

# **Redesigning Curriculum to Meet Society Needs on Both Sides of the Border**

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## **ABSTRACT**

**Our university is located in the United States and on the border with Mexico. It is separated by a river, but is like one city with families living on both sides. The population lives in a bilingual and bicultural setting. We prepare teachers to teach in the elementary schools in Spanish and English to meet the children's needs.**

**The school population in the United States is required to speak, read, and write the English language. The school population in our neighbor state of Tamaulipas, in Mexico, is required to study the English language forty-five minutes per day.**

**Our university redesigns curriculum and programs to meet the needs of society on both sides of the border. In this paper the professors will share the latest models designed to help educators in Mexico earn a Master's of Education in Curriculum and Instruction with emphasis in ESL (teaching English as a Second Language). This model is designed to support Mexican educators to implement teaching the English language.**

**Another program that is described is the Doctor of Education in Curriculum and Instruction with a specialization in Bilingual Studies that was designed to better serve the educational needs of our communities.**

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In this paper we will explain how curriculum was redesigned at The University of Texas at Brownsville and Texas Southmost College in order to meet educational needs on both sides of the border. Topics covered include the university location and population it serves, who is mostly Hispanic. The elementary school curriculum in Mexico, which includes the teaching of the English language, and the curriculum framework for the State of Texas are described. The undergraduate university program, describing the four courses to train bilingual teachers to teach in Texas, and the Master's Program for the Matamoros, Mexico teachers are shared. Also addressed are the courses that will help them teach the English language in the State of Tamaulipas, Mexico. The Doctor of Education in Curriculum and Instruction program, that features a specialization in Bilingual Studies, is addressed.

### **Location**

Matamoros, Tamaulipas, Mexico and Brownsville, Texas, USA are located on the Rio Grande River, the dividing line between Mexico and the United States runs between the two cities, but families, businesses, and friendships cross both directions across the border.

### **Population**

The University of Texas at Brownsville and Texas Southmost College (UTB/TSC) is an Hispanic serving institution. The current enrollment of approximately 13,300 students is ninety-four percent (94%) Hispanic. UTB/TSC is a unique partnership between a community college and a university committed to addressing the needs of all segments of its population.

The demographics of our region are changing. According to the U.S. Census Bureau the Brownsville-Harlingen-San Benito Metropolitan Service Area population is increasing at a rapid pace. The Institutional Research and Planning Department at UTB/TSC projects a seven to ten percent (7-10%) increase in students per year. For the 2005-2006 academic year the increase was fifteen percent (15%). The student population at UTB/TSC was at 6,700 in 2001. Currently it is over 13,300 students. The College of Education experienced an enrollment increase of nineteen percent (19%) from fall 2001 through spring 2005 of undergraduate and graduate students and continues to grow. The College of Education generates fifty-two (52%) of the graduate semester hours at UTB/TSC and our undergraduates have a ninety-four percent (94%) pass rate on the state certification examinations for the completion year 2008.

According to the U.S. Census Bureau the Lower Rio Grande Valley is the poorest area in the United States. The percent of individuals below poverty level in Cameron County is 35.8. The per capita income in 2004 inflation adjusted dollars for Cameron County residents was \$12,779. The average per capita income in the United States was \$24,020. We have the lowest cost of living in the United States, and are one of the fastest growing areas in terms of population.

Brownsville Independent School District is the largest district, serving over 45,000 students. Ninety-six percent of the students in this service area are Hispanic. Eighty-four percent of the student population is classified as economically disadvantaged. Thirty-nine percent of the student population is classified as English language learners (ELL). Nine

percent of the student population is classified as migrant. Five percent of the total student population is classified as recent immigrants (Region One Education Service Center, 2005).

More than 3.5 million people live in the 32 Texas counties of the border region, and this population is expected to double by 2030. The population in the Texas border region is increasing at twice the rate of Texas as a whole. According to the U.S. Census Bureau, the region contains three of the ten fastest growing metropolitan areas in the United States. The combined population proximate to both sides of the Mexico-Texas border is projected to reach 6 million in 2010.

The ELL population in the State of Texas continues to grow at a rapid rate. Texas has reported an 82.7% increase in the ELL student population from 1992-2003 while the general student population has increased at a rate of 14.7% over the same period.

### **Curriculum: Mexico**

In Mexico the Secretaría de Educación Pública (SEP) designed a new Plan de Estudios (Study Plan) in 2009 for "Educación Básica". This plan includes three years of preschool, six years of elementary, and three years of secondary. The curriculum is oriented to four areas: *Lenguaje y comunicación* (Language and communication), *Pensamiento matemático* (mathematic thought), *Exploración y comprensión del mundo natural y social* (Exploring and understanding the natural and social world), and *Desarrollo personal y para la convivencia* (Personal development and coexistence). The first area includes the study of the Spanish language and an additional language, indigenous or foreign language. The second area concentrates in the study of mathematics. The third area includes the study of natural science, geography, and history at the elementary level; and biology, physics, chemistry, geography, and history at the secondary level. This area gives emphasis to technology. The last area concentrates on the formation of citizenship (civility and ethics), physical education, and artistic education: art, music, dance, theatre, and the visual arts (SEP Plan de Estudios 2009).

The Secretaría de Educación de Tamaulipas, our neighbor state, with a futuristic vision, provides for the needs of citizens by implementing strategies to help elevate the quality of life of its society. One strategy is that by the year 2010 the English language will be taught to 100% of the school population. This will establish Tamaulipas as a bilingual state and contribute to international standards that the society of our time requires. The six years of elementary school will implement the teaching of the English language forty-five minutes a day with a total of three hours and twenty minutes a week. The study of the English language will continue in the three years of secondary, as it was previously done. Also, since January 2009, the English language is taught at the Normal Schools that prepare the future teachers (Secretaría de Educación en Tamaulipas Inglés en Educación Básica 2009).

### **Curriculum: Texas**

The State Board of Education has adopted a curriculum framework for Texas schools: Texas Essential Knowledge and Skills (TEKS). The four foundation areas are: English

language arts and reading, mathematics, science, and social studies. The TEKS learning standards help ensure that all students are prepared to meet the challenges ahead of them as they move into the next century.

- Each student must become a more effective reader.
- Each student must know and apply more complex mathematics.
- Each student must develop a stronger understanding of science concepts, especially in biology, chemistry, and physics.
- Each student must master the social studies skills and content necessary to be a responsible adult citizen.
- Each student must master a wider range of technological skills.
- Each student must master skills in the fine arts, including art, music, and theatre.
- Each student must master skills in languages other than English, health education, and physical education. (Texas Education Agency, 2007-2010)

According to the Texas Education Agency (2010) curriculum and instructional materials are integral parts of a public school system. The State Board of Education periodically updates the state's curriculum standards called the Texas Essential Knowledge and Skills (TEKS). Textbooks and other instructional materials are then written for children based on those standards. More than 48 million textbooks are distributed by the Texas Education Agency to Texas public school students each year.

Texas public schools, based on information from the Texas Education Agency, employ more than 320,000 teachers plus about 70,000 additional professional staff members such as principals, central office administrators and others. The Texas Education Agency provides a wide array of services that help educators do their jobs. Those functions include accrediting educator certification programs, issuing teaching certificates, distributing curriculum standards and textbooks and providing standardized student tests. Texas teachers work with the state's 4.7 million students.

### **Undergraduate Program**

The University of Texas at Brownsville and Texas Southmost College has a program to train bilingual teachers to be certified by the State of Texas in order to teach in PreK-6<sup>th</sup> grade bilingual programs. Besides the regular curriculum, this program includes four courses related to how to teach in bilingual settings.

The courses, located in the UTB/TSC Undergraduate Catalog (<http://www.utb.edu/vpaa/ucatalog/09-10/Pages/Undergraduate.aspx>) are:

#### *BILS 3310: Emergent Literacy in the Bilingual Classroom*

Description: This course focuses on how children learn to read in the native language. Emphasis is on research-based approaches for teaching reading in bilingual classrooms. Taught in Spanish.

*BILS 3312: Teaching Reading in the Bilingual Classroom*

Description: Students will be given the opportunity to learn the developmental processes involved in biliteracy. This course focuses on methods and techniques for integrating teaching, and assessing reading skills in the Spanish/English bilingual classroom. Taught in Spanish.

*BILS 3314: Content Area Methodology in the Bilingual Classroom*

Description: This course examines reading processes across text types and subject specific vocabulary at the EC-4 level. Students learn and practice a variety of planning, managing and learning strategies for all students including those with special needs. Taught in Spanish.

*EDSL 4307: Foundations of Bilingual/ESL*

Description: Students will learn the foundation of bilingual and English as a second language program. Current research in first and second language acquisition, bilingual/ESL programs, theories, and models will be emphasized.

These courses help our students who are going to be bilingual teachers to implement the elementary state curriculum in a bilingual setting where the students are learning the English language and at the same time studying content area subjects such as science, mathematics and social studies.

### **Master's Program**

At the request of educators in Matamoros faculty in the College of Education at The University of Texas at Brownsville and Texas Southmost College have worked to develop a Master of Education in Curriculum and Instruction program with an emphasis area of English as a Second Language (ESL). The program has been designed to meet the needs of educators in Mexico by designing a thirty-six semester hour program to be delivered in Spanish for the first twelve hours (4 courses), in both Spanish and English for the second twelve hours (4 courses), and in English for the last twelve hours (4 courses). Two courses will be offered each fall, spring, and summer and will take two years to complete the program.

Collaboration between educators in Mexico and professors at The University of Texas at Brownsville and Texas Southmost College has shaped the design of the program. Courses for the Master of Education in Curriculum and Instruction with an emphasis in ESL include the following:

Course Prefix & Number	Course Name	Semester/Year/Language
EDCI 6300	Introduction to Research	Fall 2010, Spanish
BILC/EDSL 6324	Language Acquisition: Implications for Teaching	Fall 2010, Spanish
EDSL 6323	Approaches and Current Practices in Second Language Instruction	Spring 2011, Spanish
BILC 6364	Foundations of Literacy Instruction in Spanish	Spring 2011, Spanish
EDCI 6330	Curriculum in the Elementary School	Summer 2011, Bilingual
BILC/EDSL 6327	ESL Techniques in Content Areas	Summer 2011, Bilingual
EDCI 6304	Learning and Cognition	Fall 2011, Bilingual
EDCI 6325	ESL for Bilingual and Multicultural Settings	Fall 2011, Bilingual
EDCI 6334	Curriculum Development	Spring 2012, English
EDCI 7303	Models of Teaching	Spring 2012, English
EDCI 6336	Problems in Education	Summer 2012, English
EDSL 6329	To be developed (TESOL Correlation)	Summer 2012, English

Below is a description of the ESL courses that will help the Matamoros teachers who will enroll in this Master's to teach the English language. The descriptions for the first four courses come from the UTB/TSC Graduate Catalog (<http://www.utb.edu/vpaa/graduate/Pages/Catalog.aspx>):

*EDCI 6324: Language Acquisition: Implications for Teaching*

Description: Linguistic, social, and cultural theories of language acquisition and learning related to bilingual students will be studied and connected to successful, research-based approaches for instruction. The course will emphasize the needs of English language learners and review programs and practices that best meet the needs of these students.

*EDCI 6323: Approaches and Current Practices in Second Language Instruction*

Description: This course will provide students with approaches and current practices for second language teaching, instructional planning, curriculum development, assessment and evaluation in ESL settings.

*EDCI 6327: ESL Techniques in Content Areas*

Description: This course will give emphasis to specific techniques of teaching the content areas (Science, Mathematics, and Social Studies) to non-English speaking students using ESL techniques.

*EDCI 6325: ESL for Bilingual and Multicultural Settings*

Description: This course will emphasize intercultural teaching practices, stressing second language instruction in bilingual and multicultural settings.

*EDSL 6329:* This course is going to be developed to correlate with TESOL (Teaching English to Speakers of Other Languages) guidelines.

These courses will help Matamoros teachers who will enroll in the Master of Education in Curriculum and Instruction with emphasis in ESL to implement the teaching of the English language to the school population required by the State of Tamaulipas. The

Secretaría de Educación de Tamaulipas decided that their state should be bilingual and therefore they require teaching the English language at the elementary and secondary schools and the Normal schools that train teachers.

### **Doctoral Program**

The College of Education faculty, from The University of Texas at Brownsville and Texas Southmost College (UTB/TSC), offer the Doctor of Education (Ed. D.) degree in Curriculum and Instruction with a choice of specializations. Bilingual Studies is one of the specializations available. More information about this program is available at <http://www.utb.edu/vpaa/coe/Pages/CIIdocP.aspx>.

According to the “Closing the Gaps by 2015: The Texas Higher Education Plan,” one of the goals is to not only increase the higher education participation rate of the Hispanic population of Texas by 2015 but to also increase the number of minorities in doctoral programs. The percentage of Hispanics receiving doctorates has risen only slightly from 1991 to 2001. Hispanics receiving doctorates in the United States have only increased from two to three percent and in Texas from three to five percent. In the U.S. and Texas, Hispanics are proportionally underrepresented in doctoral education in relationship to their numbers in the population.

The number of doctorates granted across Texas is disproportionate. According to the document “Doctoral Education in Texas, Part I: Past Trends and Critical Issues,” doctoral degrees awarded in 2003, per 100,000 population were the lowest in South Texas (Texas Higher Education Coordinating Board, July 2004). Because of the under-representation of this group in doctoral education, they are also underrepresented in fields that require doctoral degrees, such as in academia.

Many educators in South Texas lack the financial means to relocate to pursue doctoral degrees in other parts of the state or nation. One of the goals identified in the “Closing the Gaps by 2015” higher education plan is to increase the number of students completing the doctorate and to increase the number of Hispanic students completing post-secondary programs.

The following are objectives of the doctoral program:

- Lead and administer curriculum programs with a high degree of competence.
- Supervise professionals and paraprofessionals in a variety of curriculum areas using multiple assessment methodologies.
- Develop, apply and evaluate assessments, curricular materials, and scientifically research based instructional methods.
- Synthesize in-depth knowledge of major theories, philosophies, and current issues in curriculum.
- Design, conduct, assess and evaluate qualitative and quantitative research studies in Curriculum and Instruction and in their specialization area.
- Analyze knowledge demonstrated by original research and scholarly contributions to the field of Curriculum and Instruction through publishing and presenting research findings at the international, national, state and/or local levels.

The Doctor of Education in Curriculum and Instruction with a Specialization in Bilingual Studies requires a total of 66 semester credit hours.

Research: 12 SCH                      EDCI 8300 Research Methods in Educ  
   EDCI 8301 Qualitative Research  
   EDCI 8302 Quantitative Research  
   Research Elective: 3 SCH

Curriculum Core: 21 SCH            EDCI 8320 Advanced Curriculum: Instructional Design and  
   Development  
   EDCI 8321 Adult Learning Strategies  
   EDCI 8322 Sociological Applications for Education  
   EDCI 8323 Models of Teaching  
   EDCI 8324 Literacy Across the Curriculum  
   EDCI 8325 Mentoring, Induction and Professional  
   Development  
   EDCI 8326 Teacher Leadership in Education

Specialization: 15 SCH                Five three credit courses are offered for each specialization.

Bilingual Studies Specialization Courses are:

EDCI 8340	History, Politics, and the Models of Bilingual Education
EDCI 8341	Bilingualism and Second Language Acquisition
EDCI 8342	Content Area Instruction in Bilingual Programs
EDCI 8344	Language Use in Bilingual Classrooms (English)
EDCI 8346	Issues and Assessments in Bilingual/ESL Programs (English)

Electives: 6 SCH    Graduate level education courses may be approved as electives.

Dissertation: 12 SCH

EDCI 8380 Thematic Dissertation Seminar I

EDCI 8381 Thematic Dissertation Seminar II

EDCI 8390 Dissertation

EDCI 8391 Dissertation



The sequence of courses for the Doctor of Education in Curriculum and Instruction:

First Year			Second Year			Third Year			Fourth Year		
Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer	Fall	Spring	Summer
EDCI 8300	EDCI 8301	EDCI 8320	EDCI 8302	EDCI 8323	EDCI 8322	EDCI 8380	EDCI 8381	EDCI 8325	EDCI 8391		
EDCI 8340 History, Politics, and the Models of Bilingual Education	EDCI 8324	EDCI 8321	EDCI 8341 Bilingualism and Second Language Acquisition	EDCI 8342 Content Area Instruction in Bilingual Programs	Research Elective	EDCI 8344 Language Use in Bilingual Classrooms	EDCI 8386 Issues and Assessments in Bilingual/ESL Programs	EDCI 8326			
		Elective			Elective			EDCI 8390			

The doctoral program is entering its fourth year of operation since the Texas Higher Education Coordinating Board approved the design of the program in July of 2007. In the fall of 2010 we will have 44 doctoral students enrolled and actively pursuing their degrees. We expect our first Doctor of Education in Curriculum and Instruction with a specialization in Bilingual Studies students to graduate this December.

### Conclusion

Programs on both sides of the USA/Mexico border between Texas and Tamaulipas parallel each other in the elementary schools in terms of content (language arts, science, math, and reading), but the Tamaulipas, Mexico schools also teach art, music, dance, theatre, and visual arts as well as English in all grades and into Normal Schools.

The programs provided by The University of Texas at Brownsville and Texas Southmost College are designed to meet the needs of our community. The Bachelor's of Arts in Interdisciplinary Studies with a major in Early Childhood to 6<sup>th</sup> Grade Bilingual Generalist degree provides preparation to undergraduate students to work effectively with bilingual learners.

The Master's in Curriculum and Instruction with an emphasis in English as a Second Language has been specifically designed for educators from Mexico to take their first four classes (2 semesters) in Spanish, the second four courses (2 semesters) in a bilingual format of English and Spanish, and the last four courses (2 semesters) in the program will be taught in English. Professors for the classes also come from both sides of the border.

The Doctor of Education in Curriculum and Instruction with a specialization in Bilingual Studies, approved by the Texas Higher Education Coordinating Board in 2007 brings the opportunity for doctoral education to the border, also.

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