Supporting Dual CALP Development Among Second Language Learners: The Two-Way Model Revisited

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The most common bilingual education programs, early and late exit transitional bilingual models, are consistently undermined by external factors. These factors range from student difficulties with, and poor performance on, standardized tests in English, to community and educator misconceptions about the urgency for language minority children to be fully immersed within an all English environment as soon as possible. As described by Ventrone and Benavides (1998), English-only proponents perceive English as the primary method of assimilation and native language loss as a consequence of English acquisition. Martinez and Moore-O'Brien (1993) suggest inherent contradictions that limit the effectiveness of transitional bilingual programs. They conclude that non-English speaking children rarely receive enough instruction in their primary language to fully develop it. Short-changed in their native language (L1) development, children do not have the opportunity to achieve higher academic proficiency in their L1 for appropriate transfer and success in the English, (L2) curriculum. This situation often results in low levels of proficiency in both L1 and L2. A Transitional Bilingual Model is a subtractive model focusing upon English acquisition, at the expense of the child's in L1 (and contradicts research on the L2 development process).

A Two-Way Bilingual Enrichment Model incorporates a strong and positive academic and language enrichment environment for all students involved. Two-Way Bilingual Programs create additive environments. These programs build upon what students bring to the classroom, viewing them, their parents, and the community at large as resources in achieving literacy in two languages. This emphasis on the student's schema often results in an appropriately lowered affective filter (stress and anxiety) for the language learner, critical in achieving optimal results in second language acquisition.

The Case Against Transitional Programs

Cummins (1981) and Baker (1996) argue that Transitional Bilingual Programs are inherently flawed due to the way in which they disable language minority children in the educational process. Baker (1996), in his discussion of the rationale for the implementation of Transitional Bilingual Programs, presents it as a matter of perceived

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priorities. He suggests that often educators inappropriately urge for English acquisition so that Spanish speaking children do not fall behind their English-speaking peers. If matters are as Baker suggests, then these transitional programs underscore a false premise of equality of opportunity for language minority children. This errant application of equality is based not on equal curriculums (curriculums in all English classrooms are not identical to their respective bilingual counterparts) but rather a misperceived equality based on proficiency in English.

Transitional Programs are considered weak in that often, their end result is a person who is not fully bilingual and biliterate. The student's academic success is measured primarily through achievement in English. Consequently, teachers feel increased pressure to deliver virtually all instruction in English. The L2 is perceived as in need of replacement as soon as possible. This situation/perception conveys the message to students, teachers, school staff, and administrators that the L2 and English clearly do not enjoy equal status (Skutnabb-Kangas, Baker; 1981, 1996).

By definition, Transitional Programs fail to allow sufficient time for students to acquire the level of academic language proficiency (CALP) necessary for successful learning in the second language (L2). How could they? More often than not, CALP development in the native language (L1) is not yet complete; further impeding the learning process (Skutnabb-Kangas, Baker; 1981, 1996). Transitional Programs teach academic concepts to second language learning (ELL) students in their L1 for a limited time only, often exiting students after a maximum of two years (Gersten, Woodward, 1994). This is far short of the minimum 5-7 years which research demonstrates it takes to acquire CALP. (Collier, 1995)

The Transitional Model is typically subtractive and deficit. It is subtractive bilingualism in that children are forced to set aside or subtract out their native language and assimilate to the more prestigious majority language. Subtractive bilingualism states Lambert (1987) is recognized and correlates with low levels of second language acquisition, academic underachievement, and psychosocial disorders. It is also a deficit model in that it operates from a perspective that ELL students are lacking in a skill, and thus in need of remediation.

The Case in Favor of Two-Way Programs

Recognizing that literacy strength in L1 provides a strong basis for literacy development in L2, Two-Way Bilingual Programs emphasize maintenance of the student's L1 CALP development. (This attention to L1 development is not just a utilitarian way to more effectively acquire English.) By giving the L1 equal status with English, it is valued, validated, and plays an essential role in daily living within the school environment. Such an environment is empowering, addressing issues of social justice as well as test scores (Baker, 1996). Another important aspect of these programs is that they support L1 and L2 CALP development for a period of 5-7 years, the time required for students to develop CALP and reach a threshold of language ability in both their native and second language. Two-Way Programs allow students to begin to benefit from bilingual education and reach high levels of cognition (Zion-Brauer, 1997). The Two-Way Model remains true to research in second language acquisition (Collier, 1995; Cummins, 1996), ensuring that students gain CALP and learning strategies in L1 before transfer to L2 is expected of them. This emphasis on simultaneous development in both languages can be

seen in Lindholm's (1992) criteria for effective Two-Way Bilingual Programs. Such programs should: a) promote development of high levels of academic proficiency in two languages for all students, b) assist students in achieving academic success in both languages as determined by conventional measurements, and c) address the acquisition of high levels of cross-cultural understanding and psycho-social competence by all students involved. Thus, the potential for the cognitive benefits associated with two-way bilingualism are considerable.

Two-Way Bilingual Models rely on additive bilingualism as a form of enrichment where children are given the opportunity to add one or more second languages while fully developing their own primary language. Lambert (1987) argues that true bilingualism allows students to not only greatly profit from the language learning experience, but to also gain cognitively, socially, educationally, and even economically. Additive bilingualism, therefore, is associated with high levels of proficiency in the two languages, positive self-esteem and positive cross-cultural attitudes.

According to Baker (1996), Zion-Brauer (1997), and other researchers, key characteristics of the structure and strategies within a successfully implemented Two-Way Bilingual Program are:

- Strong support by administration with a long-term commitment (4-6 year minimum).
- Fully integrated schooling, with language minority and majority students learning each other's languages.
- Consistent separation of languages for instruction.
- Highly qualified staff whose positive perceptions lead to high expectations for student achievement.
- Equal status of the two languages.
- Balance of language groups, the ratio should never slip below 2/3 majority language (English) to 1/3 minority language students.
- Sufficient use of the minority language (at least 50%).
- Instructional approaches involving: (1) whole language, (2) natural language acquisition through all content areas, (3) cooperative learning, (4) interactive and discovery learning, (5) cognitive complexity of all lessons while maintaining comprehensible input.
- Opportunities for speech production.
- Close school-to-home collaboration where parents are seen as a valuable resource.
- Empowerment as an objective of instruction.

Designing a Two-Way Bilingual Program

Effective Two-Way Bilingual Programs are, to a great degree, custom designed to fit the needs and resources of a school district and community. Still, general characteristics shared by effective Two-Way Bilingual Programs have been summarized by the National Clearinghouse of Bilingual Education (1999):

- *Length of Program*. Research data indicate that students require a minimum of 4-6 years, and may require 7-10 years to attain CALP in both L1 and L2.

- *Staffing*. Staffing must allow for the provision of instruction in two languages. Influential factors include the availability of qualified teachers, the degree of separation of languages for instruction, and other specific programmatic goals. Thus, Developmental Bilingual Education (DBE)

program staffing patterns can range from self-contained classrooms to team-teaching arrangements.

In self-contained classrooms, a bilingual teacher, with or without the assistance of a bilingual aide, plans and delivers instruction in two languages for one classroom of students. In team-teaching, two teachers, at least one of whom is bilingual, work together to provide individual and small group instruction, according to language and subject matter. In this arrangement, one of the team-teachers may be a bilingual resource teacher.

- *Language of Instruction*. The proportion of instructional time spent in each language may vary from program to program. Some programs begin with instruction being equally divided between English and the minority language. In other programs, English may only be used for 10 percent of instruction at the early grades and be gradually increased to 50 percent by the later grades (typically by the fourth grade. Research suggests that sustained periods of monolingual instruction may be more effective in promoting dual language development. Common methods for separating languages include:

  - division by time, where instruction in either language can occur during half-day, alternate day, or alternate week intervals;
  - content-specific division, where the language of instruction varies by subject matter, and where a subject may be taught in one language in one year and in the other language the following year; and
  - team teaching division, where each teacher consistently provides instruction in one language.

- *Instructional Setting*. Two-Way Bilingual Education Programs may be implemented in a variety of instructional settings. In whole class settings, all students in a particular school are enrolled in the program. Implementation usually begins in stages, starting with the earlier grades. In the first year, for example, the program may include only kindergarten students, with an additional grade being included each year. In strand settings, the program takes place in one classroom for each grade level. In magnet school settings, one school draws students from throughout the district to participate in the program. Admission may be selective or open.

- *Materials Selection*. Three categories of materials are needed for two-way language development programs:
  - language arts materials for native speakers of both English and the second language of instruction;
  - ESL and second language materials for non-native speakers; and
  - content area instruction materials in both English and the second language (Willetts and Christian, 1990).

Discussion to follow provides an overview of one design in an effective two-way bilingual program. This design appropriately reflects recent research on effective language learning instruction for SLL students, as well as, the recommendations of the NCBE.

The Rio-Grande Valley Two-Way Partial Immersion Curriculum Model

The Rio-Grande Valley Two-Way Partial Immersion Curriculum Model is the Two-Way Bilingual Model currently utilized in the northern half of the Rio Grande Valley in South Texas (Table 1). It is successfully operating in 12 campuses across 5 school districts. Discussion to follow explains this model according to the cells of Table 1.

• *Grade Level*: Here are two groupings of grade levels. The first group is comprised of PK, K; and first grade and the second group is made up of second through fifth grades. This grade group distinction will be elaborated upon in discussion of the last category, L1/L2 conceptual refinement.

• *Heterogeneous Instructional Grouping*: Each classroom is composed of 50% native English speaking and 50% native

Table 1
Rio-Grande Valley Two-Way Partial Immersion Curriculum Model

Grade Level	Heterogenous Instructional Grouping	Separation of Languages for Content-Area Instruction	Computer Focus	Instructional Staff	L1/L2 Conceptual Refinement
PK	50% English Speakers 50% Spanish Speakers [Except Language Arts] *Content-Area & Learning Center Instruction in Bilingual Pairs/Groups*	Language Arts in Students' <u>Primary Language</u> Mathematics (English) Social Studies/Science (Spanish) P.E., Reading & Music (equally in English/Spanish) *Learning Center Activities available in English and Spanish*	Initial Computer Literacy (English/Spanish)	Bilingual Certified and ESL Certified Teacher-Aide (recommended)	Clarification and Application for: English Speakers SSL: SS or Science Spanish Speakers ESL: Mathematics
K	50% English Speakers 50% Spanish Speakers [Except Language Arts] *Content-Area & Learning Center Instruction in Bilingual Pairs/Groups*	Language Arts in Students' <u>Primary Language</u> Mathematics (English) Social Studies/Science (Spanish) P.E., Reading & Music (equally in English/Spanish) *Learning Center Activities available in English and Spanish*	Support of Linguistic & Cognitive Development via Respective Language of Instruction	Bilingual Certified and ESL Certified Teacher-Aide (recommended)	Clarification and Application for: English Speakers SSL: SS or Science Spanish Speakers ESL: Mathematics
1st	50% English Speakers 50% Spanish Speakers *Content-Area & Learning Center Instruction in Bilingual Pairs/Groups*	Language Arts/Mathematics (English) Language Arts/Social Studies/Science (Spanish) P.E./Reading/Music (equally in English/Spanish) *Learning Center Activities available in English and Spanish*	Support of Linguistic & Cognitive Development via Respective Language of Instruction	Bilingual Certified and ESL Certified Teacher-Aide (recommended)	Clarification and Application for: English Speakers SSL: SS or Science Spanish Speakers ESL: Mathematics
2nd	50% English Speakers 50% Spanish Speakers *Content-Area & Resource Center Activity in Bilingual Pairs/Groups*	Language Arts/Mathematics (English) Language Arts/Social Studies/Science (Spanish) P.E./Reading/Music (equally in English/Spanish) *Resource Center Activities available in English and Spanish*	Support of Cognitive Development & Specialized Vocabulary for Enrichment	Bilingual Certified and ESL Certified	Specialized Terminology & Vocabulary Enrichment in English: SS & Science Spanish: Mathematics
3rd	50% English Speakers 50% Spanish Speakers *Content-Area & Resource Center Activity in Bilingual Pairs/Groups*	Language Arts/Mathematics (English) Language Arts/Social Studies/Science (Spanish) P.E./Reading/Music (equally in English/Spanish) *Resource Center Activities available in English and Spanish*	Support of Cognitive Development & Specialized Vocabulary for Enrichment	Bilingual Certified and ESL Certified	Specialized Terminology & Vocabulary Enrichment in English: SS & Science Spanish: Mathematics
4th	50% English Speakers 50% Spanish Speakers *Content-Area & Resource Center Activity in Bilingual Pairs/Groups*	Language Arts/Mathematics (English) Language Arts/Social Studies/Science (Spanish) P.E./Reading/Music (equally in English/Spanish) *Resource Center Activities available in English and Spanish*	Support of Cognitive Development & Specialized Vocabulary for Enrichment	Bilingual Certified and ESL Certified	Specialized Terminology & Vocabulary Enrichment in English: SS & Science Spanish: Mathematics
5th	50% English Speakers 50% Spanish Speakers *Content-Area & Resource Center Activity in Bilingual Pairs/Groups*	Language Arts/Mathematics (English) Language Arts/Social Studies/Science (Spanish) P.E./Reading/Music (equally in English/Spanish) *Resource Center Activities available in English and Spanish*	Support of Cognitive Development & Specialized Vocabulary for Enrichment	Bilingual Certified and ESL Certified	Specialized Terminology & Vocabulary Enrichment in English: SS & Science Spanish: Mathematics

Spanish speaking students for every subject taught, except Language Arts (LA) for PK and K. For these two grade levels and for LA only, students are separated by language, and each language group is instructed in their native language. Teachers and parents felt it was very important to establish the strongest possible foothold in language arts, therefore they opted for instruction in the students' primary language for PK and K grade levels. At all other times, monolingual English speaking students are partnered with monolingual Spanish speaking students throughout the school day in classrooms composed of half native English speaking students with half native Spanish speaking students.

• *Separation of Languages for Content Area Instruction*: Content areas for each grade level taught in the language is stipulated in the model (i.e. Kinder mathematics in English). Learning centers are filled with activities for all subjects in both English and Spanish.

Subjects such as physical education, reading, and music, are conducted in what was coined as the "Language of the Day". The language of the day alternates between Spanish and English every other day. All school activities and subjects not specifically designated for a certain language of instruction, alternate between both languages. The language utilized to make morning announcements, English or minority language, clue teachers as to the "Language of the Day" for these subjects. This stressing of the equal value assigned to both languages furthers the commitment by all faculty and students to the Two-Way Program at their campus.

• *Computer Focus*: In Kindergarten, computer instruction is provided in both English and Spanish to ensure basic understanding and to avoid adding anxiety that new technology is prone to induce.

For grades K and First, computer instruction is conducted in the language mode that represents the subject being reinforced. For example, kindergarten social studies and science (both taught in Spanish) have corresponding computer enrichment programs for those subjects in Spanish.

For grades 2 through 5, computer focus furthers cognitive development and provides exposure to specialized subject vocabulary in the language not associated with that subject's classroom instruction. For example, fourth grade mathematics, taught in English in the classroom, is enriched in Spanish, during the computer time. Students by second grade master enough of their L2 to enable them to benefit from this enriched vocabulary presentation.

• *Instructional Staff*: In all cases, teachers are either bilingual certified (and teach all Spanish assignments) or ESL certified. It is recognized and understood by all parties involved in the Rio Grande Valley Two-Way Partial Immersion Program, that in addition to the model, teacher attitudes, training, confidence, philosophies, and empowerment, are crucial to the program's success. Thus, all teachers volunteering in the program are either already certified or immediately begin university class work towards certification with financial support provided by their respective school districts.

• *L1/L2 Conceptual Refinement*: For all grades Pre K through 5th, students are again separated by language at the end of the day (usually 15-20 minutes) for purposes of clarification and enrichment.

Students in Pre K through 1st grades are involved in activities that help clarify and/ or apply skills and concepts learned earlier that day. The clarification and/or application is conducted in the students' native language for subjects taught that day in their second or target language. Thus, native English speakers get clarification/enrichment during this time for social studies and science in English; while native Spanish speakers receive clarification/enrichment for mathematics in Spanish. Students in the initial stages of second language development have plenty of opportunities during this time to render concrete the day's instructional concepts that have been originally presented in their target language.

In grades 2 through 5, a concerted effort is made to provide students activities, and specialized vocabulary not covered in original classroom instruction in their target language. Program personnel, through on-going, formative assessments of the program, have added this feature to the model. It was felt that given the increased cognitive demands associated with these grade levels, students should be exposed to specialized vocabulary in their native language in subjects originally taught in their target language.

Conclusion

As discussed, Transitional Models of bilingual education, by their very definiton, deny access to equitable educational opportunities ELL students. These models too often rush ELL students into mainstream, all English, classrooms while not preparing them for the demanding cognitive rigor that will accompany them. A student lacking strong native language cognitive development (CALP in L1), may be left in a no-man's land; unable to fully develop CALP in L1 or L2.

The most purposive way to prepare ELL children is through a Two-Way Bilingual Model. This model holds great promise in nurturing the linguistic, academic, cultural, social, political and moral aspects of the whole child. Children exit such programs with a solid cognitive base in L1 and in turn, in their L2 as well. These students are better prepared to function in an increasingly technological world, with empathy for others and a strong sense of identity. Given their potential and success in these areas, it is not surprising then that more and more Two-Way Bilingual Education Programs are being implemented across the country: success breeds demand. As bilingual educators, we steadfastly maintain that the Two-Way Model reflects our best hope yet for preparing life-long learners who are capable of becoming productive citizens in an increasingly global society.

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