



What We Know About Effective Instructional Practices for English-Language Learners.

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This research synthesis, using a qualitative multivocal method (Ogawa & Malen, 1991), investigates the knowledge base of effective instruction for English-language learners in elementary and middle school grades. Interviews with professional educators and researchers around the country in a series of five work groups were conducted. Findings from the work groups were enhanced by a review of the literature consisting of 9 intervention studies (8 group studies and 1 single-subject study) and 15 descriptive studies. Major themes and implications for conducting future research and improving current practice are discussed.

The wave of immigration that began 20 years ago is the second largest in American history. Yet, as Yzaguirre (1998) noted, the topic of how to educate this group of students invariably brings high levels of passion and low levels of rational discourse. This was also the case during the last large wave of immigration at the beginning of this century.

We believe that in order to improve the quality of educational services, it is critical to shift the focus of discourse away from broad sociological and political issues towards specific instructional issues. Researchers such as Moll (1988) have argued convincingly that research needs to move beyond the issue of which language should be used to teach English-language learners and delineate clearly the best methods for teaching students. As C. Goldenberg noted, "The language-of-instruction debate has so dominated discussion of how to best serve the needs of language minority children that other issues, which are at least equally important, have not been adequately addressed" (personal communication, October 8, 1994).

A decade ago, Figueroa, Fradd, and Correa (1989) noted that there was no "substantive body of empirical data on actual, well-controlled interventions ... that improve the academic abilities of students who are English-language learners" (p. 17). The situation has slowly improved over the last decade. The glacial pace of empirical research on effective instructional approaches for teaching English-language learners is detailed in a widely disseminated report by the National Academy of Sciences (August & Hakuta, 1997). That report was an attempt to synthesize empirical research conducted on the education of English-language learners.

At about the same time that the National Academy of Sciences group conducted their research synthesis, we independently conducted an exploratory meta-analysis (Baker & Gersten, 1997) of those experimental and quasi-experimental studies that met contemporary methodological standards as outlined in Cooper and Hedges (1994). The National Academy of Sciences' report corroborated our own observations regarding the paucity of controlled empirical investigations of instructional programs or practices. Because we could only locate nine studies with sufficient control, and the studies vary widely in terms of content taught and grade level, we could not develop any firm generalizations about which instructional components might lead to enhanced

outcomes (Baker & Gersten). We decided to conduct a qualitative multivocal research synthesis (Ogawa & Malen, 1991), as described in the next section. The current synthesis examines and analyzes the current state of knowledge about the effective instructional practices for English-language learners.

The guiding question is seemingly straightforward: What do we really know about effective teaching practices for English-language learners in the elementary and middle school grades? However, developing a methodology to systematically answer this question was difficult due to the highly fragmented nature of the knowledge base and deep-rooted conceptual differences among scholars and researchers on this subject.

The term English-language learners is used (Rivera, 1994) to refer to students who are less than proficient in English. This term is usually deemed preferable to earlier terms such as limited English proficient and language minority. It also encompasses a broader range of students, including those whose conversational English is adequate, but who struggle with the abstract language of academic disciplines.

The term English-language development (ELD) refers to all types of instruction that promote the development of either oral or written English-language skills and abilities. This term replaces terms such as English as a second language (ESL) and English for speakers of other languages (ESOL) that have been in use in various regions of the country. It also is intentionally broad--encompassing not only traditional instruction which often focused heavily on grammar, syntax, and proper usage, but also attempts to merge ELD with academic content instruction, which have often been called sheltered content instruction.

WHAT IS A MULTIVOCAL RESEARCH SYNTHESIS?

In a multivocal synthesis, researchers evaluate the methods and results of a given set of documents and use rigorous qualitative procedures to analyze "the diverse writings, as well as a deliberate analysis of the findings reported in empirical investigations" (Ogawa & Malen, 1991, p. 265). (For a more detailed account of methods used in this multivocal synthesis, see Gersten, Baker, Unok Marks, & Smith [1998] or Gersten & Baker, 2000). These documents also "make direct reference to perceptions acquired from a rich mix of informants representing different positions in the system and different perspectives of the phenomenon (e.g., practitioners and academics, participants and observers)" (emphasis added, p. 275).

Ogawa and Malen (1991) stress that a multivocal synthesis:

[E]nables researchers to conduct (an) open-ended search for relevant information, identify the major patterns associated with the phenomenon of interest, develop or adopt constructs that embrace the patterns, tentatively hypothesize about the meanings of the constructs and their relations, and refine questions and/or suggest conceptual perspectives that might serve as fruitful guides for subsequent investigations. (p. 266)

According to Ogawa and Malen (1991), multivocal synthesis is a useful tool in areas "characterized by an abundance of diverse documents and a scarcity of systematic investigations" (p. 266). Because of the variety of perspectives and the limited empirical data in the research literature on

effective instructional practices for English-language learners, this approach seemed appropriate for our purposes.

OVERVIEW OF METHODOLOGY

Following is a description of a variety of sources utilized to help clarify our current understanding of effective instructional practices.

Professional Work Groups

A unique feature of our multivocal synthesis was conducting a series of professional work groups with practitioners and researchers across the United States. The purpose of the sessions was to gain a sense of what practitioners and researchers saw as promising and productive practices. We also used these groups to help us understand what the field viewed as recurrent problems in instruction. Additionally, we utilized the groups to learn the terms practitioners use to describe current practice. Their participation strengthened the validity of the interpretations that emerged and provided an important linkage between practice and research (Pressley, 1996; Strauss & Corbin, 1994).

We conducted five professional work groups in several regions of the country. All participants were professionals (teachers, staff-development specialists, administrators, and researchers). The distribution of participants' professional roles across meeting locations is presented in Table 1.

TABLE 1
Educational Roles of Professional Work Groups

Participants Roles	Meeting Location		
	Virginia	California	Washington, DC
Researchers		3	6
Administrators	1		
Teachers(a)	1	5	1
Psychologists	1		
Staff development	3		1
Total	6	8	8

Participants Roles	Meeting Location	
	Florida	Arizona
Researchers	1	3
Administrators		2

Teachers (a)	3	1
Psychologists	2	1
Staff development	3	6
Total	9	13

(a) Teacher participants included bilingual, special education teachers.

We invited all researchers who had conducted studies involving English-language learners that had been supported by the Office of Special Education Programs to join the work groups. School district personnel were represented by state education agency directors, local school district administrators, as well as special and general education teachers who work with this population. Sessions lasted between 5 and 7 hr.

Several guiding propositions were used to stimulate discussion in the work groups. They were distributed in advance to participants. The stimulus document mailed to participants also included several additional discussion questions. We initially began with six propositions. Two of the propositions appear in Figure 1. They were derived in large part from the first author's extensive observational research in classroom environments (Gersten, 1996a; Gersten, 1996b; Gersten, 1999; Jimenez & Gersten, 1999). These propositions were refined and sometimes significantly changed based on input from the groups.

FIGURE 1 Sample Propositions Discussed with Professional Work Groups

Modulation of Cognitive and Language Demand

Effective teachers intentionally balance cognitive demands when the goal is to encourage English language expression (be it written or oral); in contrast, when the cognitive task is inherently demanding (e.g., a new science concept or complex literary content, such as character clues), teachers allow students to use their native language.

Transfer of Native Language Skills to English

Explicit strategy instruction is required on how to access native language abilities and skills when learning content in English.

Literature Search for Experimental and Descriptive Studies

The second data source consisted of descriptive studies of effective instruction for English-language learners. Studies were included in the synthesis if they focused on English-language learners in kindergarten through eighth grade and were conducted between 1985 and 1997. Detailed procedures of the literature search and review are described in Gersten et al. (1998). We searched the literature for experimental and quasi-experimental intervention studies and descriptive studies (both qualitative and quantitative) in which some type of classroom observation was used to develop interpretations of classroom learning environments potentially beneficial to English-

language learners. Our final tally included nine intervention studies (eight group studies and one single-subject study) and 15 descriptive studies that analyzed classroom instruction.

We supplemented the literature search with a review of relevant documents following the guidelines of Ogawa and Malen (1991). Documents included instructional guidelines and curriculum frameworks from school districts with large numbers of English-language learners such as Denver, Albuquerque, Los Angeles, San Diego, and El Paso, and Federal policy documents from the Office for Civil Rights of the U.S. Department of Education (DOE).

We read extensively on the topics of bilingual and multicultural education, including seminal works such as Baca and Cervantes (1996), Delpit (1994), Fitzgerald (1995), Moll (1992), and Reyes (1992).

Data Analysis

For data analysis, we closely followed Noblit and Hare's (1988) guidelines, which are discussed in the following sections. Our overall goal was to develop valid interpretations (Wolcott, 1994) from disparate data sources and, following Wolcott's dictum, thereby attempt "to open things up rather than seal them up ... offering a new perspective gained after extended reflection" (p. 260). In fact, we devoted 4 years to this process.

An important feature of a multivocal synthesis is its ability to make comparisons within and among data sources (e.g., studies, professional work groups, and school district documents). In analyzing the data, we used an iterative process of forming tentative interpretations, rereading and reexamining features of the studies and documents, posing new interpretations, and looking for corroboration across data sources. We borrowed freely from the suggestions of major qualitative methodologists such as Wolcott (1994) and Miles and Huberman (1994). In particular, we followed guidelines for integrative syntheses using qualitative methods (Noblit & Hare, 1988; Ogawa & Malen, 1991).

The major principles used in the multivocal data analysis and interpretation were:

- * Significant input from practitioners for generation and refinement of interpretations (Ogawa & Malen, 1991). Practitioners have a valuable role in shaping and honing the interpretations of researchers.
- * Triangulation across various data sources (Patton, 1990). Information is collected from a variety of individuals, sources, and settings.
- * Constant-comparative method of traversing data sources to develop and refine interpretations (Strauss & Corbin, 1994). Several different sources of information are used to develop and to corroborate research interpretations.
- * Conscious juxtaposition of disparate studies (Noblit & Hare, 1988). Studies with divergent findings are compared and contrasted to help develop and refine researcher interpretations.
- * Serious entertaining of rival hypotheses (Noblit & Hare, 1988). Not only must researchers be open to rival hypotheses; researchers must actively search for rival interpretations and attempt to

understand the basis for these interpretations.

* Reciprocal translation (Noblit & Hare, 1988). Each study read and analyzed helps us interpret and understand the next study, as well as helping us to reanalyze what was previously read and discussed.

Proceedings from professional work groups also served as a raw data source for analysis. All professional work sessions were transcribed and compiled into one draft summary. Using Hyperqual[™] software, we sorted the data into six general categories: (a) instructional strategies, (b) collaboration, (c) supports, (d) culture, (e) ideas for dissemination and communication, and (f) unresolved issues. After this initial "chunking" of the data, we attempted to discern important patterns within each of the categories to get a sense of areas of agreement on effective instructional practices among researchers, teachers, and administrators.

Studies and documents were clustered and reclustered electronically according to questions that began to emerge. We intentionally did not stick to one clustering at a time, but rather "roamed" through the data set to explore trends, issues, and hypotheses following practices recommended by Noblit and Hare (1988). We regularly juxtaposed disparate data sources to test our interpretations.

As we began to note patterns within and among the data sources, we started looking for what Miles and Huberman (1994) refer to as the "critical case" (i.e., the case that "proves" or solidifies a finding or interpretation) as well as "potential disconfirming cases." Serious analysis of potentially disconfirming cases can actually "teach us much about the assumptions that guide various studies" (Noblit & Hare, 1988, p. 62). For example, in a study by Echevarria (1995), the findings were very different than her predictions, but could be interpreted in the context of similar findings in studies by Chamot and O'Malley (1996) and Waxman, de Felix, Martinez, Knight, and Padron (1994).

Another type of integration involved studies with findings that appeared to "refute" one another. Similarly, we noted several studies where the descriptions seemed quite rich and valid, but our interpretations diverged considerably from the authors' (e.g., Perez, 1994; Ruiz, 1995). These conflicts led to in-depth explorations of alternative hypotheses, as recommended by qualitative methodologists (e.g., Miles & Huberman, 1994). Noblit and Hare (1988) suggest that after examining and noting differences in interpretations, researchers may come to recognize the "descriptive account of the other as reasonable" (Noblit & Hare, p. 54).

The ultimate goal--and the objective of the current level of analysis--was to use these data to confirm underlying themes from the literature. We used data from the professional work groups to assess what was and was not effective for teachers and their students and to specify areas in which curriculum seemed particularly weak. We listened for instances where teachers or researchers talked about past practices that had been discontinued due to administrative fiat, but were still perceived as effective. Finally, we listened for areas about which the work groups seemed conflicted or confused.

RESULTS AND DISCUSSION: EMERGING THEMES AND ISSUES

Our analysis of professional work groups, the published studies, and other documents resulted in the emergence of three themes related to a deeper understanding of effective instruction for

English-language learners. Following is a discussion of each theme.

Merging English-Language Development with Content-Area Learning (Theme One)

In the past 10 years, educators across the country have been experimenting in an informal fashion with means for merging English-language development with content instruction. In some cases, this begins as early as first grade (Anderson & Roit, 1996; Gersten & Woodward, 1995); in other cases, this begins in third or fourth grade when students begin academic instruction in English (e.g., Saunders, O'Brien, Lennon, & McLean, 1998).

In our analysis, we hope not only to uncover current problems but also to identify specific strategies that appear promising for promoting English-language development during academic instruction. As previously mentioned, discussions on this topic in the professional work groups were often very rich.

We invested a good deal of energy in trying to understand the histories of the various approaches to English-language development (e.g., formal/syntactic, natural language, and sheltered content area), in part because during the first two professional work groups we conducted, participants admitted that "definitions of sheltered instruction are unclear."

Findings

Despite definitional uncertainties, the approaches invariably assume that students can learn English while learning academic content, and that this type of learning will build academic language (Cummins, 1994) because students will be learning the abstract language of scientific, mathematical, or literary discourse. We will use the term "sheltered content instruction" (Echevarria & Graves, 1998) to reduce confusion.

Members of the professional work groups--especially those in supervisory positions--consistently indicated that sheltered content area instruction often leads to sacrifices in learning English, and that few districts have a curriculum that promotes students' proper use of the English language. Work group members frequently noted that sheltered content instruction invariably fails to provide, in the words of one group member, "adequate time for English-language learning." In other words, group members felt that teachers often emphasize content acquisition over building English language abilities.

In fact, the overall neglect of English-language development instruction in sheltered content area instruction and in typical English language-learning instruction was a recurrent refrain in the California professional work group. One teacher stated, "It's important to use content as a basis for language development ...; [however,] there is a risk during content instruction of neglecting language development" (California professional work group, October, 1996). Another educator from a district bilingual education office noted that "It's important for teachers to be clear about objectives and goals ... yet an explicit statement of goals does not exist [in district or state curricula materials]." Some members suggested a set of curriculum goals that include "specific language concepts," noting that many teachers merely "hope that language occurs" during content area lessons.

One researcher in the California group stated that the need for explicit teaching in English-language

development classes "should never be underestimated." He stressed "the importance of promoting language while promoting thought" and emphasized that students need experiences in "thinking through" and then verbalizing, in English, their ideas regarding content areas (e.g., science, mathematics, history). In short, attempts to merge content area instruction with ELD instruction, while well-intended and conceptually sound, are rarely well-implemented.

The major problem highlighted in discussions of sheltered content instruction was how time for language learning often is truncated or omitted altogether. These concerns are reflected in the data from observational studies by Ramirez (1992) and Arreaga-Mayer and Perdomo-Rivera (1996). Arreaga-Mayer and Perdomo-Rivera noted that both general education and English-language development settings failed to provide instruction to facilitate second-language acquisition. Similarly, Ramirez concluded that in all the various models of bilingual education, teachers did not promote language development effectively: "Consistently, across grade levels within and between the three instructional programs, students are limited in their opportunities to produce language and in their opportunities to produce more complex language" (p. 9).

Inadequate time for English-language development is clearly a major problem in current practice. This conclusion is echoed in our own examination of issues confronting teachers in the upper elementary grades (Gersten, 1996a, 1996b) and also is found in observational research by Reyes (1992).

Several reasons for this problem were identified in the professional work groups. First and foremost was teachers' concern for increased accountability for content learning (as measured by test results), as opposed to the more amorphous goals of English-language acquisition, and a relative de-emphasis in accountability for students' language development needs. Participants in the professional work groups discussed in detail how the tendency to cover the entire content of science, social studies, or mathematics curricula almost invariably preempted adequate time for English-language development, especially more formal academic English.

Other comments in the professional work groups focused on a failure to systematically impart the skills students need in speaking and writing standard English, even in middle school. Many group members felt that the policy of never correcting students for grammatical or pronunciation problems during English-language instruction made sense during the early years of English-language development. However, there was general consensus that students need feedback on their formal English usage as they progress in school, and teachers lack a coherent system for providing it. One professional work group suggested that in the early phases of language learning, teachers should modulate the feedback they provide students, and be sensitive to the problems inherent in correcting every grammar error students make. However, as the session progressed, in the later stages of this particular group, one member expressed the entire group's sentiment by noting the "importance of identifying errors and providing specific feedback."

A recent study by Fashola, Drum, Mayer, and Kang (1996) may provide some direction in this area. These researchers noted that errors made by Latino students in English are usually predictable, and these predictable errors could become the basis of proactive curricula. They suggested that "in this approach, rather than simply marking a predicted error as incorrect, the teacher could explicitly point out to the student that the pertinent phonological or orthographic rule is different in English than it is Spanish" (Fashola et al., p. 840).

Lessons Learned

We reviewed these issues with professional work groups, and read extensively about problems with sheltered content instruction in sources as diverse as the New York Times and the Harvard Educational Review (Reyes, 1992). Our conclusion is that an effective ELD program should include a component devoted to helping students learn how to use the second language according to established conventions of grammar and syntax.

We encourage researchers and educators to consider language learning and content-area learning as distinct educational goals, rather than assuming that increased use of oral language in school will automatically lead to increased academic learning and the development of higher-order thinking skills. Artful and skillful blending of genuine dialogue about literature or science and cognitive challenge is an admirable, but perhaps only occasionally realized goal. On the other hand, providing time each day for English-language learners to work on all aspects of ELD and providing academically challenging content instruction (whether in their first language or in English) are more likely to occur when teachers take time to make goals clear and precise.

In short, instruction for English-language learners should work to blend oral language engagement and intellectual (or cognitive) engagement. These distinctions are also important for those doing instructional research in classroom settings. For example, Saunders and colleagues (1998) describe instructional units characterized by the high frequency of oral language engagement, but also note that they "view the intellectual substance of the literature units as the driving force in our program" (p. 29).

Relationship Between Promising Approaches and the Knowledge Base on Effective Teaching (Theme Two)

In the exploratory meta-analysis (Baker & Gersten, 1997), we noted that often the instructional interventions with the largest effects in reading and mathematics were heavily rooted in principles verified by the instructional research literature of the 1980s and early 1990s. These approaches included classwide peer tutoring (Delquadri, Greenwood, Whorton, Carta, & Hall, 1986); the Stallings (1980) Effective Use of Time, (used in Waxman et al., 1994); the "tailoring of feedback" used for mathematical problem-solving (Cardelle-Elawar, 1990); and the provision of focused and explicit instruction on math concepts by Henderson and Landesman (1995). In particular, provision of frequent, clear feedback to students seemed critical. Also, approaches that tended to structure time so that students were actively engaged in academic work (e.g., Waxman et al.) were found to increase achievement in reading.

Our analysis also supports the use of certain specific techniques, such as preteaching of critical vocabulary prior to student reading (Rousseau, Tam, & Ramnarain, 1993), building background knowledge (Saunders et al., 1998), and providing explicit instruction and guided practice in math problem-solving (Cardelle-Elawar, 1990). All of these approaches emphasized increasing the amount of active engagement in academic learning or the quality and quantity of feedback provided to students during lessons.

In the professional work groups, however, the focus was slightly different. It was consistently stressed that principles of effective instruction for native English speakers need to be modulated for English-language learners if the simultaneous goals of English-language development and content

acquisition are to be met. In other words, effective instruction for English-language learners is more than just "good teaching." It is teaching that is tempered, tuned, and otherwise adjusted, as a musical score is adjusted, to the correct "pitch" at which English-language learners will best "hear" the content (i.e., find it most meaningful).

A key to this modulation seems to be that English-language learners need frequent opportunities to use oral language in the classroom. Active, daily language use should be structured to include both conversational and academic discourse. Techniques such as class-wide peer tutoring seem promising. The professional work groups consistently expressed support for the principle that English-language learners should be taught through the use of challenging material that does not get "watered down" merely because students are not fluent in the language of instruction. However, they frequently commented on how very difficult it is to implement this principle effectively.

Two approaches more aligned with theories of second language development, Instructional Conversations (Goldenberg, 1992-1993; Echevarria, 1995) and Cognitive Academic Language Learning Approach (CALLA; Chamot & O'Malley, 1996), both of which place strong emphasis on student dialogue, unexpectedly did not result in strong reading outcomes despite the fact that it was an important focus in both studies. The Chamot and O'Malley study also included a language measure, and in this area, the intervention had its greatest impact. In our view, based on a close reading of the studies and insights gained from the professional work groups discussions, teachers implementing CALLA may have sacrificed academically engaged time in reading in favor of the oral-language development and self-monitoring activities that were essential to the program.

It was more troubling that Instructional Conversations produced negative results on two crucial measures of reading comprehension when contrasted with instruction typical of a basal reading lesson. In trying to account for the findings, Echevarria (1995) observed that:

While it was speculated that the enriched language opportunities Instructional Conversations provide would enhance the students' construction (i.e., elements of story grammar), it is possible that the instruction that takes place in the classroom does not contribute to narrative development (i.e., richness of idea units). (p. 550).

She continued by noting that "the discourse rules of the basal treatments tended to elicit more who, what, where types of questions ... while the Instructional Conversations discourse attempted to evoke opinion and more complex language" (p. 550). One interpretation of the results is that the basal intervention tended to create more opportunities for discussions that highlighted analysis of issues in the text, and that instructional conversations may have veered too far into the social realm, away from analysis of character motivation and other issues more directly related to comprehension. (We noted a similar phenomenon in our observational research [Jimenez & Gersten, 1999]).

As noted above, a major theme we pursued in the professional work groups was the question of how to modulate the teaching structures adapted from research with native English speakers so that they are effective for English-language learners. Some of the instructional research (e.g., Cardelle-Elawar, 1990; Saunders et al. 1998) provides some excellent ideas. Other approaches such as Instructional Conversations and CALLA may need further refinement as they are considered as means for raising reading achievement.

Principles of Best Practice

The five professional work group meetings were conducted in series, rather than simultaneously, as we traveled to different regions of the country. This allowed for a cumulative effect in the development of ideas about principles of best practice. We were able to unravel semantic confusion by soliciting from initial work groups clear descriptions of what particular instructional approaches look like when implemented in the classroom. Subsequent work groups then built on concepts developed by their predecessors. For example, a professional work group that met early advocated "structured dynamic teaching" as an optimal approach, but were unclear as to what this really meant. After lengthy discussion, they determined that the phrase represented a set of instructional activities during which students participate in fairly lengthy, complex verbal exchanges with their teachers and peers, activities during which teacher guidance is clear. In subsequent groups we presented the term "structured dynamic teaching" and our understanding of its meaning up to that point and asked members for their feedback. In this way we moved consistently toward consensus among groups about what important principles and strategies constituted effective instruction. The result was a well-informed and strongly-supported method we came to label a "hybrid model" of instruction for English-language learners. This hybrid model (a) captures the essence of "structured dynamic teaching," (b) reflects extensions of validated instructional approaches described in the effective teaching literature, and (c) incorporates principles of teaching emanating from advances in cognitive psychology (Vaughn, Gersten, & Chard, in press). One researcher noted succinctly that the group tended to want to synthesize: "Taking the best of both direct instruction and communicatively based classroom interaction seems to be the most powerful vehicle for accomplishing effective and optimal instruction."

Again, the critical goal of this approach is the simultaneous development of language proficiency and academic performance.

Instructional Variables

We identified five specific instructional variables that, while supported by limited experimental evidence, are potentially critical components for instruction: (a) building and using vocabulary as a curricular anchor, (b) using visuals to reinforce concepts and vocabulary, (c) implementing cooperative learning and peer-tutoring strategies, (d) using native language strategically, and (e) modulating of cognitive and language demands. In the following sections, we briefly describe each of these components.

Building and Using Vocabulary as a Curricular Anchor. One clear point of agreement among the professional work groups was that vocabulary learning plays a major role in successful programs for English-language learners. However, the number of new vocabulary terms introduced at any one time should be limited. The standard method of presenting students with up to 20 or more new vocabulary words to learn is not an effective way to develop vocabulary. Teachers in our professional work groups recommended using lists of seven or fewer words that students work on over relatively long periods of time. Selection of words should be considered carefully. Those that convey key concepts, are of high utility, are relevant to the bulk of the subject being taught, and are meaningful in the lives of students would be the best choices. Restricting the number of words students are expected to learn will help them develop a deeper level of understanding of meanings, an important component of sustained vocabulary growth. The professional work groups felt that many teachers needed guidance in selecting vocabulary words for instruction, as districts and

conventional texts rarely provide the type of guidance needed. Nagy (1988) and Beck and McKeown (1985) were cited as important resources for teachers attempting to teach vocabulary to English-language learners.

One professional work group member described her own methods for selecting and teaching vocabulary words. Her approach was strongly supported by other group members. She chose words for the class to analyze in depth which represented complex ideas--adjectives such as anxious, generous, and suspicious, and nouns such as memory. Such words are linked in rich and meaningful ways to the story being read. This participant exemplified principles of vocabulary development described in detail by Saunders et al. (1998).

Two intervention studies had components that dealt specifically with vocabulary development: Rousseau et al. (1993) and Saunders et al. (1998). Vocabulary learning was the explicit focus of the Rousseau et al. study. Teachers used a variety of methods to teach word meanings to students, including visually presenting the words, defining them, and using gestures and other visual techniques (e.g., pictures). Interestingly, both of the outcome measures (i.e., accurate reading of all the words in the story and comprehension of the story) showed dramatically improved results over a method in which teachers previewed the entire story with students by reading it to them. In Saunders et al. (1998), critical vocabulary words were identified prior to story reading. Several approaches were used to help students develop a deep understanding of these words. Students were also guided to link these critical vocabulary words to relevant experiences in their lives and to write about them in their literature logs.

In both studies, the time-tested practice of introducing new vocabulary prior to reading a new story was successful. Echevarria (1998) described how this type of vocabulary instruction can be used with English-language learners:

One form of vocabulary development includes short, explicit segments of class time in which the teacher directly teaches key vocabulary. Minute segments would consist of the teacher saying the vocabulary word, writing it on the board, asking students to say it and write it, defining the term with pictures, demonstrations, and examples for students (p. 220).

Using Visuals to Reinforce Concepts and Vocabulary. Two of the professional work group discussions focused particularly on the importance of using visuals during instruction. These might range from complex semantic maps that delineate an array of relationships (Reyes & Bos, 1998) to visuals based on commonly used text structures, such as story maps and compare-contrast "think sheets." Visuals are especially successful in English-language development because they help students visualize the abstractions of language.

Two of the intervention studies and several of the observational studies noted that the use of visuals during instruction increased learning. Rousseau et al. (1993) used visuals for teaching vocabulary (i.e., words written on the board and the use of pictures), and Saunders et al. (1998) systematically incorporated visuals for teaching reading and language arts. Because the spoken word is fleeting, visual aids such as graphic organizers, concept and story maps, and word banks give students a concrete system to process, reflect on, and integrate information.

The double demands of learning content and a second-language should not be underestimated. Implementation of even simple techniques, such as writing key words on the board or flip chart and discussing them, can enhance meaningful English-language development and comprehension. The professional work groups concurred that even the simplest integration of visuals is drastically underutilized, and when used, methods are typically inconsistent or superficial and do not support students' deep processing and thinking.

Further research on how to use visuals to enhance English-language learning is needed. Also, because of the consistent, strong support for the use of visuals expressed in the professional work groups, we believe educators involved in professional and curriculum development or curriculum selection, should seriously consider this issue as well.

Implementing Cooperative Learning and Peer-Tutoring Strategies. We believe cooperative learning and peer-tutoring strategies have the potential to effectively and rapidly increase English-language development, particularly decontextualized language concepts with high degrees of cognitive challenge. One of our original propositions was that certain specific techniques in cooperative learning lead to superior student outcomes. In the professional work groups, the need for highly structured cooperative learning groups was often stressed.

Two of the intervention studies used cooperative learning or peer-tutoring strategies as critical components of their interventions. Klingner and Vaughn (1996) tested which was more effective in promoting comprehension in English-language learners with learning disabilities: cooperative learning or peer tutoring. Although some evidence indicated that peer tutoring was more effective, both of the interventions led to improved learning outcomes. In the intervention used by Muniz-Swicegood (1994), students worked in successively smaller cooperative groups (until they were finally working in pairs) to learn how to generate and answer questions about what they were reading. Students in this intervention did better on measures of reading comprehension than students who were taught using basal reading approaches.

Using Native Language Strategically. Strategic use of students' native language can help ensure that the development of higher-order thinking skills receives adequate curriculum focus. The professional work groups agreed with the general concept that a viable way to achieve this objective is for teachers to use levels of English at which students are very fluent, while simultaneously using more extensive native language to introduce complex concepts and provide opportunities to concentrate on understanding challenging context. The professional work groups, however, failed to reach consensus on how students' use of their native language could be used strategically for this purpose. This issue was discussed in many of the descriptive studies reviewed (e.g., Gersten, 1996b; Lopez-Reyna, 1996; Ramirez, 1992; Tikunoff et al., 1991). See Gersten and Jimenez (1998) for a detailed discussion.

The strategic use of native language is a controversial issue. Most researchers in the professional work groups cautioned against using dual translations frequently, that is, using both the student's native language and second language during instruction. However, one researcher maintained a counter position, advocating that written words be provided in both English and the child's native language. Many researchers from the observational studies (Jimenez & Gersten, 1999; Lopez-Reyna, 1996; Minicucci et al., 1995; Tikunoff et al., 1991) proposed using a student's native language as an instructional approach. Yet, the observational findings of Ramirez (1992) indicate that neither more nor less higher-order discussion occurred when instruction was in the native

language or in English. Therefore, we conclude that it is beneficial to use students' native language, but it should be done strategically, and, in general, the tendency to provide dual translations should be resisted.

Two of the intervention studies incorporated the strategic use of native language to help with learning difficulties in the second language. Cardelle-Elawar (1990) focused attention on exploring the meaning of the language used in math story problems and how students could use a variety of strategies, including their knowledge of Spanish, to help them figure out what the problem in English is asking them to do. This type of intense instruction to determine specifically what is being requested in a problem-solving situation led to very large effects when compared to broader instructional approaches. In the Klingner and Vaughn (1996) study of peer-mediated instruction, students were encouraged to use their native language to solve specific problems they were encountering in their peer-tutoring groups.

Modulating of Cognitive and Language Demands. This final instructional strategy, in our view, is the most speculative of those we have proposed. One of the propositions shared among each of the five professional work groups was that during English-language content instruction, effective teachers intentionally vary the cognitive and language demands. Typically, there is an inverse relationship between the two. When cognitive demands are high, language expectations are simplified, and teachers, for example, may accept brief or truncated responses in English. In another part of the lesson, cognitive demands are intentionally reduced so that students can more comfortably experiment with extended English-language use.

This proposition was supported in each of the five professional work groups and appears consonant with contemporary theories of second-language acquisition (e.g., August & Hakuta, 1997). Obviously, there needs to be empirical support for this proposition. Unfortunately, design of a suitable research study around such a subtle principle will be difficult.

Confusion, Tension, and Assumptions About Oral Language Use (Theme Three)

The final major theme that emerged from the multivocal synthesis is simply that confusion abounds concerning the role of oral language in academic instruction. All of the studies describing classroom learning environments (e.g., Lopez-Reyna, 1996; Perez, 1994; Ruiz, 1995) noted rare student oral activity in the classroom. This issue was stressed both in studies of English language-development and in studies of native language content instruction. We argue that both extended discourse about academic topics and briefer responses to specific questions about content are cornerstones of academic growth for English-language learners. We believe this is a valid interpretation, based on trends in the research and our interactions with the professional work groups.

Our review of the data sources suggests that discussions of potentially effective instructional practices for English-language learners overemphasize natural language use and do not clearly articulate the important distinctions involved when language use is the major goal and when cognitive or academic growth is paramount. To understand this confusion, we review some of the observational research.

Relevant Findings from Research

Ramirez (1992) described typical classrooms as passive learning environments for students. Teachers do the majority of talking and student contributions are in response to teacher questions. Other studies support this pattern (e.g., Arreaga-Mayer & Perdomo-Rivera, 1996; Lopez-Reyna, 1996; Padron, 1994). More to the point, Ramirez (1992) reported that student language use and opportunities to engage in cognitively challenging tasks were extremely low. In his observations, the mean proportion of student-initiated language use ranged from .3% to 10.1% of the total time in which students were responding. This low rate of student-initiated responses was corroborated in the high-inference, qualitative observational studies reviewed (Lopez-Reyna; Perez, 1994; Ruiz, 1995), where student discourse was typically limited to one or two word utterances.

Perhaps most astounding is the low level of student oral language use in English-language development classes noted by Arreaga-Mayer and Perdomo-Rivera (1996). They found that only 21% of the time did observed students use written or oral language. In other words, students rarely spoke during classes in which the explicit purpose was ELD. In the literature, most researchers implicitly assume that increased language use (whether in the students' native language or in English) should be a high priority because it will lead to increased learning. For example, as rationale for Instructional Conversations, Echevarria (1995) wrote that "language is a primary vehicle for intellectual development" (p. 537), and implicit in the philosophy of Instructional Conversations is the assumption that increased oral language use by students during reading instruction will improve comprehension.

In the professional work groups, we noted that members often seemed confused by--or vacillated between--the two objectives we have been discussing throughout this study: (a) language learning, in either the native or second-language; and (b) content area learning. We do not imply that oral language use in school is an unimportant objective, or that increased use of oral language is inversely related to academic growth in content areas. Rather, we wish to emphasize that these are two distinct goals, and researchers and educators need to be clear about the distinction. Furthermore, findings in some of the descriptive research (Jimenez & Gersten, 1999; Lee & Fradd, 1996; Ruiz, 1995) indicate that increased student dialogue in class can lead to discussions with minimal cognitive challenge and minimal academic content.

Problems in implementation of the intervention approaches that require extensive natural language and authentic dialogue, such as CALLA and Instructional Conversations, may help explain why they failed to result in effects in reading. The implementation problems that plagued the large-scale research study by Waxman et al. (1994), for example, were consistently corroborated in the professional work groups. Participants talked about weak, inconsistent, and sometimes incoherent implementation of techniques such as semantic mapping, cooperative learning, and story mapping. One member of the California work group noted that techniques such as semantic mapping and teachers' thinking aloud "all have been used non-effectively in recent years." Extensive discussion in three of the professional work groups addressed weak implementation of cognitively based approaches and limited curricula or manuals available for teacher use.

Likewise, in response to complaints about weak implementation of cooperative learning, one teacher-researcher indicated that, by using highly structured groups, she virtually never had the kinds of problems that others discussed as chronic and endemic. In other words, by using established principles of effective instruction such as clear expectations, frequent monitoring, and immediate feedback to students, this teacher was able to overcome seemingly intractable problems when using an innovative practice to increase language use. We believe one reason the highly

structured Classwide Peer Tutoring method (Klingner & Vaughn, 1996) surpassed the more loosely structured Cooperative Learning method was that student roles and task demands were more clearly explained and monitored in the former than in the latter.

IMPLICATIONS FOR IMPROVING PRACTICE

Despite the paucity of experimental studies, we believe this multivocal synthesis, which integrates the perspectives of teachers and researchers experienced in working with English-language learners with readings of a variety of documents on the topic, has yielded important findings that can serve as the basis of an effective instructional framework. The major points include the following:

- * Distinguishing between language growth and academic growth is difficult and should be more closely studied. There does seem to be an implicit assumption that increased language use in the classroom leads to increased academic growth. However, the research does not support this assumption. Indeed, there was a small amount of evidence supporting an inverse relationship between language use and academic growth. The issue is a persistent source of confusion in understanding and interpreting studies, and in instructional programs.
- * The English-language development aspect of bilingual education and bilingual special education is cited as a major problem, especially for special education students who may be excluded because they cannot keep up the pace.
- * A good English-language development program should include three components: The first component would focus on development of proficiency and fluency in English. Both social communication and academic communication of concepts and knowledge that students previously learned would be addressed. The second component would address the more formal, grammatical aspects of English use. This would include high quality instruction in topics such as tense agreement, use of plurals, and word order in sentences. Finally, the third component would focus on learning new academic content. Here, content acquisition would merge with English acquisition. In contrast to the first component, content learning demands would be higher and language demands lower. It is important to stress that special education students, many of whom have language related disabilities, especially need this type of instruction, and they should be in programs that include all three of the above components. Lack of quality published curricula (as opposed to materials from the military and Foreign Service) in this area is a major shortcoming.
- * There needs to be a drastic increase in the quality and quantity of instructional intervention studies of English-language learners, including specific studies involving English-language learners with disabilities. Within the small set of nine empirical investigations we found, studies were often unclear regarding: (a) how interventions were implemented, (b) the level of implementation that was achieved, (c) the language of instruction, and (d) many other "context" variables that would have given a richer picture of intervention research. We remain convinced that the field must better define interventions and the critical context variables that shape them.
- * Regarding future research, the key is well-designed and valid studies. Federal support has not been strong in this area, although a recent (DOE) major joint effort between the Office of Educational Research and Improvement (OSEP) and the National Institute of Child Health and Human Development in this area would be a step in the right direction. There is no question that there is a limited understanding of the difficulty and complexity of this type of research. Many

researchers eschew this population because of the intricacies of measurement. The DOE should be aware of the lack of research and of the difficulties of conducting sound research in this area.

* The work groups with educational professionals resulted in a set of principles and practices that, we believe, will be very useful in defining best practice. Significantly, these principles and practices highlight the integration of ELD instruction with content area learning, which is increasingly occurring in American schools. For the most part, the principles our work groups found are consonant with findings from published studies. Most assuredly, they should be part of a research agenda as we continue to move away from emotionalism and towards rational discourse on the subject of educating English-language learners.

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