AP as an Intervention for Middle School Hispanic **Students**



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id you know that by the year 2025 one in four schoolchildren will be Latino (Gibson, Gándara, & Koyama, 2004)? That minority students, including Hispanics, are often underrepresented in gifted education programs (Worrell, Szarko, & Gabelko, 2001)? Did you know that out of all Latino groups, U.S. Mexican youth have the lowest aspirations for postsecondary education? That Hispanics frequently lack knowledge about college as an option (Kao & Tienda, 1998) and have the highest high school dropout rate as compared to other groups (Gándara, O'Hara, & Gutiérrez, 2004)? For the Hispanic students who do decide to pursue higher education, the majority "do not achieve their aims of acquiring a college degree, and quickly find themselves on the job market, unskilled and undereducated" (Gándara, 1995, p. 2).

This article will focus on two education-related factors that appear to contribute to the schooling aspirations and self-efficacy of Hispanic youth: (a) sense of belonging at school, and (b) composition of the student's peer group. In particular, middle school students whose home language was Spanish were given an opportunity to participate in the Advanced Placement (AP) Spanish Language program. By placing these students in a program that honors their native language as an advanced academic skill rather than an academic risk factor, we hypothesized that Spanish-speaking eighth-grade students (a) would earn qualifying scores on the AP Spanish exam and (b) increase their sense of belonging at school, selfefficacy, and academic aspirations.

Sense of Belonging

The sense of belonging at school, or how connected and accepted a child feels in terms of relationships with peers and school personnel, affects how far a student will go with his or her education. Institutional support seems to be a key factor, because Mexican-origin students in particular are "more likely than other students to report they do not feel they belong in the schools in which they are a minority" (Gibson et al., 2004, p. 11). Factors such as school personnel who are not culturally sensitive and Hispanic youth's perception that the skills learned in high school are unusable in the job market can hamper educational aspirations (Romo & Falbo, 1996). On the other hand, if a school is sensitive to the minority students' culture and fosters a safe learning environment, the students will respond with higher motivation to meet academic demands & Hernandez, (Aguirre Stanton-Salazar, 2001).

This motivation may be linked to self-efficacy, which deals with the belief in one's ability to accomplish tasks and goals. Hispanic students who did drop out of high school were more likely to report a lower sense of efficacy, a lower self-esteem, lower

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scores on standardized tests, and feelings of less safety at school when compared to Hispanic students who chose to continue their education (Boyd & Tashakkori, 1994). This belief in his or her abilities may be influenced by the extent to which a student engages in and accomplishes academic tasks (i.e., the sense of belonging).

The timing of getting students connected may also be important. Students start to form cliques in order to find their own identity, which "typically begins in junior high and can intensify cultural and socioeconomic differences, perpetuate stereotypes and prejudices, and limit students' opportunities to learn from and draw strength from each other" (Lewis-Charp, Yu, & Friedlaender, 2004, p. 109). Therefore, it is not only important for the institution to help Hispanic students feel that they belong, but also ensure that the sense of acceptance is formed during a sensitive period.

Composition of the Student's Peer Group

The peer group plays an important role in influencing a student's school aspirations. Having the right kind of peer group can provide a reason to stay committed to school (Brown & Theobald, 1998, as cited in Gándara et al., 2004), and improve engagement as measured by attendance (Anderson, Christenson, Sinclair, & Lehr, 2004). With Hispanic students, in particular, they tend to select their closest friends from their own ethnic group, which provides a sense of community and access to a support network that is "needed for academic success, and contact with other students on track for college who serve as role models"

(Gibson et al., 2004, pp. 8–9). Unfortunately, Latino and Black students tend to pick friends that earn lower grades, spend less time on schoolwork, and have substantially lower performance standards (Steinberg, 1996). How this close group of friends view school and their ability to succeed in school may influence the student's own self-efficacy.

While a student's choice in a peer group can positively or negatively affect *any* student's educational aspirations, the minority student's peer group is even more significant in the development of school achievement patterns when compared with more advantaged youth, because parents who are immigrants or limited English proficient themselves may not have access to school information (Lewis-Charp et al., 2004). For instance,

uneducated parents had less opportunity to monitor their children... were unable to be an advocate for their children when their children needed help in overcoming administrative obstacles within the school... Many parents told us that their children begged them not to go to the schools because the students were ashamed of them. (Romo & Falbo, 1996, p. 197)

When minority parents are not able to help their children due to language or cultural barriers, other resources such as peers and the school become even more significant to a Hispanic student's future. These findings point out the importance of schools acting as an advocate and liaison for parents who do not speak English as their first language.

Program Intervention

To raise educational aspirations, many schools have started offering AP classes for high achieving high school students. However, because peer groups start forming during the middle school years, it may be important to intervene during this time and create a positive atmosphere where students will be encouraged to excel academically, especially for boys (Osterman, 2000). Grades 8-10 are a critical time of intervention for youth, as 9th graders feel most vulnerable to peer pressure and engage in risky behavior (Boyd & Tashakkori, 1994). It seems critical that schools create mechanisms for Hispanic students to become connected to academically supportive peers before this time (Gándara & Gibson, 2004).

Advanced Placement classes provide students with a more rigorous course path. AP students are twice as likely to go on to graduate school, graduate with a double major, and specialize in majors with tougher standards grading (Curry, MacDonald, & Morgan, 1999). Also, enrollment in AP classes is a predictor of future leadership endeavors (Curry et al.). Other benefits include colleges' consideration of rigorous high school courses during the admissions process (Solorzano & Orneles, 2004) and college credit earned beforehand, which saves high school students thousands of dollars in tuition money (Santoli, 2002). It is rare that middle school students have the academic background to take Advanced Placement courses that are designed to mirror the rigor of entry-level college courses. However, for languages other than English, Advanced Placement courses may be an option for second language learners. The language experience of native Spanishspeaking students makes them uniquely qualified to participate in AP courses much earlier than typical monolingual students. Previous research has documented the academic benefits of participating in AP programs in high school. Thus, the intent of this intervention was to extend those academic benefits to Spanish-speaking Hispanic students during the critical year of eighth grade, when beliefs about self and school are taking deep roots and the effects of peer groups are intensifying.

AP Spanish Project

In attempting to address these social and academic issues, the Waco Independent School District (WISD), in Waco, TX, initiated a project offering AP Spanish Language to Hispanic students in eighth grade. The AP Spanish project began in the fall of 2002 at one middle school. In the summer of 2003, grant funding from an AP Incentives grant (U.S. Department of Education) that flowed through the Texas Education Agency allowed the school district to expand the program to three additional middle schools. The goal of the grant was to promote student success, develop self-confidence, and support student academic aspirations among an at-risk student population (Fierro-Treviño, Pérez, & Kettler, 2005). WISD was selected to participate in the project based on its high numbers of economically disadvantaged students and existing middle school Languages Other Than English (LOTE) services. WISD is an urban school district with a total of 15,591 total students, 80.8% of which meet economically disadvantaged criteria. This district contains 45.7% Hispanic, 37% African American, and 16% White students, with

11.6% of students being limited English speakers (Waco Independent School District, 2005a).

In order to qualify for the AP Spanish project, students had to be native Spanish speakers, economically disadvantaged, and in the eighth grade (The Texas Education Agency, 2004). Participation was voluntary, and teachers were encouraged to recommend students based on previous performance. No students meeting the basic requirements of native speaker and economically disadvantaged were turned away. All AP teachers were trained through College Board Summer Institutes, and the high school AP teachers partnered with the middle school teachers to develop age-appropriate curriculum based on the Texas Essential Knowledge and Skills (TEKS) while following College Board's AP guidelines.

In addition to taking the AP Spanish Language course, students in the project had a variety of outsideof-school opportunities to build academic aspirations. Those opportunities included college visits to Baylor University and working with college student volunteers from Baylor University's International Club. Parent and student sessions were held to teach parents and students about the Advanced Placement program and how students may earn college credit based on their success on AP exams. Parent and student sessions also emphasized the value of taking rigorous courses when the students enter high school. All parent sessions were conducted in Spanish, and all brochures and handouts were distributed in Spanish.

The district developed its own policies for awarding course credit. Because the knowledge and skills of language courses are spiraled and

based on proficiency levels, it is appropriate to award credit for lower level courses when students complete the courses at the higher proficiency levels. Waco ISD decided to award credit based on the AP exam score. The rationale for this decision was to emphasize student performance rather than selection. The district wanted to maintain an open door admissions policy for the program, but needed to articulate standards of performance for the award of multiple credits for taking a single course. Waco ISD policy does not calculate grade point averages (GPA) for high school credits earned while in middle school. If the students scored a 3, 4, or 5 on the AP exam, they were awarded class credit for Spanish I, II, III, and IV (four high school credits). If they scored a 2 on the AP exam, credit was awarded for Spanish I and II (two high school credits). If the students scored a 1 on the AP exam or did not take the exam, credit was awarded for Spanish I only (Waco Independent School District, 2005b). The school district paid for the students' AP exam fees to eliminate any financial barriers to participating in the intervention program (Klopfenstein, 2004; Ndura, Robinson, & Ochs, 2003).

Program Evaluation

To examine the effectiveness of the AP Spanish project, we first looked at student performance on the AP exams. Additionally, to determine if the intervention project was successful at accomplishing the larger goal of building academic self-efficacy and college aspirations, we studied the composition of the intervention group, students' sense of belonging at school, students' academic aspirations, and students' self-efficacy.

Comparisons were made between the intervention group (AP Spanish students) and two peer groups of Hispanic students that claimed either Spanish or English as the home language. The evaluation of student success on the AP exam included 3 years of data collected since the program's inception in the fall of 2002. The evaluation of students' self-efficacy and college aspirations only involved the students participating in the third year of the program, those who were eighth graders during the 2004–2005 academic year.

In 3 years of program implementation, a total of 117 students have participated in the AP Spanish Language course and have taken the corresponding AP exam as 8th graders. Of those 117 students, 92 (79%) of them earned qualifying scores of 3, 4, or 5 on the AP exam. All of those students earned four high school credits as a result of their exam scores.

Evaluation of Efficacy and Aspirations

During the third year of the program (2004–2005), there were 16 Hispanic boys and 42 Hispanic girls who elected to enroll in the Spanish AP class. All qualified as economically disadvantaged students and spoke Spanish as their first language.

The AP group was compared with two other groups of students who were not enrolled in the AP class. The first comparison group included 27 male and 22 female Hispanic students who spoke Spanish (HS) as their first language. The second comparison group included Hispanic students who spoke English as the first language (HE). The HE group included 18 male and 6 female Hispanic students. The average age

for students in all three groups was 14 years old.

Procedure and Instrument

We created comparison groups by randomly selecting eighth-grade classes from the four participating middle schools in the district. The students in those randomly selected classes completed a 20-minute survey adapted from the National Center for Education Statistics' Educational Longitudinal Study of 2002 Student Questionnaire (see http://nces.ed. gov/surveys/els2002). The survey contained 34 questions about the composition of their peer group, sense of belonging at school, self-efficacy, and their academic aspirations. The teachers and/or researchers read the instructions and collected the surveys.

Preliminary Findings

We discovered several statistically significant differences between the AP group and the HE and HS students who did not enroll in the AP class. Demographically, more Hispanic girls chose to enroll in the AP class (72.4%). As might be expected, less of the AP students were born in the United States (60.3%), as compared with the HE students (100.0%), and more of the AP students' mothers (92.7%) and fathers (96.4%) were foreign-born.

In terms of students' peer group, the AP students (87.7%) were more likely to select close friends who felt that good grades were important or very important, as compared with both HE (75.5%) and HS (66.7%) groups. The AP students' closest friends were also more likely to be Hispanic (89.7%), as compared with

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either the HE (60.4%) or HS (63.6%) group.

A sense of belonging as evidenced by academic school participation was more evident in the AP group. The AP group participated more in academic honor societies (29.3%), academic clubs (36.2%), and were more likely to have won an academic honor (41.4%), as compared with the HE and HS students. In addition, more of the AP students reported planning to participate in AP courses (92.7%), dual credit (67.9%) courses, honors courses (52.8%), pre-AP courses (52.8%), honor societies (37.0%), and service clubs (24.1%) in high school than the other groups.

The AP students also held higher aspirations for college in terms of getting more advanced degrees (32.8%). When compared with the HS group (29.2%), the AP students (70.7%) were more likely to report planning to enter college right after high school.

The AP students (60.0%) expressed more confidence than HS students (23.8%) about their present English reading skills and reported greater self-efficacy about being able to understand difficult Spanish reading text almost all of the time or often (65.4%), as compared to the HS students (45.4%). When asked about their belief in their future abilities to read, write, and speak English (as well as they can in Spanish) if they work hard enough, more AP responded positively student (81.8%), as compared to the HE students (58.5%).

Discussion

The findings of this study are consistent with the literature. While more of the AP students' parents and the students themselves were not born in the U.S., the AP group still expressed strong academic aspirations in terms of planning to earn advanced degrees. The literature also suggests that the recent immigration of parents (Kao & Tienda, 1995) or of the students themselves (Schmid, 2001) is linked to higher educational aspirations. Higher academic expectations may result from the sacrifice of leaving one's home country. Also, the fact that more Hispanic girls elected to take the rigorous AP class seems to follow a nationwide trend of girls academically outperforming boys. In 2000, female high school graduates earned a higher overall mean GPA, as compared to male graduates (Perkins, Kleiner, Roey, & Brown, 2004).

The AP students reported more involvement at school by participation in honor societies and clubs. Their closest friends felt that good grades are important, more so than the HE or HS groups. These results are consistent again with literature that reports how reinforcing friends can enhance a student's perceived self-worth while positively affecting that student's sense of belonging (Shulman, 1993). Students who feel that they belong have more positive attitudes about school, academic engagement, and "invest more of themselves in the learning process" (Osterman, 2000, p. 343). The AP students appear to be making friends with other Hispanics who affirm their sense of belonging, motivating each other to do well in

The AP students in this study were ready and willing to take additional AP classes and more rigorous coursework in high school. The literature suggests that demanding coursework may be beneficial for students. For example, students who enrolled in either AP and/or International Baccalaureate (IB) courses had higher mean grade point averages as compared to nonenrollees (Perkins et al., 2004). Enrollment in advanced courses is also linked with higher educational achievement. Students who performed well enough on mathematics and science classes to earn course credit performed better on the National Assessment of Educational Progress (NAEP), which measures educational achievement in various subject areas, as compared to students who earned neither AP nor IB course credits (Perkins et al.). The "AP effect" described earlier in this paper seems to validate the importance of enrolling students on a rigorous course pathway in order to positively affect educational outcomes (Curry et al., 1999).

Our first hypothesis, that Spanish-speaking eighth-grade students can earn qualifying scores on the AP Spanish Language exam, is supported by these findings. In fact, the eighth-grade Spanish-speaking students in the program significantly outperformed high school students in the same district on the AP Spanish Language exam with more Spanish-speaking students earning qualifying scores than high school Spanish students in the school district.

Our second hypothesis, that an advanced academic program honoring the students' home language builds students' sense of belonging in school, self-confidence, and academic aspirations, was also supported by the findings. The students in the AP group rated all three of these areas higher than the comparison groups.

Recommendations

This intervention is founded upon a fundamental shift in thinking about Spanish-speaking English language learners (ELL). In many cases, ELL students are classified as at risk, and though not intentional, the atrisk perceptions filter down to the students themselves. To compound the problem, peer groups intensify and perpetuate the perception. The middle school AP Spanish project attempts to reverse that line of thinking. We consider a student's ability to speak a language other than English advanced academic skill. Advanced academic skills in traditional content areas like math, science, and language arts are rewarded with accelerated and/or enriched content. The simple concept of this program is to apply a similar intervention based on language skills in Spanish. First and foremost, we want to create a school culture where Spanish language skills are celebrated and rewarded. Spanish language skills can become a gateway into advanced academics rather than a barrier to advanced academics.

After 3 years of implementation, we can identify what we believe to be key elements to successfully implementing a program similar to the one in Waco ISD. First, we emphasize the importance of administrative support from both district-level administration, as well as campus administration. District administrators must endorse the program and be willing to articulate district policies for selection and placement of students, to award credit, and to handle GPA issues for multicredit classes. Though these issues are far removed from the day-to-day instruction, they are critical to the vitality of the program. For instance, the policy developed in WISD required district officials to modify each student's transcript during the summer when AP exam scores were received. These results were then disseminated to counselors at each high school so that all involved campuses understood how many credits were earned for high school placement in Spanish courses.

Support from campus administration is a mandatory step toward creating a culture that values Spanish language skills as an advanced academic indicator rather than a risk factor. Principals typically control schedules and budgets, and they can be instrumental in working with parents to understand the value of participation in advanced academics. In WISD, principals were always present at parent night meetings. They frequently enlisted office staff to help with the mailing of parent information, and they worked with counselors to review student records to identify all students who listed Spanish as their home language. In some cases, principals allocated additional funds for the AP Spanish students to take field trips and visit the local college campus.

Administrative support is also necessary to navigate the challenges of the unknown. For instance, the high schools in WISD were very reluctant at first about the middle school AP Spanish program. They feared that it would significantly reduce their high school AP Spanish program, and they were skeptical that an eighth grader could master an AP exam. The Director of Advanced Academics attended several department meetings to address the concerns of the high

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school and identify potential benefits. One issue related to students being targeted for the middle school program who typically did not register for AP Spanish in high school. Historically, these target students were not very involved in any advanced academic program at all in high school. Eventually the scores spoke for themselves over time and skepticism over student ability was forgotten. Another administrative issue was that the high schools needed to offer courses in Spanish Literature for the first time because students who were successful in the middle school program were entering as freshmen with four completed Spanish credits. High school enrollment in advanced Spanish courses has increased since the inception of the middle school program.

Second, appropriate teacher training and curriculum development is necessary for program success. Prior to program implementation, none of the middle school teachers had participated in College Board training for AP Spanish. As part of the initiative, each of those teachers attended AP Summer Institutes for Spanish Language. With the grant money it received, WISD was also able to bring a College Board consultant to the district to work on a more personal level with the middle school teachers. The middle school and high school AP teachers worked closely to create curriculum documents to insure appropriate coverage of all course objectives. Testimonials from the teachers themselves validated that the College Board training was the key to successfully preparing students. An often overlooked benefit of teachers attending College Board training is the networking opportunity with other AP Spanish teachers. The knowledge acquired through these

informal exchanges informed textbook and supplemental resource purchases in WISD.

A third key to successfully implementing a middle school AP Spanish program is to remember the unique characteristics of the students. First, they are developmentally different from their high school counterparts taking AP Spanish. Not all activities that are appropriate for high school students are appropriate for middle school students. Thus, even though the middle school and high school teachers spent time collaborating on curriculum development, the middle school curriculum was more reflective of the needs of younger students. Secondly, native speakers' strengths are usually in oral language. They often have better pronunciation and accents than students learning Spanish as a second language. They also have well-developed vocabulary in many cases. These two strengths are the foundation of the instructional acceleration. More instructional time is spent on the grammar of the language and skills of writing both formal and informal compositions.

Finally, keep the big picture as the focus of the program. Regardless of how many high school or college credits students earn as part of the program, the most important differences are those that equip these students with aspirations and beliefs about their potential to succeed in advanced academic programs. AP Spanish is the vehicle to prepare students for longterm success; it should not be the end itself. Use a middle school AP Spanish program to build a school culture that values bilingualism and celebrates the achievement of students who can succeed in either language. We hope that developing students' skills in their native language will increase their mastery of English as their second language. While increased success in English-based courses was not a primary objective of the program, the potential for this effect is definitely present. GCT

References

Aguirre, N., & Hernandez, N. E. (2002). Portraits of success: Programs that work. In J. A. Castellano & E. I. Diaz (Eds.), Reaching new horizons: Gifted and talented education for culturally and linguistically diverse students (pp. 200-219). Boston: Allyn & Bacon.

Anderson, A. R., Christenson, S. L., Sinclair, M. F., & Lehr, C. A. (2004). Check & connect: The importance of relationships for promoting engagement with school. Journal of School Psychology, 42, 95-113.

Boyd, R. R., & Tashakkori, A. (1994, November). A comparison of the Hispanic dropout and nondropout between the 8th and 10th grades. Paper presented at the annual meeting of the Midsouth Educational Research Association, Nashville, TN. (ERIC Document Reproduction Service No. ED382910)

Curry, W., MacDonald, W., & Morgan, R. (1999). The Advanced Placement program: Access to excellence. Journal of Secondary Gifted Education, 11, 17-22.

Fierro-Treviño, M. J., Pérez, R., & Kettler, T. (2005, April). Middle school AP Spanish: Are you crazy? Paper presented at the annual meeting of The Southwest Conference on Language Teaching, Irving, TX.

Gándara, P. (1995). Over the ivy walls: The educational mobility of

- low-income Chicanos. Albany: State University of New York Press.
- Gándara, P., & Gibson, M. A. (2004). Peers and school performance: Implications for research, policy, and practice. In M. A. Gibson, P. Gándara, & J. P. Koyoma (Eds.), School connections: U.S. Mexican youth, peers, and school achievement (pp. 173–191). New York: Teachers College Press.
- Gándara, P., O'Hara, S., & Gutiérrez, D. (2004). The changing shape of aspirations: Peer influence on achievement behavior. In M. A. Gibson, P. Gándara, & J. P. Koyoma (Eds.), School connections: U.S. Mexican youth, peers, and school achievement (pp. 39–62). New York: Teachers College Press.
- Gibson, M. A., Gándara, P., & Koyoma, J. P. (2004). The role of peers in the schooling of U.S. Mexican youth. In M. A. Gibson, P. Gándara, & J. P. Koyoma (Eds.), School connections: U.S. Mexican youth, peers, and school achievement (pp. 1–17). New York: Teachers College Press.
- Kao, G., & Tienda, M. (1995). Optimism and achievement: The educational performance of immigrant youth. Social Science Quarterly, 76(1), 1–19.
- Kao, G., & Tienda, M. (1998). Educational aspirations of minority youth. American Journal of Education, 106, 349–384.
- Klopfenstein, K. (2004). Advanced Placement: Do minorities have equal opportunity? *Economics of Education Review*, 23, 115–131.
- Lewis-Charp, H., Yu, H. C., & Friedlaender, D. (2004). The influence of intergroup relations

- on school engagement: Two cases. In M. A. Gibson, P. Gándara, & J. P. Koyoma (Eds.), School connections: U.S. Mexican youth, peers, and school achievement (pp. 107–128). New York: Teachers College Press.
- National Center for Education Statistics. (2002). Educational longitudinal study 2002. Retrieved September 24, 2004, from http://nces.ed.gov/surveys/ els2002
- Ndura, E., Robinson, M., & Ochs, G. (2003). Minority students in high school Advanced Placement courses: Opportunity and equity denied. *American Secondary Education*, 32(1), 21–38.
- Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70, 323–367.
- Perkins, R., Kleiner, B., Roey, S., & Brown, J. (2004). The high school transcript study: A decade of change in curricula and achievement, 1990–2000 (NCES 2004-455). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Romo, H. D., & Falbo, T. (1996).

 Latino high school graduation:

 Defying the odds. Austin:

 University of Texas Press.
- Santoli, S. P. (2002). Is there an Advanced Placement advantage? *American Secondary Education*, 30(3), 23–35.
- Schmid, C. L. (2001). Educational achievement, language-minority students, and the new second generation. *Sociology of Education*, 74(4), 71–87.
- Shulman, S. (1993). Close relationships and coping behavior in adolescence. *Journal of Adoles-*

- ence, 16, 267-283.
- Solorzano, D. G., & Ornelas, A. (2004). A critical race analysis of Latina/o and African American Advanced Placement enrollment in public high schools. *High School Journal*, 87, 215–229.
- Stanton-Salazar, R. D. (2001).

 Manufacturing hope and despair:

 The school and kin support networks of U.S.-Mexican youth.

 New York: Teachers College Press.
- Steinberg, L. (with Brown, B., & Dornbusch, S.). (1996). Beyond the classroom: Why school reform has failed and what parents need to do. New York: Simon & Schuster.
- The Texas Education Agency (2004).

 Texas Advanced Placement®

 Spanish language middle school

 program: Guide for program

 implementation. Retrieved November 1, 2005, from http://

 www.teamiddleschoolspanish.org
 /implementation_guide.pdf
- Waco Independent School District. (2005a). Waco I.S.D. is aiming high: 2004 annual report. Retrieved August 1, 2005, from http://www.wacoisd.org
- Waco Independent School District. (2005b). *Policy online*. Retrieved September 19, 2005, from http://www.wacoisd.org
- Worrell, F. C., Szarko, J. E., & Gabelko, N. H. (2001). Multiyear persistence of nontraditional students in an academic talent development program. *Journal of Secondary Gifted Education, 12*, 80–89.