Creating a Bridge from High School to College for Hispanic Students

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An Overview of the Utah County Academy of Sciences, with Special Reference to its Benefits for Hispanic Students

Early College High Schools (ECHS) are defined as "small schools where students can earn both a high school diploma and two years of college credit toward a bachelor's degree" (Early Colleges, 2005). ECHSs are designed as places of learning to help young people progress toward the education and experience they need to succeed in life and in family-supporting careers. The Utah County Academy of Sciences (UCAS) is innovative in its approach in assisting Hispanic students.

Successful transition into college begins at UCAS by having students take college courses while still enrolled in the high school program. This new approach helps students to prepare for college as they begin taking college courses while still in the small, caring, and multiculturally sensitive environment of the Utah County Academy of Sciences. The innovative program that is offered at UCAS aims at successfully transitioning Hispanic students into a four-year college program.

In 2002 the then Governor of Utah, Mike Leavitt, announced in his State of the State address that Utah needed to be more competitive in the areas of math and science. He proposed that six ECHSs open throughout the state of Utah, suggesting that "[A student's] goal will be to earn both a competency-measured high school diploma and an Associate of Science degree while learning technology through work with industry and higher education mentors" (State of State, 2002).

By enrolling in an ECHS, it is hoped that highly motivated students will gain access to a particularly rigorous education. It is felt that the ECHS initiative will increase the number of first-generation, low-income, English-language learners, and students of color in attaining an associate's degree or two years of college credit as well as the opportunity to attain a bachelor's degree.

ECHSs will have the potential to better prepare students for a career by changing the structure of their high school experience to include more college-credit courses and thereby lessening the number of years it will actually take these students to attain a college degree. This will translate into lower overall college costs for these students—a very significant consideration considering their typically lower socioeconomic status.

The UCAS is an example of an ECHS that has just gotten under way. The purpose of this article is to look at some of its early experiences in order to inform other teachers, educational leaders, and policymakers who are involved in finding ways of creating more, and more effective, transitions for minority students from high school into college.

UCAS is located on the campus of a four-year higher-education institution, the Utah Valley State College (UVSC), which has proven itself eager to support the ECHS mission. Specifically, this mission is:

> to provide a quality public education option for motivated Utah County high school students which will emphasize the study of the Sciences and Engineering. UCAS will strive to have a diverse student population which includes dedicated students from non-traditional, first generation college, and minority backgrounds. Students can receive a rigorous education, academic assistance, tutoring, career guidance, and counseling, as needed, in a positive, professional educational environment.. (UCAS, 2005)

Students who attend UCAS can earn their high school diploma while concurrently earning approximately two years of UVSC credits. Because UCAS is a state-funded school, any student who wants to attend UCAS may do so. The only requirement is that a student be willing to work hard at the rigorous education they will be receiving. A student does not have to have been labeled as "gifted" to attend. He or she must simply have a desire to excel in their studies and be willing to put in the work to do so.

Given the math and science emphasis of the UCAS curriculum, students who come to UCAS should enjoy math and science. Of course, the curriculum need not revolve around the sciences. As with certain charter or magnet schools, there could just as easily be, say, an arts or humanities emphasis. UCAS works interfunctionally with UVSC's school of Science and Computer Technology as well as the school of Science and Health.

There are over 13 subject areas that a student can major in within these two schools. These areas include: Computer Information Systems Technology, Computer Networking Sciences, Electronic Automation/Robotic Technology, Electronic Computer Technology, Pre-Engineering, Multimedia Communication, Engineering Graphics and Design Technology, Biology (Pre-medical, Pre-dental), Chemistry, Community Health, Earth Science, Nursing (pre-requisite courses), and Physics.

Since these are areas in which Hispanic students have been and continue to be underrepresented (Garcia, 2001), this

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curriculum has the potential of making inroads into that imbalance in the state of Utah and thus provide a model with which other states might wish to experiment.

When a student chooses to come to UCAS, a major content area is selected so that the student can focus on an area of study they are most interested in for a future career. UCAS then assists the students in making choices of classes that they will need to attend. This not only fulfills their high school graduation requirements, but also advances them two years towards their major area at the college level.

This direction, so sorely lacking in many traditional high-school settings, is of the utmost importance to students of color and lower SES students, of course, since intergenerational poverty and lack of opportunity does not allow them to get such guidance at home in many cases, and since both linguistic barriers and lack of guidance often prevent students from using resources that the school site actually provides but which are effectively inaccessible to certain minority students (Lau v. Nichols, 414 US 563, 1974; Macias, 1987; Pai & Adler, 2001).

As mentioned above, one of the most compelling reasons for students to come to UCAS is the fact that while the students are earning credits towards high school graduation, they are also earning concurrent enrollment college credits free of charge. Sophomore students take classes that are taught on the UCAS campus the entire day; however, they are earning concurrent enrollment for most of the six courses they are enrolled in. Junior students are on the UCAS campus for half of their day, also earning concurrent enrollment credits, but then are able to attend classes on the UVSC campus the other half of the day earning traditional college credits.

When students reach their Senior year, they are on the UCAS campus only one period a day earning concurrent enrollment credits to meet the last High School requirement. They then spend the rest of their day on the UVSC campus earning traditional college credits. This means that a student who enrolls in 10th grade with UCAS can graduate high school with not only that diploma but also approximately 60 hours of free college credits.

Many students will be within one or two classes of earning their associate degree when they graduate from high school. Such students, being virtually through the course of study for an associates degree and therefore ready to begin a four-year institution, are less likely to get trapped in junior colleges and never actually make it into a four-year program at a university.

In other words, programs such as UCAS can go a long way to guard against the "cooling down" effect, which, identified almost three decades ago, still seems to operate in certain junior colleges. This effect, most prevalent among students of color in junior college settings, refers to the phenomenon of junior colleges serving not as a springboard into a four-year institution but rather as a sort of academic holding pen where students of color, feeling more and more trapped because of multiculturally unresponsive curricula and limited student services, experience a reduction and finally elimination of their larger academic aspirations—a "cooling down" of their once high academic aspirations (Karabel & Halsey, 1977).

As the school counselor, one of the responsibilities of the lead author is to recruit students who may be interested in attending UCAS. During this past year of recruiting, she has paid close attention to minority students—mainly Hispanic ones (the area in which UCAS is located has approximately a 30% Hispanic population) and has redoubled her efforts to inform them about UCAS.

For instance, recruiting materials in the newspaper and in brochures are in both English and Spanish. Considerable effort has also been made to enlist counselors at other high schools to get the word out to their Hispanic students. As a result, for the 2005-2006 academic year 19% of the total 200 students recruited for UCAS are Hispanic, which is already slightly higher than the number of Hispanic students currently enrolled in the public high schools in this area.

We hope to see even greater prominence of Hispanic students as the program develops and word of it spreads even further. Unlike typical tracking scenarios in which Hispanic students are underrepresented among those students who are receiving college credit for high-school work (Arum & Beattie, 1997; Gamoran, 2000), the UCAS program is on the road to achieving a salutary *over-representation* of Hispanic students. In short, UCAS is finding a way to confound the perennial problem of the reproduction of ethnically based inequality in the schools (Bowles & Gintis, 1976; Garcia, 2001).

Some Current Research Regarding the Need for UCAS-Type Programs

Even a cursory look at some of the most salient statistics regarding Hispanic student enrollment, achievement, and attainment in U.S. public schools makes it quite clear that there is a great need for such programs as the one we are highlighting.

For instance, Lozano-Rodriguez, Guido-Brito, Torres, and Talbot (2000) predicted that by the end of 2005, the Hispanic population in the U.S. would reach 38 million, and by the year 2010, it is projected that Hispanics will become the largest minority group in the United States, comprising 13.8% of the total U.S. population. Indeed, some estimates point to the possibility that by 2010, Hispanic students will represent fully 20% of all students in the U.S.

However, even with this growth in numbers, the Hispanic population continues to be the least *formally* educated of all the ethnic groups in the United States. In 2000, only 53.1% of the Latino population over the age of 25 had completed high school and some college. Garcia (2001) reported that just over one million Hispanics enrolled in higher education in 1998, a doubling from a decade earlier. However 56% of those students were only enrolled in two-year colleges, pointing again to the ominous possibility of the "cooling down" effect—a possibility that gains further credibility when we consider the fact that Whites are twice as likely to graduate from 4-year colleges than Hispanics. Moreover, only 13% of 25 to 28 year old Hispanics had earned a bachelors degree or more, compared to 30% of Whites.

Landen (2001) further documents that Hispanics earned only 7.6% of all associate degrees, 5.3% of all bachelor's degrees, 3.7% of all master's degrees, 4.6% of all first-professional degrees, and 3.7% of all doctoral degrees awarded in the United States. In 2004, Gandara reported that only 10 percent of Latinos nationwide had earned a college degree, compared with 18% of African Americans and 34% of European Americans.

In short, Hispanics, becoming the largest ethnic minority in the United States, are also the least likely of all the major ethnic groups to graduate from high school, let alone go on to college and earn a degree. In not only economic terms but also in ethical ones, such waste of human talent is unconscionable (Cutri & Ferrin, 1998).

The UCAS Alternative

UCAS has taken very much to heart the words of Eugene E. Garcia, who, in 1998 as a member of the U.S. Department

of Education, submitted a report to the Clinton Administration in which, along with his colleagues, he wrote:

> We submit this report with a sense of urgency and impatience because of the slow pace of improvement ... There are dozens of proven programs, replicable programs capable of increasing Hispanic students' achievement, increasing high school completion, and increasing their college going rate…why, then the persistent gap in Hispanic student achievement? Many explanations have been offered; student characteristics such as social class, language, and entering achievement levels, especially among recent immigrants; school-based forces such as student retention, ability grouping, and tracking; and non-school forces such as family and/or neighborhood violence and criminal activity, lack of community-based opportunity, and the historical and social and political oppression of the different ethnic and racial groups. Many of these "reasons" have assumed mythic proportions. They are used to explain a phenomenon that is portrayed as too large and too complex for schools to address. In short, these reasons have become little more than excuses for our schools' and society's failure to act. We as a people, need to say: *No more excuses, the time to act is now.*" (U. S. Department of Education, 1998, 61-62)

Finding and Nurturing Culturally Sensitive Teachers

How is UCAS attempting to respond to the challenge issued by Garcia and his colleagues? The first way is by encouraging genuine teacher buy-in into the program itself, for, as Garcia has stated elsewhere, "teachers play the most critical role in students' academic success, and students become important partners with teachers in the teaching and learning enterprise" (2001, p. 153).

Thus, in their interviews, teacher candidates are asked if they speak a foreign language, if they have had experience with English Language Learners (ELL) students, or if they are ELL endorsed. This sends the very clear message to prospective teachers that multicultural sensitivity and savvy are at the very heart of one's calling and practice as a teacher at UCAS. It is understood from the outset of a teacher's career at UCAS that the governing philosophy of the school is that teachers who care, who take time with students, who affirm their students' personal and cultural identities are the most successful.

UCAS thus both looks for and tries to nurture in its teachers an attitude of respect for the student's culture-of-origin—not least of all because it is the *lack* of such respect in many traditional school settings that presents a barrier to Hispanic parents feeling comfortable enough to become intimately involved with their children's schools and teachers (Valencia, 2001). On the other hand, "when schools and families work together school success can become a reality" (Nieto, 2001, p. 300).

Garcia (2001) had highlighted the special importance for the socioeconomically marginalized student of one adult taking responsibility for each student, providing that student with increased time and attention in order to help the student envisage and plan a strategy for higher academic self-expectations. Accordingly, UCAS has a dedicated "advisory time" that is taught each day for half an hour. During this time a student is assigned a teacher who is there to take responsibility for the student. The students use this time to study, ask questions, see a counselor or academic advisor, or be taught strategies for college success.

Confounding the Cycle of Socioeconomic Reproduction

Since at least the 1970s, it has been clear that schools often function to reproduce socioeconomic inequalities (Apple, 1990; Bowles & Gintis, 1976; Riordan, 1997). Students are given little opportunity for advancement as they continue in poor schools throughout their education. Lozano-Rodriguez et al. (2001) recently underlined this fact *vis a viz* Hispanic students by reporting that:

> 27% of Latino families live below the poverty level, as compared to 10% of non-Latinos. These significant disparities in socioeconomic status create negative effects on the educational attainment of Latinos. This means that more than 1 in every 6 persons living in poverty in the United States is of Hispanic origin. More alarming is that almost 40% of Hispanic origin children under the age of 18 live in poverty. Attending segregated, poorly financed schools can lead to low achievement high drop-out rates, and inadequate college preparation. Hispanics consistently had the lowest percentage of students completing a high school degree. Only 61.8% of Hispanics successfully earned a high school degree through traditional or alternative methods, compared to 90.7% of Caucasians and 83.3% Blacks. (p. 513)

It is an unfortunate fact that SES factors have left too many students underprepared to do college level work. Children have not been prepared from preschool through the K-12 educational experience with what they need to do college-level work and graduate-level work if so motivated (McGlynn, 2004). Although aware, of course, of these dismal facts, the staff at UCAS feel that there is hope and believe along with Lozano-Rodriguez et al. (2000) that "Hispanics who attend schools in integrated middle-class school districts are able to measure their success against those of other high achievers, while benefiting from high teacher expectations" (p. 514). UCAS thus attempts to level the field—to some degree, at least—when it comes to its students' academic preparation in our ECHS by offering all of our students tutoring, academic advisement, and college preparation courses.

As suggested above, it is clear that academic readiness/achievement is only one component that is necessary for a successful college experience. For any student to be successful, the relationship between family, community, peers, and school must be conducive to a student's academic success. Thus, it is time to say more about how UCAS tries to promote such positive linkages among various elements of its students' total life contexts—thereby creating an encouraging climate not only for students but for their parents as well.

Encouraging Hispanic Parental Involvement in Education

Ways that UCAS plans to keep parents of Hispanics students involved include: translating information into Spanish for such parents to read, hiring teachers and staff members who have the ability to communicate in Spanish, and involving the parents in community counsel programs. "When Hispanic parents and students can see that they are able to successfully compete in a higher education, they gain confidence and wish to continue their education" (Lozano-Rodriquez et al. 2000, pg. 249).

Promoting Social/Cultural Support Systems

From the classic study by Wax, Wax, and Dumont in the 1960s to current research by such scholars as Lozano-Rodriquez et al. (2000), it has become increasingly clear that a student's peer group is a highly significant influence on growth and development in various academic contexts. Negative peer pressure can quite quickly undermine a student's desire to do well academically and move on to college (Willis, 1977).

Peer groups play an important role as students at UCAS transition between

high school and college. As stated above, the students in this school have a common interest in math and science. By connecting them with peers their own age at UCAS and those a little older on the UVSC campus, the goal is to create a sense of academic, cultural, and political solidarity among all of these students. The goal of participation in ethnically-oriented support networks is to lessen or even erase the alienation and isolation that ethnic minority students may sometimes feel in higher-education settings. In the UVSC "Cultural Center" Hispanic students have increased chances to interact socially and academically with each other.

Campus Environment

It is important to provide social and academic activities that are multicultural, entertaining, and learning-centered. This involves continuing efforts to recognize, encourage, and celebrate the unique contributions of Hispanic students to the campus environment. The teachers at UCAS attend workshops on how to achieve this in both curricular and extracurricular contexts. "Teachers can make a huge impact on students with the simple act of pronouncing a Spanish name correctly; this simple act can go a long way in making Hispanics feel more comfortable in an academic setting" (Lozano-Rodriguez et al. 2000, p. 515).

Other programs that UCAS has set up to help connect students to the college campus environment are special orientation and registration meetings, summer bridge programs, tutoring, learning laboratories, and mentoring programs to help them "get to know" and understand the college system. UCAS holds one-on-one registration/orientation times with each of its 200 students. Summer programs have been designed each month between May and July to help the students connect with one another in team-building activities, and connect with the college campus through school tours and leadership events.

Learning labs are set up in connection with the courses that are offered on the UCAS and UVSC campus. Also offered through UVSC are mentors available upon request in the Math lab, English lab, and through the department of Secondary Education located next to the UCAS building. As Lozano Rodriguez et al., state, such services as these are especially vital to students of color because "finding places to study and meet friends, establishing relationships with instructors and advisors, developing support networks with peers, and becoming familiar with their academic departments are all important factors that will help our students become successful in their pursuit of higher education" (2000, p. 515).

Students and academic affairs administrators must combine recruitment and retention efforts with additional strategies focusing on achievement. "To promote the success of Hispanic college students, efforts should be concentrated in the following areas: academic support systems, social/cultural support systems, campus environment, and financial aid" (Lozano-Rodriguez et al., 2000, p. 515). UCAS has done all of the above mentioned and is well on its way to supporting students with financial aid.

Financial Aid

In addition to the savings in college tuition that can accrue for UCAS students, they are also introduced to the workings of the Scholarship Office on the UVSC campus during "advisory time." They learn about federal grants and loans that are available to them. In this way, UCAS evidences awareness of the fact that "Hispanic students who are awarded financial aid packages with more than one type of aid are 15% more likely to attend college" (Lozano-Rodriguez et al., 2000, p. 516).

Conclusion

As Hispanic students enter an ECHS program such as UCAS, it is clear that no single theory of academic achievement entirely explains why some students succeed in school and others fail, nor can just one type of program answer everyone's needs. Clearly, it is vital to "understand school achievement as a combination of personal, cultural, familial, interactive, political, and societal issues, and this means understanding the sociopolitical context in which education takes place" (Nieto, 2004, p. 246).

UCAS represents just one kind of attempt in a specific setting to begin to respond to the multifaceted needs of students of color. However, our hope in presenting this overview of an experimental ECHS program is that it will provide an exemplar that will aid other educators and policymakers as they conceptualize and implement their own unique approaches to the challenge and promise of multicultural education.

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