# Accommodation Strategies for English Language <br> Learners on Large-Scale Assessments: Student Characteristics and Other Considerations 

CSE Technical Report 448

Frances A. Butler and Robin Stevens<br>National Center for Research on Evaluation, Standards, and Student Testing (CRESST)<br>University of California, Los Angeles

October 1997

Center for the Study of Evaluation
National Center for Research on Evaluation, Standards, and Student Testing
Graduate School of Education \& Information Studies
University of California, Los Angeles
Los Angeles, CA 90095-1522
(310) 206-1532

Copyright © 1997 The Regents of the University of California
The work reported herein was supported under the Educational Research and Development Centers Program, PR/Award Number R305B60002, as administered by the Office of Educational Research and Improvement, U.S. Department of Education.
The findings and opinions expressed in this paper do not reflect the positions or policies of the National Institute on Student Achievement, Curriculum, and Assessment, the Office of Educational Research and Improvement, or the U.S. Department of Education.

# ACCOMMODATION STRATEGIES FOR ENGLISH LANGUAGE LEARNERS ON LARGE-SCALE ASSESSMENTS: STUDENT CHARACTERISTICS AND OTHER CONSIDERATIONS ${ }^{1}$ 

Frances A. Butler and Robin Stevens<br>CRESST/University of California, Los Angeles


#### Abstract

Nationwide there is strong impetus for higher standards of learning as well as for standards-based assessments that measure the progress of all students towards those standards. However, students for whom English is a second language are often excluded from large-scale assessments. It is thought that one means of achieving the goal of inclusion for all students is through the use of assessment accommodations with students who have not yet mastered English. This paper addresses the use of accommodation strategies in large-scale assessments with these students. An overview of accommodation issues is presented along with current practices. The authors argue that there is a need to determine the effectiveness of using accommodations and then to establish a procedure for making decisions in an informed and systematic way, including determining eligibility for accommodations. A model of factors that impact the academic performance of English language learners ${ }^{2}$ is provided to illustrate how both individual differences and group similarities can inform the use accommodations. Finally, steps and challenges toward creating sound eligibility procedures and accommodation guidelines are discussed.


As we, as a nation, move into the twenty-first century, one educational issue more than any other will continue to present challenges of increasing proportions. That issue, simply put, is: How do we assure equal educational opportunities for all of our nation's children? With the rapidly changing demographics in this country,

[^0]by the turn of the century very few if any schools will have a student population that consists exclusively of native English speakers. While ethnic diversity has always been an important part of the fabric of the United States, the increased numbers of students in our schools over the past two decades for whom English is a second language (Collier, 1995; Garcia \& Gonzalez, 1995) have caused perplexing problems for educators nationwide. Indeed, the issue of how to best serve students who are faced with dual tasks of acquiring a second language and acquiring content knowledge in a range of subjects is complex and critical.

This paper focuses on an issue that has implications for educators who are attempting to find effective ways of assisting these students in U.S. schools, namely the use of accommodations with non-native speakers of English on largescale assessments. There are many as yet unresolved questions associated with the use of accommodations, such as: (a) Which populations of learners should be given which accommodations? (b) To what extent do accommodation strategies impact student performance? and (c) How is the validity of assessments affected by the use of accommodations? Many states have forged ahead out of the need to include students and have begun to use a variety of accommodations with state content assessments and graduation exams. However, there is little empirical evidence to support the use of accommodations in general or to provide guidance to schools regarding how decisions about the use of accommodations should be made. Indeed, this issue was named as a research priority by the National Research Council's (NRC) study on improving schooling for language minority students (August \& Hakuta, 1997). Priority number 5-4 states:

> Research is needed to develop assessments and assessment procedures that incorporate English-language learners. Further, research is needed toward developing guidelines for determining when English-language learners are ready to take the same assessments as their English-proficient peers and when versions of the assessment other than the "standard" English version should be administered. (August \& Hakuta, 1997, pp. 129-130)

Thus, while the work described here is intended to provide initial guidance to educators regarding the use of accommodations, it is important at the same time to raise the fundamental question of the value and benefit of accommodations. Until there is a sufficient research base to support the use of accommodations and to describe appropriate scenarios for use, a healthy skepticism is warranted.

This paper is organized in the following way. First, the notion of inclusion is considered within the framework of a broader CRESST agenda, which speaks to equity in education as a national priority. An overview of accommodations and issues around establishing eligibility for accommodations are presented with emphasis on characterizing the populations to be served. A discussion follows of how procedures for eligibility could be systematized. Finally, major challenges to effectively operationalizing accommodations with large-scale assessments and future directions are discussed.

## The Problem

Often students who are identified as having a home language other than English are not included in state and national progress assessments because their English language skills are considered inadequate. Some states exempt English language learners from statewide assessments completely, whereas others require them to take the assessment after one to three years of receiving instruction primarily in English (August \& Lara, 1996). Such blanket exemptions of large groups of students, however well intended, are unacceptable in a climate of academic reform where all students are held to high standards. The dilemma involves the need for guaranteeing inclusion of underrepresented students in state and national assessments in order to accurately report academic progress towards the goals of educational reform. This need is reflected in the growing pressure for accountability at multiple levels of education in the U.S. As educators we must do a better job of tapping what students who are in the process of acquiring English as a second language know and do not know as they progress through our educational system.

One approach to inclusion for large-scale assessments and graduation exams is the use of accommodations with English language learners. Unfortunately, it is difficult to distinguish between accommodations that level the playing field, so to speak, and those that might give English language learners unfair advantage over students not receiving accommodations (Thurlow, Liu, Erickson, Spicuzza, \& El Sawaf, 1996). In the interest of promoting true equity, these issues must be addressed in a comprehensive way. Solid research is needed in which accommodations are systematically developed and tried out with different types of assessments and the assessments examined for validity with the use of the accommodations. This research should inform the development of guidelines for
districts and states on how to include English language learners in large-scale assessments without violating the principle of assuring equal learning and assessment opportunities for everyone.

However, the important issue of how to best support the inclusion of English language learners is confounded when they are viewed as all being the same. Although they share the common need to improve their academic language ability in English, they vary greatly on their current proficiency levels, as well as on a wide range of other educationally relevant variables. LaCelle-Peterson and Rivera (1994) state:

> The diversity among ELLs needs to be recognized, lest all ELLs be regarded as a monolithic group with a single defining educational characteristic: use of a nonEnglish language. Indeed, while language represents an important, educationally significant variable that is most often conspicuous by its absence from U.S. educational discourse, it is only one of many educationally relevant characteristics of any individual English language learner, whose identity, including cultural heritage, ethnic group affiliation, gender, and individual learning differences, must be taken into consideration in educational decisions. (pp. 59-60)

The point made by LaCelle-Peterson and Rivera was echoed in the fall of 1995, when a working group was convened at the annual CRESST conference on the UCLA campus to discuss issues around assessment accommodations for language minority students. Participants in the working group included classroom teachers, school and district administrators, and researchers from academic institutions. The diversity of the participants helped to provide a range of perspectives that reflect the incredible complexity of the problems facing educators who are attempting to serve the ever-growing language minority populations in the United States.

A key issue that emerged from the discussions was the critical need to clearly define language minority populations and to determine which dimensions of performance and experience are most important for grouping students who are non-native speakers of English for specified purposes such as assessment, instruction, special services, and so forth. Participants agreed that before accommodation issues can be adequately addressed, subpopulations must be characterized and their needs articulated. Once a means is established for systematizing relevant educational variability among students who are acquiring English as a second language, it should be possible to determine to what extent
accommodations affect performance on assessments as well as who will benefit most from what type(s) of accommodation. Other important considerations, such as when students should be exempted from assessments, will need to be resolved at the same time. In the face of the standards-based reform movement and the shifting emphasis to more linguistically demanding performance assessments, it is imperative that these considerations be adequately addressed to meet student needs.

## Accommodations

It is generally recognized that "ELLs are under-assessed in the sense that much of what they know and much of what they [are able to] do is not captured in current assessment methods" (LaCelle-Peterson \& Rivera, 1994, p. 69). As mentioned above, one approach that has been suggested to better tap what it is that students know is the use of accommodations in assessment situations where the focus is on content knowledge. The research to date, however, to support the use of accommodations and to indicate which types of accommodations would be most effective with which English language learners is limited (Thurlow et al., 1996). In fact the NRC study indicates that "almost no research has been conducted to determine the effectiveness of these techniques" (August \& Hakuta, 1997, p. 122). Recent work at CRESST on the impact of providing accommodations with standardized National Assessment of Educational Progress (NAEP) mathematics items on student performance (Abedi, 1997; Abedi, Lord, \& Plummer, 1995) provides insight about potential accommodation strategies. However, research is required to serve as the basis for constructing guidelines for using accommodations in all content areas and for determining which student background variables can be combined to assist with accommodation eligibility decisions.

Any discussion of accommodations for assessment purposes must begin with a statement of what is meant by accommodations in a particular context with a specific population. Accommodations for English language learners on large-scale content assessments refers to support provided students for a given testing event, either through modification of the test itself or through modification of the testing procedure, to help students access the content in English and better demonstrate what they know. Test modifications might include assessment in the native language, text changes in vocabulary and/or syntax to less complex forms, addition of visual supports, or the use of glossaries in English or the students'
native languages. Modifications in testing procedure might include extra assessment time or the use of oral directions in the students' native languages.

These two categories of accommodations are presented in Figure 1, along with a list of the types of accommodations that fall within each category. The most frequently used accommodations are separate testing session ( 17 states), small-group administration or flexible scheduling ( 15 states), extra assessment time ( 14 states), and simplification of directions ( 11 states) (Council of Chief State School Officers \& North Central Regional Educational Laboratory, 1996). However, as of 1995, many states did not have specific guidelines for using accommodations with students who are learning English as a second language; guidelines existed primarily for students with disabilities, for whom there is legislation that supports the use of accommodations (Thurlow et al., 1996).

Decisions about the type(s) of accommodations to use with assessments must be made on the basis of both (a) the content and nature of the assessment and (b) the characteristics of the subpopulation(s) being tested. Guidelines are needed to assist decision makers in the selection and/or development of accommodations appropriate to their specific situations. Such guidelines would provide assessment options, articulate subpopulations of English language learners that would benefit from support or attention, and describe operational constraints that apply to each option.

| Two Categories of Accommodations for English Language Learners |  |
| :--- | :--- |
| Modifications of the test | Modifications of the test procedure |
| Assessment in the native language | Extra assessment time |
| Text changes in vocabulary | Breaks during testing |
| Modification of linguistic complexity | Administration in several sessions |
| Addition of visual supports | Oral directions in the native language |
| Use of glossaries in native language | Small-group administration |
| Use of glossaries in English | Separate room administration |
| Linguistic modification of test directions | Use of dictionaries |
| Additional example items/tasks | Reading aloud of questions in English |
|  | Answers written directly in test booklet |
|  | Directions read aloud or explained |

Figure 1. Potential accommodation strategies for English language learners.

In addressing the use of accommodations in large-scale assessment situations, it seems reasonable as a point of departure that the choice of accommodation should be determined on the basis of specific subpopulation needs. It is important to keep in mind, then, that different learners may benefit from different types of accommodations. For example, if the test takers are recent arrivals who have had formal schooling in their home country, but have little or no proficiency in English, the most appropriate test accommodation may be content assessment in the native language if it is available. If, on the other hand, test takers have demonstrated intermediate to advanced proficiency in English, allowing additional testing time may be sufficient accommodation. For students with little first or second language literacy, the use of accommodations with any type of standardized or large-scale assessment may prove to be ineffective.

As exploratory research is being conducted to examine the effectiveness of a range of potential accommodations, it must be determined whether or not accommodations actually enhance student performance on assessments. For instance, modifying a text may make it more difficult even for native speakers if the redundancy in the text is reduced (Saville-Troike, 1991). Also, contrary to a general assumption that using less complex grammatical forms will make a text more accessible for the reader, Floyd and Carrell (1987) found that simplifying the syntactic structure had no significant effect on student performance. They did, however, find that providing English language learners with supplementary background information significantly improved reading comprehension for the students in their study.

Assessment in the native language should also be undertaken carefully. There are at least two approaches to developing native language assessments for use as an accommodation for English language learners: (a) developing an assessment parallel to the large-scale English assessment, and (b) translating the English assessment into the native language. The best approach to assessing content knowledge may be parallel but separate development where specifications help assure that like concepts are being tapped through the use of authentic content material in each language, since translation, the most common method of providing an assessment in another language, is generally problematic. Critics argue that tests cannot be directly translated because "this procedure assumes equivalent difficulty values of words used across languages" (Figueroa, 1990, p. 676). For example, in a study done by Anderson, Jenkins, and Miller (1996),

English NAEP mathematics items were translated into Spanish. The psychometric discrepancies in student performance on the same items across the two languages indicates that the Spanish and English versions of many of the test items may not have been measuring the same underlying mathematics knowledge.

Another major problem with the translation of assessments as an accommodation is related to the language of instruction. When the language of instruction is English, translating test items and tasks into students' native languages may not actually serve as an accommodation but rather may confuse students who have begun to associate certain content material and concepts with English. In addition, students who have only received a limited amount of schooling in their native language may not be familiar with the formal academic use of that language; they may only be familiar with its colloquial oral use. This limited knowledge of academic forms and vocabulary in the native language may impede their ability to understand texts that are part of the assessments.

If and when a decision has been made regarding what type(s) of accommodation to provide with a given assessment for a specific subpopulation of students, an accommodation development or selection procedure must be followed to assure reliable, valid, and interpretable test results. Specifications for the development and use of accommodations must be followed and the accommodations piloted with test takers from, or similar to, the target population. Test administrators must be trained if the accommodation involves variation in a standard test administration practice. In addition, scorers should be trained to evaluate the work of English language learners particularly with performance assessments where student responses may reflect developing syntax and lexicon and, therefore, may distract scorers from the content of the assessment if they are not accustomed to the writing of non-native speakers of English, or speaking if there is an oral component to the assessment.

As indicated above, an important piece of information to be included in accommodation guidelines is a summary of critical background variables that describes subgroups of English language learners who would be eligible for inclusion on large-scale assessments through the use of accommodations. The summary of variables could be combined with a list of possible accommodations to form a matrix to guide decision makers. To this end, the next sections of this paper focus on an approach for identifying variables that are most critical to student
performance on large-scale assessments and thus could serve as a basis for determining student eligibility for a range of accommodations.

## Determining Eligibility for Accommodations

In order to effectively provide accommodations in large-scale testing situations for English language learners, it is important to understand who these students are within the broader educational context. They fall within the larger category of language minority students, which can also include students who speak varieties of English other than mainstream English as a first language. Within the category of English language learners, there are subgroups of students who are likely to benefit in different ways from different accommodations. The students for whom accommodations are most critical are those who lack the English skills necessary to function in English-only classes without additional language support. In much of the literature and in common parlance, these students are referred to as limited English proficient (LEP) ${ }^{3}$. Although it could be argued that all language minority students would benefit from interventions such as accommodations in large-scale assessments, it is likely that only students who have been identified as LEP will be considered eligible.

Students who are acquiring English as a second language are not simply students who need to strengthen their academic English in order to function in mainstream English classrooms. They are students, like all other students, who bring a full range of characteristics and talents-cultural, personal, and linguistic-to the learning situation. In order to better serve their needs and thereby help assure equity, educators must be aware of the ways English language learners can differ from each other as well as from their mainstream English-speaking peers.

This section of the paper provides a descriptive model that illustrates important factors that impact the academic performance of English language learners in such a way that both individual differences and group similarities can be used to advantage in addressing the issue of accommodations with large-scale assessments.

[^1]
## Characterizing Differences Among English Language Learners

The model in Figure 2 is intended to show the interrelationship among major elements that are educationally relevant in the lives of language minority students in general, and specifically English language learners. In fact, although the focus of this paper is on English language learners, the model illustrates factors that are educationally relevant for mainstream English speakers as well. The elements shown in the model each consist of many variables, the interaction of which, within and across elements, creates a unique educational situation for each student. The model is included here to provide context for the selection of those variables that may be critical for large-scale content assessment and accommodation decisions. ${ }^{4}$

In the model, two sets of elements are displayed within permeable concentric circles representing dimensions that impact English language learners in academic settings. The larger, outer circle represents the student's sociocultural environment and includes home, school, and the wider community as well as the inner circle which represents the student. The inner circle elements, specific to the individual student, include personal characteristics, educational background, and language factors. The arrows in the model illustrate the dynamic, constant interaction among all of the elements. As mentioned above, it is this interaction that engenders each student's unique educational situation. To characterize variation among English language learners, a discussion follows of the individual elements in the model including the types of variables associated with each element.

## The Student's Sociocultural Environment

The sociocultural environment, represented in the model by the outer circle, is important because it is the broad context in which the student is acquiring English. Discontinuities between home, school, and the community frequently cause confusion and frustration, which can impact student performance in classroom activities and on assessments. Figure 3 lists a few examples of the types of variables that can fall into the three categories of community, school, and home.

[^2]

Figure 2. Interactive model of elements that impact academic performance.


Figure 3. Examples of variables in the student's sociocultural environment.

The community. The characteristics of the community in which a student lives and goes to school may not reflect the student's home environment, which could result in a positive or negative school experience for the student. For this reason, community variables must be considered in order to provide as complete a picture as possible of the range of variability in a student's sociocultural environment, including demographic, cultural, and attitudinal variability. Important variables include ethnic diversity in the community, attitudes toward immigrants and the mainstream community, language use in community centers such as markets and churches, and socioeconomic status (SES) of the neighborhood. Community environments in which there are gangs, a high risk of violence, and general threats to a student's security can have a negative influence on overall student achievement (Figueroa, 1990; Garcia \& Gonzalez, 1995). Also, new immigrants often live in areas in which there are immigrants from their country of origin (Ascher, 1991; Garcia \& Gonzalez, 1995), areas where they may have little contact with the linguistic and cultural norms of the mainstream community and the school. This lack of connection with the mainstream community may lead to social isolation and ultimately disenfranchisement, making it difficult for students to connect American achievement values and academic success with occupational success. If students do make those connections and adapt to the mainstream ideology, then they may be perceived by others in their community as having "sold out" (Mehan, Hubbard, \& Villanueva, 1994). Conversely, the community can have a positive impact on students if there is a high degree of tolerance and acceptance among ethnic groups.

The school. Schools may to some degree reflect similar characteristics of the communities that they serve, but often, to a greater degree, they reflect the cultural norms of the mainstream. This situation may be due to school compliance with federal and state laws and regulations and the use of standardized tests for accountability, tests that are dictated by the "dominant culture's standards of language function and shared knowledge and behavior" (August \& Hakuta, 1997, p. 115). Variables that help describe the school setting for a given English language learner or group of students include the quality and types of programs operated by the schools and the beliefs guiding them; student opportunity to learn; teacher characteristics and training; and school demographics like SES and ethnic diversity.

In classrooms, the participation structures of English language learners from different backgrounds may vary considerably and will be reflected in how they interact with the teacher and with other students. Differences in interaction styles (e.g., direct vs. indirect) and differences in language styles as well (e.g., elaborated vs. restricted) can influence teacher perceptions of students as passive or lacking in cognitive ability. During individual testing, for example, English language learners may perform poorly because they are not accustomed to looking at or speaking directly with an adult or being asked questions for which the adult already knows the answer. This sharp contrast between community and family norms of participation and school norms can result in student discomfort and lack of participation in the teacher-governed interactions that traditionally guide the mainstream classroom. Philips (1982), for example, documented that Native American children participated more effectively in classroom activities which minimized the need for individual display. Mexican-American students have exhibited a strong liking for cooperative motivational styles as opposed to the competitive styles of Anglo-Americans (Kagan, 1986). All of these factors comingle to create a strain on the school, in general, and particularly for teachers and learners who may not understand one another's behavior and thus make false interpretations and assumptions.

The home. As Trueba (1988) states, "there is a great need for the development of a theory of academic achievement that takes into consideration the home culture of the student" (p. 279). While there are varying opinions as to which aspects of the student's environment contribute the most to academic success or failure, few would argue against the notion that the home culture has great impact on the "language genres, behavior patterns, motivations, attitudes, and expectations" (Garcia \& Gonzalez, 1995, p. 422) that students bring to the school environment. Parent educational background, home literacy practices, and parental beliefs and support or involvement with their child's education are just a few of the factors that have tremendous implications for a student. For example, in a study of Hmong student achievement, McNall, Dunnigan, and Mortimer (1994) found that even if parents did not have the skills to help their children with homework, they believe that it is essential and feel that, ultimately, their child's educational achievement is positively associated with improving the status of the family.

Heath $(1983,1986,1989)$ has conducted various studies of home literacy practices and has found a rich diversity of home experiences; however, these experiences are often divergent from mainstream school literacy conventions. Although not in itself negative, this disparity adds an additional burden to the student who must learn a different set of literacy skills and new ways of interacting and making meaning when communicating with peers and adults.

In sum, adapting to the mainstream culture in the U.S., without losing the integrity of the culture of the home as well as the community, can be difficult for both students and parents and is often a major source of tension between them (Carrasquillo \& Rodriguez, 1996). It is the manifestation of these school, home, and community factors within the individual English language learner that we now discuss in the next section on the student.

## Individual Student Characteristics

The inner circle of the model represents the student who is very much an integral part of the interactions in the wider sociocultural environment in which he or she lives. Displayed in the circle are three broad elements or categories with characteristics specific to the student-personal characteristics, language factors, and educational background. Within these three categories, there are a number of variables that are often dependent on the interplay of the sociocultural dimensions in the outer circle. Figure 4 lists examples of the types of variables that fall into these categories.

Personal characteristics. Variables within this element overlap and intersect with variables in the larger sociocultural dimensions described in the previous section. The difference is that the variables here specifically describe the individual student as opposed to the group. Some of these variables include age, gender, and length of time in the U.S.; stability factors such as immigration status, frequency of moving and changing schools, and SES; and affective factors that are more difficult to define and measure, such as motivation, learning styles, and aptitude.

Age of arrival in the U.S. has been shown to be a critical factor related to language learning since schooling in the student's first language may have been interrupted in the primary grades; it may take longer for such students to achieve English proficiency than for students who came at a higher grade level (Collier, 1995). Learning styles also vary both individually and culturally among students.


Figure 4. Examples of variables related to individual student characteristics.

For example, many Asian students have a culturally mediated style of learning that may conflict with behavioral expectations in mainstream classrooms. As Carrasquillo and Rodriguez (1996) note:
[Asian students may] need reinforcement from teachers and they work efficiently in a well-structured, quiet learning environment in which definite goals have been established for them. They seldom reveal their opinions or their abilities voluntarily or dare to challenge their teachers. (p. 42)

Individual learning styles, such as an orientation towards auditory versus visual channels of input, may add to the complexity of this situation, as do affective factors, such as the motivation or desire to assimilate American culture and language norms (Gardner \& Lambert, 1972). Aptitude may also play an influential role on the rate of English language development in formal classroom language learning (Ellis, 1990; Gardner, 1980; Krashen, 1981).

Educational background. Knowledge of a student's educational background is important and should inform educational choices made for the student, since prior education may give students the tools needed to cope with new learning situations. A variety of educationally relevant factors come into play within this element and can be divided into two general categories: grouping factors generated by school attendance in the U.S., such as grade in school, course grades, and standardized test scores; and experiential factors specific to the student, such as years of formal education in the U.S. and the home country, quality of prior schooling, and the type of coursework a student has taken.

Students enter U.S. schools with a variety of educational experiences, ranging from the structured education that students receive in Taiwan, which usually includes formal English study and an emphasis on test taking, to students who have never set foot in a classroom. A series of studies summarized in Collier (1995) compared groups of non-native speakers of English who started school in the U.S. with no prior schooling and groups of students who had 2 to 3 years of first language schooling in their home country before coming to the U.S. The amount of formal schooling students received in their first language was found to be the most significant student background variable in developing academic second language proficiency. Although the connection between first and second language learning is a critical factor in this equation, the overall effect of prior formal schooling may be underestimated. Students with experiences that are more closely aligned to the experiences and expectations of school tend to be more successful in transferring these skills to a second language classroom (SavilleTroike, 1991). Older students who have not had formal learning opportunities are particularly at a great disadvantage because linguistic, cognitive, and academic demands increase rapidly for each year of schooling. Prior formal schooling is now being used as a placement factor in some school districts, such as the Los Angeles Unified School District, and is identified in the new ESL standards for pre-K-12 students as an important distinguishing variable (Los Angeles Unified School District, 1996; Teachers of English to Speakers of Other Languages, Inc., 1997). ${ }^{5}$

The types and quality of programs in which students have been enrolled are also important because they may give an indication of the degree to which English

[^3]language learners have been provided an opportunity to learn. For example, students in dual bilingual programs may have developed the language related to different academic content areas more thoroughly in another language besides English. Thus, if they have been recently transitioned, they may not immediately perform well in an English-only setting. This could give teachers the false impression that the students are slow or delayed learners, or affect student performance on large-scale assessments.

Language factors. Language is one of the most critical educational variables that impact English language learners. A student's inability to communicate what he or she knows and feels in an academic English setting can be a tremendous barrier to school achievement. Students who acquire content knowledge in a language other than English may not be able to adequately express that knowledge in classroom activities, group assignments, or on assessments in English. Indeed, "test developers have long recognized that whenever one is tested in a language in which one is not fully proficient, the test results will reflect one's language proficiency as well as one's accomplishment in whatever is being tested" (Center for Equity and Excellence in Education/Evaluation Assistance Center East, 1996, p. 33).

In relation to academic achievement in English, Cummins (1980, 1981, 1984) has pointed out a distinction between two levels of English language proficiency: the academic proficiency needed to function in school, cognitive academic language proficiency (CALP), and the language used primarily in social settings, basic interpersonal communication skills (BICS). An important part of CALP and essential to academic success in the U.S. for all students, including speakers of mainstream English, is the mastery of basic literacy skills. Research shows that students who have a good literacy foundation in their first language transfer skills and knowledge they learn in that language to other languages (Collier, 1995). They do not have to re-learn the skill of reading or content area concepts, although they do have to master new grammatical structures and vocabulary in order to recognize and then express concepts in the new language. ${ }^{6}$

Other language factors in the model, like the educational background variables, include two types of variables: those directly related to school

[^4]attendance in the U.S., such as language program enrollment and language proficiency designations; and broader, more general variables such as formal first language learning experience and the quality and amount of exposure to English and the home language, both in and outside of school.

Taken together the elements and variables associated with the model are educationally relevant for all students; however, important questions remainwhich of the variables are most predictive of an English language learner's ability to perform to the best of his or her ability on large-scale, English-language content assessments? And which variables could help form subgroups of English language learners that would benefit from different types of accommodation strategies on these assessments? It is to these critical questions that we now turn.

## Variables for Identifying Subpopulations of English Language Learners

A key concern in discussions about accommodation strategies is the identification of groups of learners who might benefit from accommodations. However, the diversity that exists among English language learners makes this a difficult task because several dimensions of variability must be considered. The model provides a starting point in understanding the complexity of the learning situation and can be used to create a framework for systematically isolating variables and collecting background information on English language learners. Once a framework is established, it can guide the identification of subpopulations that may benefit from the use of accommodations and match students to appropriate accommodation strategies.

The first step in systematizing the use of accommodation procedures is to determine which variables and accommodation strategies to investigate for their impact on student assessment outcomes. Students must be identified accurately, consistently, and preferably prior to the assessments, otherwise there may be limitations on the use of complex variables for determining which accommodations to assign to individual students or groups of students. Hakuta and Valdes (1994) suggested using two principles in a study design they created for evaluating inclusion strategies for NAEP assessments: (a) the continuum-of-strategies principle, in which a number of strategies are tried out with the maximum number of students possible, and (b) a reality principle, in which only options that are realistic in the context of policy and NAEP are considered.

The policy consideration listed under the reality principle is important because the goal of using accommodations is to support inclusion of students and to enhance educational equity and representation; the goal is not to give an unfair advantage to English language learners over others or to segregate students for separate treatment according to personal characteristics or family background. The variables must be relevant to assessment decision making, as well as feasible, legal, and politically expedient to address when developing accommodation strategies, policies, and procedures for district, state, and national assessments.

At CRESST, several criteria were used in the selection of variables to examine for their impact on student test performance: (a) the impact of the variable on student performance in large-scale assessment situations, (b) the feasibility of collecting information on the variable prior to the assessment, and (c) whether the variable can be used in a legal and equitable way to guide decision making. Using these criteria, three potentially critical background variables were identified from the model-English language proficiency, prior formal schooling, and length of time in the U.S.

Academic English language proficiency. Academic English language proficiency is a major factor in the assessment of content knowledge with English language learners. Performance assessments, which are increasingly a part of local, state, and national testing systems, place a heavy language demand on the test taker. For this reason, without adequate measures of academic English language proficiency, it becomes difficult to isolate the causes of poor test performance. If it is determined that low academic language proficiency prevents students from demonstrating what they know on large-scale assessments, then matching students to an accommodation strategy may be appropriate.

Prior formal schooling. As mentioned above, formal education prior to entering a given school system is recognized as a critical factor for student success over time and potentially for performance on assessments. Students with little or no formal schooling are not likely to be familiar with school culture and related assessments in the U.S. On the other hand, students with prior formal education may be literate in their first language and possibly in English, may have been exposed to relevant content, and may have experience with large-scale assessments. All of these factors potentially contribute to greater success in testing situations and in overall school performance, though it should be noted
that quality of prior education and opportunity to learn are mitigating factors in terms of degree of success.

Length of time in the United States. The length of time a student has lived in the U.S. could indicate how much time the student has spent learning English in an English-speaking setting, the level of experience a student has had with mainstream American schools and culture, and student familiarity with assessment procedures. On the other hand, a student may be isolated from mainstream experiences outside of the school, so the length of time a student has lived in the U.S. may not prove to be a strong indicator alone of the type of accommodation appropriate for a student. It may, however, prove to be an important covariable for looking at accommodations.

The three variables identified above are likely to be highly interrelated, so an important part of research on the use of accommodations should focus on determining if and how the variables interact with each other to form student subpopulations with specific needs. However, before interactions can be investigated, levels within each variable must be defined and operationalized. For example, academic English language proficiency must be defined and levels specified along a proficiency continuum, such as beginning, intermediate, and advanced, that reflect differences in ability that have been captured through an evaluation procedure. With regard to prior education, it will be important to determine whether students have had previous education in the U.S. or in their home countries, and ideally how much and of what type. Finally, in terms of time in the U.S., broad classifications of students, such as recent immigrants, early immigrants, and U.S.-born learners (Snow, 1994), need to be operationalized according to specified time parameters.

## Making the Match: Systematizing Accommodations Decisions

To systematize the use of accommodations with large-scale assessments, a procedure is needed by which educational decisions can be made in a sound, reliable, and fair manner with relative ease. Educators should be able to consult an assessment inclusion guide that helps them maximize the number of students that can be included in assessments.

These guidelines should describe subgroups of English language learners who might be eligible for accommodations, as well as procedures for how to carry out accommodation strategies in practice. For example, if the three variables
discussed above, language proficiency, formal schooling, and time in the U.S., prove effective as indicators of performance on assessments, then one example of an eligibility procedure might be to first administer a valid and reliable test of English proficiency to determine overall language ability. If students perform well on this language variable, they could be included in the large-scale assessment without accommodation. If student performance is weak, then a background questionnaire may be administered to help determine whether the students should be exempted from the assessment or whether some type of accommodation might be appropriate. (See Appendix A for a background questionnaire currently being piloted by CRESST researchers.) Information from a background questionnaire such as the one in Appendix A can help generate student profiles. A matrix of possible accommodation options, including guidelines for cases in which students should be exempted, should be designed to match the student profiles to appropriate accommodations. Figure 5 illustrates this sample eligibility screening procedure.

Because an effective screening process is needed to appropriately match students to an accommodation strategy, an important factor to consider is when the screening process should begin. Potentially the language proficiency assessment could be administered a week or more prior to the large-scale assessment, followed by the background questionnaire. Alternately, both the proficiency measure and questionnaire could be administered at the same time. In either case, the important point is to follow a systematic procedure that results in fair and equitable inclusion or exclusion decisions for students.

## Challenges to Using Accommodations

There are currently many challenges to creating a more inclusive system of assessing English language learners. These same challenges apply to conducting the research that will provide support for the implementation of such a system. Factors that compound these tasks include addressing issues of cultural bias on assessments in general, establishing public confidence in the notion of accommodations as a means of inclusion and not "dumbing down," and ensuring that accommodations are viable for the many educational situations that exist in the U.S. Two major obstacles, however, to conducting the research and systematizing procedures for inclusion are inconsistencies in the terminology and definitions used to describe second language learners and the lack of agreement on


Figure 5. Potential screening process for accommodation eligibility decisions.
common indicators for measuring academic language proficiency. Any research on accommodations must begin by addressing these two issues.

## Inconsistencies in Terminology Use

A current problem in characterizing language minority students in general, and specifically English language learners, is the number of terms being used to refer to those students and the range of definitions associated with each term. There are subtle differences between all of the terms, which often result in
misclassification of students. This problem is compounded when states, districts, and policy makers do not use the same criteria to classify students for services thus making national comparisons of educational progress extremely challenging.

Appendix B provides three definitions currently being used for the term language minority student along with a sample student profile for each definition. The third definition given is the same definition used for the term English language learner (ELL). Many educators are now using the term ELL in place of LEP. The major difference between the two terms is that ELL is a descriptive term whereas LEP is a proficiency-based term, which specifically means that students designated by schools as LEP are eligible for Title VII services and potentially accommodations. Appendix C provides a list of the terminology that focuses on the student as a non-native speaker of English, with an emphasis on proficiency levels. All of the terms are very similar, but the term LEP is used most often for federal and state designation and funding purposes.

Misclassification of students sometimes occurs as a result of the federal definition of LEP. While the definition provides general guidance to states and educators in indicating which students might be classified as LEP, it does not specify clearly what "sufficient difficulty" in the English language means in terms of participation in school (United States Congress, 1994). Thus, a major problem arises when agencies who need to operationalize the definition do so by specifying cutoff scores on language proficiency tests or state assessments. Although a numeric score or rating may be necessary for designation purposes, using different language proficiency measures is problematic for making generalizations because the measures are not parallel. Results derived from different tests often do not carry the same meaning because English language proficiency is not defined or operationalized in the same way across tests (Del Vecchio \& Guerrero, 1995). Therefore, when schools and states use these tests, it is very difficult to make comparisons across institutions. As Valdes and Figueroa (1994) state:

So great indeed were the discrepancies between the numbers of children included in NES [non-English speaker] and LES [limited-English speaker] category by different tests that cynical consultants often jokingly recommended one "state approved" instrument or another to school districts depending on whether administrators wanted to "find" large or small numbers of LES children. (p. 64)

Thus, a major part of the problem with definition rests on problems with the current measures of language proficiency.

## Assessments of English Language Proficiency

Language proficiency is an important variable in characterizing English language learners and is essential for identifying the interface between language and content knowledge in standards-based assessments. For this reason, there is a need for language proficiency measures that tap the academic language proficiency of English language learners K-12. Unfortunately, existing K-12 proficiency measures generally focus on discrete language elements and not on the more communicative language relevant to academic performance (Saville-Troike, 1991). Although knowledge of discrete language elements is a part of academic language proficiency, it is the ability to carry out complex linguistic and cognitive functions such as comparing and contrasting, defining, and explaining that is more central to language use on large-scale performance assessments of content knowledge. What is needed, then, are integrative, pragmatic tests that allow students to demonstrate language ability relevant to the use of language in the classroom across content areas. Currently available language proficiency tests should be studied to determine to what extent they assess academic language and reevaluated for use in making accommodation decisions. New measures with articulated and operationalized definitions of language proficiency could then be developed to fill in existing gaps.

A first step in any test development effort that responds to the need for academic language proficiency measures will be operationalizing a definition of academic English language proficiency. Doing so involves understanding the range of language-related activities students must be able to handle within and across different content areas, as well as identifying the range of topics, text types, and language functions associated with those activities. Work along these lines leading to the development of prototype academic language proficiency measures is currently underway at CRESST.

## Summary and Future Directions

Inclusion of English language learners on large-scale assessments is a critical and urgent issue nationwide. Many questions remain regarding the best means of reaching this goal. A number of states have already begun to use accommodation strategies in a range of assessment situations. However, because relatively little is known about the appropriacy of using accommodations or about the validity of
the assessments when accommodations are used, the use of accommodations should be undertaken with caution.

To acknowledge diversity among students who are non-native speakers of English is a critical first step towards addressing the issue of equity for all students in schools in the United States. The next step must be to carefully and systematically investigate the performance of subpopulations of the larger group on the types of assessments that are being used to track student progress. The investigation should include performance with and without accommodations to help determine whether specific accommodations can be used as effective tools to support greater inclusion of these students.

In the process of determining whether accommodations are effective, efforts to clarify test tasks-for example, prompts, questions, and directions to make them more accessible to English language learners-might in fact actually clarify and improve test content for all students. It is entirely possible that the best accommodation would actually be to increase the quality of the assessments that are currently being developed by holding them to high standards of content and construct validity, which should include rigorous review of language use as well as subject matter.

Efforts at CRESST have begun to provide the groundwork for empirically identifying subpopulations and determining what their needs are vis-à-vis largescale assessment. The model presented in this paper represents work towards this goal. Three research variables that may help to define subpopulations of English language learners have been identified and the development of academic language proficiency task prototypes anchored to content areas is underway in an effort to couple the research on student background variables to accommodations. These efforts together will move us closer to the goal of empirically determining whether, and under what circumstances, accommodations should be used for large-scale assessment with different populations of students. It is hoped that this work will result in the creation of guidelines that can be used by educators across the U.S. to make informed decisions that lead to greater consideration and inclusion of English language learners on all educational assessments.

## References

Abedi, J. (1997, March). The impact of linguistic features of the NAEP test items on the students' performance in NAEP assessment. Paper presented at the annual meeting of the American Educational Research Association, Chicago.

Abedi, J., Lord, C., \& Plummer, J. (1995). Language background report. Los Angeles: University of California, Graduate School of Education \& Information Studies, National Center for Research on Evaluation, Standards, and Student Testing.

Anderson, N. E., Jenkins, F. F., \& Miller, K. E. (1996). NAEP inclusion criteria and testing accommodations. Findings from the NAEP 1995 field test in mathematics. Washington, DC: Educational Testing Service.

Ascher, C. (1991, March). Testing bilingual students: Do we speak the same language? PTA Today, 7-9.

August, D., \& Hakuta, K. (1997). Improving schooling for language-minority children. Washington, DC: National Academy Press.

August, D. \& Lara, J. (1996). Systematic reform and limited English proficient students. Washington, DC: Council of Chief State School Officers.

Carrasquillo, A., \& Rodriguez, R. (1996). Language minority students in the mainstream classroom. Clevedon, England: Multilingual Matters.

Center for Equity and Excellence in Education/Evaluation Assistance Center East. (1996). Guiding principles resource guide, promoting excellence: Ensuring academic success for limited English proficient students. Washington, DC: The George Washington University.

Collier, V. P. (1995, Fall). Acquiring a second language for school [Entire issue]. Directions in Language and Education, National Clearinghouse of Bilingual Education, 1(4).

Council of Chief State School Officers and North Central Regional Educational Laboratory. (1996). 1996 State Student Assessment Programs Database. Oak Brook, IL: North Central Regional Educational Laboratory.

Cummins, J. (1980). Entry and exit fallacy in bilingual education. NABE Journal, 4(3), 25-59.

Cummins, J. (1981). Empirical and theoretical underpinnings of bilingual education. Journal of Education, 163, 16-29.

Cummins, J. (1984). Wanted: A theoretical framework for relating language proficiency to academic achievement among bilingual students. In C. Rivera (Ed.), Language proficiency and academic achievement (pp. 79-90). Clevedon, England: Multilingual Matters.

Del Vecchio, A., \& Guerrero, M. (1995, December). Handbook of English language proficiency tests. Albuquerque: New Mexico Highlands University, Evaluation Assistance Center-Western Region.

Ellis, R. (1990). Understanding second language acquisition. Oxford, England: Oxford University Press.

Figueroa, R. (1990). Assessment of linguistic minority group children. In C. Reynolds \& R. Kamphaus (Eds.), Handbook of psychological and educational assessment of children: Intelligence and achievement (pp. 671-696). New York: The Guilford Press.

Floyd, P., \& Carrell, P. L. (1987). Effects on ESL reading of teaching cultural content schemata. Language Learning, 37, 89-108.

Garcia, E., \& Gonzalez, R. (1995). Issues in systemic reform for culturally and linguistically diverse students. Teachers College Record, 96, 418-431.

Gardner, R. (1980). On the validity of affective variables in second language acquisition: Conceptual contextual and statistical considerations. Language Learning, 30, 255-270.

Gardner, R. C., \& Lambert, W. E. (1972). Attitudes and motivation in secondlanguage learning. Rowley, MA: Newbury House.

Hakuta, K., \& Valdes, G. (1994). A study design for the inclusion of LEP students in the NAEP state trial assessment. Paper prepared for the National Academy of Education Panel on NAEP Trial State Assessment. Stanford, CA: Stanford University.

Heath, S. B. (1983). Ways with words: Language, life, and work in communities and classrooms. Cambridge, England: Cambridge University Press.

Heath, S. B. (1986). Sociocultural contexts of language development. In Beyond language: Social and cultural factors in schooling language minority students (pp. 143-186). Los Angeles: California State University, Evaluation, Dissemination and Assessment Center.

Heath, S. B. (1989). Oral and literate traditions among Black Americans living in poverty. American Psychologist, 44, 367-373.

Kachru, B. (1981). The pragmatics of non-native varieties of English. In L. Smith (Ed.), English for cross-cultural communication (pp. 15-39). New York: St. Martin's Press.

Kagan, S. (1986). Cooperative learning and sociocultural factors in schooling. In Beyond language: Social and cultural factors in schooling language minority students (pp. 231-285). Los Angeles: California State University, Evaluation, Dissemination and Assessment Center.

Krashen, S. (1981). Aptitude and attitude in relation to second language acquisition and learning. In K. C. Diller (Ed.), Individual differences and universals in language learning aptitude (pp. 155-175). Rowley, MA: Newbury House.

LaCelle-Peterson, M., \& Rivera, C. (1994). Is it real for all kids? A framework for equitable assessment policies for English language learners. Harvard Educational Review, 64, 55-75.

Los Angeles Unified School District. (1996). The master plan for English learners (Publication No. GC-155). Los Angeles, CA: Los Angeles Unified School District, Language Acquisition and Bilingual Development Branch.

McNall, M., Dunnigan, T., \& Mortimer, J. (1994). The educational achievement of the St. Paul Hmong. Anthropology and Education Quarterly, 25, 44-65.

Mehan, H., Hubbard, L., \& Villanueva, I. (1994). Forming academic identities: Accommodation without assimilation among involuntary minorities. Anthropology and Education Quarterly, 25, 91-117.

Philips, S. (1982). The invisible culture: Communication in classroom and community on the Warm Springs Indian Reservation. New York: Longman.

Saville-Troike, M. (1991). Teaching and testing for academic achievement: The role of language development (NCBE Focus: Occasional Papers in Bilingual Education, 4). Washington, DC: National Clearinghouse for Bilingual Education, The George Washington University. Available: http://www.ncbe. gwu.edu/ncbepubs/focus/focus4.html

Snow, M. A. (1994). Primary language instruction: A bridge to literacy. In C. F. Leyba (Ed.), Schooling and language minority students: A theoretical framework (2nd ed., pp. 133-164). Los Angeles: California State University, Evaluation, Dissemination and Assessment Center.

Teachers of English to Speakers of Other Languages, Inc. (1997). ESL standards for pre-K-12 students. Alexandria, VA: Teachers of English to Speakers of Other Languages, Inc.

Thurlow, M., Liu, K., Erickson, R., Spicuzza, R., \& El Sawaf, H. (1996, August). Accommodations for students with limited English proficiency: Analysis of guidelines from states with graduation exams (Report 6). Minneapolis: University of Minnesota, National Center on Educational Outcomes.

Trueba, H. (1988). Culturally based explanations of minority students' academic achievement. Anthropology and Education Quarterly, 19, 270-288.

United States Congress. (1994). Improving America's school act. P.L. 103-382. Washington DC: U.S. Government Printing Office.

Valdes, G., \& Figueroa, R. (1994). Bilingualism and testing a special case of bias. Norwood, NJ: Ablex.

## Appendix $\mathbf{A}$

## Student Background Questionnaire

This questionnaire was developed for middle school students in Grades 6-8 and has not yet been piloted in its present form. Any results from the use of the questionnaire should be considered with caution as the reliability of the questionnaire has not been established. Please contact the authors at CRESST for an updated version if you wish to use the questionnaire.

| Name: | $\square$ | Date: |
| :--- | :--- | :--- |
| Age: |  | Grade: |

## Student Background Questionnaire

Please read all questions carefully before answering them.

1. Were you born in the United States? Yes

-If no, where were you born? City
Country $\qquad$
2. When were you born?

3. How long have you lived in the United States? Check one only.

Less than 1 year
1 to 3 years
Over 3 years
All of my life $\qquad$
4. Have you ever gone to school in another country?

Yes
No
$\qquad$
-If yes, in what country?
-For how many years? $\qquad$
5. What was the first language that you learned? $\qquad$
6. Do you speak another language (s) besides English at home?

Yes $\qquad$
No
-If yes, what language (s)?

- Who do you speak that language (s) with?

7. Have you ever studied a language besides English?

$\qquad$
No
$\qquad$
$\qquad$

- If yes, what language (s)?
-Where did you study the language (s)? Check all that apply.

Home $\qquad$ School $\qquad$

Language School
Other $\qquad$
8. Have you ever studied any subjects at school in a language other than English in the United States? $\qquad$

- If yes, list the subjects. $\qquad$

9. Are all of your classes taught in English now? $\qquad$
No
-If no, what language?

- Put a check next to the classes that are taught in another language.

| Language Arts |  |  |
| :--- | :--- | :--- |
| Math | ___ | Science <br> History/Social Science |
| Other |  |  |

10. How many years have you attended school in the United States?

Less than 1 year
1 to 3 years
$\qquad$

Over 3 years
$\qquad$

All of my life
$\qquad$
$\qquad$

## Do not write in this box.

School: $\qquad$ Teacher: $\qquad$

## Appendix B

## Definitions for the Term Language Minority Student

| Language Minority Student |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Definition 1 (linguistic and cultural view) | Definition 2 (linguistic view) | Definition $3^{1}$ (linguistic and cultural view) |
| Specific definition | Student: Speaks English as a second language <br> Home: Language other than English is spoken <br> English proficiency level: Not specified | Student: Speaks English as a second language <br> Home: Language other than English is spoken <br> English proficiency level: A low level of English language ability as determined by cut-off scores on tests will identify student as a language minority. | Student: Speaks English as a second language or speaks a variety of nonmainstream English ${ }^{2}$ and/or a non-native variety of English ${ }^{3}$ <br> Home: Language other than English or a nonmainstream/non-native variety of English is spoken <br> English proficiency level: Not specified |
| Sample profile | A 14-year-old son of Russian immigrants has lived in the U.S. since birth. Russian is the dominant language spoken at home. However, the student speaks English fluently among native English-speaking teachers and peers. | A seven-year-old student, born in Korea, has spent two years in the U.S. Although she can understand and respond to contextualized English speech spoken by her teacher and peers, she has consistently scored low on English language proficiency tests. | A nine-year-old English-speaking student from Pakistan speaks a variety of English which is characterized by nativization. ${ }^{4}$ |

${ }^{1}$ This is the same definition as that used for English Language Learner (ELL).
${ }^{2}$ Nonmainstream varieties of English include African American Vernacular English, Hawaiian Creole English, and Appalachian English.
${ }^{3}$ Non-native varieties of English include English that is spoken in India, Malaysia, Nigeria, Pakistan, the Philippines, and Singapore.
${ }^{4}$ Nativization: Systematic changes in the formal features of English at all linguistic levels resulting from the use of English in new sociocultural settings, the use of English in contact with other languages, and the use of English in the absence of native speakers of English (Kachru, 1981).

## Appendix C

## Terminology Used to Characterize Students Who Speak or Are Learning English as a Second Language

|  | Non-Native Speaker (NNS) | English as a Second Language (ESL) | English Speakers of Other Languages (ESOL) | English Learner (EL) | Limited English Proficient (LEP) ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| First <br> language | Student's first language is not English | Student's first language is not English | Student's first language is not English | Student's first language is not English <br> or <br> Student speaks a variety of nonmainstream English | Student's first language is not English |
| English proficiency | All levels <br> Includes proficient speakers of English as a second language | All levels <br> Excludes proficient speakers of English as a second language | All levels <br> Excludes proficient speakers of English as a second language | All levels <br> Excludes proficient speakers of English as a second language | Students are designated LEP if they lack the language skills necessary to function in an Englishonly classroom without additional language support such as ESL, bilingual education, and so forth. |

${ }^{1}$ LEP is the official term used by the U.S. federal government for designating students whose first language is not English and who lack the English skills to participate in English-only classes.


[^0]:    1 The authors wish to thank Martha Castellon, Lynn Goldstein, Edmund Gordon, Joan Herman, Luis Laosa, Suzanne Laurens, Charlene Rivera, and Jean Turner for their insightful comments on earlier drafts of this document. In addition, the authors extend a special thank you to Martha Castellon for her assistance in synthesizing the terminology and definitions provided in Appendices B and C. Any errors are, of course, the responsibility of the authors.
    2 The term English language learner (ELL) is used by LaCelle-Peterson and Rivera (1994) to refer to students whose first language is not mainstream English. ELLs include students who may have very little ability with the language to those who have a high level of proficiency. For the purposes of this paper, ELL is used to refer only to the lower end of the proficiency continuum, to students who are typically referred to as limited English proficient (LEP). The authors have chosen not to use LEP because of the negative connotation of the term.

[^1]:    3 Unfortunately, the term LEP conveys a negative meaning because it refers to learners of English as limited. It is considered to be derogatory because it implies a deficit condition instead of recognizing that these students are in the process of adding a new language to their already existing linguistic repertoire (LaCelle-Peterson \& Rivera, 1994). Nevertheless, LEP is the official term used by the federal government for designating students whose first language is not English and who lack the English skills necessary to participate in English-only classes.

[^2]:    4 The model has broad potential for the full academic spectrum. Indeed, the variables in the model can be considered for other purposes such as ongoing classroom assessment, curriculum development, program design, and so forth.

[^3]:    5 The term limited formal schooling (LFS) is used to help describe students who are generally recent arrivals and whose educational background differs significantly from the mainstream school environment in the U.S. (Teachers of English to Speakers of Other Languages, Inc., 1997).

[^4]:    6 Some students may have the additional task of learning a new alphabet if their first language writing system is based on a nonromanized alphabet.

