for future research

The following are recommendations for further study of the at-risk student. The expanded list of variables in Table 1 lay groundwork to conduct studies that may be generalized to the population of students on a college campus. Research that stratifies the sample of students is notably absent in the literature. Large samples should be employed

to better determine the extent to which there are differences in student academic performance and completion rates. Given the growth in online course participation, further studies should be conducted on online students. Finally, qualitative research that allows students to voice their perception of the educational environment could assist educational institutions with identifying areas of improvement. The information could also be used to suggest alternatives in policies and procedures at both the institutional and programmatic level that may enhance persistence and retention.

Conclusion

Broadening the definition of “at-risk student” involves combining background characteristics (including technology proficiency), inter-

Table 1. Variables contributing to persistence and retention of at-risk community college students

Background characteristics	Internal characteristics	Environmental factors
<ul style="list-style-type: none"> • Age • GPA • Poor K-12 experiences • Socio-economic status • Adult returners after long absence • Physically challenged • Emotionally impaired • Cultural/language barriers or ESL • Technology proficiency 	<ul style="list-style-type: none"> • Task values (interest, importance, utility) • Weak self-concept • Unrealistic goals 	<ul style="list-style-type: none"> • Study environment • Access to student support services • Advice and support from advisors • Travel time and costs • Flexible course offerings • Adequate facilities • Internships and field placements

nal characteristics, and environmental factors into one definition. The potential outcomes of research on the at-risk student are numerous. For example, a low-income adult who has poor K-12 preparation and lacks technology skills is able to demonstrate knowledge and skills required for a career and thus raise her ability to be self-sufficient. Attendant benefits are a positive self-concept, realistic self-appraisal, as well as a preference for long term goals over short-term or

immediate needs. Colleges benefit from providing improved support services, curricula, course structure, facilities, and access to support systems. As the unemployed and under-employed enter the open doors of a community college, it must be prepared to meet the needs of the changing demographics of students. Research on the at-risk student is critical to achieving realistic goals for the open-door community college in the twenty-first century.

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