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ABSTRACT

This teacher training monograph considers the development of functional proficiency for limited English proficient (LEP) students. The topics dealt with include: (1) second language learning in the school context, including requirements for successful student participation in the classroom; (2) specific strategies for developing functional proficiency for all students including organization and delivery techniques; (3) strategies specific to LEP students including use of two languages, integration of English language development with basic skills instruction, and use of cultural information during instruction; and (4) analyzing and monitoring instruction regularly to ensure student learning. Positive and negative aspects of alternative learning strategies, such as whether to mix LEP students with students proficient in English, are discussed. There are suggestions for how non-bilingual teachers can work effectively with LEP students, including drawing on bilingual persons for even limited instruction. Each chapter concludes with questions to stimulate teacher trainees' further work on the subject, and notes and references. Some tables and charts are used to illustrate the material. (CG)

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PREFACE

This monograph is one of several publications which addresses the successful instruction of limited English proficient (LEP) students. Although each publication has been produced separately from multiple funding sources, each builds upon the others to comprise a reasonably complete treatment of the subject. Hence, when combined, they represent component pieces of what can be perceived as a publication series.

Instructional approaches for LEP students vary across the U.S. Some school districts with large numbers of the same ethnolinguistic student population have utilized a form of bilingual instruction wherein the teacher is fluent both in the students' native language and in English. In other places, however, where the student population has represented many ethnolinguistic backgrounds, or where there are too few LEP students, assigning LEP students to classes taught by teachers trained in strategies of teaching English as a second language (ESL) has been the preferred approach.

The theoretical framework for this publication series builds upon two assumptions. First, there are general instructional principles basic to the successful instruction of all students. These have been identified in the instructional research literature and have been verified across multiple studies. Second, there are specific instructional

strategies which can be utilized to meet the special linguistic needs of LEP students. These appear to mediate effective instruction for LEP students.

Recent research into teacher development practices has shown that teachers can be trained successfully in the use of general effective instructional strategies. The potential for using mediation of instruction strategies, however, depends on factors beyond training: primarily, the context of the individual classroom, and the characteristics of the teacher and other instructional personnel. Three factors are involved: (1) whether the teacher is bilingual and can instruct effectively in both English and in the LEP students' native language; (2) whether the teacher is versed in utilizing effective ESL strategies and integrating these into the instruction in academic content areas; and (3) whether the teacher is from a background similar to that of LEP students, or is knowledgeable about and conversant in the norms and values of the LEP students' native culture(s).

Information for producing this series of publications draws from three sources: from research on effective instruction generally, from what is known about effective bilingual instruction, and from the successful instructional practices of language development specialist teachers. This monograph, Developing Student Functional Proficiency: A Teacher's Casebook, builds on this information and focuses on the development of LEP students' successful performance on class tasks by engaging teachers in analyzing their own instruction.

Future publications which are projected will focus upon: (1) a set of case studies of successful teachers of LEP students which illustrate the instructional principles included in this monograph; (2) an observation and self-analysis system for developing student functional proficiency, utilizing a clinical teaching procedure based on adult learning theory constructs; (3) strategies for integrating English language development into the various academic content areas, K-12, building from successful practices of language development specialist teachers; and (4) identification of specific teaching competencies for successful instruction of LEP students, K-12, tied to a program of teacher development and assessment.

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CHAPTER ONE

AN OVERVIEW OF STUDENT FUNCTIONAL PROFICIENCY

BEFORE YOU READ THE CHAPTER:1

1. Describe your ideal student. Do this in writing, and include details about how this student participates in instructional tasks and activities.
2. Select a typical lesson (or make one up). Provide your instructional objectives or goals, what tasks students are to accomplish, what they are to do in order to accomplish these, and what they will learn (or be able to do) as a result. Next, select a non-LEP student and a LEP student. Predict (a) how well each will do the tasks, (b) what sorts of difficulties either one may have with the tasks, and (c) what you plan to do to alleviate these difficulties.

An increasing number of students enrolling in U.S. schools share a common characteristic which presents a major instructional problem. Whether these students are U.S.-born or newly arrived from other countries or from Puerto Rico, they possess very little English proficiency.

Limited English proficient (LEP) students, as they are called, cannot be expected to do well in school until they have acquired sufficient English to engage in instructional tasks successfully. Thus, schools must provide instruction geared toward developing their proficiency in English as quickly as possible. At the same time, however, LEP students are expected to progress in academic skills

acquisition at a normal rate for children of their age. In fact, schools are required by law to provide them with instruction in the curriculum content areas assigned for their grade level in order to accomplish this feat.

And herein lies the dual-edged instructional dilemma: How can LEP students be expected to progress in acquiring basic skills when they don't possess sufficient English proficiency to handle such instruction? And how is it possible to provide such instruction successfully while concurrently developing their English language proficiency?

Schools have responded in a variety of ways depending on the contexts of their student population, the resources represented by their instructional programs and personnel, and the educational philosophy embraced by members of their Boards of Education.

To develop LEP student's English proficiency, most instructional programs have provided for intensive instruction in English as a second language (ESL), usually taught by an ESL specialist teacher. ESL instruction is provided in one of two ways: as a part of the curriculum in a regular classroom, or as a separate subject taught outside the regular classroom. In the latter case in elementary schools, LEP students are pulled out of their regular classes and sent elsewhere to receive ESL instruction. At the secondary school level, ESL instruction is provided more commonly as one of the several subjects, each of which usually is taught by a different instructor. Regardless of the administrative procedure used for providing ESL

instruction, the result is usually one hour per day of intensive instruction toward developing LEP students' English language oral proficiency.

For instruction in the content areas of the curriculum, two instructional responses seem to be characteristic, with all others appearing to be variations of these: instruction that is delivered in English only, or instruction delivered in LEP students' native language (or bilingually).

When there are sufficient numbers of LEP students from the same ethnolinguistic background, and there is an availability of teachers or other instructional personnel who are bilingual in English and the LEP students' native language, some schools have provided instruction in the content areas in LEP students' native language(s), or bilingually. In this instructional context, the goal is to develop LEP students' English proficiency while concurrently providing instruction in the academic content areas, initially in the LEP student's native language but using increasingly more English over time.

The other instructional response has been to provide instruction in academic content areas only in English. This is particularly characteristic of school contexts where there are small numbers of LEP students, or where LEP students are large in number but are from a variety of ethnolinguistic backgrounds, or where instructional personnel who are bilingual in the appropriate languages frequently are not available. In this instructional context, the goal is to develop LEP students' English proficiency as quickly as

possible, and in the meantime, to make instruction in the content areas as comprehensible as possible. Resourceful teachers have resorted to dramatic means to accomplish this.

From the standpoint of LEP students, however, regardless of the instructional responses used, two main learning tasks confront them. First, they must acquire proficiency in the English language as quickly as possible. Second, while they are acquiring English proficiency, they must continue to progress in learning in the content areas. To accomplish both of these goals, they must understand and negotiate the same instructional demands as all other students.

To appreciate the complexity of school learning which confronts LEP students, it is necessary to consider separately (1) the requirements of second language learning in a school situation, and (2) the requirements of successful participation in classroom instruction. At the same time, however, it is important to keep reminding ourselves that, operationally, these are interactive processes. In school, LEP students are expected to attend concurrently to the requirements of both.

Second Language Learning in School Contexts

Anyone who has attempted to acquire a second language is aware of some of the difficulties involved. Probably the most common second-language learning experience among American adults is instruction received in a "foreign" language in high school or college. In this context, a foreign

language is an academic subject and is treated similarly. Classes meet daily or on two or three occasions each week. Instruction typically consists of one hour or so of whole group recitation with an instructor, augmented by textbook activities focusing on development grammar or literacy skills, and sometimes by time spent in a language laboratory practicing oral reproduction of the language.

Although experiences vary, those who have engaged in foreign language learning similar to that described above recognize the limitations of proficiency that was attained. Most of us could hardly call upon our understanding of the language to use it for purposes of engaging in business and social intercourse in the culture of that language. Of course, this is the most complex level of proficiency in another language that one can hope to attain. Yet, **this is the proficiency level that we require of LEP students who enroll in our schools.** A cursory examination of recent and successful U.S. experiences with adult second language learning adds to understanding how difficult is the process.

Experiences with Adults Learning a Second Language

Until recently, acquiring a second language has been a priority in the U.S. only for those who emigrate to our country. To participate productively in U.S. enterprise requires learning English at a fairly proficient level. For Americans, however, learning a foreign language usually has been a necessity only for academic pursuits like college

entrance or acquiring an advanced college degree. With the advent of World War II, however, this began to change.

As we became more involved politically with foreign countries, the federal government began to realize the importance of nurturing a cadre of persons who could conduct business and engage in legal discourse in the language of the countries with whom we began to have such interactions. Proficiency in a foreign language became a requirement for advancement to foreign service positions, and if one did not possess such proficiency, then it had to be developed. As a result of this need, institutions such as the School of Language Studies of the Foreign Service Institute (FSI) were developed. Procedures they devised for teaching a foreign language have since been adapted for use in training Peace Corps volunteers and other adults, a procedure generally referred to as high intensity language training (HILT).

Experiences with teaching adults a second language provides us with comparison data to understand the enormity of the task we set for LEP students. To better appreciate this, keep in mind that what we require of LEP students is that they develop sufficient English language proficiency to successfully participate in instruction when it is conducted solely in English.

Over the years of their experience in teaching foreign languages to adults, the FSI has developed an understanding of the time commitment required. FSI students are required to attend classes an average of six hours each day, five days a week. During this time, students are immersed in the

language under study, using only the foreign language under study for all interactions all day, each day. In addition, students are expected to spend an additional three to four hours each night in private study. The results of what one might expect in terms of proficiency in a foreign language after such intensive effort is reflected in data collected by the FSI over the years.

To determine oral language proficiency, the FSI uses a five point rating scale. Highly educated native speakers of the language conduct the testing in an interview situation. Summarized, general levels of ratings on the Government

(DLI) Rating Scale are as follows:

- Level 0 = No functional ability in the language
- Level 0+ = Able to satisfy immediate needs using learned utterances
- Level 1 = Able to satisfy basic survival needs and minimum courtesy requirements
- Level 1+ = Able to satisfy most survival needs and limited social demands
- Level 2 = Able to satisfy routine demands and limited work requirements
- Level 2+ = Able to satisfy most work requirements and show some ability to communicate on concrete topics relating to particular interests and special fields of competence
- Level 3 = Able to speak the language with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social and professional topics
- Level 3+ = Able to speak the language with sufficient structural accuracy and vocabulary to use it on some levels normally pertinent to professional needs
- Level 4 = Able to use the language fluently and accurately on all levels normally pertinent to professional needs
- Level 4+ = Speaking proficiency sometimes equivalent to that of a well-educated native speaker but cannot sustain performance
- Level 5 = Speaking proficiency equivalent to that of a well-educated native speaker

(from Liskin-Gasparro, 1983)

Given this rating scale, it is obvious that only a native speaker of a language would be rated at an FSI Level 5, and highly probable that this would be true for FSI Level 4 as well. Thus, an adult hoping to acquire a foreign language could probably reach an FSI Level 3+ only with ample time and experience intensively studying the language and practicing it in the given culture of that language.

What has the FSI learned about how long it takes adults to learn a foreign language? In a study of results compiled by the School of Language Studies of the FSI and reported in April 1973, the **minimum amount of time** required by native English speaking adults who possessed minimum aptitude for language learning to reach FSI Level 1 in a relatively less complex foreign language was **240 hours of instruction, or 8 weeks of intensive, 6 hour days!** To reach an FSI Level 2, the required time was 720 hours, or 24 weeks of intensive instruction (Liskin-Gasparro, 1983). A person with superior aptitude for language learning, however, could reach an FSI Level 3 in this period of time.²

In comparison, the average school year consists of 180 days of instruction typically of six hours duration after the first grade. How much of this time is allocated to developing oral proficiency in English in LEP students? Recall that federal law stipulates that both English language instruction and appropriate instruction in the content areas must be provided to LEP students (Lau vs. Nichols, 1974). Given this situation, how much time can be allocated **practically and legally** to developing LEP

students' English proficiency? For example, this legal requirement would seem to negate the possibility of placing all LEP students into a program of intensive English language development before placing them in regular classrooms with other children for purposes of receiving instruction in the content areas.

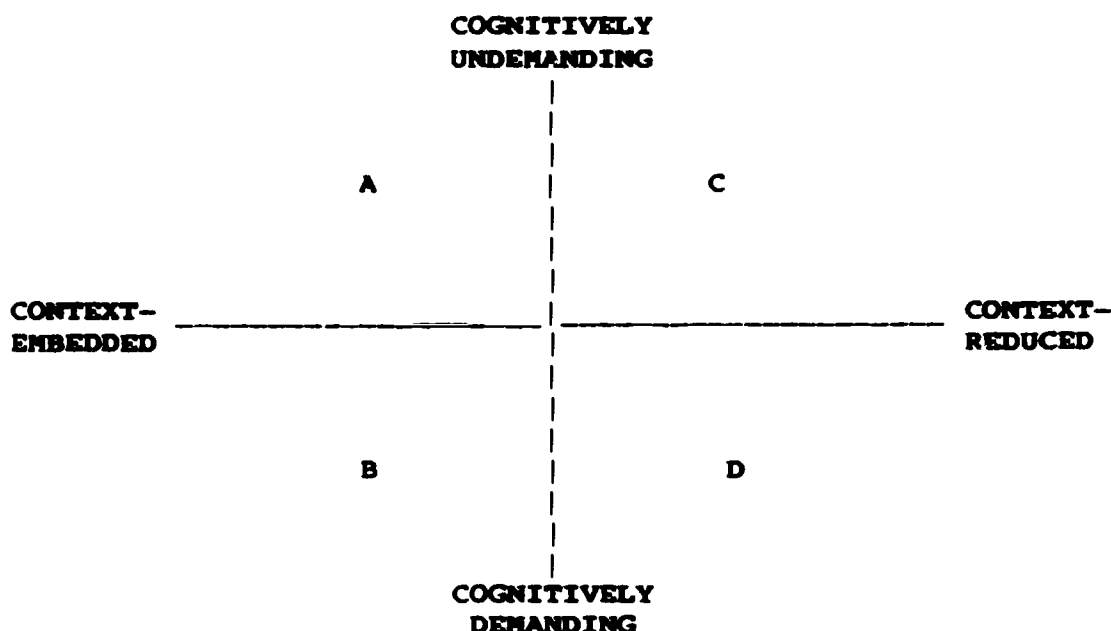
The purpose of presenting the FSI comparison data is to provide in a dramatic fashion the instructional dilemma confronting schools with large populations of LEP students. In too many instances, those in charge of making instructional decisions for LEP students are not aware of the enormity of achieving the two goals of schooling for them. This is not to say that the task is futile, but to suggest instead that considerable sensitivity is necessary to recognize what achieving these goals will require.

Learning a Second Language as a School Task

Students who are engaged in acquiring a second language at the same time that they are developing academic competencies in school are required to respond to instructional situations that are potentially far more complex than they are for their monolingual English speaking peers. Cummins (1982) described the complexity of school learning for second language learners along two dimensions: **context** and **cognition**. Both are presented as intersecting continuums, from least to more complex, in Figure 1.

While acquiring second language proficiency, LEP students are concurrently confronted with instructional situations

Figure 1. Range of contextual support and degree of cognitive involvement in communicative activities



(from Cummins, 1982, p. 12)

that are represented in Figure 1 along a continuum from **context-embedded** to **context-reduced**. At the least complex end of the context continuum (context-embedded), a LEP student is familiar with the requirements of the situation and the contextual clues it contains and uses these to negotiate meaning of the context. The other end of the continuum (context-reduced) represents those situations in which the contextual clues are unrelated to anything a LEP student has previously experienced, or the clues are so subtle that a LEP student must "suspend knowledge of the 'real' world in order to interpret (or manipulate) the logic of communication appropriately" (Cummins, 1982, p. 11).

As LEP students interact with instructional contexts, they engage in tasks and activities which contain cognitive requirements. The amount and complexity of new information that must be processed simultaneously in order to understand and respond appropriately to the demands of the instructional tasks and activities add to the cognitive complexity. As one might expect, the lower end of the continuum of cognitive complexity represents instructional contexts that require relatively little cognitive processing. Few cues and little new information must be noted and responded to. As LEP students move toward more cognitively demanding contexts, however, they must sort out new pieces of information, test theories about how to communicate best in such situations, construct and test hypotheses about what might happen if a particular strategy is tried, and so forth.

One device which enhances second language learning is the ability to transfer across languages what Cummins (1982) called **common underlying proficiencies**. Proficiencies involved in reading and writing, for example, transfer across languages. At the context-reduced end of the continuum, these would include things such as image-sound correlation (for example, decoding or spelling). Even in terms of a potentially context-embedded situation, many rules of communication apply across cultural settings (for example, turn-taking in two-person, face-to-face communication). The amount of linguistic information which can be transferred from one language to another would appear to depend on the amount and quality of a person's experience with language

learning, and the variety of contexts, in the initial language. For purposes of school learning, this would seem to infer designing curriculum for second language learning based on a given LEP student's language learning experiences in the native language.

This framework of second-language learning is useful for considering the additional linguistic demands frequently placed on LEP students in school learning. The four quadrants in Figure 1 serve to illustrate how a single instructional task or activity can be more or less complex depending on the knowledge and competencies brought to it by the student. A given class task or instructional activity may contain demands which are relatively easy and familiar for a monolingual English speaking student [Quadrant A], but which are more cognitively demanding and context-reduced for a LEP student [Quadrant D]. As Cummins (1982) pointed out, a LEP student who truly understands no English and is not familiar with the rules of social or classroom discourse must consistently operate in situations that are both cognitively demanding and contextually complex.

For example, consider a ten year old, preliterate LEP boy interacting with elements of the game, baseball.³ While watching a baseball game during recess, the boy would be operating in Quadrant A. Participating in the baseball game, however, would require him to respond to demands represented by Quadrant B. Playing a baseball game in class using a configuration of a baseball diamond and a dice with dots and "homerun" and "batter out" symbols confronts him

with the demands in Quadrant C. Reading basic word cards about baseball (e.g., "run", "hit", "go", "safe", "out") is represented by the demands in Quadrant D.

The same topic six months later, when the boy has experienced increasing familiarity with the game, baseball, presents a different learning situation. Here, Quadrant A demands would be represented by the boy talking with other students about the baseball game they have just played. Quadrant B demands are present in a situation such as arguing with the P.E. teacher about a baseball rule while participating in the game. Using flash cards of words such as "run," "hit," "safe," "go," "out" in order to play a baseball game in class illustrates the demands of Quadrant C. Finally, successfully completing a cloze test on a story about a baseball game using these same words represents the demands of Quadrant D for this boy.

To reiterate, these same experiences might be far less complex and demanding for another LEP student. What matters is his prior experience with the context and cognitive demands of the situation. This possibility creates an instructional problem for teachers in classes containing both non-LEP and LEP students, for it departs remarkably from the common understanding of the purpose and function of curriculum and instruction. Curriculum traditionally is conceived as a spiraling scope and sequence of skills and concepts which are to be mastered and learned by all students. Instruction is presented as a logical sequence of increasingly

more cognitively demanding objectives and goals to be achieved by students.

This static posture assumes that curriculum remains constant, and it is the student who moves through the lock-step process. Thus, a given instructional objective or goal would be behaviorally prescribed at one of several levels of, for example, Bloom's (1956) taxonomy of educational objectives and goals in the cognitive domain. The notion is to develop objectives that move to increasingly higher (more complex) levels of a taxonomy as a student engages in subsequent instructional tasks and activities. The assumption is that students will utilize increasingly higher levels of cognition as they move through the curriculum.

This is in marked contrast to the paradigm of second-language learning in school settings presented by Cummins (1982) in Figure 1. Regardless of the predetermined cognitive level at which a student is required to function in order to accomplish a given instructional objective or goal, the actual level of complexity of the instructional task or activity involved in accomplishing the instructional objective or goal would depend on a LEP student's prior knowledge and experiences, and the level of proficiency in the English language. It naturally follows, then, that instructional decision-making for LEP students needs to take into consideration how instructional tasks and activities that seem appropriate for non-LEP students may, indeed, present far more complex demands for LEP students.

Requirements of Successful Participation
in Classroom Instruction

To reiterate, while engaged in acquiring English as a second language, LEP students also are confronted with the same class task and instructional activity demands which must be accommodated by all students. The preceding discussion has illustrated how difficult this can be depending on a given LEP students' familiarity with the class tasks and instructional activities, as well as with their proficiency in English.

There is a prevailing tendency for schools to rely heavily and almost solely on oral language proficiency as a means for determining LEP students' success in school. However, as we shall see, measures of oral proficiency in English are insufficient data for making such educational decisions for LEP students.

A LEP student is functionally proficient when s/he can participate competently in a classroom when instruction is primarily in English, successfully accomplishing instructional tasks with reasonable accuracy while observing and responding appropriately to the rules of classroom discourse. When this is the case, one can anticipate that LEP students can engage successfully in school learning.

In practice, teachers use some measure of functional proficiency when they make daily decisions about the performance of all their students. Observations of how well their students are doing during instruction inform their own behavior toward them. Thus, for example, they will use

differential strategies to obtain students' engagement in class task completion. Some students will require more direct interaction and frequent feedback, while others can be depended upon to work independently and productively. Intuitively, effective teachers know which students will require assistance during a particular piece of instruction, and plan strategies ahead of time to accommodate their needs.

The principle that seems to be at work is one of assessing student performance against predetermined criteria of how students ought to respond to class task and instructional activity demands. Those who more closely approximate a teacher's criteria of a student who is a competent participant during instruction are considered to be functionally proficient. Those who vary from any of these criteria, however, are recipients of the teacher's attempts to shape their behavior to more closely approximate how they are supposed to function.

To understand how this principle operates in the classroom, we need to determine the characteristics of a student who is considered to be functionally proficient.

What is Student Functional Proficiency?

Obviously, a full range of strategies is utilized to respond appropriately to the demands of instruction. These strategies are inherent in three competencies demonstrated by a functionally proficient student, whether or not s/he is LEP: participative competence, interactional competence, and

academic competence. They are depicted as the interactive competencies of student functional proficiency (SFP) in Figure 2.

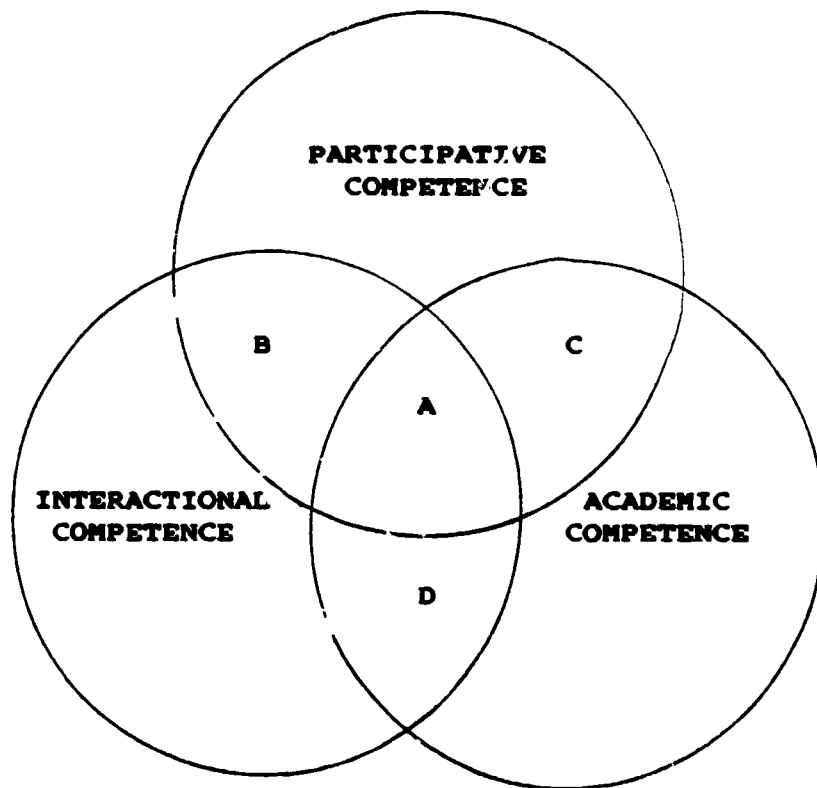
Participative competence requires that a student respond appropriately to class task demands and to the procedural rules for accomplishing them.

Interactional competence requires that a student respond appropriately both to classroom rules of discourse and social rules of discourse, interacting appropriately with peers and adults while accomplishing class tasks.

Academic competence requires that a student be able to acquire new skills, assimilate new information, and construct new concepts. In doing so, the student must acquire academic language from each of the content areas, and work at increasingly more complex cognitive levels.

These three competencies comprise **student functional proficiency (SFP)**. As indicated by Figure 2, a functionally proficient student utilizes them concurrently and interactively during classroom instruction. This is indicated by the intersect of all three competencies at the center of Figure 2 [Intersect A]. In addition, while some characteristics of each competency can be specified individually, others may overlap two or three of the competencies. Thus, some characteristics of SFP competencies may fall in Intersects B, C, or D. For example, academic competence usually is perceived as the ability to use higher order cognitive skills to accomplish class tasks. However, completing class tasks also requires responding to the

Figure 2. Competencies of student functional proficiency



procedural rules of the class as well as to the demands of the class task themselves [Intersect C]. At the same time, some interaction with others in the class while accomplishing the class task may be required [Intersect D]. While a class task may require a student to use higher order cognitive skills, because the task is being completed during instruction in the classroom, a student also may be required to attend to the competencies of participative and interactional competencies.

Lack of competence in any one of the SFP competencies, no matter how skilled a student might be in the other two, will limit the student's ability to successfully complete class tasks. For LEP students, the linguistic dimensions of

the three SFP competencies present an additional challenge, particularly when English is the language in which instruction takes place.

The Participation Requirements of SFP

To be perceived as functionally proficient, a student must be able to utilize participative, interactional, and academic competence to perform three major functions: (1) to decode and understand both task expectations and new information; (2) to engage appropriately in completing tasks, completing them with high accuracy; and (3) to obtain accurate feedback with relation to completing tasks successfully (Tikunoff, 1984, 1983; Tikunoff & Vázquez-Farfa, 1982). These requirements of functional proficiency are depicted in Figure 3.

Understanding task expectations. The first requirement of functional proficiency is understanding the task expectations and the new information necessary to complete instructional assignments. This includes absorbing concepts and skills that are to be learned, knowing what the intended product or outcome of a class task should be when it is completed and how to complete it, and understanding any new information required about how to accomplish them.

Participating productively. Communication makes possible understanding a teacher's expectations with regard to tasks and normative behavior, and makes available the new information necessary to complete tasks, but it is up to the student to put all this information into operation. When

Figure 3. Requirements of student functional proficiency

Functionally Proficient Students:

1. **Decode, understand:**
 - Task expectations (what product should look like; how to complete accurately)
 - New information

2. **Participate productively:**
 - Maintain productive engagement on assigned tasks and complete them
 - Complete tasks with high accuracy
 - Know when successful in tasks
 - Observe norms (meet teacher's expectations)

3. **Obtain feedback**
 - Know how to obtain accurate feedback re task completion, i.e.
 - a. **whether achieving accuracy**
or if not,
 - b. **how to achieve accuracy**

they do so correctly, then students can maintain productive engagement on tasks, completing them with a high degree of accuracy. This is the second requirement of student functional proficiency.

Much has been written about the importance of student engagement in completing tasks: the more time spent on a task, the more chance that learning will result. The research on time-on-task, however, has tended to focus only on engagement. An equally important facet of task completion is the accuracy with which a student completes tasks. Fisher et al. (1978) showed that high engagement, combined with high accuracy in completing class tasks, correlated positively with student performance on tests of academic achievement in reading and mathematics, at least at the elementary school level. Thus, it appears that it is essential for students is to work toward high accuracy as well as high engagement when completing class tasks. In turn, it is important that teachers adjust class tasks for individual students so that task demands are at both the appropriate ability level and conceptual level in order to maintain high accuracy.

Obtaining feedback. The third requirement of functional proficiency is the ability to obtain feedback relative to whether accuracy is being achieved in class task completion, or if not, how to achieve accuracy. This requires that students know how to obtain feedback, either from the teacher or from someone else in the classroom who possesses the appropriate information. In addition, of

course, students must accomplish this within the established rules of interaction for a given classroom.

Student Participation Patterns

The preceding discussion of the requirements of a functionally proficient student provides behavioral indicators that a student knows the requirements of the demands inherent in class tasks, and is working toward accuracy in class task completion. However, it is important for teachers to understand that different students may exhibit these characteristics in different ways. That is, they may have very different patterns of participation in class task completion.

Ward (1982), for example, identified six different patterns of student participation, apparently based on personal interactional styles. The six patterns are:

1. **Multitask** students generally are highly competent. They almost always are involved in completing class tasks, frequently carrying out several tasks concurrently. Although they seldom volunteer, they give correct responses to a teacher's questions when called upon. Multitask students seldom need a teacher's help, but they actively seek it whenever necessary.

2. **Social** students also function proficiently during class task completion, but they mix brief periods of concentration on completing class tasks with conversation with others. They like to work with others, and they enjoy acting as peer tutors. Social students volunteer answers

during recitation, and sometimes appear to be more interested in answering than in giving correct answers. Although they frequently draw sanctions for talking out-of-turn, they accomplish class tasks with relatively high accuracy. Whenever they need help or clarification, they also actively seek assistance from the teacher.

3. **Dependent** students require immediate and frequent monitoring and feedback. They experience difficulty in remembering directions, and need to have sequential steps for accomplishing tasks re-explained to them. Dependent students tend to be inattentive in large groups, and stay on task more frequently when working in small groups under adult supervision. Some dependent students will not stay engaged in task completion unless given frequent reinforcement and approval.

These students function proficiently only when the teacher or another adult (or sometimes a peer tutor) is readily available to tell them whether they are achieving accuracy in class task completion and, if not, how to modify what they are doing to achieve it. For these students to exhibit the characteristics of a functionally proficient student requires clear instructions and constant monitoring of their work. Limited proficiency in the language of instruction increases the dependence of these students.

4. **Phantom** students prefer to work alone, and almost never initiate conversation or ask for assistance. They prefer not to volunteer, but will respond when called upon to do so. Because they work quietly and create no problems

for others, teachers seldom initiate interactions with them. However, they tend to function proficiently, completing class tasks accurately. They are particularly successful on independent tasks, like completing worksheets and other individual projects.

5. **Isolate** students, like phantoms, seldom interact with others. However, their withdrawal from classroom interactions (instructional and otherwise) tends to make them less proficient in completing class tasks. They intersperse sporadic engagement in assigned class tasks with quiet play or gazing about the classroom. They isolate themselves from others, often turning their bodies or chairs away from rather than toward the instructional situation. Other students and adults tend to isolate them as well, refusing to associate with them. Isolate students are reluctant to show their work to others or to allow others to react to it.

6. **Alienate** students are anti-social, and verbally or physically act out their anger against school, adult authority, and their peers. Teachers identify them as discipline problems because they tend to keep others around them from working productively on class tasks. They do not remain engaged on tasks unless they are closely supervised. Their behavior often stems from problems outside the classroom over which the school has little control.

These six student participation patterns were used to distinguish participation characteristics across various ethnolinguistic groups of students. Tikunoff & Vázquez-Farfa (1982a) revealed how they varied across students from

different ethnolinguistic groups. Three participation patterns were ethnolinguistically relevant.

Hispanic students tended to work more productively when they were allowed to work together, either in pairs or in small groups. They appeared to be social in their participation, talking among themselves as they worked at task completion. On the other hand, Navajo children more frequently worked quietly, accomplishing class tasks alone, seldom initiating interaction with the teacher or with one another. Chinese-language LEP students had high engagement on class tasks, and when tasks were completed, they waited quietly and patiently until the teacher told them what to do next.

Teachers apparently understood these cultural variations, and made use of them in structuring class tasks. This was one of the ways they mediated instruction. As a result, students' became more functionally proficient in accurately completing assigned class tasks.

Several other general observations about the six participation patterns are relevant. First, of the six patterns, three are important in terms of student functional proficiency in completing class tasks accurately, and whether or not students will learn new skills and knowledge.

Both isolate and alienate students, obviously, do not learn, or at best, learn only sporadically. In addition, alienate students frequently are the sources of disruption in the classroom. Sufficient numbers of either student in a class will cause the pace of instruction to slow down

because teachers have to handle their disruptive behavior. When there are large numbers of these students in a class, the engagement and accuracy rates of other students may suffer because the teacher's efforts are directed away from instruction.

Dependent students present the teacher with another sort of problem. Dependent students will learn if they are provided frequent clarification, monitoring and feedback concerning task completion. Otherwise, their lack of ability to sequence information at a complex level causes them to get off-task easily. In fact, they frequently stop working and wait for someone to help them. If this happens, their accuracy rate diminishes as well. Effective teachers quickly identify these students, and create systems of "checking-in" with them as instruction proceeds.

Because of the frequent attention they may require, large numbers of dependent students in a single class may slow the pace of instruction for the remainder of the class. Some effective teachers learn to deal with this by assigning "buddies", or peer tutors, to dependent participants. They usually select a student who can provide accurate feedback and information with respect to task completion and accuracy. Frequently, social students make good peer tutors.

Thus, it is apparent that students who exhibit multi-task, social, and phantom participation patterns typically function proficiently in classrooms. However, too many students who exhibit dependent, alienate, or isolate participative patterns in a single class can pose tremendous

challenges for a teacher. At the secondary school level, this is exacerbated primarily because of the tracking that begins to take place. Students who take subjects such as Algebra, foreign languages, and advanced sciences are likely to be functionally proficient students. Dependent, isolate, and alienate participants are unlikely to take these classes. Thus, two conditions tend to prevail. Multitask, social, and more proficient phantom students end up together in classes throughout the school day; and conversely, dependent, isolate, alienate, and less proficient phantom students tend to spend the day together in their classes.

How Do Teachers Develop SFP in LEP Students?

To understand how a teacher develops student functional proficiency (SFP) in LEP students, it is necessary to ask two sorts of questions. First, what instructional strategies are useful for developing SFP generally? Next, what instructional strategies are particularly useful for developing SFP in LEP students?

The issue of developing SFP must be separated into these two component pieces because of the argument raised earlier. All students -- including LEP students -- must respond appropriately to the demands of instruction if they are to be perceived by their teachers to be participating competently in instruction.

Effective teachers have been found to utilize similar instructional strategies to accomplish this for all their students. In addition, for LEP students there are some

additional linguistic requirements without which competent participation in instruction would not be possible. Effective teachers of LEP students utilize mediational strategies to accomplish this.

Developing student functional proficiency for all students requires, first of all, careful planning to ensure consonance among instructional intent, how instruction is organized and delivered, and the desired student outcomes. In turn, this requires that teachers understand what demands they are placing into operation by the nature of class tasks and instructional activities, for it is these to which students must respond if they are to be considered by their teachers to be functionally proficient. A final requirement rests with what a teacher does during instruction, particularly with respect to providing clarity of instruction, achieving successful classroom management, monitoring students' class task completion, and providing appropriate feedback with respect to this. These three instructional features for developing SFP for all students is the subject of Chapter Two.

Mediating the effective organization and delivery of instruction to promote SFP in LEP students is the subject of Chapter Three. Three mediational features are important. First, teachers must be able to provide comprehensible input so that students can understand the requirements of class tasks and how to accurately complete them. One expedient way to accomplish this is to use as much of a LEP students' native language as necessary in order to make certain that

understanding is being obtained. When no one in the classroom knows a LEP students' native language, other means for reaching understanding must be determined.

A second mediational feature for developing LEP students' SFP is the integration of English language development with instruction in the academic content areas. This is in addition to, and not instead of, utilizing English as a second language techniques for developing LEP students' English language proficiency. Finally, teachers' can make use of and build upon information from LEP students' native cultures in order to mediate effective instruction.

NOW THAT YOU HAVE READ THE CHAPTER:

1. Review your description of your Ideal Student.
 - a. Identify the parts of your description in terms of the three competencies of student functional proficiency. Did you include information about all three competencies in your description? If not, what can you add to your description in terms of the three SFP competencies?
 - b. Did any of your Ideal Student describers apply to more than one competency? If so, did they fit one of the overlapping vectors between two SFP competencies? Which ones? Explain this overlapping?
 - c. Identify which of the participation requirements of SFP from Figure 2 you included in your Ideal Student description. Did you leave any out? Speculate why you may have not included them in your description.
2. Review your lesson.
 - a. Reflect on the instructional objectives and goals you specified for the lesson in light of Cummins' paradigm for second-language learning presented in Figure 3. Did you plan for varying participation responses of your non-LEP and LEP students? How did you do this?
 - b. Was there environmental or contextual support which enabled your LEP students to participate in this activity? Describe this contextual support. Did it occur naturally within the environment, or did you have to make specific plans to be certain that it was there? How did you accomplish this?
 - c. Think about your typical lesson plans. How frequently do you plan to provide contextual support so that your LEP students can participate effectively? What kind of support appears to be most effective in assisting your students to perform successfully?
 - d. Think about the same lesson in terms of the cognitive demands which are being placed on LEP students. Do they have to learn to read and understand words in order to participate? What portion of the words are new? Research says that monolingual English speaking students are working at frustration level if they know fewer than 90% of the words which they

are expected to use to complete a given lesson. LEP students have more difficulty using contextual clues to figure out the meaning of words, particularly when they are placed in unfamiliar situations. What ways can you think of to enable LEP students to acquire the meaning of the words they are to use?

- e. Are there different activities or different support strategies that appear to be more effective for different LEP students? To what do you attribute these differences?

NOTES FOR CHAPTER ONE

1. Activities for this monograph are most easily completed by teachers currently working with LEP students. However, this material can be used by teachers in training as well. If you are currently not teaching LEP students, you may complete the exercises before and after each chapter in one of two ways: (1) Try to imagine a class of LEP students whom you have taught, or that you have already observed; or (2) observe a class with LEP students. These activities will be most meaningful if they are developed through "real life" experiences.

2. To adapt the FSI Government Rating Scale for use with school personnel, FSI staff collaborated with staff at the Educational Testing Service (Princeton, NJ) to develop a comparable rating scale for academic situations. The result, the Academic (ACTFL/ETS) Rating Scale, goes only as high as FSI Level 3. Comparisons are as follows:

| <u>FSI</u> <u>Level</u> | <u>ACTFL/ETS</u> <u>Level</u> | |
|----------------------------|----------------------------------|--|
| 0 | Novice Low | (Unable to function in spoken language) |
| | Novice Mid | (Able to operate only in a very limited capacity within very predictable areas of need) |
| 0+ | Novice High | (Able to satisfy immediate needs using learned utterances) |
| 1 | Intermediate Low | (Able to satisfy basic survival needs and minimum courtesy requirements) |
| | Intermediate Mid | (Able to satisfy some survival needs and some limited social demands) |
| 1+ | Intermediate High | (Able to satisfy most survival needs and limited social demands) |
| 2 | Advanced | (Able to satisfy routine social demands and limited work requirements) |
| 2+ | Advanced Plus | (Able to satisfy most work requirements and show some ability to communicate on concrete topics relating to particular interests and special fields of competence) |

- 3 Superior (Able to use the language with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social, and professional topics)

(from Liskin-Gasparro, 1983)

3. This example is from an assignment given to a class of graduate students who teach LEP students by Dr. Sandra Fradd, University of Florida, Gainesville, FL.

REFERENCES FOR CHAPTER ONE

- Bloom, B. S. (1956). Taxonomy of educational objectives: The classification of educational goals, Handbook 1: Cognitive domain. New York: David McKay Co.
- Canale, M. (1983). On some dimensions of language proficiency. In J. W. Oller, Jr (Ed.), Issues in language testing research. Rowley, MA: Newbury House.
- Cervantes, R. A. (1979). Bilingual program exit criteria. Bilingual Resources, 2 (3), 14-16.
- Cummins, J. (1983a). Functional language proficiency in context: Classroom participation as an interactive process. In W. J. Tikunoff (Ed.), Compatibility of the SBI² features with other research on instruction for L2P students (pp. 109-131) (NIE Contract No. 800-80-0026). San Francisco, CA: Far West Laboratory for Educational Research and Development.
- Cummins, J. (1983b). Policy report: Language and literacy learning in bilingual instruction (NIE Contract No. 400-80-0043). Austin, TX: Southwest Educational Development Laboratory.
- Cummins, J. (1983c). Language proficiency and academic achievement. In J. W. Oller, Jr. (Ed.), Issues in language testing research. Rowley, MA.: Newberry House.
- Cummins, J. (1982). The role of primary language development in promoting educational success for language minority. chooling and language minority students: A theoretical framework (pp. 3-49). Los Angeles, CA: Evaluation, Dissemination and Assessment Center, California State University, Los Angeles.
- Cummins, J. (1981, April). The entry and exit fallacy in bilingual education. Paper presented at the meeting of the National Association of Bilingual Education, Anaheim, CA.
- Fisher, C. W., Filby, N. N., Marliave, R. S., Cahen, L. A., Dishaw, M. M., Moore, J., & Berliner, D. C. (1978). Teaching behaviors, academic learning time and student achievement: Final report of Phase III-B, Beginning Teacher Evaluation Study. San Francisco, CA: Far West Laboratory for Educational Research and Development.
- Gilmore, G. & Dickerson, A. (1979). The relationship between instruments used for identifying children of limited

English-speaking ability in Texas. Houston, TX: Regional IV Service Center.

Hayes, Z. A. (1981). "Limited" language proficiency: A problem in the definition and measurement of bilingualism. Unpublished doctoral dissertation, Stanford University, Palo Alto, CA.

Klee, C. A. (1984). A discourse analysis of the oral language interactions of Spanish-English bilingual children in three environments. Unpublished doctoral dissertation, University of Texas, Austin, TX.

Liskin-Gasparro, J. E. (1983). Oral proficiency assessment: An introduction (Handout). Princeton, NJ: Educational Testing Service.

Oller, Jr., J. W. (1979). Language testing and schools London: Longmans Group, Limited.

Tikunoff, W. J. (1984). Equitable schooling opportunity in a multicultural mileau. (Commissioned Paper). Portland, OR: Northwest Regional Educational Laboratory.

Tikunoff, W. J. (1983). Utility of the SBIF features for the instruction of limited English proficient students (Report No. SBIF-83-R.15/16 for NIE Contract No. 400-80-0026). San Francisco: Far West Laboratory for Educational Research and Development.

Tikunoff, W. J. & Vázquez, J. A. (1982). Components of effective instruction for NES/LES students. In W. J. Tikunoff (Ed.), Consequences for students in successful bilingual instructional settings: Part I of the study report, Vol. V [Report No. SBIF-81-R.6-V for NIE Contract No. 400-80-0026] (pp. 15-26). San Francisco: Far West Laboratory for Educational Research and Development.

Ulibarri, D. M., Spencer, M. L., & Rivas, G. A. (1981). Comparability of three oral language proficiency instruments and their relationship to achievement variables. National Association of Bilingual Education Journal, 5, 47-81.

Ward, B. A. (1982). Changes in student participation in different instructional settings. Journal of Early Adolescence, 2 (4), 363-387.

CHAPTER TWO
STRATEGIES FOR DEVELOPING STUDENT FUNCTIONAL PROFICIENCY
FOR ALL STUDENTS

BEFORE YOU READ THE CHAPTER:

1. Select a typical class task (like completing a worksheet). What are the requirements of the task, or the rules for completing it that students have to follow? Which of these give LEP students the most problems, and why?
2. Think about instructional activities in your class. Do you group your students; if so, on what basis? Do you encourage your students to work alone or do you encourage them to work with others? What are the decisions students make in order to complete class tasks? On what do you focus when evaluating students' performance: academic progress or their behavior?

Learning in school requires far more than the cognitive ability to process information. Because schools are organized into classrooms, each with a single adult in charge of many students, learning is organized into tasks and activities on which students can work in an orderly fashion while the teacher monitors their performance and assists them.

Learning in this context requires the ability to interact with others productively, and to know when it is all right to work with others and when one must do the work alone. It means understanding what is required to complete tasks successfully, and knowing how to obtain feedback about task completion when a student is uncertain about whether or

not a task is being carried out correctly. A student who can function successfully in this manner is said to be demonstrating **student functional proficiency (SFP)**.

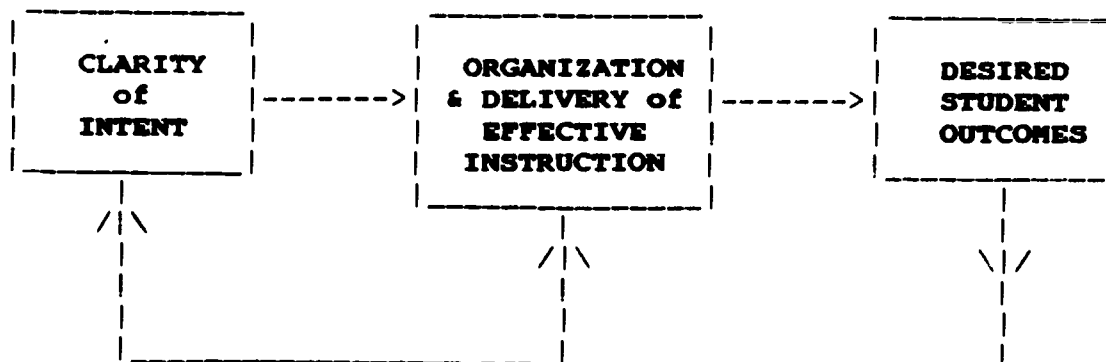
Effective teachers organize their instruction to produce SFP in their students. Three instructional features are particularly important with relation to how they accomplish this. These are: (1) the congruence among instructional intent, actual instruction, and what is learned by students; (2) how instruction is organized; and (3) what a teacher does during instruction to carry out instructional intent and encourage student engagement in accurate task completion.

Instructional Feature 1: Congruence Among
Instructional Intent, Organization/delivery
of Instruction, and Student Outcomes

Primary to understanding how to produce SFP is to understand the relationship among (1) the learning outcomes a teacher intends to produce, (2) how a teacher organizes instruction in terms of the instructional demands that are placed into motion, (3) what a teacher does during instruction to keep these demands in force and to foster competent participation in task completion by the students, and (4) what students actually accomplished and learned as a result. Figure 4 illustrates this relationship.

Clarity of intent of instruction and a high degree of teacher efficacy are important at the outset of planning instruction. Effective teachers can describe accurately what is the purpose of a lesson, both in terms of the

Figure 4. Congruence among clarity of intent, organization and delivery of instruction, and student outcomes in effective instruction



immediate intent and how this fits into a sequence of instruction or across a continuum of skill and concept development. They express a high sense of efficacy, believing that their students are capable of learning and that they are capable of providing instruction appropriate to produce successful learning for their students. To accomplish this, they can describe numerous instructional strategies which they use as options to produce appropriate student learning outcomes.

To carry out their instructional objectives, effective teachers organize class tasks and instructional activities that contain demands which support this intent. Tasks and procedures to accomplish them are clearly specified, and instructional activities are organized that maximize their successful completion as well as ensure that students are provided a variety of learning options and experiences.

During instruction, effective teachers maintain consistency in task focus and strive for clarity of instruction in terms of what is required to accomplish tasks successfully.

They obtain and maintain productive engagement of students in working for higher and higher accuracy in task completion. Timely feedback is central to knowing if a task is being completed successfully, and they provide this to students who frequently need it.

As a result of effectively planning, organizing, and executing a piece of instruction, effective teachers can describe precisely what student outcomes can be anticipated, and by what means they can substantiate that these outcomes have been achieved.

Using Figure 4 as a paradigm of instruction, an effective teacher would exhibit an A-A-A pattern. In effective instruction, clear causality exists between a teacher's ability to clearly specify the intent of instruction and a belief that students could achieve accuracy in instructional tasks [A], the organization and delivery of instruction such that task and institutional demands reflected this intent, requiring intended student responses [A], and the fidelity of student consequences with intended outcomes [A]. However, other patterns are possible for teachers who may not be effective.

Consider the pattern, A-B-B. In this situation, the teacher may have intended [A] but organized instructional tasks and activities which, when analyzed, contained [B] demands. The resulting student outcomes are in response to the [B] demands rather than the teacher's intent [A].

For example, as one intent the teacher may have wanted students to learn to cooperate [A], an instructional

objective identified frequently by teachers. However, each student was assigned the same lesson, each had a copy of the same textbook, and each was provided with a fact sheet to fill out at the desk. In addition, students were told they would be graded individually. Although the teacher stated that students could work together to accomplish the task, few chose to do so. It is clear that the instructional task and ensuing activity are [B] demands rather than [A] demands since appropriate student responses are more likely to produce competition rather than cooperation. As a result, students worked alone in response to the [B] demands of the way instruction was organized and delivered.

An A-B-B instructional pattern easily results from instruction which is not monitored and adjusted. In Figure 4, the dotted lines which emerge from the bottom of the instruction and outcomes boxes are intended to convey the decision-making in which effective teachers engage when they sense that instruction is deviating from their original intent. Depending on when during instruction this occurs, effective teachers adjust task and activity demands and cycle their students back through instruction to produce the desired outcomes. For example, if it becomes obvious during instruction that students are not responding as intended, a teacher can either adjust immediately or suspend instruction for the moment and start over again another time with a new plan. Also, if student outcomes are not those intended, or not at a desired accuracy level, a teacher may recycle students through another session with the same lesson (but

different material) or design a new lesson covering the same material.

Other instructional patterns are possible following the same schema. Pattern A-B-A, for example, describes a teacher who apparently is able to communicate demands that supercede those which appear to be present during instruction. This particularly is true of single lessons which are only one segment of the history of instruction for a class. Single instances of instruction may not reveal task class and instructional activity demands which previously have been negotiated. Thus, even though a teacher may assign a separate textbook to each student, prior negotiation of division of labor among student may result in their dividing up the task among themselves. While this may not have even been mentioned by the teacher, and therefore not have appeared to be a demand of the lesson, nevertheless students have responded to the demands of cooperation rather than competition which appeared to have been established during the lesson.

Pattern A-A-B describes a situation in which instruction apparently is deliberately being undermined by students. Both the instructional intent and organization/delivery of instruction are consonant, but students choose to respond otherwise. This pattern is produced when students mediate instruction with their own intent and usually is indicative of hostility on their part. A recent study at a junior high/middle school described such a situation. Students who normally were orderly and cooperative were

observed to be unusually disruptive in their mathematics class. When interviewed, they were able to describe instructional intent and organization/delivery that was consistent with what had been observed. They attributed their behavior to that fact that the teacher was "unfair" in his grading; if he was not going to be "fair," then they would not cooperate with him.

Another example of students mediating instruction is the pattern, A-B-C. This pattern probably is more descriptive of general instructional chaos, however, and probably occurs too infrequently to warrant much concern.

At the core of understanding instructional congruence is how a teacher organizes instruction and delivers it in order to accomplish the intended instructional objectives and goals and produce the desired student outcomes. This is represented in the middle box of Figure 4 above. Two instructional features are involved: (1) the organization of instruction in terms of class tasks and instructional activity, and (2) the delivery of instruction in terms of using appropriate teaching strategies and behaviors.

Instructional Feature 2: Organization of Instruction

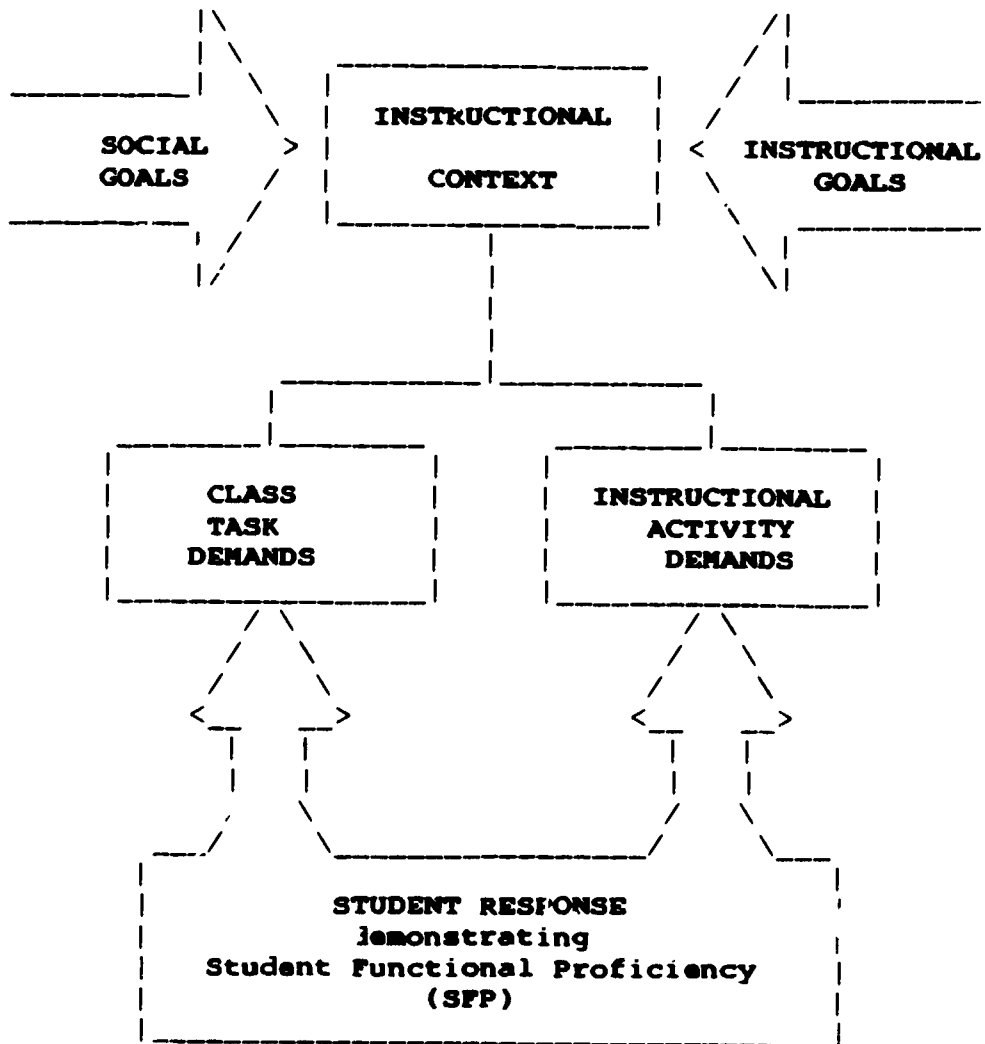
Teachers and students understand well the notion that schools are work places. Each day axiomatically begins with a teacher's pronouncement, "Okay, let's get to work." Students know that if they are not working, teachers will sanction them to "get back to work." Even when students do not understand what it is they are supposed to be doing,

they appear to be aware of the teacher's expectations and try to behave as though they are working in order not to attract sanctions, or they successfully mime other students' behavior in order to give the impression that they know what they are supposed to be doing.

The instructional contexts of schools throughout the U.S. are similar. As depicted in Figure 5, an instructional context is informed by the social and instructional goals established by a school and reflected in its curriculum. The majority of instructional contexts are the classrooms in which students spend the majority of their time, but other schooling experiences like special interest clubs and student government provide instructional contexts as well. An instructional context is defined by the demands inherent in it. For classrooms, these are **class task demands** and **instructional activity demands**. Demands, of course, require that students respond appropriately in order to be considered by the teacher to be functionally proficient.

When working on assignments, students respond to the demands inherent in class tasks and instructional activities. When they respond appropriately, they appear to be highly engaged, accomplishing tasks with high accuracy. Such student behavior is perceived by the teacher to be competent participation in task completion, demonstrating student functional proficiency. Inappropriate responses to task demands will result in low task completion accuracy, or in behavior which draws the teacher's sanctions.

Figure 5. Organization of instructional context



An analysis of class tasks and instructional activities is presented here with regard to the inherent demands underlying each. While class task and instructional activity demands are the same for all students, they may present more complexity for LEP students. Thus, the linguistic complexity of such demands for LEP students must be considered as a part of this analysis.

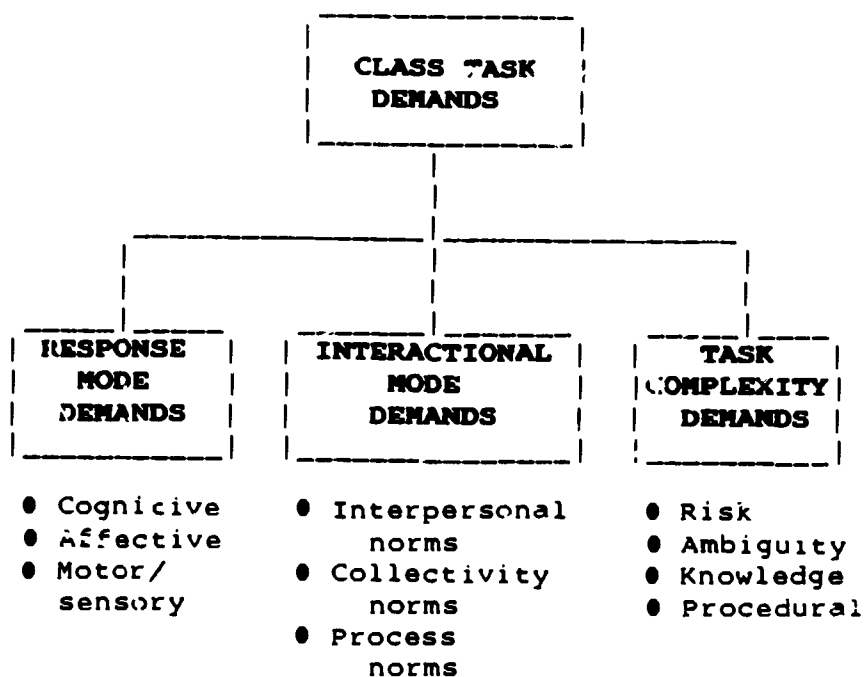
The Class Task Demands of Instruction

Although class tasks contain demands to which all students must respond, some are more complex for some students than for others for a variety of reasons, and therefore are more difficult and require more time to accomplish accurately. Obviously, for LEP students, achieving competent participation requires both (1) developing English proficiency while (2) concurrently developing proficiency in accomplishing class tasks. Hence, LEP students may inadvertently be placed in instructional contexts that are more complex than they would be for students who are proficient users of English.

The demands of class tasks are depicted in Figure 6 in terms of four types of demands: response mode demands, interactional demands, and task complexity demands. They are treated separately for purposes of defining and illustrating them. During instruction, however, they occur concurrently and interactively.

Response mode demands. Response mode demands are those that require a student to use cognitive (information processing)

Figure 6. Class task demands



skills, affective skills, and motor (physical manipulation) or sensory skills. They are traditionally depicted in terms of skill development such as Bloom's (1956) taxonomy of cognitive levels: from knowledge, to comprehension, to application, to analysis/synthesis, to evaluation.

Interactional mode demands. A second demand inherent in class tasks is interactional mode demands, which require that LEP students understand the underlying rule structures of three kinds of norms. The first is interpersonal norms, such as rules for getting along with others and knowing how to interact productively with peers and adults while completing class tasks. The second is collectivity norms, which include skills such as knowing how to work alone (or with others), knowing how to obtain feedback or clarification

concerning task completion, and knowing the rules of membership in what Schlechty (1976) called a "collectivity of individuals" such as a class in a school.

Interpersonal and collectivity norms are particularly important for LEP students to understand in a class with 30 or so students and only 1 or 2 adults since many students may need assistance from the adults at the same time. In addition, different class tasks may require a student to interact with other children in various ways in order to complete them. Such requirements are called process norms, which are the third set of interactional mode demands. They range from knowing when not to interact with others, such as during test-taking; to turn-taking during a teacher-led question-and-answer session; to working as a member of a small group, contributing to produce a single product; to assuming the role of discussion leader.

Task complexity demands. In addition to conveying response mode and interactional mode demands, class tasks also contain complexity demands. Class tasks are viewed by students as being more or less difficult. Task complexity demands are made on all students. As with all other class task demands, students must respond to these appropriately if they are to achieve accuracy in task completion and, in the process, progress toward mastery of basic skills.

Task complexity can be determined in terms of at least four dimensions. These are the demands of risk, ambiguity, knowledge, and procedure.

Risk involves the extent to which a student is familiar with the class task and can complete it accurately (Doyle, 1979). A student may ask, "Is it a task I have performed before?" Familiar tasks tend to be low-risk tasks. Or is this the first time a student is trying such a task? New tasks tend to be high-risk tasks because students don't know whether they can complete them accurately. Another dimension of risk involves the publicness or privateness of task performance. If tasks are performed publicly, such as during recitation, there is greater likelihood that not knowing the answer will result in public exposure of this fact.

Ambiguity increases as students are confronted with not knowing what is expected (Doyle, 1979). The more information withheld, or not understood, the higher is the ambiguity of a task. Tasks demanding merely memorization convey low ambiguity in terms of task completion requirements. Tasks which are more complex convey increasing ambiguity directly in relation to how unfamiliar a student is with that task.

Another dimension of ambiguity is familiarity with task completion procedures (Mergendoller et al., 1982). A student may ask, "Does the task require doing things I have done previously (low ambiguity), or do I have to learn to master new procedures in order to complete the task accurately (high ambiguity)?"

Knowledge demands increase as students are pushed from lower cognitive levels to higher cognitive levels (Tikunoff et al., 1980). A student may ask, "How hard do I have to

work to complete the task accurately? Is memory involved (relatively low-cognitive level), or am I required to solve unfamiliar problems (relatively mid-cognitive level) or to innovate and invent (high-cognitive level)?"

Procedural demands concern how many operations are involved in completing a task, and how many must be accommodated concurrently in order to achieve high task accuracy (Tikunoff & Ward, 1978). Students may ask, "Am I required to complete several operations concurrently (high-procedural level), or can I complete one operation at a time in sequence (low-procedural level)?"

Obviously, based on all these demands, class task complexity may vary markedly from one task to another, and this, in turn, may impact the ability of an individual student to complete a particular task with high accuracy. Yet teachers may overlook some factors that contribute to the complexity of a task. Students with relatively good skills generally will participate competently in most class tasks regardless of the demands that are involved. Conversely, students with poorer skills sometimes will have difficulty when tasks include new demands and more complexity. Sometimes, they will require more time to complete tasks; at other times, even increased time will not guarantee accuracy of task completion. To aid all students, teachers need to attend to making tasks which are potentially highly complex manageable by all students through the use of devices like introducing only one piece at a time.

The Instructional Activity Demands of Instruction

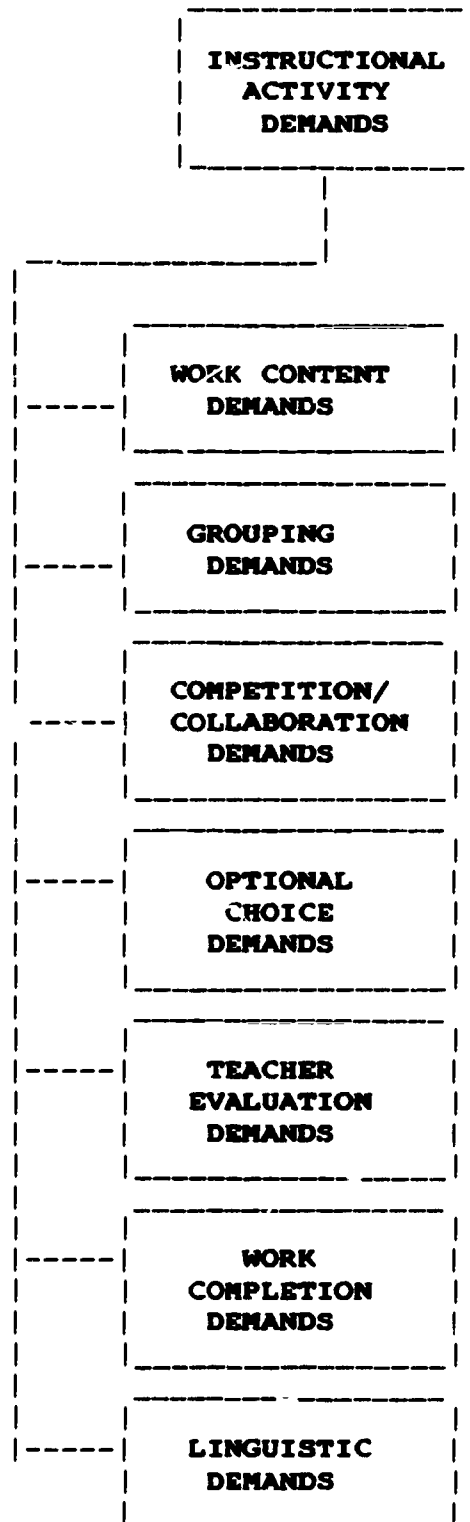
In addition to how class tasks are organized, teachers need to concern themselves with how instructional activities are structured. The term, "activity," frequently is used in curriculum and instruction to mean what it is that students do, or to identify the various work components of a classroom. Such terms as "seat work," "reading groups," and "oral reports" come to mind when thinking about instructional activity from the curriculum perspective. However, from the perspective of sociologists, "activity" conveys a meaning which is both broader and more specific.

For sociologists, activity is tied to something people do as work, usually together. Breer & Locke (1965), in studying what people learned from work activity, suggested that working on any task causes a person to develop "certain beliefs, values, preferences specific to the task itself which over time are generalized to other areas of life" (p. 22). Thus, it is the repetition of certain patterns of behavior, responding to demands embedded in class tasks and instructional activities, and rewarded by achievement and success, which generalize such patterns to other, similar instructional contexts (Tikunoff & Ward, 1979).

The demands of instructional activity are presented in Figure 7 in terms of seven types of activity demands.

Work content demands. Labels for various types of work convey very different messages. "Football," for example, differs from "mowing the grass" in the expectations one might have in approaching these two activities. One might be

Figure 7. Instructional activity demands



considered to be play, while the other is considered to be work.

So it is with school subjects. "Reading" conveys a different set of work expectations for students than "physical education" or "woodworking." They know before class even begins what sorts of class task and instructional activity demands will be made upon them. Reading, for example, is a basic skill and therefore will require far more academic effort than woodworking, which requires more manual dexterity and a willingness to obey safety rules. Reading is serious business; woodworking is fun. Reading is work; so is woodworking, but at least you have something to show for it when you are done.

Students quickly learn to distinguish between when work content is serious and when it is less serious. They adjust their behavior accordingly, primarily because they understand the demands attendant to the various subjects offered in school. Over the years of schooling, these expectations are confirmed by the actual experience with participating in the instructional activity for each content area. The less successful one is in a given content area, the more likely it is to be perceived as hard to do, something at which one is less than successful, and, in short, work!

Grouping demands. Two critical questions are at stake in this dimensions of instructional activity. First, who gets to work in a group with whom, for what content or purpose, and how frequently or over what period of time? Second, how does how I am "grouped" perhaps serve to define who

I am? In other words, do we label children when we place them into groups, and unintentionally communicate expectations about their ability to perform? And, by placing a child in a particular group, do we unintentionally limit the options that may otherwise be available? What are the messages communicated to students by how they are grouped, and how do the demands on their participation vary given the grouping decisions?

These are serious questions to ask of a schooling practice that has been in existence almost as long as schools themselves. The assignment of students to groups takes place at many levels in a school. First of all, students are assigned to classes. At the elementary school level, this may be to a single teacher for the entire year. At the secondary level, however, this usually is to a minimum of six or seven teachers each semester, each teaching a separate content area or subject. Within classes, teachers frequently group students for various activities. And even within student groups, students may group themselves into smaller work units.

Philosophies about grouping vary across schools and school districts, but they generally fall into two categories: those who advocate heterogeneous groups (mixed ability levels), and those who advocate homogeneous groups (similar ability level in each group). Research about grouping has met with mixed reactions, probably along lines of these two philosophical opposites. Nevertheless, it is important to consider the results themselves in order to understand the

implications of grouping in schools, particularly in terms of providing effective instructional contexts.

For example, Rist (1973) studied a group of Black kindergarten children, whose teacher also happened to be Black. By the eighth day of school in the Fall, the children had been placed into three learning groups. The teacher's grouping criteria were in themselves interesting. Those with older siblings who had attended the same school were more likely to be placed in the lower learning group. They were joined by other children who were darker in color than the others, spoke a sub-standard English, wore hand-me-down clothes, or smelled "unclean." In the first grade, the three groups remained intact and became the three reading groups: the Tigers (high ability), the Cardinals (medium ability), and the Clowns (low ability). By the second grade when they were interviewed, students remained intact in the three groups with the exception of one boy who had been moved from the Tigers to the Cardinals because, as the teacher explained, "Tigers are neat, and he's not." Rist interviewed the children, and found that Clowns could tell him what pleased the teacher ("Tigers are the teacher's favorites"); and what displeased the teacher ("Anything the Clowns do!").

This example is worth dwelling upon precisely because it provides dramatic evidence of the devastation of grouping practices that unintentionally set into motion the so-called self-fulfilling prophecy: the belief about oneself based on others' perceptions about one across time. Other researchers

provide additional evidence. Bossert (1979), for example, found that who belonged to which groups in the classroom extended among young children to who played with whom on the playground and in their neighborhoods. Those in low ability groups seldom interacted in play with those in high ability groups.

Good (1982) found that students in low-ability reading groups in the early grades received very little challenge, thus perceiving of themselves as being unable to read. In addition, a long-range result of interacting most frequently with only other students of low-ability in such groups was an inability to respond to the demands of more complex instructional activities. Ironically, Good pointed out that the very strategy used to presumably help low-ability youngsters with their reading problems -- pull-out programs in which teachers worked with small groups of these students outside the regular classroom -- exacerbated the problem. Demands in the special reading groups were very different from those in the regular classroom and at a much lower level of complexity, so low-ability students were not learning to respond to high level demands that would help them participate competently in their regular classrooms.

The impact of grouping practices in secondary schools, in particular how students get assigned to separate curriculum tracks, further limits the options available to them later as adults preparing for the working force. Kirst (1983) and his colleagues have been investigating tracking procedures over time at several high schools. They found

great variation in the standards applied and decisions made about students' course sequences. Generally, students placed in lower tracks had fewer challenges and fewer course options. Those schools with high involvement of parents and students in making tracking decisions, however, made for more positive learning situations.

Alexander (1978) found that students in low-ability tracks received markedly different and less explicit, less challenging forms of instruction in their classes when compared with the classes of higher ability students. Confrey & Good (in progress), inquiring in seventh-grade English and mathematics classes, found that low-ability students received instruction that was fragmented in terms of content, often mystifying to the students, repetitious in terms of skills covered, and containing low quantities of theory, so that students seldom were exposed to more powerful or integrating mathematics concepts. Lanier et al. (1981) confirmed the emphasis on repetitious drill in low-ability classes when compared to high-ability Algebra classes. In addition, they found that teachers explained the purpose of what they were learning to low-ability students far less often than to high ability students.

Information from these and other studies suggests that many questions need to be addressed to grouping practices in schools. Particularly when the objective is to provide effective instructional contexts for all students, it would appear that grouping practices might result instead in the

very inequities schooling practitioners are trying to resolve.

Competition/collaboration demands. An enduring argument among schooling practitioners is the degree to which schools promote independence among students rather than collaboration. How instructional activities are structured will produce in students one behavior or the other as an appropriate re-sponse.

When a schooling experience demands that students work independently, the properties of **competition** are more likely to be in operation. On the other hand, when a schooling experience contains demands that require students to work with each other in order to accomplish tasks, then the properties of **collaboration** are more likely to be in operation. The difference in the demands of a competitive instructional activity and a collaborative one is the degree to which an individual piece of labor must be divided among several persons for the purpose of its completion.

The two sets of demands produce very different behavior. Sayles (1958) found that

The internal structuring of work operations ... affects significantly the behavior characteristics of a group. That is, the relations between members prescribed by the flow of work processes are a critical variable shaping the internal social systems of a group. (p. 42)

And according to Bossert (1979), "These variables account for differences in group cohesion, interdependence [or independence] among members, and the propensity of group action" (p. 5).

Obviously, if one is to participate successfully as an adult in society, one must learn the conditions under which independent behavior or collaborative behavior are required. In addition, however, one must learn to respond to the demands inherent in each if one is going to be perceived as participating competently. The question that schooling practitioners must address with relation to these two sets of behaviors is, "When are students involved in schooling experiences that will teach them independence, and when are they involved in schooling experiences that will teach them collaboration?"

An examination of the extent that division of labor is required in schools reveals a perplexing situation. On the one hand, a goal frequently encountered in the rhetoric of schools is that of producing both independent and collaborative behavior in students. Yet, the demands encountered by students in the way their schooling experiences are organized result in expectations that they probably will learn only independence.

For example, textbooks are issued to each student, who is independently responsible for covering the material assigned. Students are given individual worksheets and desk assignments, take tests and examinations individually, and receive rewards (grades) or punishment (sanctions) individually. If one were promoting collaborative behavior instead, the demands would be very different. Each student might be responsible for only a portion of a reading assignment and required to teach the others the contents of his or

her portion. Worksheets and other assignments would be designed such that labor was divided in completing tasks, such as groups being formed to learn a particular concept or develop an area of expertise which they would then be held responsible for teaching all others in a class. Measurement of accomplishment would be on group success, rather than on individual performance, and rewards (or sanctions) likewise would be based on group performance.

This example is presented for illustrative purposes only. Obviously, economy of effort must be taken into consideration when designing schooling experiences, and there are many areas of learning which require independent effort. Granted that this is the case, the question for schooling practitioners then becomes, "When and how do schooling experiences create demands to which students can only respond with behavior that will eventually teach them the skills of collaboration?"

Perhaps as important is a second question, "Are some students more likely to learn under conditions which promote collaborative behavior rather than under conditions which promote independent behavior?" A frequent observation of researchers is that the rules of discourse in some cultures require or allow collaboration in learning tasks, particularly among siblings. The Hispanic students in Tikunoff (1983) and his colleagues' study worked in pairs as a natural activity in their classrooms, helping each other with assigned tasks. Slavin (1980) and his colleagues have been interested in this process, and have in fact designed

curriculum with demands that require students to collaborate in order to complete tasks. Particularly when providing equitable schooling opportunity for all students, schooling practitioners must account for when the skills of both independence and collaboration are taught.

It is not a matter of either independence or collaboration, but rather when will students be required to respond to demands which will teach them the skills of both? And, one might add, when in each school day, each school year, and across a student's entire schooling experience -- for the process of learning skills such as these require frequent repetition of their use in response to demands. Ultimately, if only the skills of one or the other -- independence or collaboration -- are taught, is an effective instructional context being provided?

Optional choice demands. A frequently stated public expectation is that students will develop a sense of responsibility, taking the initiative in making decisions and accepting responsibility for the results. Generally, this is interpreted to mean that, as a result of their schooling experiences, students will know how to choose from among options, including what the consequences of their choices might be. At the optimum, they will be inner-motivated, often achieving accomplishment beyond required work or the expectations of others.

Given that assuming responsibility for one's actions is a desired outcome of schooling, one must ask, "What are the demands in schooling experiences which require that students

respond with behavior which will produce such characteristics of 'responsibility'?" At the base of fostering this behavior is the ability to make decisions, yet an examination of the typical schooling experience suggests that students more frequently are expected to respond to prescribed directions rather than to make decisions on their own.

One way to demand that students accept the responsibility for choices they must make is to provide them with options among which they must choose. Within schooling experiences, seven options become possible if they are structured into the system of instructional activity demands. These build from the work of Bossert (1979) and Tikunoff et al. (1980). They are:

1. **Order:** In what order will prescribed tasks be completed? Possibilities range from prescription by the teacher (no options) of a sequence in which tasks must be completed at one end of a continuum, to complete freedom by the student over the order in which tasks may be completed (many options).

2. **Pacing:** How much time optimally must be devoted to complete a task successfully and with high accuracy? In some situations, pacing may need to be completely under control of the teacher; no student may move to the next task until given instructions to do so. In other situations, however, pacing might be negotiable, particularly if several tasks are underway concurrently. In this case, an understanding must exist of the optimal time one can spend on a

task, and the time by when it is expected to be completed. Many teachers increase options in this area by negotiating contracts with students which include, among other things, the time by which a task will be accomplished.

3. **Products:** Does everyone have to produce the same product, or is there some latitude for choice among several possibilities? Frequently, the product is expected to be the same for all students (e.g., knowing the multiplication tables.) This is particularly true for instruction in the basic skills. In many other areas of the curriculum, however, products may range from book reports to lengthy term papers. Given the instructional objective, demanding that students select from a range of choices of a product that will demonstrate that knowledge has been acquired offers an unusual challenge for students. In addition, options for product selection also provide students with a range of experiences in producing a variety of products over time in school.

4. **Learning strategies:** Are there multiple learning strategies that will achieve the same instructional outcome? If so, offering students opportunities to select from among these also increases the likelihood that instructional objectives will be achieved. When learning strategies are made available that are more consonant with students' learning styles, they are more likely to use them. Strategies can range from working independently, to working in pairs, to working in groups of three or more. They include things such as how to accomplish a class task, what procedures to

use, who to draw upon as resources (or whom to tutor in an area one knows well), and so forth.

Frequent allusions are made among schooling practitioners to the differences in learning styles that may exist among students from different home cultures. Offering multiple learning strategies for achieving the same instructional outcomes ought to accommodate many of these differences.

5. **Public participation:** Does everyone have to participate in all instructional activity, and if so, is participation expected to be public? Frequent activity in classrooms is public participation in recitation: reading circles, or reading aloud; reciting the times tables, or responding to the teacher's math problems, either at the seat or at the chalkboard; giving oral reports; pronouncing or spelling words; answering the teacher's questions. All of these are instructional activities common to classroom learning. They potentially contain two important demands for students from minority home cultures: (1) they require that students perform individually in public, and (2) they require that students reveal the extent of their knowledge about a subject.

For multicultural settings, these two properties present potential problems. In many Native American cultures, for example, the individual is never singled out in public for any reason, so teachers use recitation strategies like whole-group recitation, where everyone reads aloud at once or calls out an answer as a group (Goodman et al., 1981).

And, in other cultures it sometimes is considered rude to "show-off" one's knowledge. These considerations should be accommodated when public participation is an instructional activity demand.

6. **Materials:** Is a single textbook the sole source of information, or are many sources and materials available from which to make a selection? Multiple sources of information allow teachers to select from among them in order to provide variety to accommodate the varying learning capabilities, personal interests, and other strengths of the students in a given class. Similarly, the availability of a wide range of materials for completing a product increases the experiential options for students. A frequent criticism of schools perceived to be less effective is the limited availability of materials such as these. Inasmuch as school district budgets are impacted by purchases of instructional materials, a decision to commit funds must build from sound rationale for their need. Providing sufficient materials to make available several options as described here is equally as important for designing effective instructional contexts.

7. **Language:** Is it policy that only English is used for instruction, or may a student's native language be used (particularly if a teacher is fortunate to possess that language as a resource)? This issue relates not only to instructional settings which are officially bilingual education classes, but to those wherein another student may be bilingual but the teacher is not. If a student does not understand English terminology, s/he cannot be expected to

participate competently in instructional activities. Often, the availability of a second language accomplishes the immediate necessity of translation, which in turn allows a student to continue with a task. Tikunoff (1983) found that the ability of a teacher to provide this translation function contributed to developing a student's English proficiency as well.

Teacher evaluation demands. What is the purpose of evaluation in a classroom, and how is it accomplished, publicly or privately? What is the focus of evaluation, and who receives what kinds of a teachers' evaluative comments? These are questions which examine the core of a main classroom activity.

Evaluation is an ever-present feature of classroom life. Jackson (1968) illustrated its importance to a student:

Every child experiences the pain of failure and the joy of success long before he reaches school age, but his achievements, or lack of them, do not really become official until he enters the classroom. From then on, however, a semi-public record of his progress gradually accumulates, and as a student he must learn to adapt to the continued and pervasive spirit of evaluation that will dominate his school years. (p 19)

Dreeban (1968) suggested that universalism, and specificity were two principles that children learn as a function of schooling, and Bidwell (1972) identified moral socialization as one important outcome of schooling. All three of these outcomes result from the process of students defining

themselves by accumulating information about how they are perceived by others.

A major source of this information is the teacher, who constantly interacts with students, monitoring their work and providing feedback. It is the student, however, who determines the consequences of feedback. Students perceive that feedback is either positive or negative, evaluating their performance in the classroom. Performance, of course, can be with relation to academics or deportment, since both determine whether or not a student is participating competently in the instructional activities by judgment of the teacher.

As a general operating principle, academic feedback which seeks to achieve accuracy is perceived as helpful, while feedback about one's behavior is usually perceived as being critical about who we are rather than about what we are attempting to accomplish.

With respect to evaluation, teachers are in a vulnerable position. Order must be obtained in a classroom or instruction cannot take place, yet to obtain order, teachers frequently must sanction students to get them back on-task. Effective teachers manage classroom instructional activities such that behavioral disruptions are minimal and easily resolved. Those who are less than effective in managing their classes set into motion potential consequences of their evaluations which are unintended.

Five aspects of classroom evaluation are present and operating structurally, based on the work of Jackson (1968),

Dahllof (1971), and Bossert (1979). How these are manifested becomes critical to successfully obtaining equitable schooling opportunity. They are:

1. **The publicness of evaluation:** Is evaluative information for an individual student presented so that everyone in class can hear? Or is it private, either in written form, conducted in a private place, or whispered to a student so that only s/he can hear it?

2. **The focus of evaluation:** What is being evaluated: academic work, student participation in instructional activity, or students' personal characteristics? (And, one can add, how do we know which of these is perceived by a student to be the focus of evaluation?)

3. **The recipient of evaluation:** Who is being evaluated: an individual student, a group of students, or the entire class?

4. **The quality of evaluation:** Is emphasis on positive or negative aspects? Is evaluation comparable or non-comparable (to others, or to some other standard)?

5. **The language of evaluation:** In bilingual instructional settings, which language is used for evaluative statements, English or a student's native language? Which language is used more frequently for praise, and which for sanctions?

Evaluation in the form of public statements made by the teacher or other supervising adult is an important issue in providing effective instructional contexts. What information we have suggests that teachers more frequently give feedback

concerning student deportment to low-achievers, and feedback concerning academic progress to high-achievers (Blumenfeld et al., 1979; Good, 1983). In multicultural settings, some research suggests that students of minority cultures receive behavioral sanctions more frequently than those of majority cultures (U.S. Commission on Civil Rights, 1975). Given this evidence, schooling practitioners would be wise to investigate the nature of aspects of evaluation described here in their own settings.

Work completion demands. Frequently, instructional contexts require that students be dependent upon others (or others be dependent upon them) to (a) perform certain aspects of a task, (b) finish using materials, or (c) wait for further information from the teacher. In addition, independence can be curtailed by work content, group composition, and the amount of collaboration required.

Such interdependency of work completion factors is an important consideration in designing schooling experiences since one can inadvertently cancel one demand with another, or cause demands to be in conflict, by how task completion requirements are constructed. For assuring effective instructional contexts, one needs to be certain that the interdependent nature of these demands, if they exist, are understood.

Linguistic demands. The seventh instructional activity demand is important primarily to teachers of LEP students. In a bilingual instructional setting, the language used by the instructor (or an instructional aide) is an important

instructional feature. Numerous messages about acceptable forms of communication and students' status within the classroom are projected by the language used for instruction. Alternation between English and a student's native language also conveys messages about how that student may function in the class, as well as whether or not it is acceptable to use one language instead of the other. In addition, because the primary objective is to develop students' English proficiency, teachers need to take care that use of one language or the other in the variety of situations suggested by the activity structure dimensions above does not potentially convey negative evaluation or result in deleterious effects.

Instructional Feature 3: Effective Instruction

An important element of instruction is what an effective teacher actually does during instruction. Multiple studies of effective basic skills instruction have identified similar strategies used by successful teachers to improve the performance of their students on classroom instructional tasks. These so-called teaching effectiveness characteristics have consistently related to increased learning gains for students as measured by tests of academic achievement in reading and mathematics.¹ As a result of this body of work, the following generalizations can be made.

First, a teacher who is effective makes a difference. Students who receive effective instruction perform higher

than expected on academic tests of achievement in reading and mathematics.

However, there appear to be no generic teaching skills. Given different instructional contexts, teachers will use different instructional strategies to produce similar student results. Factors which contribute to varying instructional contexts include things such as students' personal, social, and academic characteristics; the nature of subject content, curriculum, and materials; and so on.

When findings from various studies are aggregated at a higher level of generality, certain clusters of teaching behaviors consistently relate to increased learning gains for students when measured by academic tests of achievement in reading and mathematics.²

The term most commonly used for effective instructional behavior such as that described above is "direct instruction," or as Good and Grouws (1979) called it, "active teaching." Good (1983) elaborated on his preference for this choice of terminology, indicating that it conveys interactiveness between the teacher and the students. For this reason, it is the preferred term for use in this monograph.

The ability to communicate effectively is the first component of active teaching. The effective teacher clearly specifies the outcomes of instructional tasks and how to achieve them. Giving directions accurately, specifying tasks and how students will know when they have completed them successfully, and presenting new information in ways

that will make it understood are all central to insuring that students have access to instruction.

A second active teaching behavior is **obtaining and maintaining students' engagement in instructional tasks.** This requires considerable management of classroom activity: resolving potential disturbances, keeping students' attention from wandering, and pacing instruction appropriately. In addition, however, teachers must maintain their own task focus, promote students' involvement in instruction, and communicate their belief that students can accomplish tasks successfully.

A third active teaching behavior concerns the regulation of students' accuracy in completing instructional tasks. Effective teachers **monitor students' work frequently, providing immediate feedback** to ensure that students know when they are achieving accuracy or how to achieve it.

It is important to note the emphasis here on the immediacy of providing feedback. Students who are not achieving accuracy or who are participating in instructional activity inappropriately need immediate information in order to alter their strategies or behavior. Otherwise, they run the risk of repeating inappropriate behavior, continuing to make the same errors, or continuing to use ineffective strategies.

Summary

Developing student functional proficiency for all students requires that teachers incorporate three general instructional features into their instructional contexts.

First and foremost, teachers must be certain that consonance exists among the intent of their instruction; the demands inherent in the organization of instruction in terms of class task and instructional activities, and in the way they behave while they are instructing; and the desired outcomes for students. As we have seen, only when such consonance exists can we be certain that teachers are developing student functional proficiency and that students, therefore, are learning what is intended to be learned.

Second, teachers must understand the nature of the class task and instructional activity demands they have placed into operation. By virtue of what they require that students do during instruction, they create demands to which students must respond appropriately if teachers are to consider that they are participating productively in instruction. Through repetition of responses to the same demands, students learn through the structure of instruction as well as from the content of lessons. Thus, teachers have great control over developing student functional proficiency by the demands inherent in the class tasks and instructional activities they assign to their students.

Finally, effective teachers utilize strategies and behavior during instruction which ensures that their students understand what is expected in terms of class tasks and how to accomplish them successfully. They obtain and maintain student engagement in working productively to accomplish assigned class tasks, and they monitor their

students' progress and provide appropriate feedback with relation to class task completion.

These three instructional features are present in classrooms of effective teachers and are necessary to developing functional proficiency in all students. In addition, there are strategies teachers use for producing SFP in their LEP students. This is discussed next.

NOW THAT YOU HAVE READ THE CHAPTER.

1. Review the class task you selected at the beginning of this chapter.
 - a. Briefly, list the objectives and plans you made before you assigned the class task. Then, outline the instruction you provided, and list the directions you gave to the students. Finally, describe what students did during the lesson. Do these things by placing appropriate information into one of three columns:

| | | |
|------------------------------|------------------------------------|--------------------------------|
| Objectives/ Plans | Instruction/ Directions | Student Performance |
|------------------------------|------------------------------------|--------------------------------|

- b. Review Cummins' ideas of contextual support and degree of cognitive involvement inherent in school tasks and activities (Figure 3 in Chapter 1). Did you supply information concerning the context so that LEP students clearly understood the class task requirements and your expectations? How did you do this?
- c. Did you observe some students seeking assistance from others? Did students have a choice in how to seek assistance? How did you feel about their behavior at that moment? What was your response to that behavior?
- d. Did you specify exactly how to complete the class task? Did you provide more than one way to do this? If so, did students understand that they could select from among optional ways to complete the class task?
- e. Review your lesson in terms of your list from 1a above. Is there congruence between your original objectives and your instruction? among your objectives, instruction, and student performance? Which of the following instructional paradigms most closely fits your lesson:

| | | |
|------------------------------|------------------------------------|--------------------------------|
| Objectives/ Plans | Instruction/ Directions | Student Performance |
|------------------------------|------------------------------------|--------------------------------|

| | | |
|----------|----------|---|
| A<-----> | A<-----> | A |
| A<-----> | B<-----> | b |
| A<-----> | A<-----> | B |
| A<-----> | B<-----> | C |

- f. If your lesson was not an A-A-A instructional pattern, can you account for what went wrong? Can you identify areas where you may need to clarify either your plans or your instruction? Can you specify additional ways in which you can monitor students' performance so that it can be modified before they have completed a class task unsuccessfully? Can you provide additional ways for students to obtain feedback on class task completion when you are personally unable to monitor their performance?

NOTES FOR CHAPTER TWO

1. Research into what makes for effective basic skills instruction in the classroom has resulted in identifying several characteristics of instruction which are more effective. When interpreting these findings, it is important to keep several things in mind.

First, "basic skills instruction" means instruction in reading and in mathematics. Since achievement tests in these two skill areas are the most frequent, and such studies rely on a form of measuring students' performance, it is not surprising to learn that researchers pick reading and math. These are also the two areas which concern policy decidors the most.

One way of dealing with this information is to limit its interpretation to (1) instruction of an entire classroom full of children (2) in the instruction of reading and mathematics only. Thus, it is not axiomatic that this information is useful for addressing effective instruction in any area other than the ones included in the studies.

Second, "effectiveness" in most of these studies is defined by higher-than-predicted performance of students on some test of academic achievement, usually in reading or mathematics. No other student outcome measures have been repeatedly used or similarly reported across the instructional effectiveness studies. Thus, it is not clear how higher-than-predicted student performance on such measures relates to increased self image, higher confidence of one's ability to perform increasingly more complex instructional tasks, the ability to working with others, becoming a good citizen in a democratic society, and other student outcomes frequently found in school curriculum guides. Another factor is that scores usually are combined. Thus, they are reported as means, or average scores, for an entire class. Thus it is usually not clear whether increased performance is the result of all students doing better than predicted, or if only the high ability (or low ability) students did better. The student outcomes for this set of effective instructional strategies, then, should be perceived as resulting only in the outcomes reported in the studies themselves, namely higher-than-predicted performance of students on tests of achievement in reading and mathematics. No other outcomes should be expected nor advocated.

Third, another dimension of "effectiveness" relates to where the instructional strategies were found. Classes that did better-than-expected were compared with those that did

poorer-than-expected on tests of reading and mathematics achievement. The resulting instructional strategies most frequently were found in classes where students did better-than-expected, and less frequently found in the classes in which students did poorer-than-expected. Thus, considerable confidence in the research world has been placed on predicting that students will perform better on tests of reading and mathematics achievement when their teachers utilize effective instructional strategies. Subsequent studies have proven that this is the case.

2. For further information about studies of effective instruction at the elementary school level, see Stallings & Kaskowitz, 1974; Soar & Soar, 1972; McDonald & Elias, 1976; Tikunoff, Berliner, & Rist, 1975; Brophy & Evertson, 1974, 1976; Fisher et al., 1978; Good & Grouws, 1979.

REFERENCES FOR CHAPTER TWO

- Alexander, K. L., Cook, M., & McDill, E. L. (1978). Curriculum tracking and education stratification: Some further evidence. American Sociological Review, 43, 47-66.
- Bloom, B. S. (1956). Taxonomy of educational objectives: The classification of educational goals, Handbook 1: Cognitive domain. New York: David McKay Co.
- Bidwell, C. E. (1972). Schooling and socialization for moral commitment. Interchange, 3(4), 1-27.
- Blumenfeld, P., Hamilton, V. & Bossert, S. T. (1979, October). Teacher talk and student thought: Socialization into the student role. Paper presented at the Learning Research and Development Center Conference on Student Motivation, Pittsburgh, PA.
- Bossert, S. T. (1979). Tasks and social relationships in classrooms: A study of classroom organization and its consequences. New York: Cambridge University Press.
- Breer, P. E. & Locke, E. A. (1965). Task experience as a source of attitudes. Homewood, IL: The Dorsey Press.
- Brophy, J. E. & Evertson, C. (1974). Teacher-student relationships: Causes and consequences. New York: Holt, Rinehart, & Winston.
- Confrey, J. & Good, T. L. (in progress). A view from the back of the classroom: Integrating student and teacher perspectives of content with observational and clinical interviews.
- Dahllof, U. S. (1971). Ability grouping, content validity, and curriculum process analysis. New York: Teachers College Press.
- Doyle, W. (1979, April). The tasks of teaching and learning in classrooms. Invited address at the meeting of the American Educational Research Association, San Francisco, CA
- Dreeban, R. (1968). On what is learned in schools. Reading, MA: Addison-Wesley Publishing Co.
- Fisher, C. W., Filby, N. N., Marlieve, R. S., Cahen, L. S., Dishaw, M. M., Moore, J., & Berliner, D. C. (1978). Teaching behaviors, academic learning time, and student achievement: Final report of Phase III-B, Beginning Teacher Evalu-

- ation Study. San Francisco: Far West Laboratory for Educational Research and Development.
- Good, T. L. (1983). Contribution of the SBIF descriptive study to extending our understanding of effective instruction. In W. J. Tikunoff (Ed.), Compatibility of the SBIF features with other research on instruction for LEP students (Report No. SBIF-83-R.9/10). San Francisco: Far West Laboratory for Educational Research and Development.
- Good, T. L. (1982, May). What is learned in schools: Responding to school demands in Grades K-6. Invited address to a meeting of the U.S. Department of Education's Commission on Excellence in Education, Washington, DC.
- Good, T. L. & Grouws, D. (1979). The Missouri mathematics effectiveness project: An experimental study in fourth grade classrooms. Journal of Educational Psychology, 71, 355-362.
- Goodman, G., Baldwin, E., Martin, J. & Tsosie, J. (1981). An ecological case study of bilingual instruction (English/Navajo) Gradel: Site 4 (Document No. SBIF-81-R.5/R.6-VI-B.5 for Contract No. NIE- 400-80-0026). San Francisco: Far West Laboratory for Educational Research and Development.
- Jackson, P. (1968). Life in classrooms. New York: Holt, Rinehart, & Winston.
- Kirst, M. (1983). Preliminary discussion of data from the Paths Through High School study (Not yet available for distribution). Sacramento, CA: California Department of Education.
- Lanier, P., Buschman, J., Confrey, J., Prawat, R., Weisbeck, C., Coe, P., & Mitchell, B. (1981). The ecology of failure in ninth-grade mathematics (Progress Report, July 1, 1980 - September 30, 1981). East Lansing: Institute for Research on Teaching, Michigan State University.
- McDonald, F. & Elias, P. (1976) The effects of teaching performance on pupil learning: Final Report, Beginning Teacher Evaluation Study, Phase 2, 1974-1976 (Vol. 1). Princeton: Educational Testing Service.
- Mergendoller, J. R., Mitman, A. L. & Ward, B.A. (1982, November). Junior high/middle school program variation study. San Francisco, CA: Far West Laboratory for Educational Research and Development.
- Rist, R. C. (1973). The urban school: A factory for failure. Cambridge, MA: The MIT Press.
- Sayles, L. (1958). Behavior of industrial work groups. New York: John Wiley & Sons.

- Schlechty, P. C. (1976). Teaching and social behavior: Toward an organizational theory of instruction. Boston: Allyn & Bacon, Inc.
- Slavin, R. E. (1980). Cooperative learning. Review of Educational Research, 50(2), 315-342.
- Soar, R. S. & Soar, R. M. (1972). An empirical analysis of selected Follow-Through Programs: An example of a process approach to evaluation. In I. Gordon (Ed.), Early Childhood Education. Chicago: National Society for the Study of Education.
- Stallings, J. & Kaskowitz, D. (1974). Follow-through classroom observations evaluation, 1972-1973 (SRI Project URO-7370). Menlo Park, CA: Stanford Research Institute.
- Tikunoff, W. J., Berliner, D. C., & Rist, R. C. (1975). Special Study A: An ethnographic study of the forty classrooms of the Beginning Teacher Evaluation Study known sample (Report No. 75-10-5). San Francisco: Far West Laboratory for Educational Research and Development.
- Tikunoff, W. J., Ward, B. A., Fisher, C. A., Armendariz, J. C., Parker, L., Dominguez, D., Vázquez, J. A., Mercado, C., Romero, M., & Good, T. A. (1980). Review of the literature for a descriptive study of significant bilingual instructional features (Report No. SBIF-81-D.i.1). San Francisco: Far West Laboratory for Educational Research and Development.
- Tikunoff, W. J. & Ward, B. A. (1979). How the teaching process affects change. In G. E. Kneiter & J. Stallings (Eds.), The teaching process & arts and aesthetics. St. Louis: CEMREL, Inc.
- Tikunoff, W. J. & Ward, B. A. (1978). Insuring reliability and validity in competency assessment. Journal of Teacher Education, 24 (2), 33-37.
- U. S. Commission on Civil Rights (1975). Teachers and students. Report V: Mexican American education study -- differences in teacher interaction with Mexican American and Anglo students. Washington, DC: U.S. Office of Civil Rights.

CHAPTER THREE
STRATEGIES FOR DEVELOPING STUDENT FUNCTIONAL PROFICIENCY
FOR LEP STUDENTS

BEFORE YOU READ THE CHAPTER:

1. Take an inventory of what you do to help students who are having problems. Select four non-LEP students in your class. For each, list what problems they have with class tasks. Then tell what you do to help them complete class tasks successfully.

2. Think about the LEP students in your class. What sorts of problems have you observed them having with completing class tasks or engaging in instructional activities. What sorts of things have you tried to help them achieve success in class task completion? What has worked best for you? Talk with others; what have they tried that works?

As we have seen, like all students, those who are LEP must respond to the same instructional demands inherent in class tasks and instructional activities. To produce appropriate student performance with relation to these, thereby developing SFP, effective teachers have been found to utilize similar strategies for all kinds of students. In addition, because LEP students bring a challenging linguistic dimension to classroom instruction -- namely, varying degrees of English proficiency along with differing cultural norms and values -- effective teachers of LEP students have been found to utilize additional strategies in order to mediate effective instruction.

Mediation of instruction is particularly important to obtaining SFP. Effective teachers accomplish this by differentiating instruction to accommodate the varying needs and learning characteristics of their students. Both their own instructional behavior and the structure of class tasks and instructional activities are altered in order to accommodate their students' particular learning characteristics and needs, personal or cultural characteristics, and linguistic characteristics. In essence, they mediate between the principles of effective schooling experiences and their students' particular characteristics in order to obtain SFP.

This principle was observed frequently in a recent study of successful bilingual teachers, the Significant Bilingual Instructional Features (SBIF) descriptive study.ⁱ Fifty-eight teachers were nominated by their peers and others as among the most successful bilingual instructors at their sites. Their basic skills instruction was observed all day over ten observer days of school. Data were collected concerning what they did during instruction, as well as how four target LEP students in each class participated during instruction.

In addition to providing the characteristics of effective instruction described in Chapter Two, each instructor was observed to make frequent use of three mediational strategies. These three strategies serve as the focus for this chapter. All three strategies are relevant for all teachers of LEP students, not just those who are bilingual.

Thus, information is provided about how non-bilingual teachers can make use of all three mediational strategies.

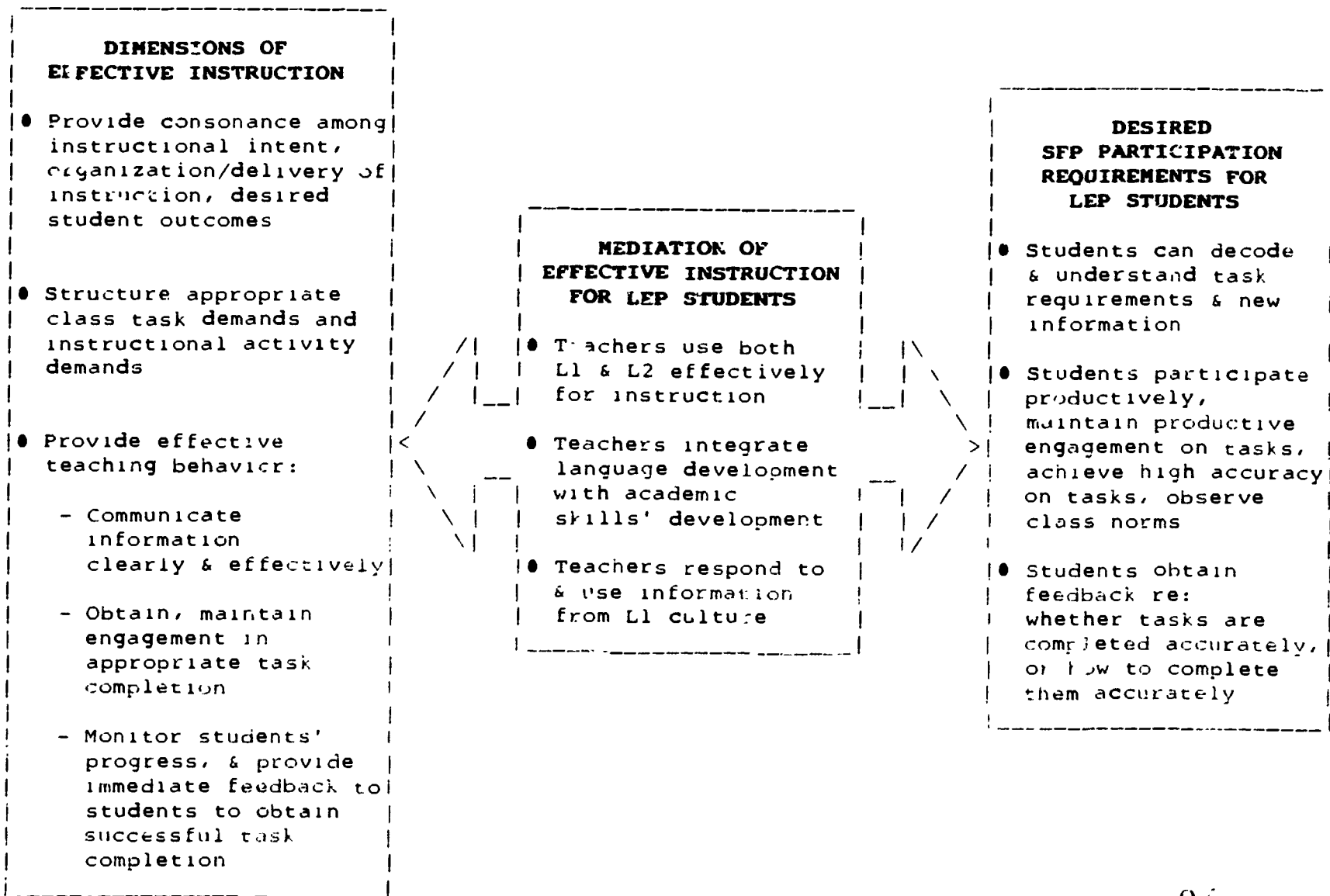
Mediation of effective instruction for LEP students is depicted in Figure 8. Three instructional features serve as mediators: (1) the use of both LEP students' native language (L1) and English (L2), (2) the integration of English-language development with basic skills instruction, and (3) the use of information from the LEP students' culture.

Mediational Feature 1: Use of Two Languages to Mediate Effective Instruction

The language of classroom instruction is a special language. For students, it requires understanding not only new concepts and new information, but knowing the rituals of classroom life and how to participate competently in instructional activity. As we have seen, competent student participation requires decoding and understanding task demands and expectations and obtaining feedback regarding accuracy in tasks and how to achieve it. When the primary mode for instruction is English, LEP students are at a decided disadvantage. In a sense, they are denied access to instruction unless some provision is made to ensure that they understand what is required.

One way that effective bilingual teachers mediate effective instruction in order to ensure that LEP students had access to instruction is by using L1 some of the time for some of the content for some of the students. In the SBIF descriptive study, for example, although it varied across

Figure 8. Mediation of effective instruction to produce SFP for LEP students



sites, across grade levels, and with relation to the lesson focus, English was used for instruction approximately 60 percent of the time, and L1 (or a combination of L1 and L2) approximately 35 percent. In addition, teachers alternated languages relatively frequently when the situational context required it in order to achieve understanding, usually for "instructional development" (50 percent of the time) and "procedures/directions" (about 33 percent of the time). Thus, when it appears that when a LEP student (or a group of them) does not understand instruction in English, effective bilingual teachers use L1 to achieve clarity.

Teachers who are not bilingual, or whose other language is not one spoken by their LEP students, may use several strategies to accommodate this feature.

For example, in one school some LEP students were recently-arrived Vietnamese with very little if any English proficiency. Vietnamese teacher assistants with some English proficiency were hired and placed in their classes to work alongside the Vietnamese students, providing translation and interpretation of the teacher's instruction whenever it was required. As a result, these students were able to understand the requirements of class tasks. They also were able to seek assistance or to get feedback from the teacher assistants, and frequently used them to translate when they needed assistance from the teacher.

This same process was established in another class using other students instead of teacher assistants. In this case, LEP students represented three language groups. The

teacher, who was bilingual in English and Spanish, matched students by languages, seating newly-arrived students with those who had developed some proficiency in English. In addition she carefully communicated her expectations that the more English proficient students were to help their assigned newly-arrived students with understanding and completing class tasks. Because new students enrolled in the school at different times during the school year, this system was needed and appeared to be a natural part of the instructional system in this classroom.

What appears to be critical is that LEP students who do not understand instruction in English are provided translation in their regular classroom during the time they are engaged in responding to the demands of class tasks. In this way, they learn the lesson content as well as developing student functional proficiency. Concomitantly, English skills which are developed relate both to concept development and to learning appropriate responses to class task and instructional activity demands.

In contrast, students who are taken out of their regular classrooms to obtain (a) assistance with English acquisition, or (b) to complete class tasks with a person who speaks their L1, are required to respond to very different class task and instructional activity demands. Learning in a tutorial situation does not require learning to respond appropriately to the demands inherent in class tasks when one is a member of the collectivity called a class. In addition, their absence during any portion of instruction in

the regular classroom raises the risk of missing important information and skill and knowledge development.

At another school, teachers recognized this problem. They complained that their LEP students, who were taken out of their regular classrooms in order to work with teacher assistants who could speak their language, had a difficult time learning to manage instructional tasks when they returned to the classroom. In addition, they reported that LEP students who were pulled out of the classroom frequently missed instruction that was critical to their concept development.

As a result of interacting with teachers who had participated in the SBIF study at a meeting concerning the "pull-out" issue, they determined that it was better to keep LEP students in their classes. When they returned to school, they convinced their principal to place the teacher assistants in their classrooms. A follow-up discussion with a few of the teachers revealed greater satisfaction with this approach. They believed that LEP students progressed much more quickly toward developing student functional proficiency when they remained a part of the regular class and persons who could translate and interpret for them were brought into the regular classroom. In addition, the teachers reported that LEP students' English proficiency developed more quickly. They attributed this to the increased time in the regular classroom which, in turn, required the students to learn increasingly more English in order to negotiate class tasks.

Mediational Feature 2: Integration of English-language Development with Basic Skills Instruction

Instructional language is used to specify, describe, and communicate tasks to be accomplished, what the product is to look like, how to achieve the product, and so forth. Students learn the language of instruction when engaged in class tasks using that language. Thus, if one intended outcome of instruction is to develop LEP students' English-language proficiency so that they can ultimately function competently in monolingual-English instructional settings, then such proficiency is best developed with relation to learning the language of instruction while learning to participate competently in completing class tasks.

Such an approach to developing English-language acquisition was utilized by the teachers in the SBIF descriptive study. Regardless of formal instruction in English-language skill development, like English-as-a-Second Language (ESL) instruction (either in the regular class or on a pull-out basis), these teachers also integrated English-language development with regular basic skills' instruction. For example, following instructional events when teachers were observed to alternate between English and L1 to achieve understanding of a concept, they interrupted instruction in order to drill briefly on using new English terminology for concepts and new information related to the content they were covering. Later, they would practice English terminology, apparently to reinforce English-language development.

This is a mediational feature which can be used by both bilingual and monolingual instructors of LEP students. Although LEP students received intensive instruction specifically aimed toward developing their English proficiency, such as English-as-a-second language (ESL) instruction, teachers in the SBIF study also built English language development demands into their regular instruction. This required LEP students to respond in English, and to utilize increasingly more complex sentences.

Teachers seldom missed an opportunity to extend a LEP student's language development. When students used their L1 to answer a question, teachers responded by saying, "Right. Now can you say that in English?" Students were encouraged to respond using complete sentences rather than single words. When teachers monitored work in progress, they frequently intervened in L1, but changed the language to English before completing an explanation.

Along these lines, it is interesting to note that such approaches to students' language development is not a usual focus for teacher training. When it is included in the teacher training curriculum, it usually is required only for the preparation of bilingual or early childhood teachers. However, techniques and strategies for developing students' language can be useful for instruction at all grade levels and for all types of students. Teachers of young children understand that when they are teaching concepts, they also are teaching language.

In that the skills of language development can be taught to all teachers, it would be a salient staff development focus for teachers in all schools. Obviously, such training is particularly important for teachers in schools serving significant portions of LEP students. In addition, in a given school, teachers might plan together to ensure that curriculum across grade levels attends to developing concomitant English language in LEP students. In this way, regardless of the availability of instructional personnel who can use LEP students' L1 for instruction, commitment to and capability for developing LEP students' English proficiency can be attained among members of a school faculty.

Mediational Feature 3: Utilization of L1 Cultural Information During Instruction

Effective teachers of LEP students frequently made use of their understanding of LEP students' home cultures to promote engagement in instructional tasks. This was the third important way in which effective instruction was mediated. Teachers' use of cultural information took linguistic as well as nonverbal forms in three ways: (1) responding to or using L1 cultural referents to enhance instruction, (2) organizing instructional activities to build upon ways in which LEP students naturally participate in discourse in their own home cultures, and (3) recognizing and honoring the values and norms of LEP students' home cultures while teaching those of the majority culture.

Responding to, Using L1 Cultural Referents

Frequently during instruction teachers used information from the LEP students' home cultures to mediate effective instruction. These "cultural referents" took both verbal and nonverbal forms to communicate class task and instructional activity demands. Teachers both initiated such behavior and responded to it when it was initiated by a student. An example is:

Following a severe reprimand during which a teacher described her behavior as "grasping the boy's arm," the teacher said, gently, "Now, mijito, you know better than that." When asked to explain the possible meaning of this action on her part, the teacher stated that this term of endearment "took the sting out of the sanction," thereby saving face for the boy in front of his peers.

This example was in a class in which the LEP students' native language was Spanish. The term, "mijito," is derived from "hijo" (son) with the diminutive, "-ito," added. The result, "mijito," roughly translates into "little son." Among Hispanics, the term conveys fondness and belongingness, and female teachers at the Hispanic sites frequently were observed to assume a maternal authority role in their classes, speaking to their students as they would to their own children. This was particularly true in the classrooms of younger students, who responded positively. Similar examples of the use of L1 cultural referents were observed in the study for other ethnolinguistic groups.

Organizing Instruction to Build Upon
Rules of Discourse from the L1 Culture

In their homes, children learn the rules of discourse naturally. This allows them to participate socially with other members of the family. It is by virtue of this constant interaction with others in their environment, of course, that children learn. When a child is a member of a family from a minority culture, the rules of discourse may not transfer easily and be as useful for discourse in school. However, researchers have found that when the school environment accommodates the rules of discourse from the L1 culture, learning is more likely to occur naturally (Philips, 1972; Mehan, 1979).

Given that instruction in U.S. schools is in English, it naturally follows that the rules of classroom discourse reflect those of the majority culture, communicated in the class task and instructional activity demands which underlie classroom instruction. Because they frequently differ from LEP students' cultural rules of discourse, this factor, coupled with insufficient skills in using English, can deter LEP students from participating competently in instruction until they understand and master the class rules of discourse.

Teachers in the SBIF study mediated classroom rules of discourse for LEP students by observing and integrating the rules of discourse from the L1 culture into the way in which instructional activities were organized and how LEP students were encouraged to participate in them. For example, in Hispanic cultures older children are assigned the responsibility

of caring for their younger siblings. This fosters cooperation as a mode for accomplishing home tasks. In classes where Spanish was L1, teachers utilized this information by frequently structuring demands into their instruction to which appropriate responses required working cooperatively with other students. Students were allowed to talk with each other as they worked, and to help each other with task completion.

Another example of using this mediational strategy is drawn from the Navajo classes. Navajo teachers were careful when assigning students to reading groups. Following Navajo cultural norms, boys and girls from the same tribal clan were not assigned to the same reading groups. In Chinese-language bilingual classes, teachers knew that students would complete tasks and await further instructions from them, rather than proceed automatically to other seat work. Thus, they built into their instructional organization ways to accommodate this culturally-specific student participation characteristic.

Many such examples of observing and incorporating L1 cultural rules of discourse into instruction were recorded. As indicated, some of these varied from one ethnolinguistic group to another.

Observing Values and Norms of the L1 Culture

In that classroom rules of discourse in U.S. schools are based on those of the majority culture, it follows that the rules and norms which underlie class task and instructional

activity demands are those of the majority culture as well. Thus, LEP students frequently are confronted with responding to classroom instructional demands which convey values and norms that may be in conflict with those of their home cultures.

Teachers in the SBIF study were concerned that LEP students understand and learn to observe the values and norms required to eventually participate competently in monolingual-English instructional settings. At the same time, however, they were also concerned that LEP students not perceive that, when the values and norms of the majority culture were in conflict with those of the home culture, a priority of "rightness" might result by inference.

This concern is depicted in the following event from a class in which L1 was Cantonese. The teacher uses a value from the L1 culture, embarrassment from losing face, as a cultural referent to shape students' behavior as they prepare for a public performance.

In preparing her class for a public performance before their parents, a teacher told her class that they must make a positive presentation of their behavior. "If parents see you laugh on stage, you will lose face," she admonished. "That's disastrous!" When students continued to act up, she added, "If you're laughed at, [then] I'll lose face!"

Making Use of Information from a LEP Student's Native Culture

Utilization of information from a LEP student's L1 culture to mediate effective instruction is another mediational feature that may be used in all classrooms. Of the

58 teachers who participated in the SBIF study, all but five were both bilingual and bicultural. The other five, however, had acquired a second language and lived extensively in the country of that linguistic origin. Therefore, these teachers could draw upon information from their LEP students' L1 cultures in order to mediate effective instruction.

Three kinds of cultural information were used: cultural referents, participant structures, and norms and values. Information for all three have been provided in a variety of ways for use by all teachers of LEP students who are not of their culture.

For example, one school district had experienced a recent influx of large numbers of Vietnamese children. The district curriculum coordinator decided to develop a written document which explained and described various facets of Vietnamese culture. She used as her sources of information one of the teacher assistants who was fairly fluent in English. Together they interviewed parents to gather information about how children learned at home, what experiences they had previously had in schools in Vietnam, important holidays and celebrations, linguistic information, and so forth. The result was the publication of a manual dealing with descriptive information about the Vietnamese students and their home cultures. Subsequently, she has worked with teachers of these students to develop instructional strategies that build upon this cultural information.

Another example of this sort of activity transpired in a high school in New York City with a large Chinese student

population. One of the teachers was a native speaker of English whose L2 was Chinese. She had lived and traveled extensively in China, and was respected by her peers. The principal of the school encouraged her to take leadership in developing a publication for non-Chinese speakers which described the varieties of Chinese languages and dialects, and presented some of the cultural differences between going to school in the U.S. and in a Chinese-speaking nation. This publication is now in its second revision. The teacher continues to add relevant new information in response to questions other teachers ask.

These two examples illustrate how cultural information about LEP students can be gathered and shared. In addition, faculties can plan together to determine what facets of this information can be utilized to design curriculum and instruction for LEP students. Information of this sort is particularly important when LEP students at a given school are from a variety of ethnolinguistic backgrounds. Because their cultures will vary, aspects of instruction that are intended to build upon cultural information can be expected to vary. In addition, of course, it is important to review such information and to update it whenever necessary in order to avoid unnecessary stereotyping of behavior. Some division of labor among a faculty makes this task feasible when several different language groups comprise the LEP student population.

Summary

In addition to instructional strategies that can be utilized for developing student functional proficiency in all students, teachers also have available to them at least three mediational strategies to help produce SFP for LEP students.

One of these -- using some of the LEP student's native language for instruction in order to achieve clarity -- can be used by teachers who are bilingual and adapted by teachers who are not. The other two can be used by all teachers of LEP students. These are : (1) integration of English language development into instruction in the content areas, and (2) use of information from LEP students' native cultures to mediate effective instruction.

All three are necessary to provide effective instructional contexts for LEP students. How they can be incorporated into one's existing instruction is the subject for Chapter Four.

NOW THAT YOU HAVE READ THE CHAPTER

1. For each of the two groups of students whom you described before you began to read this chapter, group their difficulties in terms of time allocation, difficulties with language, social or cultural differences, and other general descriptors. Compare the two groups of students (non-LEP and LEP). Are their descriptors similar or different? What conclusions can you draw about how to change your instruction to accommodate their problems?
2. Did you observe differences in LEP students' performances during class task completion that may be culturally related? What are some of these differences? What impact do they have on LEP students' participation in instructional activity? What problems do they create for you, the teacher?

For example, one common monitoring device teachers utilize during instruction is maintaining eye contact with students during recitation. Many teachers ask us to help them make their LEP students understand the importance of maintaining eye contact when speaking to another person. However, in the culture of some LEP students, maintaining eye contact in this fashion is considered to be rude. In this instance, a teacher must decide if maintaining eye contact is instructionally necessary for a LEP student, or if the teacher must learn about such cultural variations in order to develop different expectations for some LEP students.

2. Teaching concepts requires teaching language. Many teachers are unaware that they are doing this, and so they sometimes forget to provide linguistic information (definitions, vocabulary, sentence structures, etc.) necessary for LEP students to be able to manipulate and use concepts.
 - a. Select a lesson that you plan to teach to your LEP students. Review the lesson in terms of vocabulary. What words will your LEP students not know? To test whether or not they know these words, before you introduce the lesson ask students to use the words that will appear in the lesson. Similar lesson analysis and student preparation needs to be accomplished for new or difficult sentence structures, like past tense. If students have an opportunity ahead of time to learn to use new vocabulary and structures which will appear in a lesson, they

will experience less difficulty in participating in the lesson and in learning its content.

- b. In planning future lessons, how can you provide instructional time for LEP students to practice new vocabulary and structures? About how long does it take your LEP students to learn to use new language and structures? How well do they remember new words and structures from day to day? What does this reveal about the necessity for repetition and practice? How can you plan for this?
3. Teachers have experienced success when they make use of information from the native cultures of their LEP students in designing instruction. This is more readily accomplished when teachers are familiar with their LEP students' native cultures. With respect to this mediational feature:
- a. If you are not from the same cultural background as your LEP students, how can you obtain information about their culture? Are there teachers at your school who are native speakers of LEP students' first languages? How have you talked with them about specific techniques which they use during instruction? Are there special or unusual strategies they use to organize instructional activities or to establish class task demands?
 - b. Have you ever visited the homes of your LEP students? Did you notice anything that could help you mediate instruction? How was the home organized? How did people living there interact socially? What behaviors, if any, did your LEP students display in the home that they had not displayed in school? Compare the differences, if any, between the home and school environment in terms of how children and adults interact with each other. Is there information from this contrastive analysis which provides you with some ideas you can use to mediate instruction? If so, what kinds of strategies can you use which are new to you?
 - c. Have you ever invited family members of your LEP students to your class to teach something about their culture? If so, what planning was required ahead of time? Were there cultural differences between the way your students responded to this person and the way they respond to you? Were there important ways in which this person responded to the students that differ from your own responses? If so, what do you make of these differences?
 - d. When you have tried some new ways of mediating instruction for your LEP students, select a friend

who is also a teacher. Describe what you have tried to do, and why, to this friend. Invite her/him to observe your class, and to do two things:

- 1). Ask to be observed during instruction. Have your friend list the ways you successfully mediate instruction for your LEP students. Also have her/him list opportunities you missed for mediating instruction, or some other things you might try.
- 2). After the observation, ask your friend to rephrase what is mediation of instruction, why it is important, and how it is accomplished.

Now take this information back to your classroom and use it to monitor your own behavior. What can you say about mediating instruction that you did not know before?

NOTES FOR CHAPTER THREE

1. The study cited is the Significant Bilingual Instructional Features descriptive study conducted between 1981-83. Six national sites in the first year, and nine in the second, each serving different ethnolinguistic populations of LEP students, provided the sample of teachers and their students. The study was conducted under Contract No. NIE-400-80-0026 from the National Institute of Education as an activity of the U.S. Department of Education's Part C Bilingual Education Research Agenda. Information from the study which appears here is not intended to reflect official policy of NIE or the U.S.D.E.

In addition to over 40 technical reports produced, the study is reported in W.J. Tikunoff, Applying Significant Bilingual Instructional Features in the Classroom, Rosslyn, VA: National Clearinghouse for Bilingual Education, 1985. Information reported here has been selected from various of these publications.

REFERENCES FOR CHAPTER THREE

Mehan, H. (1979). Learning lessons. Cambridge, MA: Harvard University Press.

Philips, S. (1972). Participant structures and communicative competence: Warm Springs children in community and classroom. In C. Cazden, V. John, & D. Hymes (Eds.), Functions of language in the classroom. New York, NY: Teachers College Press.

CHAPTER FOUR

ANALYZING AND MONITORING YOUR INSTRUCTION TO PRODUCE STUDENT FUNCTIONAL PROFICIENCY

BEFORE YOU READ THE CHAPTER:

1. Tape record a lesson that you teach to your LEP students.
2. Tape record their interactions during their participation in completing the class task(s) which you have assigned.

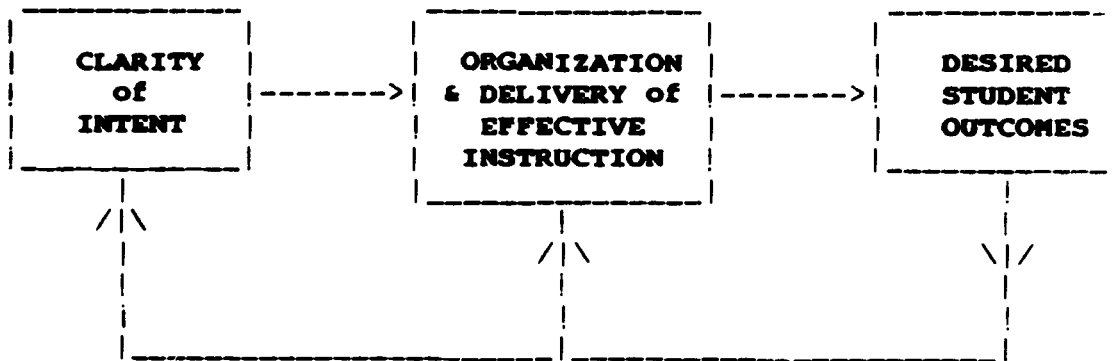
NOTE: It is important that students understand what is your objective. Explain it to them, and obtain their permission before recording. Encourage them to act natural during the lesson. If you have access to a video recorder, using it will provide even more information. You may have to tape several lessons, and let students observe or listen to themselves, before you can capture typical instruction and student participation behavior.

Learning in classrooms requires that students develop skills and understandings that enable them to complete class tasks accurately and engage in instructional activities productively. A student who can do these things successfully is functionally proficient in school learning.

Chapters Two and Three lay out specific strategies that teachers can use to develop SFP in all their students. However, it is one thing to know what has to be done, and quite another to know when what one intends has been put into operation. How can you know when you have successfully

placed the dimensions of effective instruction into operation in our classrooms?

The key seems to reside in the ability to perform two major functions of teaching: **analyzing instruction** and **monitoring/adjusting instruction**. Both functions can be seen in terms of the congruence of instruction paradigm presented in Figure 4 and repeated here:



Analyzing instruction requires, first, that you establish the intended outcomes for students. What do you intend that students will be able to do as a result of participating in instruction in a lesson? How will you know when they have "learned?" In other words, what evidence will you accept that students have accomplished what you intended through participation in instruction? For teachers of LEP students, the evidence for learning must go beyond oral replication of sounded words and focus upon whether or not they are completing class tasks with high accuracy.

Second, to achieve these outcomes for our students, have you planned appropriately? Have you selected appropriate curriculum for what you intend our students to learn? Is it

appropriate in terms of issues like content, students' ability levels, LEP students' English proficiency with relation to the assigned class tasks and increasing this proficiency, developing student functional proficiency, and so forth?

Third, have you organized class tasks and instructional activities that convey the appropriate and intended demands? Will accurate completion of assigned class tasks and productive engagement in prescribed instructional activities produce the sorts of student responses you had intended?

Fourth, what will you do during the act of instruction? What instructional features will you use generally, and what mediational features will you use in addition (and for which students)?

Monitoring/adjusting instruction requires, first, monitoring students' performance in class task completion and instructional activity participation. Do students understand what is required, and are they working toward accomplishment productively? Are they grasping new information? Is instruction paced at the right level and speed?

If the answer to any of these questions is, "No," then the task is to adjust instruction. This is described in the instructional congruence paradigm above by the dotted lines and arrows emerging from beneath the three boxes. Whenever something is not "going right," teachers must cycle back and make changes. During instruction, they can change class task or instructional activity demands, or they can change their own instructional strategies and behavior. Or, when a lesson is not going well at all and more drastic adjustment

is necessary, a teacher may choose to suspend the lesson and go on to something else. This means returning to the "drawing board" and rethinking and redesigning the lesson, then trying it another time.

These are some of the issues that effective teachers resolve as they go about the task of instructional analysis for purposes of planning appropriately, and monitoring instruction as it progresses in order to make appropriate adjustments. The discussion that follows focuses on each of these aspects of effective instruction in terms of appropriate outcomes for LEP students.

The Art of Analyzing Instruction

The central issue in attaining congruence of instruction is planning appropriately. This means analyzing what is needed in terms of student performance outcomes, and assessing where students are with regard to achieving this. It requires that teachers be able to understand beyond the content areas of instruction, and to analyze the class tasks and instructional activities in terms of the inherent demands. As we have seen, it is these demands to which students respond as they participate in instruction. Only by analyzing the class tasks and instructional activities we propose to assign can we reach full understanding of what we are asking students to do.

With regard to LEP students in particular, have you analyzed the class tasks you will assign and the instructional activities you will structure? If so, are there new

words or concepts with which some students may not be familiar? How can you plan ahead of time to make sure they will be able to understand what is required?

Information from Chapter Two can be used as the basis for analyzing instruction you are preparing. The questions raised are questions which you can use each time you prepare a piece of instruction. In addition, there are three areas of concern for analysis that are prerequisite to planning instruction. These are: (1) How will you integrate English language development into the regular content area instruction? (2) How can you teach critical thinking skills even as you are developing LEP students' English language proficiency? (3) How will you know that instruction you have planned aligns with what is in the textbooks and materials and what will appear on end-of-the-year student achievement tests?

Integrative Language Development

Typically, instruction toward developing proficiency in the English language has been provided through procedures classified generally as teaching English as a second language (known variously as TESOL, ESL, and ESOL). Specialist teachers who have training in these procedures utilize strategies adapted for use with teaching English to adults. ESL instruction may be provided by the regular classroom teacher, or by another teacher outside the regular classroom. While these are fruitful and necessary instructional strategies, however, they are limiting with relation to providing LEP students with language specific to and

necessary for engaging successfully in class tasks and instructional activity.

Effective teachers of LEP students, in addition to providing formal instruction in ESL, work toward integrating English language development with instruction in the various content areas (Tikunoff, 85). In this way, LEP students learn the language related to and required for successfully completing class tasks with high accuracy.

Negotiating class tasks and participating in instructional activity in classrooms requires that students be able to seek and obtain feedback directly related to accuracy. If a student does not know how to accomplish a class task, s/he must know how to obtain information that will help. This requires not only proficiency in the language being used for instruction, but an understanding of the rules of discourse in use in a given classroom and the teacher's norms for participating in instructional activity. For LEP students, this means either having enough proficiency in English to accomplish this successfully, or participating in instructional activity which is designed to obtain such proficiency.

Thus, instruction to develop English language proficiency must feature the characteristics of both formal ESL instruction and the integrative language development approach. It is not a question of one over the other; both are necessary, since each develops LEP students' language skills in different but critical areas.

To date, training teachers in ESL procedures is an acknowledged activity. Training teachers in the integrative language development approach, however, has not been a focus for staff development of teachers intending to instruct LEP students. When such training is available, it is usual for the training of early childhood teachers only. In particular, elements of the integrative approach can be found in naturalistic programs for the teaching of reading to young children, such as the language experience approach. It is not surprising, in fact, that the most successful teachers of LEP students have considerable background and knowledge in these and similar procedures. Sufficient information exists to get these skills in the hands of teachers who will be charged with developing the English language of LEP students. What is required is the development of training to do this, and this is a topic beyond the scope of this monograph.

A second and related topic here, however, is the utilization of second-language learning strategies as the basis for developing second-language teaching strategies. A recent study identified strategies that students use to learn a second language, and procedures have been devised to instruct teachers in their use (O'Malley et al., 1985). While this body of work is still in its formative stage, nevertheless there are implications for teachers of LEP students.

Critical Thinking Skills

There is a tendency to believe that students who cannot read or are otherwise skill-deficient (LEP students included) cannot engage in higher order cognitive instruction. At least in terms of what is provided in the curriculum for such students, we can conclude that considerable time is spent in lower order skill development, and that repetition of drilling in developing these skills is the usual treatment.

For example, Alexander et al. (1978) found that students in low-ability tracks received markedly different and less explicit, less challenging forms of instruction than students in higher ability tracks. Good (1982) learned that continued contact with such instruction, as well as interaction during instruction with others like themselves, resulted in the inability of low-ability students to respond to the demands of more complex class tasks. Lanier et al. (1981) confirmed this, and found emphasis on repetitious drill for low-ability as compared with high-ability students.

Developing English language proficiency would seem to infer the concomitant develop of linguistic strategies for processing and communicating information. At the same time, the inability to fully comprehend and manipulate a language does not necessarily mean an attendant disability to handle complex thinking tasks. Just as we integrate the development of English language skills into the content we are

teaching, we can also integrate the development of critical thinking skills into what we do during instruction.

The development of critical thinking skills is particularly relevant for the teaching of reading. Researchers who have analyzed expository text (such as that found in reading textbooks) have identified patterns of presentation of material. From these patterns it has been possible to label and devise strategies that readers can utilize to comprehend what message is being conveyed in the text. Constant interaction of the reader with the text using these analysis strategies makes it more possible to transfer such analytic thinking to other areas of learning.

For example, Meyer (1975) identified six patterns used by authors to communicate concepts and to establish relationships among them. All of these can be found in any collection of critical thinking skills, and all can be the focus of teaching for comprehension. These are **attributive** (identified by signals like "to be," "to have," "is a characteristic of"); **adversative or compare/contrast** (identified by signals like "is similar to," "on the other hand," "however," "but," "like," "likewise"); **covariance or cause and effect** (identified by signals like "causes," "affects," "leads to," "thus," "produces," "consequently"); **temporal sequence/process** (identified by signals like "then," "before," "after," "earlier," "prior," "subsequently"); **response or problem solution** (identified by signals like "the problem is," "what was done was"); and **definition or exam-**

ples (identified by signals like "is defined as," "means," "such as," "that is," "for instance").

Similar schema have been developed by others and appear frequently in teachers' editions of reading textbook series. They provide a way for teachers to help their students "map" their way through a piece of text.² Strategies like brainstorming (semantic mapping) prior to a story to be read can provide students with a list of words and concepts which can be generated by a class and listed on the chalkboard. If a picture in the text is not provided, teachers can start this activity by asking students to recall an experience or situation similar to the one about which they are about to read. Another strategy frequently advocated is "bridging" between students' prior knowledge and new information they are about to receive (or have already read).

All of these strategies can be carried over to content area instruction, particularly when we consider that textbooks and materials still provide the primary basis for conveying information. The primary goal in teaching content is to help students to master concepts and relationships. Restaino-Baumann (1985) that a major way to accomplish this when instructing LEP students is to constantly relate concepts from L2 to L1. At the same time, it is important to focus on developing new words in L2 for concepts already acquired in L1. She recommends all of the strategies above³ for teaching critical thinking to LEP students.

Summary. It is impossible to summarize all of the critical thinking strategies that have been developed for

use in the classroom. As suggested, many of these already exist in the teacher's editions of reading textbooks.

What is critical to understand is that these are instructional strategies for all students, and not just for those of high ability. In particular, it is critical that they be used with LEP students as they are acquiring English language proficiency so they can acquire critical thinking skills as one practical function of the English language. Only then can we expect them to be able to use English at a problem-solving level of proficiency.

Curriculum Alignment Issues

As we have seen, one mark of an effective teacher is the ability to obtain congruence among instructional intent, the organization and delivery of instruction, and student outcomes.

This is achieved through understanding at the outset what are the intended student performance outcomes, and planning instruction to create the demands that will produce these outcomes in response. In addition, much information is obtained about students' prior experiences with similar instructional demands so that teachers can build upon these or plan for development of those that require it.

Another way to describe what an effective teacher accomplishes in this analysis and planning process is the **alignment of curriculum**. Curriculum alignment can be perceived along many dimensions with respect to both content and process. Traditionally, curriculum specialists have

concerned themselves with course content in terms of learning objectives, instructional procedures to be used to obtain them, textbooks and other materials to be used in support of instruction, and evaluation procedures to verify that learning objectives have been attained. Issues have centered on sequencing curriculum in a logical fashion, providing means whereby a given student can cycle through the curriculum, and providing appropriate instructional materials and strategies in support of reaching these objectives.

While these continue to be enduring issues in curriculum, alignment has taken on an extended meaning, particularly as we have gathered information about the varying effects of the same instructional experiences on different populations of students. Federally financed educational programs for children at risk, which began in the late 1950s and early 1960s, have provided data that suggest that the same curriculum will not necessarily produce similar results across varying populations of students. When these are students who already are labeled as being somehow "educably deficient" (i.e., they don't perform like they "should"), further venue is added to the argument that schools apparently are not providing equal education for all students.

Among those students who traditionally have fallen into the group identified for compensatory educational support are LEP students. Several curriculum alignment issues are

relevant for designing, analyzing, and adjusting instruction for them.

At the outset, one myth needs to be exposed. Frequently, when confronted with not having covered material with some students, teachers respond, "How can I teach him that when he can't read?" Or, in the case of LEP students, "If he can't speak English, how can I teach him _____?" While there is considerable evidence that the ability to read textbooks and other instructional materials when they are in English enables students to perform well in a given subject area, reading and writing in English is not the issue here per se.

Instead, what is at stake is equity. If we believe that all students are entitled to the right to free and equal access to educational opportunity, then how can this be provided when "opportunity to learn" has as prerequisites high reading scores and proven literacy? Particularly for instructing LEP students, the instructional problem is how to present instruction effectively in content areas when we know ahead of time that some students do not possess these prerequisites. Anything short of addressing this issue is merely paying lip service to a belief in the principle of equal educational opportunity. Hope exists by those exemplary teachers who have been able to provide such instruction successfully during the interim period when LEP students were acquiring English proficiency.

Curriculum alignment across a given year. At issue here is whether or not the curriculum in a given content

areas supports the instructional objectives identified at the outset of the year . At least three issues are at stake. Do the textbooks and other materials cover material that is congruent with the instructional objectives? For the most part, content covered in classrooms is determined by which textbook is used and by how it is used. Research indicates that although many teachers do not teach exclusively from textbooks, most do not alter the scope, annual sequences, or emphasis of instruction planned for a given comprehensive textbook series (Buchanan et al., 1976a; Porter et al., 1979; Helms & Graeber, 1975). That is, teachers may vary from the instructional approaches prescribed in the teacher's edition of a textbook series, but they rarely move content across grade levels or even within grade levels. Nor do they stray from the sequence in which material is presented in the textbooks. In making such decisions, how confident are you that the textbooks and materials you have selected cover material that is congruent with the intended curriculum for the year?

Do the achievement tests your students will have to take measure what you will be teaching? Evaluation studies have shown that practical significance is a difficult measurement problem. Too frequently, content covered in a class over the period of a year, at least as represented in textbooks and materials, bears little relationship to the measures of school effects which are provided by end-of-the-year testing. What is required by evaluators is an intimate knowledge of the content covered and the emphasis given to

various content areas so that these will be the focus of measurement (Porter, et al., 1978; 1979). Otherwise, a teacher's only alternative is to "teach to the test" in order to ensure that students will perform well.

Do all students -- including LEP students -- cover the same material in textbooks and other materials? If there is differential selection of material to be covered for various students, then there is a likelihood that for some students there will be "holes" in the sequence of information covered for the year. Not only does this deny them information crucial to performing well on achievement tests, but it potentially creates a negative across-years effect (Buchanan, 1984; Feters, 1981). This happens because teachers each year assume the total curriculum was covered the previous year; for some students, such decision making can result in vast "holes" in sequences of information. Milazzo (1981) found that students from low-income families tended to have more periods of below-grade level instruction (sometimes called, "reviewing"). They tended to not cover all of their textbooks, or to complete different chapters in their textbooks than other students. The tasks of aligning curriculum for a given year, then, must focus on establishing congruence between what is intended to be learned in terms of instructional objectives, what is taught in terms of textbooks and other materials, and what is tested in terms of the items on achievement tests and their number with direct relation to curriculum emphasis.

Curriculum alignment across years. The problems raised above for curriculum alignment across a given year of instruction are compounded across two or more years when "holes" in sequences of information are present. A dramatic example illustrates what can happen.

Milazzo (1981) identified such a hole in second grade mathematics instruction. Typically, second grade students are exposed to the principle of conserving in subtraction (carrying a quantity from one column to another) at the end of the year. Textbooks assign the topic to the last chapters, and teachers allocate instruction on the topic to the last weeks of school. In reality, however, Milazzo found that some teachers never got that far, or if they did, instruction in the topic was assigned to only the top mathematics students. Even then, although instruction was cursory in effect, low-achieving mathematics students never received instruction in conserving when subtracting. In addition, analysis of later textbooks in the series found that the topic was not introduced again until early in the fifth grade textbook when the same principle was required for subtracting with fractions!

Those who have participated in attempts to articulate curriculum across grade levels can contribute countless examples like this one. So long as content to be covered is dictated by what is contained in textbooks and other instructional materials, and when teachers are not engaged in working together to analyze instruction and to coordinate it across grade levels, such examples of misalignment will

continue to abound. What is required is that an entire school faculty reach agreement on these issues. Not coincidentally, this factor is precisely what characterizes effective schools from others. In addition, in effective schools, the role of instructional leadership to obtain this outcome is assumed by the principal.

In the case of instruction of LEP students, the person most familiar with curriculum alignment, both across a given year as well as across grade levels, frequently is the ESL teacher or resource person. When this is the case, creative means must be found to encourage the regular classroom teacher to include appropriate curriculum in the instruction planned for LEP students. Frequently as well, regular classroom teachers need assistance with techniques and instructional strategies for teaching LEP students. Only in this way can any assurance of alignment across grade levels be obtained.

Curriculum alignment across instructional settings.

Here concern is for two kinds of across-setting alignment:

- (1) across instructional settings in the same school, and
- (2) across schools as instructional settings. However, the same issues apply for each.

A frequent instructional treatment for students at risk is the provision of support services. When these are resource teachers and resource rooms, instruction for a great many students is delivered on a pull-out basis. Throughout the day, students leave their regular classes for periods of time to receive supplementary instruction by resource teachers

in another setting. Further, depending on the number of supplementary services available, the same students may be pulled-out of their regular classes more than once each day. When this occurs, several issues are at stake.

Are the class task and instructional activity demands in the two (or more) settings congruent? Or are students being asked to respond to different demands? The discussion in Chapter Two concerning class tasks and instructional activities raised a number of issues with regard to making certain that demands align with what are the intended learning outcomes for students. Are these the same demands they encounter when they leave the regular classroom and enter a resource class? If not, then students are being asked to respond to vastly different demands?

Particularly for LEP students, this is a critical issue. The language of instruction, as we have seen, is tied to the class tasks and instructional activities in which students engage. A major aim of acquiring English language proficiency for LEP students is for the purpose of successfully engaging in regular classroom instruction. Common sense would tell us that a given student has a better chance of acquiring such proficiency when s/he is present in the regular classroom. When s/he is somewhere else, for whatever reason, there is a chance that a different repertoire of responses is being developed. Unless a careful analysis of the class task and instructional demands across these various instructional settings reveals that the demands are similar, no assurances can be assumed with regard to a LEP

student developing English language proficiency that will enable successful participation in regular classroom instruction.

A second question must be asked whenever a student is absent from the regular classroom: Does s/he miss out on a piece of instruction which is critical? In other words, while students are out of the regular classroom, is the teacher providing instruction which the absent student is denied? If so, is instruction in this area critical, either to skill development or to performance on achievement tests? Is a potential outcome of being absent from instruction in the regular classroom a "hole" which is left in a sequence of information in a content area?

Finally, who gets to leave the regular classroom and who gets to stay? Do only the low-achieving students get pulled-out of regular instruction? Is there a potential labeling effect that follows students who leave the regular classroom for special instruction elsewhere? Kirst (1983) and his colleagues, for example, found that options for pull-out students in later years of school diminished directly in proportion to their participation in such pull-out programs. To be identified as a low-achieving reader in the fifth grade predicted that by the high school a student would be "tracked" into a nonacademic course of study. For LEP students, it is critical to distinguish between English proficiency and subject matter proficiency so that opportunity to take academic subjects is not automatically denied.

Summary. It is clear that issues of curriculum alignment impact all students. For the LEP students, however, they become even more critical. In particular, if being LEP predicts that a student will be denied instructional opportunities, then the schooling options for advanced study are diminished. Only when we are certain that curriculum is aligned in the ways suggested here can we be assured that equity of educational opportunity is being provided.

The Art of Monitoring and Adjusting Instruction

Effective teachers monitor what is happening during instruction. They monitor their students, constantly moving about the classroom, keeping students productively engaged in instructional activities, and providing immediate feedback to those who need help in order to complete class tasks accurately. They strive to produce student performance in class task completion that is high both in engagement and in accuracy. And they monitor themselves in terms of maintaining appropriate task focus and managing time efficiently.

This last variable, time, has received considerable attention recently. Legislators and school board members want to increase it, assuming that increased time will result in increased student achievement. In fact, this was a key recommendation of the U.S. Department of Education's National Commission on Excellence in Education. Educators caution, however, that merely increasing time does not by itself ensure increased student achievement. As Karweit (1985) pointed out in her report to the Commission, it just

might be that the quality of time in terms of the level of instruction, and not just the amount of time, influences learning the most.

Regardless of its current vogue and the notoriety it engenders, it is difficult to discount the effect of time on the daily lives of teachers and students. Jackson (1968), for example, estimated that an elementary school student accumulates a little more than 7,000 classroom hours by the time s/he graduates from the sixth grade. At the rate of 180 days per year and 360 minutes each day, school accounts for the single most sustained activity in which a student is engaged outside of sleeping. Thus, as Jackson pointed out, "From the age of six onward he is a more familiar sight to his teacher than to his father, and possibly even to his mother" (p. 5).

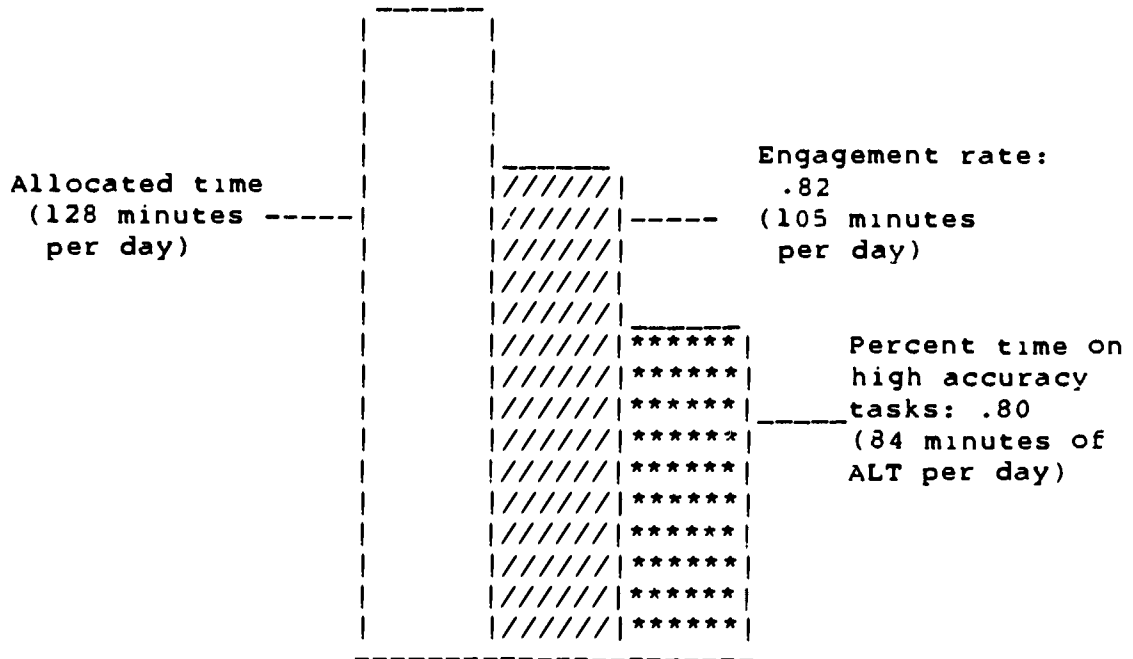
How can we gauge the effect of time on student achievement? Most recent research in this area has built on Carroll's (1963) model, which looks at learning as a function of time needed and time spent, although most empirical studies have focused only on the latter (Karweit, 1985). Time has been measured variably -- hours in a day, days in a year, minutes of instruction, attendance -- and attempts have been made to relate student use of this time to achievement. The assumption has been that the more a student is engaged productively in learning, the more likely it is that s/he will increase her/his achievement. Is it any wonder, then, that policymakers would make the leap to increasing time in order to increase student achievement?

It is important to understand how time functions in instruction in order to counter such a proposition. A concept which is helpful for this purpose is Academic Learning Time (ALT) which was developed by Fisher et al. (1978) in the Beginning Teacher Evaluation Study. To determine ALT for a given student, one must gather information about three variables: the amount of time allocated by the teacher to a subject area, the amount of time a student is engaged in completing tasks in this subject area, and the proportion of this time a student is achieving high accuracy in task completion. Fisher and his colleagues established that ALT can be observed during instruction, can be measured repeatedly, and correlates positively with student achievement.

ALT was a student variable used in the Significant Bilingual Instructional Features (SBIF) descriptive study. Using an ALT scoring form and a stop watch, data were obtained for four target LEP students during each classroom observation in all 58 classes in the study. These observations took place during basic skills instruction (reading, language arts, and mathematics) across three full school days in each class. By combining the scores for all target LEP students, average amounts of ALT for the 232 students in the sample can be considered (see Figure 9).

The first bar in Figure 9 indicates that across all 58 SBIF classes, teachers allocated an average of 128 minutes per day to basic skills instruction. If this total amount of time seems low, it is important to remember that classes in the study were predominantly from Kindergarten through

Figure 9. ALT in reading/language arts and mathematics for target LEP students, Part I of SBIF Study



sixth grade, with an oversampling in the early grades. The school day for younger children tends to be shorter than others, thus limiting the time available for instruction of any sort. Further, only actual time spent on instructional class tasks was recorded as allocated time. Time spent getting ready for lessons, making transitions between lessons, or handling discipline problems was not counted. Hence, the average time of 128 minutes per day for basic skills instruction seems reasonable.

The middle bar in Figure 9 represents the average amount of time the target LEP students actually were engaged in completing assigned class tasks during basic skills instruction. This does not include time when students were

doing something other than what they were assigned, or when their attention was drawn away from the task at hand. Across all 232 target LEP students on the average, they were engaged 82 percent of the time. Thus, of the 128 minutes allocated to basic skills instruction, target students spent an average of 105 minutes participating productively in completing assigned class tasks.

For all target students, observers first recorded the amount of time a student was engaged in completing the assigned class tasks, and then recorded the portion of this time that student was being accurate. As indicated by the third bar in Figure 9, of the 105 minutes target LEP students were engaged in task completion, they were completing assigned class tasks accurately 80 percent of this time, or 84 minutes on the average. This amount of time is referred to as Academic Learning Time since it represents the portion of available instructional time during which students were productively engaged in completing class tasks in basic skills instruction with high accuracy.

This amount of ALT is relatively high compared to ALT achievement of elementary school students in prior studies (Fisher et al., 1978; Fisher, 1976; Stallings & Kaskowitz, 1974). In the Beginning Teacher Evaluation Study, for example, students in second and fifth grade monolingual-English classes achieved ALT for less than half the time allocated to instruction in reading and mathematics (Fisher et al., 1978).

Using the three variables of ALT -- allocated time, student engagement, and accuracy -- it is possible to raise some critical issues for the instruction of LEP students.

Time Allocation

Of the three ALT variables, allocated time is the one over which teachers have the most control. Of course, there are things an effective teachers does to encourage student engagement and accuracy, but how well students achieve is as much a function of their own motivation and ability, and teachers have limited control over such factors. Time allocation, however, is both quantifiable and controllable. Even so, a teacher might have to collaborate with others to obtain maximum control over available time.

In the ALT example provided above, allocated time was what was left for instruction when time for noninstructional purposes was subtracted from total time available. The resulting time, 128 minutes, was allocated to instruction in reading/language arts and mathematics. In the BTES study, findings of time allocation were similar. Of the 360 minutes each school day, 171 minutes were spent on mathematics, language arts, and science instruction; 65 minutes were spent on other, nonacademic instruction; and the rest went for lunch, recesses, and classroom management (Denham & Lieberman, 1980). Thus, allocation of time to basic skills instruction along these lines is not unusual for an elementary school day.

Consider your own school day. Begin with the total number of minutes available and call it **Opportunity to Learn Time (OTL)**.⁴

OTL TIME = total amount of time in a school day

Next, estimate and subtract from this the amount of time taken each day for **scheduled noninstructional events (SNE)**:

- General management tasks (announcements, taking attendance, collecting lunch money, etc.);
- Lunch, recess periods, and other scheduled out-of-class time (like assemblies); and
- Transitions (time moving from one activity to another, or from one class to another).

OTL TIME - SNE TIME = opportunity to teach time (OTT)

Then, itemize the nature of **unscheduled noninstructional events (UNE)** and estimate the time taken each day for these

- External intrusions (loudspeaker interruptions, office summons, custodial activity, traffic noise, students in halls, etc.)
- Internal intrusions (handling student misbehavior)
- General classroom management (passing out books and materials, getting class started, keeping flow of instruction moving, etc.)
- Noninstructional activities (correcting homework, repeating directions, threading film projector, etc.)

OTL TIME - SNE TIME = OTT TIME

OTT TIME - UNE TIME = available instructional (AI) time

Are you beginning to get the picture? How much **actual available instructional (AI) time** do you have remaining? What percent of the total opportunity to learn (OTL) time

does this represent? Given that you spend all of this on instruction, during which you actively are teaching (as compared with sitting at your desk correcting papers while students work on assigned class tasks at their seats), this would represent your **allocated time** for the day. Of course, it is this allocated time which interacts with student engagement and accuracy to determine the amount of ALT available for a given student.

Many of the sources that subtract from available instructional time are seemingly outside the control of an individual classroom teacher. Some take the concerted effort of an entire faculty if they are to be resolved, and some probably are not resolvable without considerable cost. A faculty, working together, can (1) identify what detracts from available instructional time, (2) determine whether or not it is resolvable (rerouting a freeway under construction just outside one's classroom is probably not a good candidate for resolution), and (3) plan together to seek resolution. This is a process that describes how effective schools function under the informed guidance of a principal who is an instructional leader.

Regardless of the source and severity of distractions on available instructional time, teachers perceive that the sources of the majority of them are outside the classroom, and, therefore, are out of their control. Ward and Tikunoff (1984) found in an urban school district (K-12) that teachers perceived their greatest external distractions were students tardiness, announcements over the public address

system, office summons for students, and noise from the halls, either from students out of class during instructional time or from custodians. The majority of teachers believed these were problems which should be resolved by the school administration rather than by the teachers.

However, many things which subtract from available instructional time are controllable by an individual classroom teacher. A case in point was reported by Behnke et al. (1981). This was a team of teachers, working with a researcher and a staff developer, that asked, "What are the strategies and techniques which classroom teachers use to cope with the distractions to classroom instruction and how effective are these techniques?" To conduct their study, they collected observational data on the source and frequency of intrusions on classroom instruction. Next, they collected similar descriptive data for successful coping techniques that teachers used to handle various distractions. Finally, they developed a staff development strategy to teach others how to identify sources of distraction from instruction in their own classrooms and how to develop strategies to deal with distractions successfully.

Behnke et al. (1981) hypothesized that the school principal was the most frequent source of distractions. What they learned, however, was that while the principal frequently provided the most dramatic instances of distractions, these were neither the most frequent nor the most distracting in terms of length of time. Instead, they traced the most frequent and time-consuming distractions to

the same two or three students in a given class. Thus, they focused their development efforts on finding strategies teachers could use to get students back on-task. These ranged from a predetermined signal a teacher negotiated ahead of time with a student to let him know when the teacher's tolerance level was being exceeded; to systems of reward and punishment more behavioral in nature.

An exercise like the one you have just completed provides dramatic evidence of how much time is available for instruction. This still doesn't tell us anything about the quality of instruction which students will experience during available instructional time. Quality of instruction is the function of analyzing and planning for instruction, which was discussed earlier, and how a teacher functions during instruction to promote student engagement and accuracy on class task completion. We take this up next.

Student Engagement and Accuracy

What can teachers do to promote student engagement in class task completion? And how can they work to ensure that students complete increasingly more complex class tasks with correspondingly increasing accuracy?

Part of the answer, of course, is to analyze and plan instruction which is congruent with (1) what you know about the prior experiences of your students with class tasks and instructional activities similar to those you are preparing to teach; and (2) what you intend as that students be able to do as a result of engaging in a piece of instruction.

Information about this aspect of effective instruction was discussed earlier.

In addition, there are some things teachers can do during instruction to promote engagement and accuracy. Obviously, if what we want to produce are students with high student functional proficiency, then our objective is to place into operation in our classrooms the dimensions of effective instruction. The proof that we have been able to do this is in the performance of our students. If they are engaged in carrying out class tasks exactly as intended, then we can predict that they are learning the prescribed curriculum. Thus, we must ask two sorts of questions:

1. **Are students participating in instruction as you intended?** In other words, are they doing what you want them to do? Are they being accurate and achieving success? If not, why not?

2. **Are you instructing effectively?** Are you providing appropriate class task and instructional activity demands that will produce the kind of student response you expect? Are you utilizing appropriate instructional strategies?

One way to approach analyzing instruction-in-progress to get at answers to these questions is provided by Figure 10. The left-hand column lists the participation requirements of SFP, taken from Figure 2. The right-hand column lists what it is that teachers must do to produce this sort of student participation.

What is immediately apparent is the "match" between successful student participation in instruction and the

Figure 10. Relationship of SFP participation requirements with active teaching

SO THAT STUDENTS CAN:

TEACHERS MUST:

Decode, understand:

Communicate clearly:

- Task expectations (what product should look like; how to complete accurately)
- New information

- Give accurate directions
- Specify tasks & measurements
- Present new information by explaining, outlining, summarizing, reviewing

Participate productively:

Obtain, maintain engagement:

- Maintain productive engagement on assigned tasks & complete them
- Complete tasks with high accuracy
- Know when successful in tasks
- Observe norms (meet teacher's expectations)

- Maintain task focus
- Pace instruction appropriately
- Promote involvement
- Communicate expectations for successful performance

Obtain feedback:

Monitor progress...

- Know how to obtain accurate feedback re task completion, i.e.
 - a. whether achieving success
 - or
 - b. how to achieve success

- Review work frequently
- Adjust instruction to maximize accuracy

...and provide immediate feedback:

- Re task completion so students
 - a. know when they are successful
 - or
 - b. are given information about how to achieve success

characteristics of effective or active teaching discussed earlier in Chapter Two. Thus, it follows that if students are expected to decode and understand the requirements of class tasks and new information required to complete them, then teachers must themselves communicate these things clearly. They do this by giving accurate directions, by specifying class tasks and how to know when they are being completed accurately, and by presenting new information logically and clearly (using strategies like explaining, outlining, summarizing, reviewing, etc.). When a LEP student is involved, teachers must be certain that this information is understood.

Bilingual teachers can use the LEP students' native language for purposes of achieving this clarity. Nonbilingual teachers must find other means, such as using another person who can speak the LEP students' native language for purposes of translation. Achieving understanding of LEP students with regard to this sort of information requires building their language skills directly with relation to elements of the class tasks which they are expected to complete and the instructional activities in which they are expected to engage. Thus, it is important to integrate English language development with the specification of class tasks and instructional activities as well as with actual instruction in the content areas. If LEP students are expected to be able to function proficiently in school they need the language of instruction to be able to do so.

Similar relationships are apparent between productive student participation and what teachers must do to obtain and maintain students' engagement. Task focus must be maintained, and this frequently means that teachers must monitor their own behavior to be certain they are not straying from the learning objectives. Instruction must be paced appropriately so that students will complete class tasks with high accuracy. This often means adjusting instruction as it is underway, making certain that it is not too difficult but not too easy. Because students learn at different rates, this also may require differentiating instruction for various groups of students, and/or grouping them to receive it.

Throughout, teachers must communicate their confidence in their students' ability to learn, and believe in their own ability to teach them. As we have seen, teachers often can use information from LEP students' native cultures to mediate the process of maintaining engagement and working for higher accuracy in class task completion.

Finally, teachers must monitor students as they work. This means reviewing their work frequently to make certain they are progressing toward accuracy. In addition, some students need frequent feedback to keep them on track. Effective teachers know which students require this, and devise ways to give them appropriate feedback before they reach their frustration level. Immediacy of feedback is important for some students; without it, they may continue to repeat errors in class task completion.

NOTES FOR CHAPTER FOUR

1. This work currently is underway at the National Clearinghouse for Bilingual Education in Rosslyn, VA. by Michael O'Malley and Ana Uhl Chamot and their colleagues. You can get further information from them as it is available.
 2. The discussion here is based on the work of Dr. Lillian Restaino-Baumann presented to a meeting of the Language Development Specialist Academy, New York Bilingual Education Multifunctional Support Center, Hunter College of CUNY.
 3. Dr. Restaino-Baumann recommends the following as sources of information for instruction in critical thinking:

Kinney, M. (1985, May). A language experience approach to teaching expository text structure. The Reading Teacher, 854-856.

Langer, J. (1981, November). From theory to practice: A prereading plan. Journal of Reading, 152-156.

McGee, L. and Richgels, D. (1985, April). Teaching expository text structure to elementary students. The Reading Teacher, 739-748.

McGeehon, M. (1982, April). Strategies for improving textbook comprehension. Journal of Reading, 676-796.

Vaughan, Jr. J. (1982, February). Use the Construct Procedure to foster active reading and learning. Journal of Reading, 412-422.

Wood, K. and Mateja, J. (1983, February). Adapting secondary level strategies for use in elementary school. The Reading Teacher, 492-496.
4. In his Sustaining Effects Study of Compensatory and Elementary Education, Carter (84) included in "opportunity to learn" the time available, on-task student behavior, and the overlap between curriculum and test content. Engagement is considered separately in the ALT construct, and the curriculum-test overlap is just one of the alignment issues taken up later in this chapter.

Nonetheless, it is interesting to note that Carter found a high relationship between opportunity to learn and achievement for reading and math in the second grade for the lower achieving schools but not for the higher achieving.

owever, it was quite high at the fifth grade for both subjects in both sorts of schools.

REFERENCES FOR CHAPTER FOUR

- Alexander, K. L., Cook, M., & McDill, E. L. (1978). Curriculum tracking and education stratification: Some further evidence. American Sociological Review, 43, 47-66.
- Behnke, G., Labovitz, E., Bennett, J., Chase, C., Day, J., Lazar, C., and Mittlehotz, D. (1981). Coping with classroom distractions. Elementary School Journal, 81, 135-155.
- Buchanan, A. (1984, August). Avoiding pitfalls in the pursuit of higher standards for elementary schooling (Technical Report No. 87). Los Alamitos, CA: SWRL Educational Research and Development.
- Buchanan, A. et al. (1976, December). Proficiency verification systems end-of-the-year mathematics for 1975-76 (Technical Memo 3-76-01). Los Alamitos, CA: SWRL Educational Research and Development.
- Carroll, J. (1963). A model for school learning. Teacher's College Record, 64, 723-733.
- Carter, L. F. (1984). The sustaining effects study of compensatory and elementary education. Educational Researcher, 13 (7), 4-13.
- Denham, C., and Lieberman, A. (1980). Time to learn. Washington, DC: National Institute of Education.
- Fetters, W. B. et al. (1981). High school and beyond: A national longitudinal study for the 1980s. Washington, DC: National Center for Educational Statistics, U.S. Department of Education.
- Fisher, C. W. (1976). A study of instructional time in grade 2 mathematics (BTES Technical Report No. II-3). San Francisco: Far West Laboratory for Educational Research and Development.
- Fisher, C. W., Filby, N. N., Marliave, R. S., Cahen, L. A., Dishaw, M. M., Moore, J., & Berliner, D. C. (1978). Teaching behaviors, academic learning time and student achievement: Final report of Phase III-B, Beginning Teacher Evaluation Study. San Francisco, CA: Far West Laboratory for Educational Research and Development.
- Good, T. L. (1982, May). What is learned in schools: Responding to school demands in Grades K-6. Invited address to a meeting of the U.S. Department of Education's Commission

- on Excellence in Education, Washington, DC.
- Jackson, P. (1968). Life in classrooms. New York: Holt, Rinehart, & Winston.
- Karweit, N. (1985). Should we lengthen the school term? Educational Researcher, 14 (6), 9-15.
- Kirst, M. (1983). Preliminary discussion of data from the Paths Through High School study (Not yet available for distribution). Sacramento, CA: California Department of Education.
- Lanier, P., Buschman, J., Confrey, J., Prawat, R., Weisbeck, C., Coe, P., & Mitchell, B. (1981). The ecology of failure in ninth-grade mathematics (Progress Report, July 1, 1980 - September 30, 1981). East Lansing: Institute for Research on Teaching, Michigan State University.
- Meyer, B. (1975). Identification of the structure of prose and its implications for the study of reading and memory. Journal of Reading Behavior, 7-47.
- Milazzo, P. (1981, April). Report on school demographics and schooling accomplishments: Analysis for 1980 LAUSD survey of essential skills (Report for Los Angeles Unified School District). Los Alamitos, CA: SWRL Educational Research and Development.
- O'Malley, J. M., Uhl Chamot, A., Stewner-Manzanares, G., Kupper, L., and Russo, R. P. (1985). Learning strategies used by beginning and intermediate ESL students. Language Learning, 35 (1), 21-46.
- Porter, A. C. et al. (1979, December). Teacher autonomy and the control of content taught (Research Series No. 24 for NIE Contract No. 400-76-0073). East Lansing, MI: Institute for Research on Teaching, Michigan State University.
- Porter, A. C. et al. (1978, February). Impact on what? The importance of content covered (Research Series No. 2 for NIE Contract No. 400-76-0073). East Lansing, MI: Institute for Research on Teaching, Michigan State University.
- Restaino-Baumann, L. (1985, July). Language-in-print: Why content area text language is so difficult to comprehend -- and what to do about it. Presentation to NY-BEMSC Language Development Specialists, Hunter College of CUNY, New York, NY.
- Stallings, J. & Kaskowitz, D. (1974). Follow-through classroom observations evaluation, 1972-1973 (SRI Project URO-7370). Menlo Park, CA: Stanford Research Institute.

Tikunoff, W. J. (1985). Applying significant bilingual instructional features in the classroom. Rosslyn, VA: National Clearinghouse for Bilingual Education.

Ward, B. A. and Tikunoff, W. J. (1984, August). Conditions of schooling in the Los Angeles Unified School District: A survey of the experiences and perceptions of the teachers of the Los Angeles Unified School District. San Francisco: Center for Interactive Research and Development.