

Career and Technology Education

Evaluation Report 2002-2003

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and Counseling Department to create curricula that match students' career interests and prepare them for careers that exist in the current job market.

CATE staff design a curriculum based largely on the eight career clusters outlined in the Individual Academic Career Plan (IACP) completed each year by students in grades five through eleven. The IACP includes a locally developed career interest inventory that helps students define their career interests in terms of current and emerging occupational trends in Austin.

DESCRIPTION

PROGRAM GOALS

For purposes of program planning and evaluation, the Director of the CATE department and the Deputy Superintendent for Accountability and Information Systems formulated the following goals for the CATE program in August 2001:

1. Equal opportunity: All CATE programs should provide equal opportunities to students of all races, genders, and economic situations.
2. Expansion of the population served: CATE should serve an increasing percentage of the student population. The expectation is that CATE should serve 25-30% of students by the 2007-08 school year.
3. Preparation for postsecondary options:
 - ! Every student should finish secondary education with at least 1 credit that is transferable to a post-secondary institution. CATE articulation agreements are only one way high school students can earn college credit. Others include Advanced Placement and International Baccalaureate.
 - ! CATE should prepare students for the workforce through work-based internships. Internships should be available to any students who want them.
 - ! CATE should prepare students for the workforce through certification programs in relevant careers. For any CATE programs that offer certifications, most students in the program should achieve them.

PROGRAM DESCRIPTION

Middle School Curriculum

The CATE curriculum begins in middle school. The CATE areas taught in middle school are Technology Education, Family and Consumer Sciences, and Business Education. In these areas, six courses are offered: Technology Education, Homemaking, Keyboarding, Computer Technology, Career Investigations, and Career Explorations.

High School Curriculum

In high school, the CATE program is organized into a set of pathways that are designed to prepare students for careers and postsecondary education and training. The pathways are designed by CATE staff within career clusters reflected in the IACP. Each pathway comprises a series of three related classes. Pathways are developed based on guidance from TEA to prepare students for jobs in specific career fields. During the 2002-03 school year, AISD offered 217 CATE classes, including 101 courses that were part of 18 career pathways and 116 elective courses that were not part of a career pathway. While not all pathways are available on each secondary campus, students could choose to transfer or travel to a different campus in order to

These courses served a total of 1,012 students. A total of 23 third-level CATE courses were offered during the 2002-03 school year. These courses served 396 students. In addition, AISD offered 116 CATE courses that were not part of any pathway. Non-pathway courses served a total of 7,351 students.

Table 1: CATE Courses Offered and Enrollment by Pathway Level and Campus

		Not in Pathway	Level 1	Level 2	Level 3	Total by campus
Akins	Courses	15	9	4	1	27
	Students	815 (57%)	813 (57%)	128 (9%)	63 (4%)	1,427
Anderson	Courses	20	6	3	1	29
	Students	1,044 (71%)	539 (36%)	60 (4%)	35 (2%)	1,477
Austin	Courses	16	5	8	3	28
	Students	721 (64%)	495 (44%)	150 (13%)	41 (4%)	1,129
Bowie	Courses	22	9	13	5	46
	Students	426 (43%)	533 (53%)	184 (18%)	48 (5%)	997
Crockett	Courses	23	16	6	4	45
	Students	572 (46%)	788 (63%)	103 (8%)	73 (6%)	1,248
Johnston	Courses	15	7	3	1	25
	Students	345 (57%)	334 (55%)	20 (3%)	10 (2%)	607
Lanier	Courses	20	12	6	1	
	Students	943 (61%)	771 (50%)	188 (12%)		

in any order. Also, a number of the courses at each level can be taken individually, either as electives, or in satisfaction of non-CATE graduation requirements. Some of the students in these courses may not have been aware that they were in CATE classes. It would be easier to interpret these data at the student level, (i.e., the number of pathway courses that each student has taken) rather than at the course level. This information is collected by counselors for each student in the course planning process, but those student data are not summed or made available to central administration staff. An on-line version of the IACP will premier in 2003-04, which may make these data more readily available.

Guidance and Counseling Liaison

The CATE department plans the curriculum. Assistance for students in choosing courses comes from guidance counselors. During the 2002-03 school year, CATE and Guidance and Counseling departments appointed a liaison team that met monthly to exchange information between the departments. Areas of confusion for guidance counselors that were addressed in these meetings included: requirements for pathways, certifications, and articulation agreements; logistics of transportation between campuses; and ways other than as electives that CATE courses can be put into student schedules.

CATE staff also developed a notebook for guidance counselors to address their most pressing questions about helping CATE students make their graduation plans. The notebooks contained charts showing full CATE graduation plans, including both academic and occupational courses; lists of campus contacts for arranging transportation between campuses; and lists of CATE courses that can be counted for physical education credit. These notebooks were very popular among guidance counselors, and the registrars have requested copies.

EVALUATION OF GOALS

EQUAL OPPORTUNITY

As shown in Table 2, student demographics by CATE code are very similar to those in 2001-02. Female students comprise 48% of the CATE student population, largely unchanged from 49% in 2001-02. Hispanic students are still slightly overrepresented, comprising 47% of CATE students versus 44% of non-CATE students.

The only large change in demographics between the two years is that in 2002-03 the CATE student population is fairly evenly distributed across grades. In 2001-02 the population was skewed toward ninth graders.

Table 3: Characteristics of CATE Student Population by Level within a Pathway, 2002-03

		AISD		Non Pathway		Level 1		Level 2		Level 3		Unduplicated CATE	
		#	%	#	%	#	%	#	%	#	%	#	%
Grade in school	9 th	6,671	34	2,295	19	1,314	11	147	1	*	*	3,862	31
	10 th	5,052	25	1,639	13	1,920	16	249	2	*	*	3,139	25
	11 th	4,234	21	1,408	11	1,563	13	322	3	131	1	2,750	22
	12 th	3,950	20	1,378	11	1,287	10	294	2	200	2		

Success in Meeting Goal of Equal Opportunity

Demographically, the population of CATE is in line with the overall population of the district. However, there are clear differences in access based on campus attended. This may indicate a need to make CATE resources more evenly available at all campuses.

EXPANSION OF THE POPULATION SERVED

During the 2002-03 school year, 8,996 high school students identified themselves as CATE students. This comprises 45% of the district's high school population. Of those students, 1,944, or 10% of district high school students identified themselves as CATE Coherent or Tech Prep students. In Texas, during the 2001-02 school year, 70% of high school students identified themselves as CATE students and 31% of high school students identified themselves as CATE Coherent or Tech Prep students.

District records show that, during that time, 12,343 high school students attended CATE courses. This was 62% of the student population. Of those, 4,992 or 25% of high school students were in classes that were part of a pathway. Clearly, a number of students in pathway courses did not intend to complete a pathway or did not know they were in a CATE course.

Several initiatives took place in the 2002-03 school year that were intended to expand CATE and make it more relevant to different student groups.

Recruiting

2003, the culinary arts program at Travis and Bowie plans to sponsor 20 student internships at local hotels and restaurants.

Health Sciences Institute

The Health Science Institute (HSI) opened at Lanier High School in the fall of 2002. The HSI offers coursework in five pathways in the health sciences. It also offers certification programs in first aid and CPR as well as in certifications necessary to become an emergency medical technician, a pharmacy technician, a phlebotomist, or a licensed vocational nurse. The HSI also offers a program of premedical, preveterinary, pre dental coursework. HSI students have the opportunity to perform clinical rotations at Seton Topfer Hospital. All of the programs at the HSI are articulated with ACC for college credit.

Automotive Program

During the 2002-03 school year, the automotive program at Johnston High School received certification from the national Automotive Youth Education System (AYES). AYES, a non-profit group supported by auto manufacturers, helps school districts develop programs that ensure students will be prepared for entry-level employment opportunities in the automotive industry. Through partnerships with local dealerships, AYES has provided the program at Johnston with a Pontiac Vibe for instructional purposes, teacher training in current technology, and at least 5 student internships.

Success in Meeting Goal of Expanding the Student Population Served

The goal of serving at least 25-30% of students has been exceeded. The number of students taking CATE courses in 2002-03 was 12,343, or 62% of the high school student population. However, if serving students means shepherding them through coherent pathways, then the CATE department is not meeting this goal. The CATE department does not maintain records of students who complete pathways, and this information is prohibitively difficult to assemble from district records, but 1,944 students, or 10% of the high school student population identified themselves as part of a pathway. This represents a decrease from 2001-02, when 3,227, or 17% of high school students were part of a CATE pathway.

PREPARATION FOR POSTSECONDARY OPTIONS

Internships

CATE teachers and administrators, in collaboration with Austin business, offer summer internships to CATE students. In the summer of 2002, six internships will be available in business through Washington Mutual. Another 10 internships in automotive repair and 7 intain

internships in automotive collision and bodywork will be available through several local auto dealers. Internships are negotiated with area businesses and then offered to individual students based on availability. The CATE department does not maintain waiting lists or request lists, so it is impossible to assess whether every student who wants an internship can get one.

Certifications

The CATE program offers programs that culminate in certifications for specified careers in the areas of health care, culinary arts, and cosmetology. During the 2002-03 school year, 96 students were eligible for certifications. AISD does not have an effective system in place for tracking the number of students who receive certifications. This is especially difficult to track if students defer or retake the certification exams.

Students in certification programs may choose not to take certification exams or may delay taking them for a number of reasons. Some programs require a minimum amount of time of participation in the program. Students with too many absences may lose eligibility. Some students miss application deadlines or similar bureaucratic necessities. Also, there is usually an examination fee, which students may be unwilling or unable to pay. Some programs require students to complete a significant of workplace experience before taking certification exams. Finally, some students choose not to take the exams for personal reasons. These students sometimes take a later examination, but the system for reporting this to AISD staff is entirely informal.

Articulation Agreements

Articulation agreements are contracts between AISD and 2-year state colleges granting college credits for completions of specified courses or sequences of courses. During the 2002-03 school year, AISD had 26 tech prep articulation agreements that offered credit at any two-year state college in Texas for 87 individual courses and 10 sequences of 2 or more courses. In addition, AISD had one local agreement with Austin Community College that offered credit for 3 individual classes and 1 sequence of two classes. The CATE department does not maintain records of students who have completed articulation agreements, and because many of the agreements have branching sets of options, it is prohibitively difficult to gather the information from district records.

The system for using articulated courses for college credit places a lot of responsibility on students. The course numbers for articulated courses are not standardized throughout the state, s require

and no record or certificate is awarded, so students must remember that they took articulated coursework and explicitly request that colleges verify completion and grant credit.

Success in Meeting Goal of Preparation for Postsecondary Options

It is difficult to judge the success of programs that address postsecondary options. Centralized records are not kept for college credits earned through articulation agreements and the district does not follow CATE students to determine how many have received certificates to determine

Unused Data

CATE staff have many data relevant to their programs stored in file drawers or distributed to very limited audiences. These data include: pathway charts, lists of certification programs, and articulation agreement requirements. The CATE department needs to gather these data and make them available to district staff and students as needed.

Lack of Needed Data

Some data sets that seem central to CATE function are never compiled. These include programmatic data such as lists of CATE courses and number of students in CATE classes, as well as student-level data such as pathway chosen, number of CATE courses taken, progress in a pathway, and progress in an articulated sequence. All these data sets should be compiled and made available on SASI or a similar centralized electronic system. The online version of the IACP, which will premiere in 2003-04, would be an ideal forum for gathering these student-level data.

The new service provider should review the programs offered in light of a coherent strategy to determine which ones are needed and which should be eliminated. Efforts should be made to integrate of CATE coursework with academic classes.

