Discipline-Based Dual Language Immersion Model® in Higher Education

PREPARED BY

DR. SONIA SOLTERO, BILINGUAL EDUCATION DIRECTOR, DE PAUL UNIVERSITY

AND

DR. TOMASITA ORTIZ, CHIEF LEARNING OFFICER, AGMUS VENTURES, INC.

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COLLABORATING TEAM

JOE HERNÁNDEZ, DIRECTOR, DUAL LANGUAGE DEVELOPMENT SERVICES, AGMUS VENTURES, INC.

FIDEL TAVARA, ASSESSMENT COORDINATOR, AGMUS VENTURES, INC.

JUANITA MUNERA, ENGLISH LANGUAGE SPECIALIST, AGMUS VENTURES, INC.
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INTRODUCTION

Market analyses point to the increasing need for bilingual, biliterate, and bicultural professionals in Central Florida, the Greater Orlando Area, as well as across the United States. The continual growth of Latino Spanish speakers in the US and in Florida, points to the marketability of having professional competencies in both English and Spanish. The Census shows that in 2010 there were 50.5 million Latinos in the US, composing 16% of the total population. Between 2000 and 2010, the Latino population grew by 43%—rising from 35.3 million in 2000, when this group made up 13% of the total population. The Latino population increased by 15.2 million between 2000 and 2010.

According to the 2010 US Census, 37.6 million (7%) of Latinos were found living in one of the following eight states: California, Texas, Florida, New York, Illinois, Arizona, New Jersey or Colorado, with a population of one million or more Latinos per state. Florida has the third highest number of Latinos with 4.2 million (8%) of the US Latino population, after California with 14.0 million Latinos (28%) and Texas with 9.5 million Latinos (19%). Census 2010 data shows that the Latino population in Florida grew by 57% between 2000 and 2010. Latino population gains in Central Florida were far greater than statewide gains. Orange and Osceola counties obtained the Census’ minority-majority designation, which means that minority groups are more than 50% of the counties’ population. Orange County’s Latinos increased from 168,361 in 2000 to 308,244 in 2010. In Osceola, Latinos more than doubled, from 50,727 to 122,146 in ten years. According to Census projections, Latinos will constitute 30% of the nation’s population (132.8 million Latinos) by 2050.

In 2008, 76% of Latinos ages 5-17 spoke Spanish at home (alone or in addition to English), while 89% of Latinos ages 18-64 spoke Spanish and 94% of Latinos ages 65 and older spoke Spanish. About 90% of Latinos ages 5-17 reported to speak English “well” or “very well” while fewer than half (47%) of Latinos ages 18-64 reported to speak English “well” or “very well,” and only 36% of Latinos over the age of 65 reported to speak English “very well,”

It is clear that Latinos represent the fastest growing population segment, close to half of which are first generation immigrants, with wide gaps in academic achievements between Latinos and other groups. Meeting President Obama’s 2020 education challenge is impossible unless programs that have proven to effectively deal with the particular needs of Latinos are expanded and replicated. Increasing global and international interconnectedness requires that higher education institutions offer students opportunities for developing comprehensive bilingual, biliteracy, and cross-cultural skills in their discipline of study. The Dual Language Education Model has been successfully implemented throughout the US and abroad for decades, resulting in higher levels of academic achievement, bilingual and bi-literate skills, and cultural competencies at the k-12 levels. No evidence has been found that indicates that dual language programs have been replicated at the higher education level.

This position paper will provide an overview of second language acquisition, bilingualism, dual language programs, and the trajectory of these programs to the higher education level.
SECTION I: SECOND LANGUAGE ACQUISITION, BILINGUALISM, AND BILITERACY

Second Language Acquisition

In the US, English is a fundamental tool for performance in school and the workforce. Research shows that cognitive skills are best acquired through the primary language and then more easily transferred to the second language. Numerous studies have reported findings that indicate that bilinguals demonstrate a greater awareness of linguistic meanings and seem to be more flexible in their thinking than monolinguals (Genesse, Lindholm-Leary, Saunders and Christian, 2006). Decades of research both in the US and abroad have also demonstrated that the acquisition of academic language for a second language learner takes between five to seven years in comparison to the length of time it takes to learn conversational language, which can take from one to two years (Cummins, 2000).

Cummins proposes three principles relevant to bilingual development and language teaching. First, the additive bilingual enrichment principle contends that “the development of additive bilingual and biliteracy skills entails no negative consequences for children’s academic, linguistic or intellectual development...the evidence points in the direction of subtle metalinguistic and intellectual benefits for bilingual children” (p. 21). Bilinguals must decipher much more linguistic input through the effort of gaining command of two languages than monolinguals that are exposed to only one language system.

Second, the interdependence principle is based upon the premise that there is an underlying cognitive and academic proficiency common across all languages regardless of their distinct surface features. Cummins maintains that first and second language academic skills are interdependent. The common underlying proficiency makes possible the transfer of literacy-related skills between languages. Third, the interactive pedagogy principle subscribes to Krashen’s (1981) assertion that language is acquired involuntarily and effortlessly only when it is comprehensible. The key factor in Krashen’s theoretical model is comprehensible input: messages in the second language that make sense when modified and facilitated by visual aids and context. He contends that we acquire grammatical structures in their natural order when sufficient amounts of high-quality input are present. The principle of comprehensible input is based on the idea that the main function of language use is meaningful communication. The importance of meaningful language use at all stages in the acquisition of second language skills has become recognized as a critical and determining factor for the successful development of a second language and the maintenance of the first language (Soltero, 2008).

What does being proficient in a second language mean? The answer depends on the reason or purpose for learning the language, such as to acquire speaking proficiency, attain literacy in the language, develop cross-cultural awareness, or gain knowledge about the language. Defining competence in a second language is also characterized by the subject-specific linguistic requirements and the context in which the language is used.
The following terms are generally used in context of culturally and linguistically diverse students (Center for Public Education, 2007).

- **English language proficiency**: the ability to speak, understand, read, and write English in general.
- **Academic English proficiency**: the ability to speak, understand, read, and write specifically in academic English (content-specific vocabulary, multisyllabic words, complex sentence structure, academic discourse, etc.)
- **Content mastery**: the ability to demonstrate mastery of content-area knowledge on academic measures.

For native English speakers who are learning a world language, scholars define language proficiency in relation to “communicative competence,” or the knowledge language users need in addition to the grammatical forms of the language which includes four components (Canale and Swain, 1980):

- **Grammatical competence**: the ability to understand the syntactic rules of a language and use these forms appropriately (words and sentence structure).
- **Discourse competence**: the ability to understand (listening and reading) and create forms of the language (speaking and writing) through longer discourse that is cohesive and coherent.
- **Sociolinguistic competence**: the ability to use language appropriately in different contexts. Sociolinguistic competence involves expressing, interpreting, and negotiating meaning according to culturally-derived norms and expectations.
- **Strategic competence**: the ability to use communication strategies appropriately to compensate for lack of ability in any of the other areas.

**Bilingualism**

In simple terms, bilingualism refers to the ability to use and understand two languages. However, bilingualism is more complex than the above definition because of the variations in language abilities as well as how the two languages were acquired and developed. There are several types of bilinguals. The first framework (see Figure 1) is the difference between those who grow up from birth developing two languages at the same time (simultaneous or compound bilinguals), and those who acquire a second language after having developed the first language (sequential or coordinate bilinguals). The second framework (see Figure 2) is the distinction between those who choose to become bilingual by studying or traveling (elite or elective bilinguals), and yet there are those, such as immigrants or refugees, who must become bilingual to be integrated into a new society. The third framework (see Figure 3) includes the variations of skills and abilities needed for each language. These abilities can range from understanding (receptive listening), but not being able to speak (productive), to balanced bilingual and biliterate individuals who are able to speak, listen, read, and write with full proficiency.
Figure 1: Compound (simultaneous bilingual) vs. Coordinate (sequential bilinguals)

<table>
<thead>
<tr>
<th>Compound (Simultaneous) Bilingual</th>
<th>Coordinate (Sequential) Bilingual</th>
</tr>
</thead>
<tbody>
<tr>
<td>The two languages are learned in the same context;</td>
<td>Each language is learned in different environments (home vs. school);</td>
</tr>
<tr>
<td>Learning two languages as <em>first languages</em>;</td>
<td>Learning one language after already knowing another (adults or school-age children);</td>
</tr>
<tr>
<td>Likely to be more fluent bilinguals;</td>
<td>Those who acquire the L2 after six years of age;</td>
</tr>
<tr>
<td>Usually have no accent in either language;</td>
<td>The two language codes are acquired separately, so there is less interference and code-switching;</td>
</tr>
<tr>
<td>Show a greater degree of transfer/interference between the two languages</td>
<td>Since language acquisition is differentiated (L1 in the family and L2 at school), there are cognitive areas where one language is better developed than the other.</td>
</tr>
<tr>
<td>Sometimes do not fully master either of the two languages at a deep cultural level (do not have a real mother tongue in which their cognitive skills have developed).</td>
<td></td>
</tr>
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Figure 2: Elective (elite bilingual) vs. Circumstantial (folk bilingual)

<table>
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<tr>
<th>Elective (Elite) Bilingual</th>
<th>Circumstantial (Folk) Bilingual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Those who choose to become bilingual to enhance their social/educational status;</td>
<td>Language minorities surrounded by another language who have a need to become bilingual;</td>
</tr>
<tr>
<td>Accepted and celebrated by society;</td>
<td>Folk bilingualism is usually scorned by society;</td>
</tr>
<tr>
<td>Literacy in both languages.</td>
<td>Literacy in the L1 is irregular.</td>
</tr>
</tbody>
</table>

Figure 3: Types of Bilingual Abilities

<table>
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<tr>
<th>TYPE OF BILINGUAL ABILITY</th>
<th>ORACY</th>
<th>LITERACY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receptive</td>
<td>Listening</td>
<td>Reading</td>
</tr>
<tr>
<td>Productive</td>
<td>Speaking</td>
<td>Writing</td>
</tr>
</tbody>
</table>

Neuroscientists and psycholinguists point to the positive effects of learning two languages during the infant-toddler years, and also to the human brain’s broad capacity to learn multiple languages. In addition, young children learning two languages have more neural activity in the parts of the brain associated with language processing. This increased brain activity can have long-term positive effects on cognitive abilities, such as those that require focusing on the details of a task and knowing how language is structured and used (Bialystok, Craik, and Ryan 2006).
Biliteracy

Biliteracy can be a critical catalyst for linguistic and academic success as well as an essential skill for 21st century citizens. Biliteracy, the ability to read and write well in two languages, has been linked to long-term academic, sociocultural, and economic advantages. Snow (2006) notes that understanding the development of literacy in a second language requires thorough knowledge of:

- The complexity of the reading process
- Individual differences within the second language learner
- Linguistic and cognitive development
- Context in which second language learners develop reading

Callahan (2006) found that programs that focus only on reading at the expense of English language development fall short in supporting the academic achievement of culturally and linguistically diverse students. Several studies have pointed to the shortcomings of instruction that emphasize word recognition, spelling, and decoding skills alone because culturally and linguistically diverse students do not develop comprehension or vocabulary necessary to succeed academically. Specifically, culturally and linguistically diverse students need to acquire extensive discipline-based and academic vocabulary as well as strategies for comprehending and analyzing demanding expository text.

Advantages and Benefits of Bilingualism and Biliteracy

Across the US there is growing recognition that proficiency in more than one language benefits both the individual and society, a concept strongly supported by extensive research findings. For the individual, studies have shown that those who are proficient in more than one language exhibit increased cognitive and academic advantages, improved intergroup relationships, better employment prospects and advancement opportunities, and higher economic wages (Caldas & Boudreaux, 1999). A “bilingual advantage,” has been observed over a lifespan of bilinguals in a variety of cognitive tasks. Because bilinguals engage in the coordination of two languages, they continuously practice selective attention and cognitive flexibility. A recent study conducted by researchers at Northwestern University offers biological evidence that the use of two languages by bilinguals helps them to “fine-tune” their auditory nervous system and to juggle language in ways that improve attention and working memory (Krizman, Marian, Shook, Skoe, and Kraus, 2012). For society, a multilingual and multiliterate citizenry advances intercultural competences and intergroup relations, strengthens the US political and security stability, and enhances economic competitiveness abroad. According to Chorney (2004):

“The very act of acquiring knowledge and linguistic competence has a positive disproportional impact on the economic potential of an individual. Furthermore it contributes to the likelihood that the individual can make a greater contribution to his/her society. Quite literally their capacity to participate in their society is considerably enhanced... But in a society where there are large linguistic minorities, failure to promote equal treatment of the language of the minority involves losing the contribution that the minority group can make to the overall value added in the human capital or knowledge-
based sector. Instead, you have either unemployed or underemployed factors of production. This then undermines the overall productivity of the economy.”

**Benefits of Bilingualism and Biliteracy**

<table>
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<tr>
<th>BENEFITS FOR THE INDIVIDUAL</th>
<th>BENEFITS FOR SOCIETY</th>
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<tbody>
<tr>
<td>• Cognitive flexibility</td>
<td>• Advances intercultural competences</td>
</tr>
<tr>
<td>• Increased academic performance</td>
<td>• Increases conflict resolution opportunities</td>
</tr>
<tr>
<td>• Improved intergroup relations</td>
<td>• Expands humanitarian opportunities</td>
</tr>
<tr>
<td>• Greater employment prospects</td>
<td>• Strengthens US national security</td>
</tr>
<tr>
<td>• Increased career advancement</td>
<td>• Improves diplomacy</td>
</tr>
<tr>
<td>• Higher economic wages</td>
<td>• Enhances economic competitiveness</td>
</tr>
</tbody>
</table>

The position of the US as a political and economic global leader requires that its citizens attain expanded knowledge of the world, deeper understandings of other cultures, and proficiencies in languages beyond English. In addition, there is an urgent need in the US for bilingual and biliterate individuals who can read and write in multiple languages, from business and social services to national security and diplomacy. According to Malone, Rifkin, Christian, and Johnson (2005):

“The House Permanent Select Committee on Intelligence identified language as the single greatest need in the intelligence community. The late Senator Paul Simon (2001) pointed out that some 80 federal agencies need proficiency in nearly 100 foreign languages. While the demand is great, the supply remains almost nonexistent. Only 8% of American college students study another language.”

The National Security Language Initiative (NSLI), launched in 2006, reinforces national efforts to expand critical foreign language education beginning in kindergarten and continuing through postsecondary education. NSLI contends that “speaking another’s language promotes understanding; conveys respect; strengthens our ability to engage foreign peoples and governments; and provides others with an opportunity to learn more about America and its people.” A critical world language for the US is Spanish. The close historical relations to Latin America and Spain have great economic, cultural, and political impact for the US. Educators who acknowledge the need to provide expanded opportunities for language study for all students: both for language majority and language minority speakers. This position is strongly supported by the following Statement of Philosophy in the Standards for Foreign Language Learning (1999):

"The United States must educate students who are equipped linguistically and culturally to communicate successfully in a pluralistic American society and abroad. This imperative envisions a future in which ALL students will develop and maintain proficiency in English and at least one other language, modern or classical. Children who come to school from
non-English-speaking backgrounds should also have opportunities to develop further proficiencies in their first language.”

The American Council on the Teaching of Foreign Languages (2006) adopted the following general principles that provide the foundation for implementation and expansion of language programs at all levels of instruction:

- All students should learn or maintain at least one language in addition to English.
- Learning languages should be a central part of the curriculum at all levels of instruction, from young learners through graduate school and adults (PK-20).
- Language learning should be offered in extended, well-articulated sequences that develop increasing levels of proficiency at each level of instruction by teachers who are well qualified in language proficiency, cultural knowledge, and teaching skills.

A joint research project of the University of Florida, the University of Miami, and the Florida Department of Education, found that Florida Latinos who are fluent in Spanish and English earn significantly higher income and are less likely to live in poverty than those who speak only English. For Latinos, the study found that being bilingual offers advantages throughout the state, from the Panhandle to the Keys. In Miami, where the advantages were particularly significant, the study found that fully bilingual Latinos earn nearly $7,000 more per year than their English-only counterparts. The lack of public additive bilingual education means employers cannot find enough fully proficient bilingual/biliterate employees. As a result, businesses, institutions, and organizations, such as the Greater Miami Chamber of Commerce launched workforce initiatives to increase the supply of bilingual/biliterate employees.
SECTION II: BILINGUAL EDUCATION AND THE DUAL LANGUAGE MODEL

A broad definition of bilingual education is characterized as the use of two languages for instruction and learning of academic content in schools, usually in PK-12, but can include higher education also. There are wide differences in models, linguistic goals, distribution of each language, targeted population, and more. In the US, bilingual education is typically offered to students who are not yet proficient in English, commonly known as English language learners (ELL) or culturally and linguistically diverse students. In dual language or two-way immersion, a model of bilingual education, native English speaking students participate as well. Bilingual education programs use the native language of culturally and linguistically diverse students and English as a second language for instruction of literacy and the content areas. More detailed description of the different models of bilingual education will be discussed in the following section (Soltero, 2011).

According to the National Association for Bilingual Education Web site (2009) “bilingual education... refers to approaches in the classroom that use the native languages of non-English speakers for instruction. Goals include: teaching English; fostering academic achievement; acculturating immigrants to a new society; preserving a minority group’s linguistic and cultural heritage; enabling English speakers to learn a second language; developing national language resources; or any combination of the above.”

Bilingual education in the US is not a new concept. North American communities began implemented bilingual schooling as early as the 1600s. In many states, such as Colorado and Iowa, bilingual instruction was offered in as many diverse languages as Polish, Chinese, Norwegian, and Cherokee (Crawford, 2004). In San Francisco, Chinese-language schools were established beginning in the mid-1880s while in Texas, state education funds helped to establish Czech-language schools in the late 19th century.

The Bilingual Education Act of 1968 provided federal funding to encourage school districts to implement native-language instruction and other types of support services for English language learners. The Bilingual Education Act was enacted as Title VII of the Elementary and Secondary Education Act until 2002 when it was replaced by the English Language Acquisition Act under the No Child Left Behind Act. In 1974 case of Lau vs. Nichols, in a landmark decision the US Supreme Court ruled that “there is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education” (Garcia and Baker, 2007). The court's decision in the Lau v. Nichols case required schools to take steps to overcome language barriers impeding access to the curriculum for culturally and linguistically diverse students.
Bilingual Education Program Models

The goal of all bilingual education programs, regardless of model, is to assist culturally and linguistically diverse students in reaching full proficiency in English and achieve academic success at their grade level. The different models of bilingual education have distinctive characteristics: linguistic goals (bilingualism or monolingualism in English); differences in length of implementation (short term or long term); variations in amount of use of each language; and distinctions in student composition. Models fall under one of two paradigms:

1) **Additive Programs** – Promote the continual development of the native language and maintenance of the home culture while adding a second language and culture. The goal is for students to reach full biliterate and bilingual proficiencies by adding the second language and maintaining and developing the first language. Additive program models include maintenance, developmental bilingual, heritage language, and dual language or two-way immersion, while subtractive models include transitional bilingual education.

2) **Subtractive Programs** – Such as a transitional bilingual education that uses students’ native language typically for a period of three to four years as students develop proficiency in English through ESL or sheltered English instruction. Once students have become proficient, as determined by language proficiency standardized evaluation, students exit into the general English medium classrooms. Subtractive programs add a second language, in this case English, and subtract the native language. The goal is to become monolingual in the majority language by abandoning the native language.

Researchers, educators, and applied linguists recognize that the following premises have strong empirical support: 1) Native-language instruction does not retard the acquisition of English; 2) Well-developed skills in the native language are associated with high levels of academic achievement; 3) Bilingualism is a valuable skill, for individuals and for the country (Soltero, 2011).

Dual Language Education

Dual language education is generally well regarded in the US and is seen as an ideal model for all students, both English dominant learners in addition to culturally and linguistically diverse students, to participate with each other in authentic bilingual, biliterate, and bicultural education. This model promotes positive attitudes towards each language and culture and fosters full bilingual and biliterate proficiencies. Dual language education is neither a new concept nor limited to the US. Canada, Switzerland, Spain, and China, among many other countries, that have successfully practiced and encouraged this form of bilingual and multilingual education. In the US, the success of bilingual education programs established in Florida after the Cuban revolution inspired the implementation of dual language programs across the nation. Coral Way Elementary, a dual language English-Spanish school established in 1963 by Cuban exiles in Dade County, Florida, continues to this day.
Dual language is an additive model that falls under the broader umbrella of bilingual education and is also known by several pseudonyms: two-way immersion as well as one-way or two-way bilingual education. Dual language programs consistently use two languages for instruction for teaching and learning literacy as well as all content subjects that include math, science, and social studies. There are two program types: one-way and two-way. Two-way dual language programs have equal or near equal numbers of students from two language groups, English native speakers and native speakers of another language who are typically culturally and linguistically diverse students, such as Navajo, Korean or Spanish. Students from the two language groups are integrated for instruction for all or at least half of the school day to achieve bilingual, biliterate, academic, and cross-cultural competencies (Soltero, 2004). In one-way dual language, the goals and language use are the same as in the two-way program with the difference that all the students in the program are culturally and linguistically diverse students, and there are no native English speakers. While both types of programs are effective and desirable, the two-way program has the advantage of having students who are native speakers of English and represent more diversity in the classroom demographic make-up.

In addition to the one-way and two-way variations that are based on the language backgrounds of student population, there are also two types of models that are based on the amount that each language is used for instruction: partial immersion (or 50-50) or total immersion (90-10 or 80-20). The primary distinction between these two models is the amount of time allocated to each language for instruction at each grade level. In the total immersion model, the amount of instruction in the language, other than English, is initially greater than in English, usually 80% to 90% of the time in the primary grades with English instruction increasing with each grade level. Students then gradually continue to receive equal amounts of English and the other language instruction as they move on to the intermediate grades. In the partial immersion model, on the other hand, both languages are used equally for instruction in all the grade levels.

Two critical longitudinal studies, in addition to an increased body of research, have documented the effectiveness of dual language education in the US. Thomas and Collier (2009) found that culturally and linguistically diverse students who participated in dual language outperformed comparable monolingual-schooled students in academic achievement after four to seven years in the program. Students who received dual language instruction for at least five to six years reached the 50th percentile on the reading standardized tests by 5th or 6th grade and maintained this level of performance in subsequent grades. Their results also indicate that native English speakers in dual language programs maintained their English, acquired a second language, and achieved well above the 50th percentile in all subject areas on norm-reference tests in English.

Lindholm-Leary (2001) found that native English speakers developed high levels of proficiency in their first language and students from both language groups developed high levels of second language proficiency. Lindholm-Leary found that English and Spanish speaking students made significant growth in reading and academic achievement in both the native and second language across grade levels, and scored on a par with their peers using standardized norms for English and Spanish speakers, although results varied somewhat according to program type, grade level, and language background. The results showed that higher levels of bilingual
proficiency are associated with higher levels of reading achievement, corresponding with other research findings that point to higher levels of bilingual proficiency leading to increased academic and cognitive functioning. Spanish and English dominant students in dual language programs outperformed their peers across California in English reading and academic achievement tests.

Dual language education, an additive form of bilingual education provides enriched language education for both culturally and linguistically diverse students and native English speaking students. It has been nationally recognized by policy makers, educators, researchers, and parents as a desirable alternative to monolingual English education in the US.

**Dual Language Instruction in Higher Education**

Dual language in higher education in the US is in its infancy. Colleges and universities have typically offered English as a second language non-degree courses to students who are not yet fully proficient in English. In other cases, community colleges sometimes offer some of its basic courses in Spanish in preparation for completing the required coursework in English for a degree in a given discipline. The Discipline- Based Dual Language Immersion Model® developed by AGMUS Ventures, Inc., is the first of its kind because it offers fully bilingual undergraduate and graduate degrees through a balanced language distribution of Spanish and English as a medium of instruction. In other words, students’ entire degree programs and all their coursework are provided 50 percent in Spanish and 50 percent in English. The end results are bilingual biliterate graduates who have obtained high levels of expertise in two professional languages- Spanish and English.

**High Quality Instructors and Facilitators**

Instructors in a dual language higher education programs must not only have exhaustive expertise in their discipline, but must have high levels of competencies in both Spanish and English in their professional domain. Knowledge of second language acquisition and language instruction is a necessity for all facilitators and instructors. The persistent challenge for preparing university personnel to effectively support the education of students in two languages requires high levels of knowledge regarding second language acquisition and dual language education. Ongoing professional development opportunities that cover pedagogical practices, as well as theoretical foundations, are critical in providing the highest levels of quality education to bilingual students in the higher education context. Instructors need to be well prepared in the following areas:

- High level of proficiency in both languages in their area of expertise;
- Ability to use the language in real-life contexts, for both social and professional purposes;
- Ability to comprehend contemporary media in both languages, oral and written, and interact successfully with native speakers in the US and abroad;
- Strong background and experience in their respective profession and discipline;
- Understanding of the social, political, historical, and economic realities of the regions where each language is used;
• Understanding how Spanish and English intersect in bilingual communities;
• Pedagogical knowledge and skills, including knowledge about learning theories especially regarding second language acquisition, and a repertoire of strategies to help the learner develop language proficiency and cultural awareness; and
• Knowledge of various technologies and how to integrate them into their instruction.

Technology and the Language Classroom

Technological mediums of instruction and interaction, such as distant learning, internet-mediated communication, online learning, and videoconferencing, are increasingly being used in higher education. The use of innovative, technology-enhanced methods and activities for classroom instruction has the potential to promote the development of linguistic, cultural, interpersonal, and communicative competencies for all language learners. The use of multi-modal internet tools and environments, including blogs, wikis, chat, online gaming, podcasting, and data driven learning pedagogies, not only advance students’ language skills, but also their technological knowledge base. Authentic, meaningful, interactive, student-centered, technology-enhanced learning activities can improve student performance. Technology-enhanced language learning refers to the use of the computer as a technological innovation to display multimedia as a means of complementing an instructional method for language learning. By using Web-based technology, teachers in the US can work with foreign teachers to enhance the learning opportunities for their students.
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AGMUS VENTURES, INC. 2003-2012
TRAJECTORY TO SUCCESS

In September 2003, the three universities of the Sistema Universitario Ana G. Méndez in Puerto Rico became the first in the nation to offer dual language immersion at the university level for all its program disciplines at the Metro Orlando Campus in Florida. Through the implementation of the Discipline-Based Dual Language Immersion Model®, students are offered the opportunity to pursue a university degree in the field of their choice while at the same time develop their language skills in both English and Spanish in order to function effectively as bilingual and biliterate professionals. The success of the Metro Orlando Campus, and the need for a dual language alternative for Latinos, led to the opening of additional campuses: the South Florida Campus in Miramar in August 2006 and the Tampa Bay Campus in August 2010. Expansion beyond Florida led to two additional campuses: partnership for the Regis University Dual Language Campus (Denver) in 2010 and the Ana G. Méndez University System Capital Area Campus in Maryland in 2011.

The dual language immersion model has been implemented successfully at the elementary and high school levels throughout the US and abroad, such as in Canada and Europe. This model of bilingual education structures the learning experience of students through the use of two languages in both the learning and teaching processes. In their longitudinal study, Thomas and Collier (2002) analyzed over 200,000 student standardized test scores, representing 80 primary languages in K-12 grades, from four US regions. They found that culturally and linguistically diverse students who participated in well implemented dual language programs outperformed culturally and linguistically diverse students in other types of programs in standardized reading tests. The study demonstrates that dual language instruction was able to increase skill levels of culturally and linguistically diverse students above those of Native English Learners. The longitudinal study and other research also indicate that students in dual language programs are able to improve academically in both their native language and in subject areas in English thus closing the achievement gap and accomplishing higher graduation rates.

The Need for Discipline-Based Dual Language Immersion

In the early 2000s, employees from nine organizations were interviewed representing the following fields: health services, tourism/hospitality, technology, business administration, technology, and education. Interviewees were given detailed descriptions of the bilingual program model that AGMUS Ventures, Inc. was planning to implement. The principal goal was to offer accelerated degree programming to the Orlando Latino adult market. Essential to the dual language accelerated program was for its graduates to develop high levels of proficiency in both Spanish and English and become confident bilingual, bicultural, and biliterate professionals.

The overall responses from the individuals interviewed were positive and enthusiastic. There was strong recognition of the growing population and influential role of Latinos in Orlando and Florida. Interviewees strongly supported educational growth opportunities for the Latino community. The interviewees supported and agreed with the model’s main focus of
developing strong bilingual and biliterate professionals. They recognized the importance for employees to have high levels of language skills in both English and Spanish. Interviewees pointed out that English language deficiencies – particularly in areas of professional training – interfered with the career advancement of many Latinos in their organizations. Increasing the bilingual and biliterate skills of the Latino workforce was perceived to be desirable and highly valuable.

The interviewees were divided into four focus groups of 7-10 participants each according to ethnic backgrounds: Puerto Ricans (two groups); other Latinos (one group), and non-Latinos (one group). Interviewees included employees that were between 24-49 years old, male and female, and those who had attempted at least 24 college credits, but did not earn a college degree. No indication of language competence in English or Spanish was specified, so based on their responses to other questions, the Latino students may or may not have been fully proficient in English. It was likely that the non-Latino students probably did not know Spanish.

The goals of the focus groups were to determine students’ educational needs and preferences, as well as which elements of the proposed program were of interest and which were less desirable. Issues were raised by the participants who did not relate to language or bilingualism. Cost of tuition or non-traditional classroom meeting times were not included in the findings. Focus group participants stated needs and desires related to bilingualism and language development as follows:

- Language support and having bilingual instructors;
- An exciting, innovative, dynamic approach, with small groups;
- Career relevance in terms of instructors who have been practitioners in the field;
- Curriculum that is applicable to the global job market; and
- Internet and online capabilities: It was not clearly indicated whether this meant that the courses would include information online, hosted by the program, or if the program had online workstations that the students could use.

For some Spanish dominant participants, the lack of English competence had prevented them from succeeding academically in past attempts. Latino students shared that the reasons for pursuing a degree were based on their experience of having to prove more so than non-Latinos—that they were capable of performing expected tasks as part of their job related responsibilities. This may have to do with overcoming biased attitudes, or it may have to do with their proficiency skills in English. Regarding the dual language approach to teaching and learning, the English dominant group perceived some benefit related to the possibility of acquiring another language that could enhance their performance in the workplace. The Spanish dominant participants expressed that having bilingual instructors was of high importance.
Successful Development and Implementation in Florida

The successful development and implementation of the three dual language campuses in Florida is demonstrated by various indicators: enrollment growth, student and faculty profile, diversity of program offerings, increase in number of graduates, and the results of assessment learning activities. Together they confirm that dual language education at the university level meets the needs for access and success of Latinos. The following graph demonstrates the continuous and significant growth of the dual language campuses in Florida in degree seeking programs. From its inception in 2003 to 2012, enrollment has grown 5.3 times based on first semester data.

**GRAPH 1: FLORIDA ENROLLMENT 2003 TO 2012**

The diversity of the student population is an important indicator of the needs served. Most students are first generation immigrant adults for whom language and culture can represent insurmountable barriers in a traditional US university setting. The student profile is comprised of: 67%-74% women; 33-35 years old; and represent twenty-four different countries in addition to the USA and Puerto Rico. Our faculty and staff profile reflects this diversity as well, representing sixteen countries of origin.

In 2010, the dual language campuses in Florida offered 16 bachelor’s degree and 13 master’s degree programs from most major areas of study: education, business administration,
social sciences, nursing, tourism, and health management. Business administration and education are the two areas with the greatest number of enrolled students. Business administration students represent the types of bilingual and biliterate professionals needed in an increasingly global economic environment. Students in education are prepared as future bilingual teachers for an increasingly linguistic and culturally diverse school population. The dual language model at the university level also facilitates current teacher training partnerships with school districts through programs that not only teach, but also implement dual language education.

The opportunity for access is complemented with the evidence of student success. The Metro Orlando, South Florida, and Tampa Bay campuses have had an increasing number of graduates in a short period of time, as evidenced by Graph 2, Graph 3, and Graph 4 below.

**GRAPH 2: METRO ORLANDO CAMPUS GRADUATES 2005 TO 2012**

![Graph 2: Metro Orlando Campus Graduates 2005 to 2012](image-url)
GRAPH 3: SOUTH FLORIDA CAMPUS GRADUATES 2007 TO 2012

South Florida Campus Graduates per Year

GRAPH 4: TAMPA BAY CAMPUS GRADUATES 2012

Tampa Bay Campus Graduates 2012

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GRAPH 5: TOTAL GRADUATES PER CAMPUS IN FLORIDA

In addition to graduation rates as an indicator of success, an ongoing assessment of the learning process has been implemented in the Sistema Universitario Ana G. Méndez (SUAGM) USA campuses. Students are assessed by faculty experts to determine the level at which they have achieved the discipline and language objectives in their degree program.
Assessment of Learning

The assessment of learning at SUAGM USA Campuses consists of midpoint and capstone assessment projects embedded in specific courses identified as midpoint and capstone courses in every academic program. Students, with the guidance of facilitators, work on the completion of a comprehensive project in which discipline content and dual language professional competencies are assessed. At the end of midpoint and capstone courses, the facilitator must submit a copy of the completed project submitted by the student to the Corporate Assessment Coordinator for rating. A panel of three faculty experts in the field of the midpoint and capstone courses evaluates and rates the project using performance rubrics developed with a 4-point scale in which number 4 is equal to the highest attainable score and number 1 is the lowest. The project ratings conducted by the selected expert facilitators are analyzed and interpreted. A statistical analysis report is disseminated to campus directors and to all administrative and corporate stakeholders as part of the university’s Continuous Improvement Plan. The data provided in the report is utilized for refocusing and planning enhancement projects to move the academic and linguistic requirements of the dual language model to the next level of excellence. A brief overview is offered in the next section of this document on the Midpoint and Capstone Assessment findings.
Assessment of Learning Midpoint and Capstone Findings by Degree Program

This section provides an overview of the Midpoint and Capstone Assessment findings based on the degree program. An explanation of the graphs is also provided.

GRAPH 6: BACHELOR OF ELEMENTARY EDUCATION: MIDPOINT ASSESSMENT RESULTS

Midpoint Assessment Results

The Midpoint Assessment Instrument for the Bachelor of Arts in Elementary Education is a comprehensive project that consists of two sections: Perfil Diagnóstico (Diagnostic Profile) in Spanish and a Lesson Plan in English. This analysis provides an understanding of the instructional conditions related to how well the students have performed on their discipline competencies (program objectives) and language proficiency skills in both Spanish and English.

The scores among the Program Objectives and the Dual Language Professional Competencies were compared regardless of the language. Based on the analysis, it was concluded that the students had an excellent performance on the overall program objectives and were very good on the Dual Language professional competencies. In both cases the average was very similar, with 3.517 for the overall Program Objectives and 3.302 for the overall Dual Language Professional Competencies. In addition, based on the statistical analysis, using a 95% Confidence Level, it was determined that the distribution of the data had a small variability and the majority of the data points were concentrated around the mean (average) range.

Results of the Dual Language Professional Competencies based on language were as follows: Both Spanish and English Dual Language Professional Competencies were analyzed.
and compared. The results showed that the students demonstrated good performance in both languages Spanish and English. However, their average score was slightly higher in the English professional competencies. The average score in the English professional competencies was 3.346 and in the Spanish professional competencies was 3.267. When both Dual Language Professional Competencies were compared, it was concluded that the students had very good performance in both areas. When comparing the Dual Language Professional Competencies results with Program Objectives results in both languages, it was evident that the students obtained a higher performance score in the achievement of Program Objectives.

The Bachelor of Arts in Elementary Education Capstone Assessment Instrument is a comprehensive project that includes two components: one Estudio de Caso Integral (Integrated Case Study) in Spanish and one Metacognitive Paper in English. This analysis provides an understanding of the instructional conditions related to how well the students have performed on their discipline competencies and language proficiency in both Spanish and English.

**GRAPH 7: BACHELOR OF ELEMENTARY EDUCATION: CAPSTONE ASSESSMENT RESULTS**

Capstone Assessment Results

![Bar chart showing the assessment results for English, Spanish, Dual Language, and Program Objectives.](chart.png)

The scores among the Program Objectives and the Dual Language Professional Competencies were compared without taking into consideration the language. Based on the analysis it was concluded that the students did **Very Good in all of the Program Objectives and the Dual Language Professional Competencies**. In both cases, the average was very similar, with 3.106 for the overall Program Objectives and 3.031 for the overall Dual Language Professional Competencies. In addition, based on the statistical analysis, using a 95% Confidence Level, it was determined that in both cases the distribution of the data had a small variability and the majority of the data points were concentrated around the mean (average) range.
The Dual Language Professional Competencies based on the language: Spanish Dual Language Professional Competencies and English Dual Language Professional Competencies were analyzed and the results were compared. The results showed that the students demonstrated good performance in both Spanish and English Dual Language Professional Competencies. However, their average score was slightly higher in the English Dual Language Professional Competencies. The average score in the English Dual Language Professional Competencies was 3.066 and in the Spanish Dual Language Professional Competencies was 2.997. As a comparison between the Spanish Dual Language Professional Competencies and English Dual Language Professional Competencies, it was concluded that the students had a very good performance in both areas. When comparing the Dual Language Professional Competencies with the Program Objectives in both languages, it was concluded that the students had a higher performance in the Program Objectives. The results showed that the scores in both the Program Objectives and Dual Language Professional Competencies in both languages were relatively the same suggesting balanced dual language professionals who felt confident in achieving expected linguistic and academic program outcomes.

**GRAPH 8: BACHELOR IN CRIMINAL JUSTICE: MIDPOINT ASSESSMENT RESULTS**

**Midpoint Assessment Results**

**Midpoint: Bachelor in Criminal Justice: CRIM 215**

<table>
<thead>
<tr>
<th>Component</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>2.233</td>
</tr>
<tr>
<td>Spanish</td>
<td>2.500</td>
</tr>
<tr>
<td>Dual Language</td>
<td>2.367</td>
</tr>
<tr>
<td>Program Objectives</td>
<td>2.500</td>
</tr>
</tbody>
</table>

The Bachelor of Arts in Criminal Justice Midpoint Assessment Instrument is a comprehensive project that consists of two components: Estudio de Caso #1 (Case Study #1) in Spanish and Case Study #2 in English. This analysis provides an understanding of the
instructional conditions related to how well the students have performed on their discipline competencies and language proficiency in both Spanish and English.

The scores among the Program Objectives and the Dual Language Professional Competencies were analyzed without taking into consideration the language. Based on the analysis it was concluded that the students had a satisfactory performance on the overall Program Objectives and Dual Language Professional Competencies. In both cases the average was very similar, with 2.500 for the overall Program Objectives and 2.367 for the overall Dual Language Professional Competencies. In addition, based on the statistical analysis, using a 95% Confidence Level, it was determined that the distribution of the data had a small variability and the majority of the data points were concentrated around the mean (average) range.

The Dual Language Professional Competencies based on the language, Spanish Dual Language Professional Competencies and English Dual Language Professional Competencies were analyzed and the results were compared. The results showed that the students did not have a very good performance in both Spanish and English Dual Language Professional Competencies. However, their average score was slightly higher in the Spanish Dual Language Professional Competencies. The average score in the English Dual Language Professional Competencies was 2.233 and in the Spanish Dual Language Professional Competencies was 2.500. As a comparison between the Spanish and English Dual Language Professional Competencies, it was concluded that the students had a satisfactory performance in both areas. When comparing the Dual Language Professional Competencies results with the Program Objectives results in both languages, it was concluded that the students had a slightly higher performance in the Program Objectives.

The Bachelor of Arts in Criminal Justice Capstone Assessment Instrument is a comprehensive project that includes two components: one Research Paper in English and one Diario de Experiencia en la Práctica y Reportes (Internship Experience Reflective Journal and Reports) in Spanish. This analysis provides an understanding of the instructional conditions related to how well the students have performed on their discipline competencies and language proficiency in both Spanish and English.
The scores among the Program Objectives and the Dual Language Professional Competencies were compared without taking into consideration the language. Based on the analysis we concluded that the students had a satisfactory performance in all the Program Objectives and the Dual Language Professional Competencies. In both cases the average was very similar, with 2.633 for the overall Program Objectives and 2.733 for the overall Dual Language Professional Competencies. In addition, based on the statistical analysis, using a 95% Confidence Level, it was determined that in both cases the distribution of the data had a small variability and the majority of the data points were concentrated around the mean (average).

The Dual Language Professional Competencies based on the language, Spanish and English Dual Language Professional Competencies, were analyzed and the results were compared. The results showed that the students did not have a very good performance in both Spanish and English Dual Language Professional Competencies. However, their average score was slightly higher in the Spanish Dual Language Professional Competencies. The average score in the English Dual Language Professional Competencies was 2.650 and in the Spanish Dual Language Professional Competencies was 2.800. As a comparison between the Spanish and English Dual Language Professional Competencies it was concluded that the students had a satisfactory performance in both areas. When comparing the Dual Language Professional Competencies results with the Program Objectives results in both languages, it was concluded that the students had a slightly higher performance in the Dual Language Professional Competencies.
The Bachelor in Business Administration in Management Midpoint Assessment Instrument is a comprehensive project that consists of two components: one Industry Market and Competitor Analysis in English and one Plan de Negocio (Business Plan) in Spanish. This analysis provides an understanding of the instructional conditions related to how well the students have performed on their discipline competencies and language proficiency in both Spanish and English.

The scores among the Program Objectives and the Dual Language Professional Competencies without taking into consideration the language were compared. Based on the analysis it was concluded that the students had a satisfactory performance on the overall Program Objectives and Dual Language Professional Competencies. In both cases the averages were on the low end of the range, with 2.171 for the overall Program Objectives and 2.068 for the overall Dual Language Professional Competencies. In addition, based on the statistical analysis, using a 95% Confidence Level, it was determined that the distribution of the data had a small variability and the majority of the data points were concentrated around the mean (average) range.

The Dual Language Professional Competencies based on the language, Spanish and English Dual Language Professional Competencies, were analyzed and the results were compared. The results showed that students did Satisfactory in the Spanish Dual Language Professional Competencies and they did Unsatisfactory in the English Dual Language Professional Competencies. The average score in the English Dual Language Professional Competencies was 1.967 and in the Spanish Dual Language Professional Competencies was 2.236. When comparing the Dual Language Professional Competencies results with Program Objectives results in both languages, it was concluded that the students had a slightly higher performance score in the achievement of Program Objectives.
The *Master of Education in Guidance and Counseling* Midpoint Assessment Instrument is a comprehensive project that consists of two case studies: *Estudio de Caso* #1 (Case Study #1) in Spanish and Case Study #2 in English. This analysis provides an understanding of the instructional conditions related to how well the students have performed on their discipline competencies and language proficiency in both Spanish and English.

The scores among the Program Objectives and the Dual Language Professional Competencies were compared without taking into consideration the language. Based on the analysis it was concluded that the students did Very Good for the overall Program Objectives with 3.230 and they were Satisfactory for the overall Dual Language Professional Competencies with 2.888. In addition, based on the statistical analysis, using a 95% Confidence Level, it was determined that the distribution of the data had a small variability and the majority of the data points were concentrated around the mean (average) range.

The Dual Language Professional Competencies based on the language, Spanish and English Dual Language Professional Competencies, were analyzed and the results were compared. The results showed that in the Spanish Dual Language Professional Competencies the students did Very Good and in the English Dual Language Professional Competencies the students did Satisfactory. The average score in the English Dual Language Professional Competencies was 2.725 and in the Spanish Dual Language Professional Competencies was 3.050. When comparing the Dual Language Professional Competencies results with Program Objectives results in both languages, it was evident that the students obtained a higher performance score in the achievement of Program Objectives.
The *Master of Education in Guidance and Counseling Capstone Assessment Instrument* is a Comprehensive Internship Portfolio that includes four components:

1. Section 1 (Spanish): Identification of a critical area of need
2. Section 2 (English): Designing, planning, and implementing a special project such as: a workshop, a peer training, a seminar, a group orientation, a guidance classroom lesson etc.
3. Section 3 (English): Construction of an assessment instrument or evaluation sheet for the special project.
4. Section 4 (Spanish): Elaboration of a critical analysis and summary about the experience.

The following analysis provides an understanding of the instructional conditions related to how well the students have performed on their discipline competencies and language proficiency in both Spanish and English.

**GRAPH 12: MASTER IN GUIDANCE AND COUNSELING: MIDPOINT ASSESSMENT RESULTS**

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**Capstone Assessment Results**

**Capstone: Master’s in Guidance and Counseling: EDUC 587**

<table>
<thead>
<tr>
<th></th>
<th>Unsatisfactory</th>
<th>Satisfactory</th>
<th>Very Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td></td>
<td></td>
<td>3.147</td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td></td>
<td></td>
<td>3.267</td>
<td></td>
</tr>
<tr>
<td>Dual Language</td>
<td></td>
<td></td>
<td>3.213</td>
<td></td>
</tr>
<tr>
<td>Program Objectives</td>
<td></td>
<td></td>
<td>3.442</td>
<td></td>
</tr>
</tbody>
</table>

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The scores among the Program Objectives and the Dual Language Professional Competencies were compared without taking into consideration the language. Based on the analysis it was concluded that the students did **Very Good** in all of the Program Objectives and the Dual Language Professional Competencies. In both cases the average was similar, with 3.442 for the overall Program Objectives and 3.213 for the overall Dual Language Professional Competencies. In addition, based on the statistical analysis, using a 95% Confidence Level, it was determined that in both cases the distribution of the data had a small variability and the majority of the data points were concentrated around the mean (average).

The Dual Language Professional Competencies based on language, Spanish and English Dual Language Professional Competencies, were analyzed and the results were compared. The results indicated that the students had a **Very Good** performance in both Spanish and English Dual Language Professional Competencies. The average score in the **English** Dual Language Professional Competencies was **3.147** and in the **Spanish** Dual Language Professional Competencies was **3.267**. When comparing the Dual Language Professional Competencies results with Program Objectives results in both languages, it was clear that the students obtained a slightly higher performance score in achievement of Program Objectives.
The Discipline-Based Dual Language Immersion Model®

The dual language model developed by AGMUS Ventures, Inc. for implementation at Sistema Universitario Ana G. Méndez USA campuses in Florida, Maryland, and the Regis University Dual Language Campus, has applied the basic guiding principles of dual language education to a university setting following an adapted version of the Center for Applied Linguistics. The Guiding Principles for Dual Language have seven strands and targeted principles for each of them.

The Guiding Principles for Dual Language Education were developed by the Center of Applied Linguistics in 2005 (Addition information offered at the end of this document) to guide dual language programs with planning and on-going implementation, as well as a progress monitoring tool. The principles were adapted in 2010 by Dr. Sonia Soltero, Bilingual Education Director, De Paul University and Dr. Tomasita Ortiz, Chief Learning Officer, AGMUS Ventures INC., for the Higher Education context. The principles were revised in July 2012 with the professional collaboration and recommendations from Dr. Liliana Minaya Rowe, Emeritus Professor, Connecticut State University, to guide university level dual language programs in effective implementation and continuous improvement to achieve exemplary practices in the model as follows:

<table>
<thead>
<tr>
<th>STRAND 1</th>
<th>Assessment and Accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principle 1</td>
<td>The program creates and maintains an infrastructure that supports an accountability process for student success and program effectiveness.</td>
</tr>
<tr>
<td>Principle 2</td>
<td>Student assessment is aligned with content and language standards, competencies, and program goals, and is used for evaluation of the program and instruction.</td>
</tr>
<tr>
<td>Principle 3</td>
<td>The program collects a variety of data, using multiple measures that are used for program accountability and evaluation.</td>
</tr>
<tr>
<td>Principle 4</td>
<td>Data on language proficiency growth are analyzed and interpreted in methodologically appropriate ways for program accountability and improvement.</td>
</tr>
<tr>
<td>Principle 5</td>
<td>Student progress toward program and dual language professional goals is systematically measured and reported to faculty, directors, students, and stakeholders.</td>
</tr>
<tr>
<td>Principle 6</td>
<td>The program communicates with appropriate stakeholders about program outcomes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STRAND 2</th>
<th>Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principle 1</td>
<td>The curriculum is standards-based and promotes the development of bilingual, biliterate, and multicultural competencies for all students.</td>
</tr>
<tr>
<td>Principle 2</td>
<td>The program has a process for developing and revising a high quality curriculum.</td>
</tr>
<tr>
<td>Principle 3</td>
<td>The curriculum is fully balanced (linguistic, academic, cognitive, social cultural dimensions, and the professional dimension) and articulated for all students and faculty.</td>
</tr>
<tr>
<td>Principle 4</td>
<td>The curriculum integrates the ExC-ELL components. (Core vocabulary, reading across disciplines, writing across disciplines, and high levels of learner involvement.)</td>
</tr>
<tr>
<td>Principle 5</td>
<td>Language and content objectives are integrated across the curriculum for the discipline.</td>
</tr>
</tbody>
</table>
### Strand 3: Instruction

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Instructional methods are derived from research-based principles of dual language education and from research on the development of bilingualism and biliteracy in adult learners.</td>
</tr>
<tr>
<td>2</td>
<td>Instructional strategies enhance the development of bilingualism, biliteracy, and academic achievement.</td>
</tr>
<tr>
<td>3</td>
<td>Instruction is student-centered and integrates Constructivism strategies in every lesson.</td>
</tr>
<tr>
<td>4</td>
<td>Explicit teaching of Core Vocabulary and Teaching for Transfer is integrated.</td>
</tr>
<tr>
<td>5</td>
<td>Facilitators create a multilingual and multicultural learning environment.</td>
</tr>
<tr>
<td>6</td>
<td>Facilitators differentiate instruction based on language proficiency levels to ensure comprehensible instruction in the discipline.</td>
</tr>
</tbody>
</table>

### Strand 4: Quality of Staff, Facilitators, and Administrators and Professional Development

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The program recruits and retains high quality dual language staff, facilitators, and administrators.</td>
</tr>
<tr>
<td>2</td>
<td>The program has a quality dual language professional development plan.</td>
</tr>
<tr>
<td>3</td>
<td>The program provides adequate support for dual language resources needed for professional development.</td>
</tr>
<tr>
<td>4</td>
<td>The program collaborates with other groups and institutions to ensure proper selection and retention of quality staff, facilitators, and administrators for the dual language program.</td>
</tr>
<tr>
<td>5</td>
<td>Staff, facilitators, and administrators model bilingualism and demonstrate the high expectations that need to be cultivated for all dual language professionals on a daily basis.</td>
</tr>
</tbody>
</table>

### Strand 5: Program Structure

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>All aspects of the program work together to achieve the goals of additive bilingualism, biliteracy, and cross-cultural competence while meeting linguistic, academic, and professional expectations.</td>
</tr>
<tr>
<td>2</td>
<td>The program structure has a plan in place for staff, students, and administrators to conduct business in both languages, 50% in Spanish and 50% in English.</td>
</tr>
<tr>
<td>3</td>
<td>The program structure has strong, effective, and knowledgeable leadership.</td>
</tr>
<tr>
<td>4</td>
<td>The program structure has used a well-defined, inclusive, and defensible process to select and refine a model design.</td>
</tr>
<tr>
<td>5</td>
<td>An effective process exists for continual program planning, implementation, and evaluation.</td>
</tr>
<tr>
<td>6</td>
<td>The campus director has implemented a Strategic Compliance Plan for the implementation of the Non-Negotiable Seven Elements for the Dual Language Program.</td>
</tr>
</tbody>
</table>

### Strand 6: Community Partnerships

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The program has a responsive infrastructure for positive, active, and ongoing relations with students and the community.</td>
</tr>
<tr>
<td>2</td>
<td>The program has community education and support services that are reflective of the bilingual and multicultural goals of the program.</td>
</tr>
<tr>
<td>3</td>
<td>The program views and involves advocates and community members as strategic partners.</td>
</tr>
</tbody>
</table>

### Strand 7: Support and Resources

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The program is supported by all program and institution staff.</td>
</tr>
<tr>
<td>2</td>
<td>The program is supported by community groups.</td>
</tr>
<tr>
<td>3</td>
<td>The program is adequately funded.</td>
</tr>
<tr>
<td>4</td>
<td>The program advocates for support.</td>
</tr>
<tr>
<td>5</td>
<td>Resources are distributed equitably within the program, classrooms, and institution.</td>
</tr>
<tr>
<td>6</td>
<td>The university campus displays announcements, magazines, newspapers, and information in both languages throughout the building and bulletin boards.</td>
</tr>
</tbody>
</table>
The Discipline-Based Dual Language Immersion Model® has seven basic elements that together ensure the success of dual language education at the university level through the development of dual language professionals. These seven basic non-negotiable elements are:

1. **Use of both languages in all discipline courses:** All courses follow a strict design whereby 50% of all learning occurs in English and 50% in Spanish. Faculty uses just one language in the workshop; the language assigned for the class in the instructional module. The subject matter is not repeated but the design structures materials, activities, and assessments so that they are evenly distributed between the languages on a weekly basis.

2. **Language development across the curriculum:** In addition to discipline learning objectives, each week integrates language objectives that are applied to the profession and are relevant to the week’s subject matter. Assessment of learning is structured so that 70% of the students’ grades are related to discipline objectives and 30% to language objectives. This integration of language across the curriculum allows students to develop their language skills in both English and Spanish in a setting that is more relevant and motivating to them: their discipline or field of study. The instructional design follows the Collier Prism Model (2009) that achieves a balanced curriculum addressing linguistic, academic, cognitive, progress monitoring, and social/affective dimensions. The platform for the instructional design is mediated by the use of Constructivism and research-based practices for the dual language curriculum.

3. **Systematic distribution of the language arts domains:** In course design, care is taken to ensure that students have the opportunity to develop all four language arts domains: listening, speaking, reading, and writing. Even with the 70% allotted for core discipline knowledge, 50% of the activities integrate listening and speaking skills and 50% of the activities integrate reading and writing skills. This is especially important in online courses that traditionally concentrate on reading and writing activities. A dual language professional must use all language arts domains in order to be effective in the workplace.

4. **Development of both languages through coursework:** In addition to language development throughout discipline-related coursework, all undergraduate degrees include preparatory and language enhancement courses. Students are assigned to these courses based on the scores obtained in the language placement tests. Students in undergraduate programs must take 12 credits of college-level courses in each language (Spanish and English). Graduate level students may enroll in any of the three enhancement language courses (Spanish & English) based on language placement tests, as applicable.

5. **Language placement testing in both languages:** All students admitted into the programs complete placement testing in both languages in order to determine the level of language coursework needed. The language placement tests assess language usage, reading comprehension, and grammatical structure. The graduate level placement tests also assess listening skills. For both undergraduate and graduate level programs, a speaking and writing assessment protocol has been established.
6. **Computerized learning assistance for academic support (E-Lab):** In addition to formal coursework, all students have access, free of charge, to learning assistance tools that allow for supplementary learning assistance in both languages. Students are able to access language skills development software; content and writing tutoring; and, other tutorials and resources. Through the technological resources in the E-Lab students are able to use these resources on campus or through the internet. E-Lab offers the following language and academic resources to students:(1) Wimba Voice, (2) Tell Me More, (3) E-Books, (4) E-Libros), (5) NetTutor, and (6) the Universidad del Turabo Virtual Library. E-Lab complements the Learning Resource Center where students are able to access resources in both languages.

7. **Bilingual faculty and staff:** All faculty and administrative staff in the dual language campuses must be bilingual in order for students to receive services in the language of choice that is more conducive to their success. Although faculty use monolingual delivery in the classroom, they must know the other language in order to provide an environment where students feel free to ask questions and seek advice in their language, when needed. This requires intensive faculty and staff development opportunities to insure that they have the skills and attitudes needed to serve students in a dual language environment.

**Program Model Goals**

- Students develop high levels of proficiency in their first and second language.
- Academic performance is at the highest levels of achievement.
- All students demonstrate positive cross-cultural attitudes and behaviors needed for a global market.
- The students become bilingual, biliterate, and bicultural.

**Language Proficiency Standards**

Acquiring a second language happens in stages, as students progress through increasingly more proficient levels in their second language. Even though the time it takes to go through these stages varies and depends on each individual learner, language proficiency levels guide instructors to make more appropriate and effective instructional decisions (Soltero, 2011). The dual language program model uses the TESOL (*Teachers of English to Speakers of Other Languages*) and WIDA (*World-Class Instructional Design and Assessment*) English proficiency levels and standards provide benchmarks as students progress through their English language development. WIDA's five proficiency levels are based on expected performance indicators that describe what students can do in all four academic English language domains-listening, speaking, reading, and writing.

According to the WIDA standards, the performance definitions for each proficiency level are based on three criteria related to students’ increasing knowledge of:

- comprehension and use of the technical language in the content areas;
• linguistic complexity in oral interaction or writing;
• phonologic, syntactic, and semantic understanding or usage as they move through the second language acquisition continuum.

Instructional Premises

A major focus of the curriculum and instruction is teaching for transfer. An important aspect of second language acquisition that affects instruction and learning is the relationship and interdependence between Spanish and English. The development of academic language proficiency in one language helps to develop a common underlying proficiency that can be used in acquiring a second language. Knowledge of the first language can be transferred effectively during the process of second language acquisition. In other words, the linguistic knowledge and skills that learners have in their first language can be very useful in the development of abilities in their second language. Understanding this cross-linguistic transfer helps instructors and students to better understand how first language knowledge helps language acquisition and literacy development in the second language.

Another fundamental premise of instruction is the use of the constructivist approach that places students in the center of the learning process. Students are empowered to take control of their own learning because knowledge is constructed through social activity and cognitive/academic conversations.

Future Challenges

The success of the Discipline-Based Dual Language Immersion Model® lies in providing opportunities to develop students’ English language skills while they reinforce their Spanish language skills that lead to succeed in their academic goals. This defines the major challenge: how to develop the resources needed to expand this model to other communities where the need exists or replicate the model through partnerships in Puerto Rico and the rest of the US. Resources are needed to use this model as a tool in achieving two major goals:

• Offer dual language immersion university level education to Latinos for those for whom language and culture are barriers that deny access and success.
• Develop partnerships between dual language university programs and PK-12 school districts in developing dual language programs at the elementary and high school levels. The emphasis would be on teacher and staff training to adequately prepare the biliterate high school graduates to continue at the university level in a dual language program.
• Expand the current student profile of Latino Spanish dominant students to attract both Latino and non-Latino English dominant students as well as international students.
In order to reach these goals and facilitate the development of dual language university programs, there are various related issues that merit attention:

- **Elementary and Secondary Education Reauthorization.** As Congress moves to consider reauthorization of the Elementary and Secondary Reauthorization Act (referred to as NCLB), it is important to consider that bilingual education, in general, but particularly dual language education, have not benefited from the attention that they merit given the above described national situation. For example, Subpart 3, Sec. 3131 that refers to funding for partnerships between institutions of higher education and local educational agencies, focuses on language instruction for limited English proficient students. It is important to expand these opportunities to include dual language programs and programs that go beyond English language instruction.

- **Terms used to refer to students who speak a language other than English.** This and other federal legislation typically use the terms limited English proficient (LEP) or English Language Learners (ELL) for students who are not proficient in English. The sole focus on English language learning should shift to the social, academic, and economic importance of developing proficiency in more than one language. Bilingualism should be viewed as an asset and it merits more attention and development. The focus on English development limits dual language programs that go beyond English language learning. More inclusive and appropriate terms would be Dual Learners (DLs), Bilingual Learners (BLs) or Culturally and Linguistically Diverse (CLD) students.

- **Support for the National Association for Bilingual Education (NABE) Action Plan for the Education of Bilingual Learners.** NABE is preparing to present to the US Department of Education an Action Plan that proposes ways to achieve greater equity in the educational system through quality bilingual opportunities for all and reinstates bilingual education as an essential mechanism for achieving national educational and workforce development goals. This plan merits full support as its proposals are conducive to the above mentioned goals.

- **Facilitation of partnerships across state and local educational lines.** Current legislation tends to focus on state and educational agencies in partnership with mostly local institutions of higher education and does not facilitate the building of partnerships across state lines for challenges that are common among several states and localities. For example, the **Discipline-Based Dual Language Immersion Model** was developed through a partnership with Puerto Rico, Colorado, and Las Vegas-based universities and is being implemented in a Florida location that serves four separate local educational agencies. Access to elementary and higher education funds in order to serve all these areas is cumbersome and complicated.

- **Development of programs to address the need to develop dual language health professionals.** There is a widely recognized need to develop linguistically and culturally diverse health professionals. The focus to this point has been on attempts to have English speaking health professionals learn the basics of other languages or providing non-
English speaking health professionals with intensive English language instruction. The first provides for rudimentary communication that does not really lead to comprehensive patient care; the second does not result in narrowing the English proficiency gap in order to relate to other health professionals. As Thomas and Collier demonstrated in the 2002 study, only well-implemented dual language programs can close this gap. Funding targeted to dual language health professional programs does not currently exist and health related professional education requires a significant investment in facilities and equipment.

- Development of online dual language teacher training programs at both the bachelor’s and master’s levels. Dual language teacher training programs could have a national scope if offered online. Online dual language programs require a significant upfront investment in course design, especially if it is to integrate the systematic use of voice to develop oral language skills. This investment is further enhanced by the fact that online education programs need to consider and build in differences in state certification requirements. It is important to develop funding opportunities for this initial investment in online dual language education that has the potential for a national return on that investment.
DUAL LANGUAGE GLOSSARY/TERMINOLOGY

Additive Bilingualism: Adding a second language to one’s language repertoire with no loss or deterioration of the first language.

Balanced Bilingual: When a person can communicate effectively and equally well in two languages.

Basic Interpersonal Communication Skills (BICS): Those language skills which comprise cognitively undemanding or everyday aspects of communication, such as social language. Research shows that most second-language learners become proficient in BICS in about two years.

Bilingual Education: The use of two languages for the purpose of academic instruction consisting of an organized curriculum which includes at a minimum: 1) continued primary language (L1) development; 2) English (L2) acquisition; and 3) subject matter instruction through (L1) and (L2). Bilingual education programs assist limited English proficient (LEP) students in acquiring literacy in both English and primary language development to a level where they can succeed in an English-only classroom. Programs may also include native speakers of English.

Bi-literacy: Literacy that has been developed well in two languages (see definition of Literacy).

Constructivism: This learning theory supports the idea that learning is not passive. It is an active, constructive process in which the professor becomes a facilitator of knowledge internalization so that learning may occur. The learner is an active information builder. The learner actively constructs or creates his/her own subjective representations of objective reality and mental models. New core curriculum information is directly linked to prior knowledge and cultural experiences, thus mental representations are subjective. Learning theory experts who contributed to this theory are Vygotsky, Piaget, Dewey, Vico, Rorty, Bruner. Their research has also been applied to second language acquisition and learning.

Culturally and Linguistically Diverse (CLD): A more accurate term to refer to students in the process of acquiring and learning in a new language other than their native heritage language.

Developmental Bilingual Program: A program in which students are taught both English and their first language in order to foster continued development of the native language in addition to the learning of English. This is an additive bilingual language program.

English as a Second Language (ESL): English instruction for the development of listening, speaking, reading, and writing skills for non-English speakers.

English to Speakers of Other Languages (ESOL): Another term used to refer to ESL.
**English Language Learners:** Another term used to refer to a student whose primary language is other than English, and who does not demonstrate English language skills of comprehension, speaking, reading, and writing at a level necessary to receive instruction only in English with native English-speaking peers.

**Language Proficiency:** An individual’s level of accuracy and fluency of communication in a specific language as measured by his/her performance.

**Limited-English-Proficient (LEP) Student:** A student whose primary language is other than English and who does not demonstrate English language skills of comprehension, speaking, reading, and writing at a level necessary to receive instruction only in English with native English-speaking peers. This is the term used in the federal law.

**Literacy:** The ability to derive meaning and to communicate effectively through print. Types of literacy that have been described include:

1. **Functional Literacy:** Ability to read and write well enough to function in society, e.g., fill out forms.
2. **Cultural Literacy:** Literacy based on a foundation of shared knowledge and experience within a culture.
3. **Critical Literacy:** Ability to assess the ideology of individual texts. This is the highest level of literacy.

**One Way Developmental Bilingual Education:** An enrichment program for culturally and linguistically diverse students that provides content area instruction in a student’s first language while simultaneously offering ESL instruction. The instruction of content material gradually shifts to achieve a 50/50 approach where both languages of instruction are valued with equal importance to attain academic achievement. The expectation is that students will become bilingual, bi-literate, and bicultural and will be prepared for the challenges of a global market workplace.

**Second Language Acquisition Theory:** Consists of a set of related hypotheses put forth to account for observed phenomena in second language acquisition. Those hypotheses are: acquisition vs. learning hypothesis, the monitor hypothesis, the (comprehensible) input hypothesis, the affective filter hypothesis, and the natural order hypothesis.

**Second Language Acquisition/Learning:** The development of second language proficiency through either structured instruction or interaction with native speakers of that language.
The Natural Approach (NA): A topic-centered language program designed to develop basic communication skills in accordance with the way children naturally acquire language through the following developmental stages: pre-production, early production, speech emergence, and intermediate fluency.

a. **Pre-Production** - the first developmental stage of the NA where the focus is on listening comprehension. Student responses are non-verbal.
b. **Early Production** - the second developmental stage of the NA, where the focus is on expanding receptive vocabulary and initial production.
c. **Speech Emergence** - the third developmental stage of the NA, when the student begins to speak in simple sentences.
d. **Intermediate Fluency** - the fourth developmental stage when the student engages in discourse.

Two-Way (Developmental) Bilingual Program: This instructional model is also known as “Dual Language Program” or “Two-Way Immersion Program.” The most common model implements a 50/50 instructional approach. This means that 50% of the instruction is in English and 50% in the other language. In the beginning stages, literacy is developed in the students’ native language until they reach the 50/50 approach. A two-way bilingual program has among its goals native and second language literacy, growth in content-area knowledge, and promotion of intercultural understanding. It is an enrichment program that provides participating students content area instruction in a student’s first and second language. The instruction of content material in upper grade levels gradually shifts to achieve a 50/50 approach where both languages of instruction are valued with equal importance to attain academic achievement. The expectation is that students will become bilingual, biliterate, and bicultural and will be prepared for the challenges of a global market workplace.
References


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