Strategies to Increase Enrollment, Retention, and Graduation Rates

By Patricia Y. Talbert

ABSTRACT: ***Student retention in postsecondary institutions continues to be a vexing problem, as graduation rates have continued to decline over the last decade. To be a competitive force in the global economy, it is crucial to keep students in school. This research uses a conceptual data model to introduce academic leaders' (N = 104) perspectives to increase enrollment, retention, and graduation rates in higher education. The study is composed of two different facets. First, a review was conducted on a subsegment of the Minnesota Measures data regarding student enrollment and performance in two- and four- year degree programs in higher education in the state of Minnesota. Second, strategic methods are introduced from academic leaders involved in planning and developing programs to increase enrollment, retention, and graduation rates; findings provide special attention to reaching out to the minority population, first-generation students, and new attendees.***

The low college completion rates among students of color deserve attention.

Most people have heard the infamous phrase, "Knowledge is Power." And President Barak Obama (2008) has stated, "Now is the time to finally meet our moral obligation to provide every child a world-class education, because it will take nothing less to compete in the global economy" (p. 3). Although these phrases and many others accentuate the importance of education, the state of Minnesota is modeling the way by working assiduously to increase student enrollment, retention, and graduation (ERG) rates in higher education. Academic leaders are working toward this goal by creating a positive environment of academic excellence and developing systematic programs to assist all students with achieving academic success. For the purpose of this research, the term academic leaders is defined as those individuals working directly or indirectly to support student achievement and academic success. These leaders include the academic President's Cabinet (e.g., chief administrators and executive officers), directors, managers, professors, teachers, and instructors. In addition, these leaders have been involved in planning and developing programs to increase ERG rates, therefore, this study offers a platform to introduce their perspectives. The leaders, all from the state of Minnesota, are employed in public technical colleges and community colleges.

Research focuses on public technical and community colleges because they represent a point of initial entry for many students. Historically more than half of students of color have enrolled in community colleges (AACC, 2011). Community colleges have been more accessible, affordable, and available for all students to enroll and move forward towards graduation (Mullen, 2011). Therefore, two-year institutions were selected as a benchmark to identify strategies to increase ERG rates.

> Minnesota leads the nation and many developed countries in the percentage of its population with an associate degree or higher. For the period 2005 through 2007, 39.9 percent of adults 18 to 64 years old possessed an associate degree or higher, the fourth highest percentage among states. (OHE, 2009, p. 4)

Additionally, the state has a high rate of college participation, with nearly 70% of high school graduates enrolling directly into college making this the ninth highest participation in the country (OHE, 2009). Although there are many positive aspects relating to education in Minnesota, the low college completion rate among students of color deserves attention. In this research, the definition of students of color is aligned with the OHE's, including the African-American, Latino- or Hispanic-American, Asian-American, and Native-American populations. The OHE (2009) has reported that, in regard to two- and four-year college completion rates, 56% of Caucasians either graduated or transferred to another institution compared to students of color whose rates are much lower (e.g., 44% of African Americans, 35% of Hispanic Americans, 33% of Native Americans).

Consequently, the purpose of this study is composed of two different facets. The first step is to review a subsegment of the ERG rates in Minnesota (an analysis of the Minnesota Measures data collected by the National Center for Higher Education Management Systems; NCHEMS, 2009) regarding student enrollment in two- and four-year degree programs in higher education. This subsegment is structurally aligned with how the data are collected and reported by the NCHEMS and provides analytical comparison data. The information was extrapolated from the NCHEMS, which uses several standardized instruments to

Patricia Y. Talbert
University of Phoenix
School of Advanced Studies
3157 E. Elwood St.
Phoenix, AZ 85034
pytalbert@email.phoenix.edu

collect data. Second, strategic methods – submitted by – academic leaders to increase ERG rates among students are presented, emphasizing the importance of increasing the low rates among students of color and guiding them to achieving academic success (OHE, 2009). The study presents three phases of collected conceptualized data from academic leaders' perspectives: (a) strategic methods and/or programs being developed to increase ERG rates among students (b) strategic methods and/or programs being developed to increase ERG rates among students of color, and (c) recommendations of programs and resources needed to increase ERG rates among students of color and change the status quo. The academic leaders identified strategies for adaptation, implementation, and best practices being used effectively in their colleges and thus pertinent for higher education institutions to increase ERG rates. These findings may operate as a guide for other institutions working to increase ERG rates by using a combination of various strategies and quantifiable measures to evaluate the efficacy of implemented programs and then determine what is working best for the institution, especially for two-year institutions.

Background

A review of the past literature from the Education Resources Information Center (ERIC) database shows a variety of material that addresses a range of elements, from student enrollment and retention to introducing programs and offering strategies that can guide students with completing their education successfully (Boening & Miller, 2005; Campbell & Campbell, 1994; Thomas, 1994). Some authors have focused on this issue at both the undergraduate and graduate levels (Boening & Miller, 2005; Callahan, 2009; Seidman, 2005), and there are others who addressed topics such as how to guide students of color (Padilla, Trevino, Gonzalez, & Trevino, 1997; Ulloa & Herrera, 2006), students with disabilities (Gladieux & Swail, 1998), and underrepresented populations (Campbell & Campbell, 1994; Gonzalez, 2000) in navigating more easily through the academic processes. Multiple theoretical perspectives have been summarized to introduce an understanding of key factors in student success in academia, such as sociological perspectives (Tinto, 1987), organizational perspectives (Bean, 1983), psychological perspectives (Bean & Eaton, 2000), cultural perspectives (Gonzalez, 2000), and economic perspectives (Braxton, 2003). The conceptual framework for this study lies solely on one robust model: the student integration model (Tinto, 1987).

Student Integration

Vincent Tinto's (1987) student integration model (SIM) theorizes that the social integration of students—such as developing cohesive relationships with students and faculty, maintaining appropriate learning environment, and engaging socially in school activities—increases their institutional commitments, thereby reducing the likelihood of student attrition. Students who have a greater sense of belonging to the academic environment are comfortable with matriculating through the process and have a higher chance of completing their degree program. "It is the interplay between the individual's commitment to the goal of college completion and his commitment to the institution that determines whether or not the individual decides to drop out" (Tinto, p. 6). Tinto's landmark theory posits such student-institution connections represent an intricate component influencing student persistence. Therefore, it is essential for higher education institutions to have a thorough understanding of their students' academic goals and then apply this information to develop an independent student action plan for achieving them. Implementing and working with students frequently to evaluate progress, and offering further guidance for students who are propelling in the wrong direction, will assist them with being more successful. The ultimate goal for higher education institutions starts with helping students cultivate a sense of commitment and determination to achieve their academic goals (Tinto).

Peer interactions and associations influence students' cognitive development, self-confidence, and motivation.

Harper and Quaye (2009) also address the significance of student integration by underscoring the value of student engagement; the researchers include multiple illustrations and examples of theoretical perspectives and approaches that universities may espouse to increase student engagement and retention. Scholars (Barbatis, 2010; Harper & Quaye) in the field have introduced several paradigms that provide universities with additional approaches to working with students of all racial and ethnic backgrounds, students with disabilities, students from various religious groups, nontraditional students, international students, commuters and online students, gender specific approaches, and first-generation students. The goal is to create pipelines to engage students from all milieus and aid them with feeling more comfortable in a new academic environment. As Harper and Quaye (2009) have posited, "students develop feelings about their peers, professors, and institutions that give them a sense of connectedness, affiliation, and belonging, while simultaneously offering rich opportunities for learning and development…. (e.g., studying in the library, establishing relationships with faculty, and taking advantage of academic support services)" (p. xxiii). When all of these elements are in place, students have increased opportunity to be successful in their academic program. For those institutions working vigorously to develop student integration strategies and adopt practices to increase student engagement, these systematic changes can "correlate highly with positive educational outcomes" (p. xxiii).

Literature pertinent to this subject has reported an extensive range of empirical and practical information and models. For instance, Callahan (2009) introduced the significance of academic-centered peer interactions as a major element contributing to undergraduate students' academic success and retention. The author postulated that peer interactions and associations influence students' cognitive development, self-confidence, and motivation. Callahan suggested that peer interactions and developing cohesive relationships both internally and externally could shape undergraduate learning experience and promote the pursuit of academic success.

Similarly Scott and Homant (2007) focused on the benefit of using a professional mentor program to help the university understand how best to retain adult students of color. The authors reviewed the efficacy of the professional mentor program at the University of Detroit Mercy (UDM). They found that both mentor and mentee were able to benefit from the program because of the interaction and positive learning environment. The mentors and mentees identified three elements of significance regarding the program: networking, sharing, and skills acquisition. The mentor-mentee program offered students an opportunity to network with professionals who could provide an academic overview, afforded more interactions with their professional leaders, and allowed for direct hands-on programs to increase their knowledge and improve their skills. In addition to the findings, the authors provided some general guidelines for others to follow when replicating this professional peer program.

> (a) determine the readiness of the program and establish the goals for the mentoring program, (b) establish selection criteria for mentors and protégés, (c) train mentors and novices for success, (d) match the mentors and protégés, and (e) support mentor/protégé program planning. The implication of the steps in formal mentoring programs is that, if they are followed as prescribed, good mentoring will happen, resulting in successful outcomes for the protégés. (p. 63)

Another major element when developing the mentor-mentee program included ensuring that

matched mentors and protégés shared common interests to assist with building cohesive student and professional relationships (Scott & Homant, 2007). The study used a professional mentor tool developed by the UDM to measure the program's impact. The findings revealed the university had a successful year with the program, as they were able to attract and retain a more diverse student body. The university plans to continue using this program and implement strategies designated appropriate for other culturally specific groups (Scott & Homant, 2007).

In another study, Ulloa and Herrera (2006) detailed the benefits of workshops—established by Arizona State University's Multicultural Student Center–for mentoring ethnic minority students by like minority individuals. The student mentors helped support undergraduate students with academic processes, guided them through their programs, and encouraged students to enroll in graduate school. The framework of the workshops included several salient goals:

> (a) to provide undergraduates with a comfortable place to explore their interest in graduate school, (b) to assist in providing undergraduates with the necessary tools and information for attainment of their long-range educational goals, (c) to provide students with an opportunity to hear the narratives of other ethnic minority students and their experiences regarding graduate school, and (d) to provide an opportunity for the development of mentoring relationships between ethnic minority undergraduate and graduate students. (Ulloa & Herrera, 2007, p. 363)

The uniqueness of the student-mentoring program provided students with the opportunity to receive first-hand knowledge and experience from their peers. The direct personal approach by peers inspired students of color to continue their studies and work diligently to complete their education (e.g., 91% of students indicated they would consider grad school in the future). Ultimately, such a systematic approach assists struggling students to find their way in a new environment the ability to recognize their existence in the field of education.

In contrast, Boening and Miller (2005) reported a very different strategy for increasing student retention and decreasing student attrition. The authors suggested that new student orientation programs that promote diversity are the gateway to student inclusiveness in academia. Through a Delphi process, the authors solicited information from 15 professionally active new student orientation directors, all of whom were members of the National Orientation Director Association, to obtain strategies for promoting success and retention among diverse student populations through orientation. The process produced 53 collected strategies for creating an inclusive environment for students. A few significant strategies created by these academic leaders that colleges and universities may consider adopting follow:

> (a) show the positive economics of a successfully inclusive environment, (b) don't talk about diversity, just show it is important, (c) have diverse orientation team leaders, (d) have a diversity center on campus, (e) have people from other countries as greeters, (f) include self-paced diversity workshops online, and (g) have the president speak about the importance of diversity. (Boening & Miller, 2005, p. 47)

In addition, several authors, including Piercy, Giddings, Allen, Dixon, Meszaros, and Joest (2005); Quezada and Louque (2004); and Umbach (2006) have underscored the significance of creating an inclusive educational environment by including academic leaders from diverse milieus. As the United States continues to grow and become a more pluralistic society, it is critical that educational institutions are able to respond to the changes in demographics. It is of paramount importance to have well-prepared astute individuals with expertise in multiple fields—such as healthcare, engineering and technology—from diverse milieus to continue supporting businesses in corporate America. Establishing a social inclusiveness of heterogeneous academic leaders to offer pedagogical knowledge sharing that reflects institutions' racial and ethnic student composition is beneficial for all (Taylor & Myers, 2000). It is essential to offer all students an education that exposes them to a variety of subjects and disciplines and that draws on a heterogeneous social, cultural, and linguistic environment. By providing students with a diverse experience of knowledge and skills, educators can create a more competitive nation.

New student orientation programs that promote diversity are the gateway to student inclusiveness in academia.

Method

A purposive research method was employed to identify and select eligible academic leaders to participate in this research study. Patton (1990) defined purposive sampling as a "process of selecting individuals with homogeneous characteristics with common threads being the issue for discussion" (p. 169). Soliciting information from academic leaders was an essential component because they are the individuals working intensely to educate and guide students in academia: They are the most skilled and knowledgeable to provide perspectives regarding the subject matter. These academic leaders have initial and consistent contact with students throughout the duration of their education. Comprehensive leadership skills, knowledge, and attitudes offer better informed perspectives for this research matter.

Sample and Setting

The criteria for participating in the study were as follows: participants must (a) be academic administrative leaders employed with the Minnesota State Colleges and Universities (MnSCU) system, (b) be employed at public technical colleges or community colleges in Minnesota, (c) have an employment history of 5 or more years, and (d) be willing to provide information regarding how to increase ERG rates and guide students with completing their education successfully. The sample included 104 participants comprised of academic leaders between the ages of 30 and 69 who met these criteria. The sample was divided into two groups: academic administrators and faculty members. Out of the 104 participants, (46/44%) were academic administrators and (58/56%) faculty members. The mean participant age was 49.51 (SD = 10.46). In regard to institutional affiliation, there were (71/68%) respondents employed at community colleges and (33/32%) respondents working for public technical colleges. In order to maintain confidentiality and anonymity the survey was designed to focus only on the assigned questions and refrained from asking any further demographic information that would reveal personally identifiable information (PII). The MnSCU (2009) system is a comprehensive system collaborating with approximately 32 institutions in Minnesota. Of this number, there are 21 community colleges that offer a higher education; the study focused on leaders from these institutions because they offer a wide range of disciplines to many learners from various racial and ethnic backgrounds.

Design

After the approval of the Institutional Review Board, questions were developed utilizing Survey Monkey and sent to academic leaders affiliated with the MnSCU system, public technical colleges, and community colleges to collect information regarding strategies and/or programs being developed to increase ERG rates among all students and students of color. By using MultiEmail Server software (2000), a mass e-mail notification was sent to technical and community colleges' academic leaders in Minnesota (N=104) to complete an online

CONTINUED ON PAGE 26

CONTINUED FROM PAGE 24

questionnaire containing both open and closed-ended questions (see Appendix A). The survey was designed with a *respondent requirement field*, so that each respondent would address all questions before moving on to the next question. By including this systematic mechanism all questions required an answer before successfully submitting the complete survey. As a guide to the exploratory research, the study examined the following questions:

1. What are some strategic methods and/or programs being developed to increase ERG rates for all students?
2. What are some strategic methods and/or programs being developed to increase ERG rates among students of color?
3. What educational resources are necessary to increase ERG rates among students of color?

Qualitative Analysis

Open-ended questions enabled commentary on the strategies essential for increasing ERG rates and allowed participants to tell their story in their own words, thereby presenting the most accurate information possible. This technique also afforded the researcher an opportunity to construct themes from the answers and provide a more comprehensive depiction of the strategies. Of the 122 individuals contacted a total of 104 academic leaders were eligible to participate in the study; all individuals (*N*=104) completed the entire questionnaire.

The researcher utilized the Moustakas modified van Kaam method (Moustakas, 1994) to organize, analyze, and synthesize the information in order to categorize common experiences and strategies introduced by the participants and construct relevant points. This process entailed, (a) organizing data or listing primary grouping, (b) reducing and eliminating, (c) clustering and thematizing the invariant constituents, (d) identifying final invariant constituents and themes by application or validation, and (e) constructing textural-structural descriptions of participants (Moustakas, 1994, p. 85). The questionnaire data used for the study was collected and organized to review similar patterns and themes "to identify essential features and relationships" (Coffey & Atkinson, 1996, p. 9). Therefore, an open, axial, and selective coding system (Creswell, 1998) was used by first establishing a coding paradigm to categorize the information. This systematic approach involved organizing a numerical count to assign similar themes (starting with a scale of 1 through 10) and then assigning specific properties and subcategories to show relationships of the exploratory phenomena. The researchers followed the protocol of exploring four elements: viewing for "causal conditions," exploring "specified strategies," identifying "context and intervening conditions," and "delineating the consequences" (Creswell, 1998, p. 57). Then, the survey information was transcribed verbatim and entered in the Acculine Academic database. The transcribed information was analyzed independently by two research members, using grounded theory to collect data, develop data coding schemes, synthesize data into core categories, and then analyze emergent themes to address the exploratory phenomena (Glaser & Strauss, 1967; Strauss & Corbin, 1990).

Table 1.

Percent of High School Graduates Enrolled in Minnesota Colleges and Universities from 2000 - 2006

Year	2000	2002	2004	2006	*M*
Minnesota	63.9%	64.6%	65.3%	68.4%	65.5%
National Average	56.5%	56.8%	55.7%	61.6%	57.6%
[+]North Dakota	69.4%	73.7%			
[+]South Dakota			68.8%		
[+]Mississippi*				76.1%	

Note. This table includes out-of-state enrollment.

*Mississippi has one of the lowest high school graduation rates in the nation. It may rank first in college going due to the likelihood that the small percent who do graduate are more likely to enroll in college. Mississippi ranked 16th in 2004 at 59.9 percent.

[+]State with the highest rate within the current listed year.

Source: The Office of Higher Education, Minnesota Measures 2007–2009 Report on Higher Education Performance and the NCHEMS.

Comparison Data

Enrollment rates. In reviewing the quantitative data, this research used a portion of the Minnesota Measures from the 2007–2009 reports to explore the information pertaining to student enrollment in two- and four-year degree programs in Minnesota (OHE, 2009). The information was collected by the rate at which high school graduates enroll directly in college and universities, and data are referenced as college participation versus enrollment. Table 1 provides inclusive information regarding enrollment rates for students from 2000–2006.

Retention rates. Table 2 provides an overview of the retention rates for students from 2004 to 2007. The measurement data were collected by exploring first-time or full-time undergraduates remaining within the institution for the full academic year (i.e., fall term and then returning to the same institution for the next fall term). The information was collected for both two- and four-year institutions; however, due to imprecise information relating to retention rates for two-year colleges, reported rates for two-year colleges include only data from 2005 to 2007 (OHE, 2009). Four-year institution data are included in order to provide a holistic perspective of Minnesota higher education retention and graduation rates. From 2004 to 2007, Minnesota remained above the national average rate for student retention. In regard to the two-year public and private institutions, Minnesota's retention rate improved slightly "from 56.6 percent to 58.1 percent over the last three years but remained lower than peer states or national averages" (OHE, 2009, p. 12). This information is crucial because it enables colleges and universities with lower ERG rates to access and discuss strategies that have successfully increased ERG rates and helped students to propel toward graduation.

Graduation rates. Table 3 provides an overview of the graduation rates for students, which includes both four-year and six-year graduation rates from 2005 to 2007. The data are also collected to analyze three-year graduation and transfer rates at Minnesota two-year institutions; however, this

Table 2.

Percent of Retention Rates at Minnesota Institutions from 2004–2007

Institution Type	Fall 2004	Fall 2005	Fall 2006	Fall 2007
4-Year Institutions				
State universities	72.5%	71.9%	72.7%	73.2%
University of Minnesota	82.6%	83.0%	82.6%	83.4%
Private (not-for-profit)	84.4%	83.5%	84.6%	84.5%
Total 4-year	79.8%	77.8%	78.8%	80.6%
2-Year Institutions				
State colleges	—	55.7%	56.0%	56.8%
Private career schools	—	81.0%	75.0%	65.6%
Total 2-year	—	56.6%	56.7%	58.1%

Source: The Office of Higher Education, Minnesota Measures 2007-2009 Report on Higher Education Performance and the NCHEMS.

research focuses on both four-year and six-year graduation rates. Additionally, the Minnesota Measures (OHE, 2007) reported that the "average graduation rates for students of color were consistently below state's overall graduation rates" (p. 13).

Achievement gap data. Figure 1 (page 28) shows the achievement gap between students of color compared to their Caucasian counterparts. The first Minnesota Measures report data shows the achievement gap continues to grow wider among students of color. The OHE (2009) stated

> A large portion of students of color neither graduated nor transferred within 150 percent of the expected completion time than their White counterparts. This was especially pronounced at two-year institutions where, on average, fewer than half the students of color either completed a credential or transferred to another institution within three years. At Minnesota's four-year institutions, Black and American Indian students completed degrees at substantially lower rates than their Asian, Hispanic and White counterparts. (p. 21)

The results of the analyses, comprised of information selected to address the ERG rates since the beginning of the first year of the Minnesota Measures report, shows a gradual increase each year for students of color in all three areas (i.e., enrollment, retention, and graduation). Nevertheless, there is still room for substantial improvement in each area and a need for strategizing and exploring ways to assist all students with matriculating through the educational system. The findings from these studies suggest that degree completion rates, as they relate to students of color, were consistently below average and continue to be a burgeoning problem.

Findings and Discussion

Using academic leaders—who assist with creating policies and procedures, developing goals and programs, and implementing strategic processes to better serve students—to solicit suggestions and obtain further recommendations of how to increase ERG rates and promote student success was the most significant aspect of this research. The academic leaders provided a wide-range of detailed information to address the research matter.

In general, respondents provided important strategies to increase ERG rates among students and to assist institutions to better serve students. The findings were that colleges and universities need to (a) establish tracking systems to review students' failures, achievements, and successes and track high-risk students; (b) expand advertising techniques (i.e., use of radio promotion, online ads, and annual open house events) to promote education programs and increase enrollment; (c) better align English as a second language (ESL) programming to college readiness programs so recent immigrants can succeed in college-level coursework; and (d) give careful attention to course planning, design, delivery, and assessment of learning and initiatives to increase teaching effectiveness with minority students. Frequently minority students are unaware of such programs available to increase their skills and lack knowledge of qualifications.

Questionaire information was divided into three significant categories to address the exploratory research questions. Additional subcategories emerged from the responses to address possible options of increasing ERG, such as developing self-study action plans to explore the topic, implement student service protocols and reevaluate outcomes, establish quarterly predictive modeling and review data frequently to forecast student enrollment behavior, and use quick response (QR) codes to monitor resources and evaluate students' needs. The combined collective information from academic leaders revealed significant strategies for increasing ERG rates and guiding students in achieving academic success.

Table 3.

Graduate Rates at Minnesota 4-Year Institutions & 2-Year Institutions from 2005 – 2007

	2005		2006		*2007	
Institution Type	**4-Year Rates**	**6-Year Rates**	**4-Year Rates**	**6-Year Rates**	**4-Year Rates**	**6-Year Rates**
State universities	14.9%	46.8%	20.6%	46.8%	20.7%	47.7%
University of Minnesota	29.0%	56.2%	30.1%	56.6%	33.3%	58.5%
Private (not-for-profit)	58.8%	70.0%	56.7%	68.2%	62.0%	71.8%
State of Minnesota	35.0%	58.0%	36.7%	57.5%	39.2%	59.5%
	3-Year Rates					
2-Year Institutions**						
State colleges		31.5%		31.8%		30.3%
Private career schools		49.6%		55.2%		56.2%
Minnesota Graduation rate		34.0%		33.3%		31.6%

Source: The Office of Higher Education, Minnesota Measures 2007-2009 Report on Higher Education Performance and the NCHEMS.

**Note*: The 2007 "data in this report reflect the graduation rates of first-time, full-time, degree seeking undergraduates who began at a four-year institution in fall 2001 (OHE, 2009, p. 13).

**The graduation rate is adversely affected by transfer activity and is listed as the Minnesota 3-year graduation rate at 2-year institutions.

Academic Administrative Strategic Approaches

A combination of strategies provided by the academic leaders (46%) were identified to develop the framework for the question, what are some strategic methods and/or programs being developed to increase ERG rates for students? Coded data were arranged into one of three topics: ERG plan of action, Community–Academic Partnership, and Academic Advisement and Mentorship Programs.

ERG plan of action. Academic leaders suggest that all higher education institutions develop an ERG plan of action to provide schools with instructions on how to increase enrollment, enhance retention, and support students with graduating. The program should be congruent with the school's mission, include goals and objectives, concentrate on barriers that may preclude students from completion and how to address those issues, and embrace a broad range of strategies to assist students with matriculating through difficult courses or programs. Most important, the ERG plan of action should include a process to collect, analyze, and review data to use for narrowing the achievement gap and outline a tracking mechanism to measure outcomes of student success.

Community–academic partnerships. Another salient suggestion academic leaders have introduced is importance of institutions developing congruent

community–academic partnerships with agencies, businesses, and grassroots leaders. Developing partnerships with community-based organizations allows students the opportunity to engage in enriching community activities and obtain hands-on experience that offers a practical sense of day-to-day activities. The development of community–academic partnerships is reciprocal and mutually beneficial for institutions and students because institutions become more socially conscious of the community needs and issues, develop an increased level of cultural awareness, and build interconnected relationships for all constituents. This practice raises students' awareness and provides a sense of interconnection; students are also engaged and learn about integrity, commitment, and responsibilities. These experiences can affect students both academically and professionally.

Academic advisement and mentorship programs. Many of the academic leaders' responses address the value of developing academic advisement and mentorship programs for entering freshman and transferring students. One respondent states,

> Academic mentors/protégés/retention specialists are essential and should be a mandatory component for every institution. Mentors have the ability to coach and guide students through every step of the academic process; they are the first contact and able to build integrated relationships, and have consistent communication to assist students with staying on track. More importantly, they are the fundamental connection to help students navigate through processes and overcome obstacles.

Another respondent includes, "mentors, especially when institutions are equipped with adequate staff to serve students, are able to effectively guide students." Another comment regarding mentorship programs relates to supporting students approaching graduation: "graduating students need mentors who have a clear and concise eye for student courses, interpersonal connection skills, leadership, reinforcing institutionalized support, and the ability to continue motivating undergraduate students to the finish-line of completion." Of course, many others also make a contribution to assist students with adapting to the undergraduate environment and completing their degree, but mentors have an influential role and are capable of doing so because of their direct, one-on-one relationship and continuous advisement.

In conjunction with establishing a mentorship program for students, one respondent suggests "granting awards for those stellar mentors who are working industriously to make a difference with closing the educational gap. Mentoring programs that recognize outstanding mentors can make a difference with achieving academic performance, reducing student dropout rates, and guideing students in a positive direction." In essence, student and staff mentorship programs have a highly significant impact on the educational outcome for many students, and study findings support investing in these programs is advantageous for all (Campbell & Campbell, 1994).

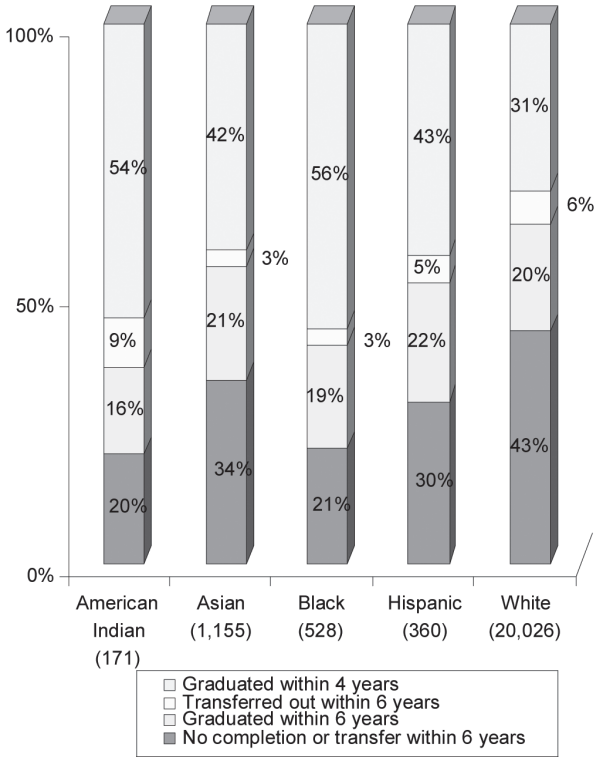

Figure 1. **Graduate and transfer activity for Minnesota 4-year institutions by race/ethnicity 2007.**

Reprinted with permission from U.S. Department of Education, IPEDS Graduation Rate Survey, and the Office of Higher Education, Minnesota Measures 2009 Report on Higher Education Performance.

Academic Programs Strategic Approaches

The second focus question centered on strategies needed to increase ERG rates among students of color: What are some strategic methods and/or programs being developed to increase ERG rates among students of color? The academic leaders (54%) who addressed this question proposed several strategies to increase rates and better serve students. "In regard to increasing enrollment, colleges and universities will benefit by working more directly with high schools, recruiting at college fairs, establishing scholarship programs for students who enroll, and using academic advisors to work closely with students of color." Another individual proposed several strategies and programs to improve retention:

> developing programs that are culturally specific, inviting minority speakers and grassroots leaders to speak throughout the year, engaging students and soliciting their opinions, and creating a holistic environment for all. It is time for a paradigm shift in the academic environment, which means incorporating inclusiveness for all students.

Additional strategies from respondents included using diversity leaders to hold workshops for staff and students, crafting social events that educate individuals about different cultures, developing marketing materials (i.e., brochures, flyers, introduction packets, etc.) to include different languages, creating mentorship programs by using academic leaders and staff to work strictly with students at-risk of withdrawing from courses/programs, and establishing student and/or alumni mentorship programs.

The significance of the TRIO programs and Student Support Services programs is also mentioned. One individual stated, "these programs are valuable because they support students in their efforts to complete their education." The federal TRIO programs are programs to "assist low-income individuals, first-generation college students, and individuals with disabilities to progress through the academic pipeline from middle school to postbaccalaureate programs" (U.S. Department of Education, 2009, para 1). Several participants underscored the need to inform students of TRIO programs while in high school or implementing more efficient systems to disseminate information about them. Although these programs are available to all qualifying students, students of color may be uneducated about such programs and qualification guidelines, so neighboring institutions may consider collaborating with high schools to bridge the knowledge gap. Having supportive systems and procedures in place can help derail those pitfalls that ultimately hinder students in academia.

Academic Resources Strategic Approaches

The respondents from two-year community and technical colleges offered many recommendations to address the last focal question: What educational resources do you believe are necessary to increase ERG rates among students of color? Table 4 includes 10 recommendations from academic leaders of resources needed to assist in this quest. These recommendations fall into four primary

areas: additional funding, preparation, programs, and increased staffing.

Limitations

Although this study was significant by introducing strategies to increase ERG rates among students, limitations must be noted. The information collected for this study was obtained from academic leaders stationed only at technical and community colleges in Minnesota. Furthermore, the qualitative data represent the perceptions of a limited cohort–less than 5%–of academic leaders, thereby diminishing generalizability. Despite the limitations, the findings offer potentially useful strategies to increase ERG rates.

Implications for Practice and Future Research

The findings for this study have implications for both academic leaders and individuals employed in higher education working to improve ERG rates. For individuals working in higher education, the findings offer insight of various strategies to use in conjunction with their current programs, and then evaluate efficacy of these strategies.

Incorporating service learning into courses is one model to promote community/academic partnerships. A single assignment/project, such as assisting local nonprofit organizations with grant writing, or course that includes community internships are examples of service learning. Such experiences can also serve to identify mentors—in the community as well as on campus—for minority students.

Thomas (1994) has expounded further on the importance of mentors in his exploratory research of the Ronald E. McNair Postbaccalaureate Achievement Program, Graduate School of Education Rutgers. The program is designed to encourage first-generation, low-income, and traditionally underrepresented minority college students (i.e., sophomores, juniors, and seniors) to work diligently and plan to enroll in graduate school, which is definitely a higher academic echelon. The program uses mentors and copious strategies (e.g., developing mentorship relationships with outstanding faculty, long-term research internships, and continual advisement) to lead students to their completion of undergraduate degrees and guide them onward to graduate school. The program has been successful with 88% of the students enrolling in graduate school the first year, and 90% of the students enrolling in graduate school the second year.

Study recommendations for program and strategic approaches may be challenging to community colleges with limited resources. Two-year institutions—which may have fewer training program opportunities—might consider partnering with community resources to expand offerings. A local business presenting a workshop on cultural diversity could allow college professionals to attend or a cultural event sponsored by a community organization could be advertised to students or included as a class activity. Electronic media can provide an inexpensive and efficient means for posting and circulating multilingual advertising. Locally active alumni also represent a prime connection to business and social venue learning prospects.

It is essential that students of color have institutionalized support systems established to assist them with navigating through processes and overcoming the barriers that may preclude them from successfully completing their degree programs. TRIO programs support and motivate students overall; specifically, Student Support Services programs provide special services to assist students in academic endeavors. These programs can offer tutoring, academic advising, personal and career counseling, and overall guidance toward academic success in students' selected degree programs. Strong communication and cooperation between academic departments, learning support, student services, and federally funded programs is paramount for realizing the best possible student outcomes.

On an institutional level, a professional development workshop could be scheduled to create an ERG plan of action. Such a workshop would involve campus constituents in learning about cultural diversity and support ownership of a specific action plan related to institutional mission.

In addition, it is recommended that further research should be obtained from other academic institutions including both public and private vis-à-vis ERG strategies and compare to view similarities or dig deeper into existing published reasons to explore the efficacy of these recommendations. Following this practice would offer more comprehensive information about strategies essential to increasing the ERG rates and improving graduation rates among the minority population. Further testing would give universities a better understanding about what strategies could make the most impact at their campuses across diverse regions/states. Additional research could include monitoring the strategic methods and programs introduced by academic leaders to evaluate the impact of these apparatus with increasing ERG rates and assisting students with successfully completing their preferred degree program. Providing further evidence-based outcome information and data may afford additional support and highlight the need for these programs. Most important, the outcome information accentuates the efficacy of these programs and offers ideas regarding how to best implement them.

Table 4.

Education Resources Needed to Increase ERG Rates Among Students of Color

Topics	Listing of Education Resources
4.1 Funding	4.1.1 Funding for mentorship programs, assisting in tutoring, and career services and academic advisors.
	4.1.2 Financial aid assistance from academic advisors.
	4.1.3 Grants for advertising in publications directed toward students of color and underrepresented groups.
	4.1.4 Additional financial support for tutoring, mathematics, and writing programs.
	4.1.5 Funding for tracking systems to measure trends and patterns of ERG.
4.2 Preparation	4.2.1 Better preparation at K-12 for all students.
	4.2.2 ESL programs or peer programs/groups to help students academically and learn to build on individual strengths.
4.3 Programs	4.3.1 Development of student pilot programs to obtain feedback.
	4.3.2 Recruiting staff, internship placements, retention coordinators, faculty of color, and staff from underrepresented communities.
4.4 Staff	4.4.1 Increased academic support and student life involvement and developed programs.
	4.4.2 Additional administrators and staff of color to assist students of color.

Conclusion

In conclusion, the academic leaders offered many strategies for increasing ERG rates, and, in general,

CONTINUED ON PAGE 31

Standard Three: Ethical Reasoning Abilities

Students who think critically learn to identify ethical issues and reason well through ethical questions.

Critical Thinking Principle

Critical thinkers recognize that one cannot be an ethical person unless one learns to reason well through ethical questions, issues, and situations. The proper role of ethical reasoning is to highlight acts of two kinds: those that enhance the well-being of others—that warrant praise—and those that harm or diminish the well-being of others—and thus warrant criticism. Developing one's ethical reasoning abilities is crucial because there is in human nature a strong tendency toward egotism, prejudice, self-justification, and self-deception. These tendencies are exacerbated by powerful (self-serving) cultural influences. The ultimate basis for ethical reasoning is clear: Human behavior has consequences for the welfare of others (Paul & Elder, 2006b).

Performance Indicators and Dispositions

Students who think critically are able to identify ethical questions, issues, and situations and then reason well through them. They manifest a commitment to a common core of ethical principles: Everyone has an ethical responsibility to respect the rights of others, including their freedom and wellbeing, to help those most in need of help, to seek the common good, and to strive in some way to make the world more just and humane. They recognize the powerful forces of egocentric and sociocentric thought in human life and actively work to diminish these forces in their own thoughts and behavior. In other words, they realize that many ethical issues are complex, necessitating interrelated skills of mind that must be developed and cultivated. They understand the importance of distinguishing ethics from religion, social conventions, and the law and of keeping these distinctions clearly in mind when reasoning through ethical issues.

Outcomes

1. Students demonstrate understanding of ethical reasoning, by accurately elaborating and exemplifying that reasoning.
2. Students demonstrate awareness of the fact that ethics is often confused with very different modes of thinking and take pains not to confuse ethical reasoning with reasoning in different, though related, categories. They distinguish ethical thinking from religious thinking (based on theology), conventional thinking (based on social conventions and taboos), political thinking (based on ideology and vested interest), and legal thinking (based on political processes and social pressures).
3. Students can accurately identify fundamental human rights.
4. Students demonstrate understanding that ethical principles are based in the rights of humans and other sentient creatures.
5. Students can accurately articulate universal human and animal rights.
6. Students can accurately determine when human or animal rights are being violated.
7. Students demonstrate the propensity to honor universal human and animal rights.
8. Students recognize that there is a logic to ethical reasoning, just as there is a logic to mathematical, scientific, and medical reasoning, and can accurately articulate that logic.
9. Students demonstrate, in reasoning through ethical issues, that ethical reasoning must meet the same intellectual standards that apply to other domains of knowledge (i.e., be clear, accurate, precise, relevant, logical, deep, nontrivial, and fair).
10. Students distinguish between simple ethical questions (which have a finite answer) and complex ones (that require reasoned judgment).
11. Students identify all of the significant facts relevant to an ethical question and consider those facts fairly.
12. Students put themselves imaginatively in the place of others and recognize how they would think and feel if someone were to act toward them as they are acting toward others.
13. Students demonstrate awareness of the fact that ethical reasoning entails doing what is right even in the face of powerful selfish desires.
14. Students demonstrate understanding of the fact that much ethical insight comes from recognizing inconsistencies in human behavior.
15. Students can accurately state, elaborate, and exemplify acts that are unethical in-and-of-themselves. They do not confuse these with acts deemed unethical by society, the law, or religious groups. They use intellectual standards, ethical principles, and knowledge of the relevant facts to determine whether an act is ethical or unethical.

Conclusion

Critical thinking, or criticality, is usually presupposed within academic subjects and disciplines. Yet, though much critical thought occurs within subjects and fields, and though all subjects and disciplines presuppose the core tenets of critical thinking, actual thought and practice within fields of study is often flawed. One significant reason for this is that the critical thinking implicit in given subjects and disciplines is frequently kept at the tacit level, rather than being made explicit. When thinking is not made explicit, even in academic disciplines, flawed reasoning can easily go undetected. It is important to first make thinking within the disciplines explicit and then assess the thinking to see if it makes sense in context. Viewing the disciplines in this way highlights the importance of bringing what is implicit in thought to the explicit level. Further, in order for students to learn to think within the disciplines, mentors need to articulate and develop subject-specific critical thinking standards within various fields of study.

References

Paul, R., & Elder, L. (2006a). *The thinker's guide to how to write a paragraph*. Tomales, CA: Foundation for Critical Thinking Press.

Paul, R., & Elder, L., (2006b). *The thinker's guide to understanding the foundations of ethical reasoning*. Tomales, CA: Foundation for Critical Thinking Press.

Paul, R., & Elder, L. (2008). *The thinker's guide to how to read a paragraph*. Tomales, CA: Foundation for Critical Thinking Press.

Richard Paul is Director of the Center for Critical Thinking and Director of Research of the Foundation for Critical Thinking. Linda Elder is an Educational Psychologist and President of the Foundation for Critical Thinking, Tomales, CA: www.criticalthinking.org

CONTINUED FROM PAGE 29

suggested strategic methods and/or programs needed to assist students with achieving academic success. The most important findings were the significance of financial educational assistance, mentorship programs, tutoring programs, increased staff to support students, and working toward building an inclusive environment for all students. These findings and implications of the study are harmonious with previous recommendations and programs (Boening & Miller, 2005; Scott & Homant, 2007; Ulloa & Herrera, 2006), and they have reaffirmed that higher education institutions must continue their

CONTINUED ON PAGE 33

In an earlier column (Caverly, 1998), this G.A.P. acronym was presented as a useful mnemonic to understand the role of constructing knowledge from information. Here, it is equally useful for understanding the use of mobile devices in mobile learning environments. Gathering apps allow students to gather information from a variety of textual, auditory, visual, and graphic sources. Arranging apps allow students via mobile learning, situated environments to collaboratively construct an understanding. Presenting apps disseminate the representation of the groups' understanding for further consideration by a larger audience as meaning is coconstructed.

Conclusion

Mobile devices are becoming the technology of choice; this may be due to their easy access to students' lives outside academia. Perhaps their ability to free the student and the instructor to escape from the constraints of brick and mortar classrooms to expand learning environments is another. In the next two columns, I'll review specific apps for the development of literacy, mathematics, and learning strategies. I will explore their capabilities for collecting and organizing information as well as sharing newfound knowledge which can be a boon for developmental instruction.

References

Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York, NY: Longman.

Banks, J., Au, K., Ball, A., Bell, P., Gordon, E., Gutierrez, K., . . . Zhou, M. (2007). *Learning in and out of school in diverse environments* (Consensus Report). Palo Alto, CA: Learning in Informal and Formal Environment (LIFE) Center, Center for Multicultural Education, University of Washington, Seattle. Retrieved from http://www.life-slc.org/knowledge-base/report-learning-in-and-out-of-school-in-diverse-en- vironments

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher, 18*(1), 32-42.

Carlin, G. (2006). *George Carlin talks about "stuff."* YouTube. Retrieved from http://www.youtube.com/watch?v=MvgN5gCuLac

Caverly, D. C. (1998). Techtalk: GAP, a reading strategy for multiple sources. *Journal of Developmental Education, 22*(2), 38-39.

Caverly, D. C., Ward, A. R., & Caverly, M. J. (2009). Techtalk: Mobile learning and access. *Journal of Developmental Education, 33*(1), 38-39.

Chipchase, J. (2007). *Jan Chipchase: The anthropology of mobile phones: Connections and consequences.* New York, NY: TED jConferences LLC. Retrieved from http://www.ted.com/talks/jan_chipchase_on_our_mobile_phones.html

Dahlstrom, E. (2012). *ECAR study of undergraduate students and information technology, 2012*. Louisville, CO: EDUCAUSE Center for Applied Research. Retrieved from http://www.educause.edu/ecar

Diigo Inc. (2012). Diigo [app]. Retrieved from http://www.diigo.com/tools

Gordon, W. (2011, December. 20). Lifehacker: How to turn your dumbphone into a smartphone using nothing but SMS [blog]. Retrieved from http://lifehacker.com/5869666/how-to-turn-your-dumbphone-into-a-smartphone-using-nothing-but-sms

iSpeech. (2012). Drivesafe.Ly [app]. Retrieved from http://www.drivesafe.ly/

Jeng, Y.-L., Wu, T.-T., Huang, Y.-M., Tan, Q., & Yang, S. J. H. (2010). The add-on impact of mobile applications in learning strategies: A review study. *Educational Technology & Society, 13*(3), 3-11.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York, NY: Cambridge University Press.

Maslow, A. (1943). A theory of human motivation. *Psychological Review, 50*(4), 370-396. Retrieved from http://psychclassics.yorku.ca/Maslow/motivation.htm

Naismith, L., Lonsdale, P., Vavoula, G., & Sharples, M. (2004). *Literature review in mobile technologies and learning.* Bristol, England: University of Birmingham. Retrieved from http://archive.futurelab.org.uk/resources/publications-reports-articles/literature-reviews/Literature-Review203http://www.futurelab.org.uk/research

Siemens, G. (2004). *Connectivism: A learning theory for the digital age*. elearnspace. Retrieved from http://www.elearnspace.org/Articles/connectivism.htm

David C. Caverly (dcaverly@txstate.edu) is a professor in the Graduate Developmental Education program within the Department of Curriculum and Instruction at Texas State University-San Marcos, San Marcos, TX 78666.

CONTINUED FROM PAGE 31

efforts to develop and implement strategies to increase ERG rates (Padilla, 1997). These findings also emphasize the need for institutions to prepare and establish systems to measure trends and patterns in order to collect evidence-based information to report academic performances and growth in ERG rates.

Postsecondary institutions are increasingly being scrutinized by the government based on their academic performances, values, and outcomes because of the alliance of federal funds, so the establishment of such information can be essential for reporting academic excellence and improving institution practices (Boening & Miller, 2005; Staley & Trinkle, 2011). Institutions willing to adopt new practices, apply heuristic measures, and evaluate outcomes will have a greater influence on retention and student success. Although further research and additional apparatus are pertinent to produce ways to increase ERG rates and assist students with completing their education successfully, these strategies are essential and can make a difference for students.

References

AACC (American Association of Community Colleges). (2011). *American Association of Community Colleges: 2011 fact sheet.* Washington, DC: Author.

Barbatis, P. (2010). Underprepared, ethnically diverse college students: Factors contributing to persistence. *Journal of Developmental Education, 33*(3), 14-24.

Bean, J. P. (1983). The application of a model of turnover in work organizations to the student attrition process. *The Review of Higher Education*, *6*(2), 129-148.

Bean, J. P., & Eaton, S. (2000). A psychological model of college student retention. In J.M. Braxton (Ed.), *Reworking the departure puzzle: New theory and research on college student retention* (pp. 73-89). Nashville, TN: University of Vanderbilt Press.

Boening, C. H., & Miller, M. T. (2005). New student orientation programs promoting diversity. *The Community College Enterprise*, *11*(2), 41–50.

Braxton, J. M. (2003). Student success. In *S. R.* Komives & D. B. Woodard, Jr. (Eds.) *Student services: A handbook for the profession* (4th ed.; pp. 317-338). San Francisco, CA: Jossey-Bass.

Callahan, K. M. (2009). Academic-centered peer interactions and retention in undergraduate mathematics programs. *Journal of College Student Retention: Research, Theory & Practice, 10*(3), 361–389.

Campbell, T. A., & Campbell, D. E. (1994). Faculty/student mentor program: Effects on academic performance and retention. *Research in Higher Education, 38*(6), 727–742.

Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data: Complementary research strategies.* Thousand Oaks, CA: Sage

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions.* Thousand Oaks, CA: Sage.

Gladieux, L.E., & Swail, W. S. (1998). Postsecondary education: Student success not just access. In S. S. Halperin (Ed.), *The forgotten half revisited—1998* (pp. 101–114). Washington, DC: American Youth Policy Forum.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* New York, NY: Aldine Publishing Company.

Gonzalez, K. P. (2000). Toward a theory of minority student participation in predominantly white colleges and universities. *Journal of College Student Retention, 2*(1), 69-91.

Harper, S. R., & Quaye, S. J. (Eds.). (2009). *Student engagement in higher education: Theoretical perspectives and practical approaches for diverse populations.* New York: Routledge.

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

Mullen, C. M. (2012, February). *Why access matters: The community college student body.* (Policy Brief 2012-01PBL). Washington, DC: American Association of Community Colleges. Retrieved from http://www.aacc.nche.edu/Publications/Briefs/Documents/PB_AccessMatters.pdf

MultiEmail Server. (2000). Mass email software. Retrieved from http://www.multiemail.com/

National Center for Higher Education Management Systems (NCHEMS). (2009). *Higher Education Database.* Retrieved from http://www.nchems.org/

Obama, B. (2008). *Barack Obama acceptance speech-DNC-28 August 2008*. Retrieved from uspolitics.about.com/od/speeches/a/Obama_accept.htm

OHE (Minnesota Office of Higher Education). (2007). *Minnesota measures*. Retrieved from http://www.ohe.state.mn.us/pdf/MinnesotaMeasures.pdf

CONTINUED ON PAGE 36

CONTINUED FROM PAGE 34

removing developmental education from four-year institutions raises many questions. Will other states join and do the same? How are students and institutions faring under new policies? Is the case for the need of developmental education being heard?

References

College Board. (2010). *Accuplacer.* Retrieved from College Board: http://precollegeeducation.wikispaces.com/file/detail/Washington+State+ACCUPLACER+powerpoint.pptx

Education Commission of the States. (2010). *State developmental education policies.* Retrieved from Getting past go: https://gettingpastgo. socrata. com/Education/State-Developmental-Education-Policies/5zve-3pvy

Jacobs, J. (2012, January 13). *States push remedial education to community colleges*. Retrieved from US News: http://www. usnews. com/education/best-colleges/articles/2012/01/13/states-push-remedial-education-to-community-colleges

Parker, T. , Bustillos, L. , & Behringer, L. (2010, August). *Remedial and developmental education: Policy at a crossroads*. Retrieved from Getting past go: http://gettingpastgo. org/resources/

Prince, H. (2005, April). *Standardization vs. flexibility.* Retrieved from Jobs for the future: http://www. jff. org/publications/education/standardization-vs-flexibility-state-pol/324

Virginia. (2000). *House bill 30.* Retrieved from Virginia: http://lis. virginia. gov/cgi-bin/legp604. exe?011+bud+14-0+pdf

Krystal L. Wilson (wilsonkl2@goldmail. etsu. edu) is a higher education doctoral student with a focus in leadership and policy analysis. Her research on developmental education state policies is a part of an internship with the National Center for Developmental Education.

CONTINUED FROM PAGE 21

Delpit, L. (1988, August). The silenced dialogue: Power and pedagogy in educating other people's children. *Harvard Education Review*, 58.

Glasswell, K., Parr, J.M., & McNaughton, S. (2003, March). Four ways to work against yourself when conferencing with struggling writers. *Language Arts, 80* (4), 291-298.

Harris, M. (1986). *Teaching one-to-one: The writing conference*. Urbana, IL: NCTE.

Heller, D. (1989). Silencing the soundtrack: An alternative to marginal comments. *College Composition and Communications, 40*(2), 210-215. Retrieved from JSTOR.

Hiatt, M. P. (1975, February). Students at bay: The myth of the conference. *College Composition and Communication, 26*(1), 38-41. Retrieved from JSTOR.

Hillocks, G. (1982). The interaction of instruction, teacher comment, and revision in teaching the composing process. In R. Straub (Ed.), *Key works on teacher response: An anthology* (pp. 77-93). Portsmouth, NH: Boyton/Cook.

Horning, A., & Becker, A. (2006). *Revision: History, theory, and practice.* West Lafayette, IN: Parlor Press.

Kansas State Department of Education. (2008). *Introduction to analytic scoring for the Kansas writing assessment: The 6-trait model*. Topeka, KS: Kansas Dept. of Education. Retrieved from http://www.ksde.org/Default.aspx?tabid=165

McCune, V. (2004). Development of first-year students' conceptions of essay writing. *Higher Education, 47*(3), 257-282. Retrieved from JSTOR.

Murphy, S. (2000). A sociocultural perspective on teacher response: Is there a student in the room? *Assessing Writing, 7,* 79-90. Retrieved from JSTOR.

Newkirk, T. (1989). The first five minutes: Setting the agenda in a writing conference. In C. Anson (Ed.) *Writing and response: Theory, practice and research* (pp. 317-331). Urbana, IL: NCTE.

Nickel, J. (2001, November). When writing conferences don't work: Students' retreat from teacher agenda. *Language Arts, 79* (2), 136-147.

Patthey-Chavez, G.G., & Ferris, D. R. (1997, February). Writing conferences and the weaving of multi-voiced texts in college composition. *Research in the teaching of English*, *31*, 51-90. Retrieved from KU Library Document Delivery.

Sipple, S. (2007). Ideas in practice: Developmental writers' attitudes toward audio and written feedback. *Journal of Developmental Education*, *30*(3), 22-31. Retrieved from JSTOR.

Sommers, N. (2012). *Beyond the red ink: Students talk about teachers' comments***.** New York, NY: Bedford/St. Martin. Retrieved from http://pages.mail.bfwpub.com/hackerhandbooks/authors/videos/

Sommers, N., & Saltz, L. (2004). The novice writer as expert: Writing in freshman year. *College Composition and Communication, 56,* 124-149. Retrieved from JSTOR.

Struab, R., & Lunsford, R.F. (1995). *Twelve readers reading: Responding to college student writing.* Cresskill, NJ: Hampton Press.

Young, R., & Miller, E. (2004). Learning as changing participation: Discourse roles in ESL writing conferences. *The Modern Language Journal, 88* (4), 519-535. Retrieved from JSTOR.

CONTINUED FROM PAGE 33

OHE (Minnesota Office of Higher Education). (2009). *Minnesota measures*. Retrieved from http://www.cpec.ca.gov/CompleteReports/ExternalDocuments/MinnesotaMeasures2009.pdf

OHE (Minnesota State Colleges and Universities). (2009). *Minnesota state colleges and universities systems*. Retrieved from http://www.mnscu.edu/about/index.html

Padilla, R. V., Trevino, J., Gonzalez, K., & Trevino, J. (1997). Developing local models of minority student success in college. *Journal of College Student Development*, *38*(2), 125-135.

Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.

Piercy, F., Giddings, V., Allen, K., Dixon, B., Meszaros, P., & Joest, K. (2005). Improving campus climate to support faculty diversity and retention: A pilot program for new faculty. *Innovative Higher Education*, *30*(1), 53–65. doi: 10.1007/s10755-005-3297-z

Quezada, R. L., & Louque, A. (2004). The absence of diversity in the academy: Faculty of color in educational administration programs. *Education*, *125*(2), 213–221.

Scott, C. L., & Homant, R. J. (2007). The Professional Mentor Program Plus: An academic success and retention tool for adult learners. *Journal of College Student Retention: Research, Theory & Practice, 9*(1), 61–73.

Seidman, A. (Ed.) (2005). *College student retention: Formula for student success.* Westport, CT: Praeger.

Staley, D. J., & Trinkle, D. A. (2010). The changing landscape of higher education. *EDUCAUSE Review, 46*(1), 16–23.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research*, Newbury Park, CA: Sage Publications.

Taylor, C. S., & Myers, S. L. (2000). *Faculty of color in academe: Bittersweet success*. Needham Heights, MA: Allyn and Bacon.

Thomas, E. P. (1994). *Taking the first steps toward graduate education: A report on the Ronald E. McNair postbaccalaureate achievement program.* Rutgers, NJ: Rutgers, The State University of New Jersey.

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition.* Chicago, IL: University of Chicago Press.

Ulloa, E., & Herrera, M. (2006). Strategies for multicultural student success: What about grad school? *The Career Development Quarterly, 54,* 361–366.

Umbach, P. D. (2006). The contribution of faculty of color to undergraduate education. *Research in Higher Education*, *47*(3), 317–345. doi:10.1007/s11162-005-9391-3

U.S. Department of Education. (2009). *Federal TRIO Program*. Retrieved from http://www.ed.gov/about/offices/list/ope/trio/index.html

Advertisers Index