Appendix E

Bilingual Education Definition, Goals, Rationale, Programs and Empirical Findings

Definition

The National Association for Bilingual Education (2005) defines Bilingual Education as "Approaches in the classroom that use the native languages of English language learners (ELLs) for instruction"

Bilingual Education Goals include:

- teaching English,
- fostering academic achievement,
- assisting immigrants acculturation 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 Rationale:

"When schools provide children quality education in their primary language, they give them two things: knowledge and literacy. The knowledge that children get through their first language helps make the English they hear and read more comprehensible. Literacy developed in the primary language transfers to the second language. The reason is simple: Because we learn to read by reading, that is, by making sense of what is on the page, it is easier to learn to read in a language we understand. Once we can read in one language, we can read in general" (Smith, 1994 as cited by NABE online, 2005).

Advantages from Bilingual Education Programs implemented with integrity:

- The family language is valued and both languages are used for a variety of purposes.
- Bilingualism is promoted at home and school and is socially advantageous
- Learners have well-developed L1 before L2 learning begins.
- Learners have opportunity to develop literacy in L1 and L2

Essential Components observed in strong Bilingual Education Classrooms

- Teacher functions as a language model and facilitator of language activities vs. teacher directed lessons.

- Whole Language Approach to language teaching vs. breaking skills into discrete components.

  - Rationale: Lockstep, sequenced curricular materials that insist on mastery of each discrete point in language before moving onto the next are a disaster for second language acquisition because they often reflect the author's view of the order in which each discrete point in English should be learned, not the natural order (Collier, 1997).

- Opportunity to develop native language and second language.

- Extensive (2-3 hours) of quality interaction with native speakers during which time they are respected as equal partners in school.

- Introduction of complex skills versus basic skills approaches.

- Keeps students from engaging in cognitively complex work appropriate to their maturity level.

- Students' performance on a discrete-point language test serves as a gatekeeper for access to more meaningful school work.

Bilingual Education Programs

- **Transitional Early Exit Bilingual Ed. Program**
  - Native language content instruction (K-2 or 3rd grade). Native language instruction reduced as English instruction increases.

- **Maintenance or Late Exit Bilingual Ed. Program**
  - Native language instruction provided until upper grades (K-6th). Native language instruction reduces as students gain proficiency in English.

- **Two-Way or Dual-Language Bilingual Ed. Program**
  - English language speakers acquire second language with native speakers of program language who are acquiring English. Programs are designed to foster bilingualism and biliteracy for students from two cultural backgrounds.

Common Ratios for balancing native and second language instruction:

- **50:50 Ratio.** Providing consistent 50:50 ratio of English to the native language throughout the duration of the program.

- **90:10 Ratio.** Providing a gradual increase in the amount of instruction in English from a 90:10 ratio of native language to English in kindergarten to a 50:50 ratio by the last year of the program.

Bilingual Methods guiding the specific amount of content area instruction in two languages:

- **Alternate-day plan**. One language used one day and the other is used the next day.

- **Half-day plan**. One language used for part of the day and the other is used for the other part.

- **Mixed.** Some subjects are taught in one language, while other subjects are taught in the second language.

- **Preview-review method.** First lesson presented in the home language, followed by a presentation of same lesson in English. Summary conducted in home language.

English as a Second Language (ESL) Programs

ESL Programs (all instruction provided in English) are most often used in the United States in the education of second language learners:

- **Pull-out ESL**: removes student from regular class and offers instruction to foster student's ability to learn English language

- **Content-based or sheltered English**: teaches academic content in English by making the necessary adjustments so instruction is provided at the "level of English proficiency" comprehensible to the student.

Bilingual Education/ESL Programs

- Additive Bilingual environments
  - Substantial support for children to maintain native language as they acquire an additional language

- Subtractive Bilingual environments
  - Acquisition of the majority language w/ native language loss. Can create ambivalence toward heritage language and slows or deters academic achievement.

Major Findings on Bilingual Students' Instructional Programming and Academic Performance

- 90/10 and 50/50 Two-Way Bilingual Immersion and One-Way Developmental Bilingual Education Programs are the only programs found to date that assist students to fully reach the 50th percentile (scoring above 50% of the other test takers) in both their native language and English in all subject areas and to maintain that level of high achievement, or reach even higher levels through the end of their schooling. The fewest dropouts come from these programs.

- ELLs who attended only English mainstream programs because their parents refused language support services showed large decreases in reading and math achievement by grade 5 when compared to students who participated in language support programs. The largest number of dropouts came from this group.

- When ELLs initially exit a language support program into the English mainstream, those schooled in all-English medium programs (ESL) outperform those schooled in the bilingual programs when tested in English. The students schooled in bilingual programs, however, reach the same levels of achievement as those schooled all in English by the middle school years. Further, during the high school years, the students schooled in bilingual programs outperform the students schooled in all English.

- The amount of formal primary language schooling that a student has received is the strongest predictor of second language student achievement. That is, the greater the number of years of primary language, grade-level schooling a student has received, the higher his/her English achievement is shown to be (Thomas, et al., 2002).

Policy Recommendations

- Parents who choose not to enroll their children in language support programs should be informed that the long-term academic achievement of their children will probably be much lower as a result. They should strongly be counseled against refusing language support services if their child is eligible for them. The research findings of this study indicated that language support services, as required by Lau v. Nichols (1974), raise ELL student achievement levels by significant amounts.

- In order to close the average achievement gap between ELLs and native English speakers, language support programs must be well implemented, not segregated, sustained for 5-6 years, and demonstrate achievement gains of more than the average yearly progress of the non-ELL group each year until the gap is closed. Even the most effective language support programs can only close half of the achievement gap in 2-3 years.

Flanagan and Ortiz (2001) CHC Cross-Battery Approach

The Flanagan and Ortiz (2001) CHC Cross-Battery Approach is based on Cattell-Horn-Carroll (CHC) Theory, which provides a basis for valid and reliable interpretation of results from testing. Please refer to Flanagan et al (2006) for specific information on CHC Theory. This approach classifies standardized, norm-referenced tests by: 1) the degree to which each subtest is culturally loaded; 2) the extent of its inherent linguistic demands.

The degree of cultural loading is the degree to which a given subtest from a standardized test requires specific knowledge of, or experience with, mainstream culture of the norming population. Most standardized measures that are currently used with CLD students have been normed in the United States.

The degree of linguistic demand refers to the amount of linguistic facility required by a given test and is based on three factors: (1) administrator's need to use verbal versus nonverbal language when administering the test; (2) the examinee's need to use receptive language; and (3) examinee's need to use expressive language.

A good illustration of this procedure is Rhodes, Ochoa & Ortiz (2005) classification of the WJIII by degree of cultural loading and linguistic demand below.

Table 11.1 Test Classifications by Degree of Cultural Loading and Linguistic Demand for the WJ III

Degree of linguistic demand	Age	Subtests	CHC Ability
		Degree of cultural loading: Low	
Low	4-85+	SPATIAL RELATIONS	*Gv* (Vz, SR)
Moderate	4-85+	NUMBERS REVERSED	*Gsm* (MW)
	4-85+	VISUAL MATCHING	*Gs* (P, R9)
High	4-85+	CONCEPT FORMATION	*Gf* (I)
	4-85+	ANALYSIS-SYNTHESIS	*Gf* (RG)
	4-85+	AUDITORY WORKMING MEMORY	*Gsm* (MW)
		Degree of cultural loading: Moderate	
Low	4-85+	Picture Recognition	*Gv* (MV)
	4-85+	PLANNING	*Gv* (SS)
	4-85+	PAIR CANCELLATION	*Gs* (R9)
Moderate	4-85+	VISUAL-AUDITORY LEARNING	*Glr* (MA)
	4-85+	Visual Auditory Learning – Delayed	*Glr* (MA)
	4-85+	RETRIEVAL FLUENCY	*Glr* (FI)
	4-85+	RAPID PICTURE NAMING	*Glr* (MA)
High	2-85+	INCOMPLETE WORDS	*Ga* (PC-A)
	4-85+	SOUND BLENDING	*Ga* (PC-S)
	4-85+	MEMEORY FOR WORDS	*Gsm* (MS)
	4-85+	AUDITORY ATTENTION	*Ga* (UR)
	4-85+	DECISION SPEED	*Gs* (R7)
		Degree of cultural loading: High	
High	2-85+	VERBAL COMPREHENSION	*Gc* (VL, LD)
	2-85+	GENERAL INFORMATION	*Gc* (K0)

Matrix of Cultural Loading and Linguistic Demand

Case Study Example 4

WJ-III ONLY DATA FOR MIGUEL (ENGLISH)
DEGREE OF LINGUISTIC DEMAND

DEGREE OF CULTURAL LOADING

	LOW	MODERATE	HIGH
LOW	**SPATIAL RELATIONS** *Gv-95* ***X = 95***	**VISUAL MATCHING** *Gs-70* **NUMBERS REVERSED** *Gsm-90* ***X = 80***	**CONCEPT FORMATION** *Gf-103* **ANALYSIS SYNTHESIS** *Gf-111* ***X = 107***
MODERATE	**Picture Recognition** *Gv-86* **PLANNING** *Gv-88* **PAIR CANCELLATION** *Gs-68* ***X = 81***	**VISUAL-AUDIROTY LEARNING** *Glr-93* **Delayed Recall – Visual Auditory Learning** *Glr-85* **RETRIEVAL FLUENCY** *Glr-90* **RAPID PICTURE NAMING** *Glr-71* ***X = 85***	**MEMORY FOR WORDS** *Gsm-98* **INCOMPLETE WORDS** *Ga-87* **SOUND BLENDING** *Ga-89* **AUDITORY ATTENTION** *Ga-89* **DECISION SPEED** *Gs-73* ***X = 86***
HIGH			**VERBAL COMPREHENSION** *Gc-90* **GENERAL KNOWLEDGE** *Gc-86* ***X = 88***

General Guidelines for Expected Patterns of Test Performance for Diverse Individuals

DEGREE OF LINGUISTIC DEMAND

DEGREE OF CULTURAL LOADING	LOW	MODERATE	HIGH
LOW	Slightly Different: 3-5 points Different: 5-7 points Markedly Different: 7-10 points	Slightly Different: 5-7 points Different: 7-10 points Markedly Different: 10-15 points	Slightly Different: 7-10 points Different: 10-15 points Markedly Different: 15-20 points
MODERATE	Slightly Different: 5-7 points Different: 7-10 points Markedly Different: 10-15 points	Slightly Different: 7-10 points Different: 10-15 points Markedly Different: 15-20 points	Slightly Different: 10-15 points Different: 15-20 points Markedly Different: 20-25 points
HIGH	Slightly Different: 7-10 points Different: 10-15 points Markedly Different: 15-20 points	Slightly Different: 10-15 points Different: 15-20 points Markedly Different: 20-25 points	Slightly Different: 15-20 points Different: 20-30 points Markedly Different: 25-35 points

Slightly Different: *Includes individuals with high levels of English language proficiency (e.g., advanced BICS/emerging CALP) and high acculturation, but still not entirely comparable to mainstream U.S. English speakers. Examples include individuals who have resided in the U.S. for more than 7 years or who have parents with at least a high school education, and who demonstrate native-like proficiency in English language conversation and solid literacy skills.*

Different: *Includes individuals with moderate levels of English language proficiency (e.g., intermediate to advanced BICS) and moderate levels of acculturation. Examples include individuals who have resided in the U.S. for 3-7 years and who have learned English well enough to communicate, but whose parents are limited English speakers with only some formal schooling and improving but below grade level literacy skills.*

Markedly Different: *Includes individuals with low to very low levels of English language proficiency (e.g., early BICS) and low or very low levels of acculturation. Examples include individuals who recently arrived in the U.S. or who may have been in the U.S. 3 years or less, with little or no prior formal education, who are just beginning to develop conversational abilities and whose literacy skills are also just emerging.*

CHC Culture-Language Matrix

Name of Examinee:_____ **Age:**_____ **Grade:**_____ **Date:**_____

DEGREE OF LINGUISTIC DEMAND

DEGREE OF CULTURAL LOADING

	LOW	MODERATE	HIGH
LOW	Test Name: Score: _____(_____) _____(_____) _____(_____) _____(_____) _____(_____) Cell Average = _____	Test Name: Score: _____(_____) _____(_____) _____(_____) _____(_____) _____(_____) Cell Average = _____	Test Name: Score: _____(_____) _____(_____) _____(_____) _____(_____) _____(_____) Cell Average = _____
MODERATE	Test Name: Score: _____(_____) _____(_____) _____(_____) _____(_____) _____(_____) Cell Average = _____	Test Name: Score: _____(_____) _____(_____) _____(_____) _____(_____) _____(_____) Cell Average = _____	Test Name: Score: _____(_____) _____(_____) _____(_____) _____(_____) _____(_____) Cell Average = _____
HIGH	Test Name: Score: _____(_____) _____(_____) _____(_____) _____(_____) _____(_____) Cell Average = _____	Test Name: Score: _____(_____) _____(_____) _____(_____) _____(_____) _____(_____) Cell Average = _____	Test Name: Score: _____(_____) _____(_____) _____(_____) _____(_____) _____(_____) Cell Average = _____