

FOCUS ON EXCEPTIONAL children

The Effects of Cultural and Linguistic Variables On the Academic Achievement of Minority Children

Joseph H. Whitaker and Alfonso G. Prieto

Research on bilingual/bicultural education and on bilingual/bicultural issues is broad and represents a variety of theoretical perspectives, which can be categorized into four general domains:

1. The effects of bilingualism and second-language acquisition.
2. The effects of bilingualism on social development and social interaction.
3. The effects of bilingualism on academic performance, cognition, and cognitive development (Rueda, 1983a, 1983b, 1985).
4. Theoretical considerations (Piagetian, linguistic, metacognitive, metalinguistic, and information processing) involved in language and cognition (Whitaker, 1988).

In relation to the last two areas of research, current theory proposes that certain features of the bilingual/bicultural environment may result in positive effects on the cognitive and academic performance of the bilingual/bicultural child. Additionally, a threshold level of language proficiency may be necessary for the positive cognitive effects of bilingualism to occur.

When factors other than specific disability or anomalous cognitive development (such as race, culture, or gender) are added to the research picture, however, many questions arise that are at present unanswered. For example: Should bilingual education be considered an available alternative for handicapped language minority children? Do certain groups of handicapped children have such a difficult time acquiring one language that bilingual programs should not be considered? If indeed certain cognitive advantages can be gained from proficiency in two languages, perhaps students in this group should have available the option of this potential remedial tool in conjunction with other interventions (Rueda, 1983a).

Obviously, before any decision can be made about the possibility of using bilingual/bicultural education as an educational intervention with language minority handicapped children, the above questions must be addressed. But, more important, how bilingualism affects cognitive performance must be determined. The following review of the literature examines the research on bilingualism, language, cultural, and racial factors and how they relate to cognition, with special attention to the cases in which bilingualism and anomalous cognitive development are involved.

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RESEARCH ON BILINGUALISM AND COGNITION

A large number of studies have attempted to relate bilingualism specifically to cognitive development and academic achievement. In the following review these studies have been classified according to whether they support either positive or detrimental consequences of bilingualism. Then we will attempt to account for the discrepancies found in these diverse investigations.

Negative or Mixed Effects of Bilingualism on Cognition

An early study by Darcy (1946) reported significant differences between the mean IQ scores achieved by monolingual and bilingual subjects on the Stanford-Binet Intelligence Scale. These differences were consistent when subjects were divided according to age and gender and also when the age groups and genders were combined. Conversely, when differences in the mean IQs were determined for both language groups on the Atkins Object-Fitting Test (Atkins, 1931),

significant differences in favor of the bilingual group were found. The differences were consistently in favor of the bilinguals when the groups were divided according to age and gender and also when the age groups and genders were combined.

The above results were substantiated by the differences found between the mean mental ages achieved by the two language groups on the Stanford-Binet and on the Atkins test. In every age and gender division the mental ages of the monolinguals surpassed those of the bilinguals on the Stanford-Binet scale, whereas on the Atkins test the performance of the bilinguals was consistently superior to that of the monolinguals.

The monolingual and the bilingual subjects of this study were matched closely as to number, gender, socioeconomic status (SES), and age within 6-month intervals. Further, the performance of the bilingual subjects was significantly inferior to that of the monolingual subjects on the Stanford-Binet scale but significantly superior to the performance of the monolingual subjects on the Atkins test. Therefore, it may be concluded that the bilingual subjects tested using the Stanford-Binet in Darcy's (1946) investigation may have experienced language differences because performance on the Stanford-Binet would require subjects to have a substantial command of English.

Studies that claim to demonstrate the negative effects of bilingualism appear to suffer from a failure to adequately define bilingualism either operationally or theoretically, or to adequately control for language proficiency. Consequently, researchers such as Yela (1975) concluded that bilingualism reduced subjects' performance on semantic tasks. Brown, Fournier, and Moyer (1977) found that Mexican-American children scored significantly lower on tests that focused on science concepts and Piagetian concrete reasoning than did their Anglo-American counterparts. The population used in the Brown et al. (1977) study consisted of rural Colorado Mexican-American and Anglo-American fifth-graders. Identification of Mexican-American subjects was based on their having a Spanish surname or Spanish being spoken at home.

In an examination of the creative functioning of bilingual and monolingual third- through fifth-grade students using a regular and translated version of the Torrance Test of Creative Thinking (Torrance, Wu, Gowan, & Aliotti, 1970), monolingual subjects scored significantly better on the measures of fluency and flexibility at every level. The bilingual group performed significantly better than the monolingual group on the measure of elaboration, although statistical significance was reached at only one grade level for the

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measure of originality.

A longitudinal study by Barik and Swain (1976) compared students receiving instruction in a French immersion program with students in the regular English programs. Three groups of students were evaluated annually using the Otis-Lennon Mental Ability Test. The immersion pupils outperformed the English-program students, although initial differences between the groups are difficult to attribute to language learning or type of program.

A comparison of the performance of Spanish-English bilinguals with English-speaking monolinguals on the PPVT and Raven's Coloured Progressive Matrices was done in a study by Myers and Goldstein (1979). Subjects were selected from intact classrooms at three levels (kindergarten, third, and sixth grades), in which all students were of low SES. Although there were no significant differences on the Raven's test between the two groups, the monolingual children performed significantly better than the bilingual students on the PPVT.

Using a Piagetian measure of conservation, De Avila and Pulos (1979) found no significant differences in performance between monolingual Spanish-speaking, monolingual English-speaking, and bilingual first-grade students. It was hypothesized that failure to find differences might have been due to the possibility that bilingual advantages may occur at an earlier or later stage of development or to the fact that balanced bilinguals were rare in the sample.

Gorrell, Bregman, McAllister, and Lipscomb (1982) compared two groups of bilingual students (Vietnamese-English and Spanish-English) to a group of monolinguals on the block design subtest of the WISC-R and on three spatial role-taking tests of increasing complexity. The bilingual subjects were found to perform better than the monolinguals on the block design subtest but not on the measures of spatial role taking.

Positive Effects of Bilingualism on Cognition

Peal and Lambert (1962) designed a study to examine the effects of bilingualism on the intellectual functioning of children and to investigate the relationship between bilingualism, school achievement, and students' attitudes toward the second-language community. Bilinguals performed better than monolinguals on verbal and nonverbal intelligence tests—a clear reversal of previously reported findings (e.g., Darcy, 1946).

The French-English bilingual children who were subjects in the Peal and Lambert study, as a result of wider experiences in two cultures and languages, appeared to have advantages that the monolinguals did not. Experience with two

language systems resulted in mental flexibility, superior concept formation, and more diversified set of mental abilities. On the other hand, monolingual children appeared to have a more unitary structure of intelligence, which they had to use for all types of intellectual tasks. The bilingual children also were further ahead in school than the monolinguals, and they achieved significantly better than their classmates in the study of English. Their superior achievement in school appeared to be dependent on verbal facility.

In the previously mentioned study by Torrance et al. (1970), monolingual and bilingual Chinese and Malayan children in the third, fourth, and fifth grades of Singapore schools were administered Figural Form A of the Torrance Test of Creative Thinking (Torrance, 1966). Test booklets were translated into the subjects' native languages, and all instructions were given in the school's language of instruction, which was Chinese, Malayan, or English. Fluency, flexibility, and elaboration were scored using the standard guides for scoring all versions of this form of the test. A guide for scoring originality was based upon data from the Singapore culture, according to the same general principles as were used in developing the original scoring guide for the United States version of the test.

Overall, the monolinguals performed better than the bilinguals on fluency and flexibility, but the direction of the trend was reversed for originality and elaboration. The overall difference for elaboration was significant, but there was no significant difference for originality. If corrections are made for number of responses, the trend toward superiority of the bilinguals over the monolinguals on originality and elaboration becomes even stronger.

Ianco-Worrall (1972) designed several experiments to test Leopold's (1961) observations on the earlier separation of word sound from word meaning by bilingual compared to matched monolingual children. Attention to meaning or to sound of words was tested with the Semantic and Phonetic Preference Test, a two-choice test in which similarity between words could be interpreted on the basis of shared meaning or shared acoustic properties.

The notion that bilingualism leads to earlier realization of the arbitrary nature of name-object relationship was tested with the questioning technique developed by Vygotsky (1962). The technique calls for an explanation of names, whether names can be interchanged, and, when names are interchanged in play, whether the attributes of the objects change along with their names. The results supported Leopold's observations. Of the young 4- to 6-year old bilinguals, 54% consistently chose to interpret similarity between words in terms of the semantic dimension.

The conclusion drawn is that bilinguals who are brought up in a two-language environment reach a relatively high level of semantic development 2 to 3 years earlier than their monolingual peers. A high percentage of the bilingual children perceived relationships between words in terms of their symbolic properties rather than their acoustic properties.

Application of Piagetian constructs to the study of bilingualism also can be found in the literature. The advantage of Piagetian tasks is that they can be administered so that the content of the task, but not necessarily the language in which the instructions are given, can be standardized, and also the experimenter can take care to assure that subjects understand the task at hand. This is certainly important when assessing the cognitive performance of groups for whom valid and reliable assessment has been a problem.

For example, Feldman and Shen (1971) designed a study to demonstrate that 5-year-old bilinguals have advantages that would be expected from their having two languages: in object constancy, in naming, and in the use of names in sentences. Additionally, it was suggested that object constancy should be in advance of naming (as Piaget suggested) and that naming should be in advance of using names in sentences. Specifically, monolingual and bilingual 5-year-old children were compared in their ability at tasks involving object constancy, naming, and use of names in sentences. These three tasks, which constitute a natural sequence of language skills, were all found to be easier for bilinguals than for monolinguals. This was most clear on nonverbal measures. Further analysis indicated that switching names in sentences was superior in bilinguals, but the knowledge of names and facility for acquiring new names was equivalent in the two groups.

A study by Liedtke and Nelson (1968) considered the experience of becoming bilingual at an early age and tested the effect on mental development. Certain aspects of concept development of bilingual and monolingual children then were compared. A test of concepts of linear measurements was constructed to serve as the primary instrument. The test (Concepts of Linear Measurement Test) consisted of six subtests, which dealt with the following aspects of linear measurement: (a) reconstructing relations of distance, (b) conservation of length, (c) conservation of length with change of position, (d) conservation of length with distortion of shape, (e) measurement of length, and (f) subdividing a straight line.

The resulting mean for the bilingual sample on the Concepts of Linear Measurement Test was significantly higher than the mean for the monolingual sample, which is in

agreement with Peal and Lambert's (1962) finding that bilingualism has favorable effects on intellectual functioning. The mean for the bilingual sample on the conservation part of the test also was significantly higher than the mean for the monolingual sample. If the implication of the higher score is that the concept is more advanced and more highly developed, bilingual children manifest a better understanding of the concept as compared to monolingual children of the same age.

The mean for the bilingual sample on the measurement part of the test was significantly higher than the mean for the monolingual sample. This suggested that the measurement concept also had developed to a more advanced stage in the bilingual subjects.

Overall, the results seem to indicate that the linguistic and cultural experience of the bilinguals was an advantage. Additionally, the results indicate that being bilingual or becoming bilingual accelerates the normal process of some components of mental development.

Limitations of the Research

After a review of the above studies, results may be difficult to interpret because of the methodological errors in group assignment, controlling for language proficiency, and defining bilingualism. This includes failure to control for linguistic variables and proficiency—specifically, a lack of the use of measures or controls for language proficiency. After considering the previously reviewed articles, the need for tighter linguistic control over the definition of bilingual and monolingual groups becomes readily apparent.

Results of the Feldman and Shen (1971) study, for example, are questionable because of the criteria for assignment to subject groups. Assignment to the bilingual group was made on the basis of the children's "understanding of several simple Spanish questions and ability to speak Spanish at home." Further, no information was provided concerning the nature of these questions or how the ability to speak Spanish at home was defined or ascertained.

Similarly, in the Liedtke and Nelson (1968) study, the criterion for assignment to the bilingual group was based on teacher observation. The group was defined as "children who had used two languages before entering school and who were exposed to both languages at home." No data were provided as to the actual level of proficiency for either the bilingual or monolingual groups. This study, like the Feldman and Shen (1971) one, was weakened by the lack of appropriate linguistic controls.

Research Controlling for Languages Proficiency and Bilingualism

If bilingualism does accelerate cognitive functioning, the cognitive advantages of bilinguals should manifest themselves in studies that carefully control for language proficiency and that carefully operationalize and define bilingualism. These variables were carefully controlled in the Duncan and De Avila (1979) study on bilingualism and cognition, as reported in Table 1. The primary purpose of the study was to assess the English/Spanish relative linguistic proficiency of four groups of Hispanic-background children in grades 1 and 3 and, on the basis of that assessment, to describe the relationship between degree of bilingualism and cognitive functioning, as measured by performance on a test of neo-Piagetian intellectual development and two tests of field dependence/independence.

An important finding of the Duncan and De Avila study was that the proficient bilingual children significantly outscored all other monolingual and limited-proficiency bilingual children on tasks of cognitive perspectivism and scored higher on tasks of cognitive perceptual components of field-dependent cognitive style. These findings clearly support the hypotheses regarding the advanced cognitive functioning of proficient bilinguals (Peal & Lambert, 1962; Ianco-Worrall, 1972; Duncan & De Avila, 1979; Cummins, 1978).

Cummins (1978) investigated the effects of bilingualism on the development of children's awareness of certain properties of language and on their ability to analyze linguistic input. Bilingual children at two grade levels (grade 3 and grade 6) demonstrated significantly greater awareness of the arbitrary nature of word-referent relationships and also were better able to evaluate nonempirical contradictory statements.

An important feature of the above examples is that they involve knowledge of linguistic processes. An even more important feature, however, is that the level of abstraction is free of content, and, as a result, metalinguistic or metacognitive awareness may not be necessarily related to any particular language or sociocultural circumstance and possibly can apply to other situations or experiences. One could expect, then, that the effects of bilingualism on cognitive or metacognitive processes might be manifest on other types of tasks. As a matter of fact, one of the primary features defining metacognitive and metalinguistic awareness is the individual's understanding of the arbitrary use of language.

More recent research has been conducted using subjects who have mild mental retardation. Rueda (1983b) examined the cognitive performance of children who are mentally

retarded with moderate levels of language proficiency in Spanish and English in comparison to a matched group of monolingual English children. In spite of the study's limitations (small sample sizes, only moderate proficiency on the part of the bilingual subjects, and failure to measure the language skills of the monolingual sample), it was found that the bilingual group did not suffer any harmful effects as a result of exposure to two languages. In fact, there were differences in favor of the bilingual group on some items of the metalinguistic tasks.

Whitaker, Rueda, and Prieto (1985) compared the performance of three groups of 7- and 8-year-old mildly retarded children. Four dependent measures were used (three Piagetian tasks assessing conservation skills, reconstructive memory, recognitory memory, and one information processing task) to test the hypothesis that bilingualism would positively affect cognitive performance. Results indicated that the high-proficiency bilinguals' performance was significantly superior on three of the four dependent measures.

Summary of Research on Bilingualism and Cognition

A summary of studies investigating the effects of bilingualism on various cognitive measures is presented in Table 1. As the previous discussion indicates, there is suggestion of both negative and positive effects of bilingualism on the educational, intellectual, and academic performance of language-minority students.

Several of the studies suffer from methodological and theoretical errors, including: (a) sample bias, (b) deficiency in sample selection with regard to the control of language proficiency, (c) test bias, and (d) procedural errors (Were subjects tested in their native language?). These errors may limit interpretation of the research.

From Table 1, it is apparent that differences in favor of bilinguals have been found in the studies that utilized Piagetian measures and metalinguistics measures. Theoretically, this has been explained by certain methodological factors such as control for language proficiency, and by certain features of the bilingual environment and experience. It includes the observation that Piagetian-based tasks may be better indicators of cognitive differences because they are not heavily language-dependent.

EDUCATIONAL CONSIDERATIONS

At this point we can attempt to tie the previously cited findings concerning bilingualism and cognition to the unique educational needs of the language minority/bilingual excep-

TABLE 1
Positive and Negative Effects of Bilingualism on Cognitive Performance

Author(s)	Date	Subjects	Measures	Results
Darcy	1946	2 yrs, 6 mos 4 yrs, 5 mos	Stanford-Binet Intelligence Test Atkins Object-Fitting Test	Bilinguals scored lower (Stanford). Bilinguals favored (Atkins).
Peal & Lambert	1962	10-yr-olds	Lavoie-Laurendeau Group Test Raven Progressive Matrices Thurstone Primary Mental Abilities	Bilinguals performed better than monolinguals on verbal and nonverbal intelligence tests.
Liedtke & Nelson	1968	Grade 1 N = 50	Piagetian Concept Formation	Bilinguals performed higher.
Torrance et al.	1970	3rd, 4th, 5th Graders	Torrance Test of Creative Thinking	Monolingual—higher on fluency, flexibility. Bilingual—higher on elaboration; not significant for originality.
Feldman & Shen	1971	5-yr-olds	Object Constancy (Piagetian), Naming, Sentences	Bilinguals performed better on all three tasks.
Ianco-Worrall	1972	4-6-yr-olds	Questioning Technique	Bilinguals reach a stage of semantic development 2-3 years earlier than monolinguals.
Barik & Swain	1976	Ss* in French Immersion Program vs. Regular English Program	Otis Lennon Mental Ability Test	Immersion pupils out-performed English program pupils.
Brown et al.	1977	5th Graders N = 150	Science Concepts Test Piagetian Concrete Reasoning	Bilinguals scored lower. Bilinguals scored lower.
Cummins	1978	Grade 3 N = 80	Language Objectivity	Bilinguals show greater awareness of arbitrary nature of language.
Duncan & De Avila	1979	N = 202 Mex-Am N = 54 (Urban) Mex-Am N = 79 P.R.-Am N = 45 Cuban-Am N = 43 1st-3rd grades	Cartoon Conservation Scale (CCS) LAS Child Embedded Figures Test Draw-A-Person	Proficient bilinguals significantly outperformed all other groups.

*Ss = Spanish-speaking

TABLE 1 (continued)
Positive and Negative Effects of Bilingualism on Cognitive Performance

Author(s)	Date	Subjects	Measures	Results
Myers & Goldstein	1979	Monolingual SPA Monolingual ENG Matrices Bilingual	PPVT Raven Coloured Progressive	No difference on Raven's. Monolinguals outperformed bilinguals on PPVT.
De Avila & Pulos	1979	1st Graders Monolingual SPA Monolingual ENG Bilingual	Piagetian Measure of Conversation	No significant differences between the three groups.
Gorrell et al.	1982	Vietnamese-ENG Spanish-English Monolinguals	WISC-R Block Design Three spatial role-tasks	Bilinguals performed better on block design but not on spatial role-taking tasks.
Rueda	1983	Bilingual ENG- SPA Monolingual ENG EMH	Measures of Metalinguistic Awareness	Bilinguals performed equally, if not better, on various tasks.
Whitaker et al.	1985	Bilingual ENG- SPA EMH Monolingual ENG EMH	Piagetian—Conservation, Reconstructive Memory, Recognitory Memory Information Processing	Proficient bilinguals performed better than monolinguals on three of four measures

tional child and point out some areas of continuing educational concern. The studies that reported negative educational, intellectual, and cognitive consequences for certain groups of bilinguals are indicators of practices that have caused minority children to be overrepresented in special education. Further, biased assessment instruments and practices and inadequate educational programs have done little to serve the needs of the students in question. Children from cultural and linguistic groups different from those of children in the majority culture, and particularly those from low SES environments, historically have been educationally underserved.

In making an effort to remedy these problems, attention to certain areas is crucial. These include, but are not limited to: (a) appropriately identifying and assessing the bilingual exceptional child, (b) alleviating the impact of biased assessment instruments and practices, (c) developing relevant and appropriate instructional programs and materials, (d)

minimizing the impact of certain negative special education labels, (e) developing adequate bilingual and English as a Second Language (ESL) programs, and (f) modifying certain expectations and attitudes of teachers and administrators. Each of these areas of concern will be examined briefly.

Appropriately Identifying and Assessing the Bilingual Exceptional Child

The consequences of using inappropriate identification and assessment instruments, procedures, and techniques indeed can be quite serious for the bilingual exceptional child. One consequence of inappropriate procedures and instruments is overrepresentation in special education, which often leads to overall poor school progress for the bilingual exceptional child (Oakland, 1979; Mercer, 1971). Poor progress results from placement in programs that are unsystematic, inadequate, inappropriate, undeveloped, or simply nonexistent (Rodriguez, 1982; Baca, 1980).

Adequate identification and assessment of the bilingual exceptional child must include factors such as language, culture, and socioeconomic status (Ambert, 1982). But few assessment instruments have been developed or modified that can assess, in a fair manner, different cultural and linguistic groups (Baca & Bransford, 1982; Bernal, 1979; Ambert, 1982). Even if adequate instruments were available, a more serious problem exists: insufficient numbers of professionals have been adequately trained in administration and interpretation of such instruments (Hilliard, 1980; Ortiz, 1985). The situation is improving somewhat, though. For example, recent research has been conducted in identification of language disorders in Spanish-speakers (Ambert, 1986); techniques for minimizing inappropriate referrals of language minority students to special education (Ortiz & Maldonado-Colón, 1986); methods of assessment and data interpretation of linguistically and culturally different students referred for disabilities or disorders (Maldonado-Colón, 1986) and assessment of reading problems (Viera, 1986).

Alleviating Bias in Assessment Practices

As mentioned, one severe consequence of using biased instruments and assessment procedures results in overrepresentation of minority groups in special education (Mercer, 1974). Generally, such biased instruments and procedures fail to detect a distinct learning impairment but, rather, detect an inability to function adequately in English, which may result in special education placement because of cultural or dialectical differences (Ambert, 1982). An even more serious consequence, however, is that the placement is usually in a more restrictive special education program. This results in an associated problem of negative label impact (stigma, discrimination, embarrassment) and lowered teacher expectations (Jones, 1976). The pattern appears to be continuing.

Developing Relevant and Appropriate Educational Programs

Appropriate educational programs for the bilingual exceptional child, and in particular the preschool exceptional and

limited English-proficient (LEP) gifted and talented, are virtually nonexistent. But if any attempt were made to develop relevant and appropriate programs, certain considerations would have to be taken into account. For example,

poor academic performance on the part of many bilingual exceptional children can be traced to curriculum that is historically and culturally irrelevant (Banks, 1981) and to IEPs that fail to address certain learner traits because of the nature of the IEP process (Ambert & Dew, 1982). To partially alleviate this problem, Ambert and Dew (1982) suggest that:

IEPs for exceptional bilingual students specify: (a) instructional strategies which take into account linguistic facility, academic skill levels, modality and cognitive style preference; (b) the language(s) of instruction; (c) curricula, and materials designed specifically for linguistically and culturally diverse populations; and (d) motivators and reinforcers which are compatible with the learner's cultural and experiential background.

The language of instruction for bilingual exceptional children should be consistent with what is known about relationships between the native and the second language. For example, using the native language to promote certain conceptual skills may be more effective as a basis for the acquisition of English oral and literacy skills (Cummins, 1984).

Effective teaching skills, which involve utilization of both the native language (Spanish) and English can assist the teacher in mediating instruction and thus assist bilingual exceptional children's understanding of information and task expectations so they can obtain more accurate feedback regarding their performance (Omark & Erickson, 1983; Baca & Cervantes, 1984).

To minimize incompatibilities between bilingual exceptional children and standard school curricula, it is generally agreed that certain perspectives of the child's culture and heritage should be taken into account, although there is disagreement on exactly how they should be dealt with. As an example, some cultural and heritage enrichment programs appear to be compensatory in nature and reflect certain deficiencies in the home; as a result, care must be taken to adequately incorporate culture and heritage in the educational curriculum without adding any undue negative connotations (Banks, 1979).

Minimizing Negative and Inappropriate Special Education Labels

The impact of negative labels has concerned educators for some time (Dunn, 1968; Hobbs, 1975; McMillan, Jones & Aloia, 1974). Additionally, the educational relevancy (aside from funding) of certain special education labels is increasingly being questioned (Howell & Morehead, 1987).

Probably the most serious consequences of negative labels center on teacher expectations and student attitudes. As an

example, Prieto and Zucker (1981) demonstrated that even special education teachers considered special education placement more appropriate for Mexican-American children than for their Anglo counterparts. Interestingly, some expectations seemed to take precedence over identical educational and psychological evaluation information in hypothetical case studies. Attempts to alleviate these problems should center on developing generic-type programs that emphasize academic skills and place less reliance on labels.

Developing Adequate Bilingual and ESL Programs

This concern focuses on the specific type of program established by the local education agency. It usually involves choosing between the transitional program and a maintenance program. But, as Rodriguez, Prieto, and Rueda (1984) have stated:

There are a variety of ways to describe the different types of programs that may be used. One way to address the problem is by "non-response," that is, to ignore that non-English speakers exist in the school. Another way can be termed "extinction," that is, to forbid the use of the non-English language.

In the area of ESL, a major theoretical difference involves the distinction between language learning and language acquisition, with acquisition being the generally preferred model. As Krashen (1982) explains, language acquisition takes place best when students are provided input that is comprehensible, interesting and relevant, not grammatically sequenced, and in sufficient quantity. Methods to accomplish this include Total Physical Response (Asher, 1972), "suggestopedia" (Bushman & Madsen, 1976), and the Natural Approach (Krashen & Terrell, 1982). For the bilingual exceptional child, these methods may offer language codes that are simplified and encourage more active involvement in the learning process.

MODIFYING TEACHER-ADMINISTRATOR EXPECTATIONS AND ATTITUDES

Teacher and administrator attitudes not only set the tone of the classroom but, more important, also shape and determine the nature of classroom interaction between student and teacher, and between students. Although the literature on precise effects of teacher expectations on the performance of minority and exceptional children is vague and controversial, evidence does suggest that teachers hold some negative attitudes toward minority-group children (Jones, 1976).

Certain student characteristics upon which teachers seem to base their negative expectations have been identified. These include low academic achievement, low SES, and, curiously, the use of nonstandard language, be it English or Spanish (Brophy & Good, 1974).

The expectation that bilingual exceptional children will benefit from the regular mainstreamed classroom, particularly if this placement is with an inexperienced or insensitive teacher, could in the end be harmful to the student. Consequently, parents, teachers, and the student should be prepared well in advance of any such placements, with emphasis placed on the students' similarities rather than their differences.

Finally, Cummins (1986) has suggested that education reform is necessary if linguistic and culture-minority children are to succeed in school. According to him, this reform must include changes in (a) how teachers interact with students, (b) how the schools respond to minority communities, and (c) the general attitude of the dominant culture toward minority cultures within the society. Teachers must increase both oral and written communication with minority students and allow them to develop some responsibility for what they learn. Second, the schools have to develop better relationships with minority communities and encourage them to become involved in the decision-making processes that affect the educational experiences of their children. Third, the attitude of the dominant culture must begin to reflect equality toward minority culture rather than continue to view them as inferior. When these changes occur, minority children's educational experiences will be altered and the possibility of their academic success will increase.

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What does Easter Seals do after Easter?

The same thing we do before Easter...and before and after Christmas, the Fourth of July, Passover and Thanksgiving Day. Our services for people with disabilities continue all year long.

Our services include:

- Physical, occupational and speech-language therapies
- Vocational evaluation and training
- Camping and recreation
- Psychological counseling
- Prevention and screening for disabling conditions
- And much more.

Easter and other Holidays come and go. But Easter Seals is helping people every day to live independent and productive lives.



For more information on how you can be a part of it all, contact the Easter Seal Society in your community.



National Easter Seal Society

70 East Lake Street
Chicago, IL 60601
312/726-6200 (Voice)
312/726-4258 (TDD)

NEW STATISTICS

Students Served Under Chapter 1 of ECIA (SOP) and EHA-B by Handicapping Condition, 1986-87

Handicapping Condition	EHA-B		ECIA (SOP)		Total	
	Number	Per- cent ^a	Number	Per- cent ^a	Number	Per- cent ^a
Learning Disabled	1,900,739	45.6	25,358	9.9	1,926,097	43.6
Speech or Language Impaired	1,114,410	26.7	26,012	10.2	1,140,422	25.8
Mentally Retarded	577,749	13.9	86,675	34.0	664,424	15.0
Emotionally Disturbed	341,294	8.2	43,386	17.0	384,680	8.7
Multihandicapped	75,730	1.8	23,686	9.3	99,416	2.2
Hard of Hearing and Deaf	45,060	1.1	21,701	8.5	66,761	1.5
Orthopedically Impaired	46,692	1.1	11,636	4.6	58,328	1.3
Other Health Impaired	44,966	1.1	7,692	3.0	52,658	1.2
Visually Handicapped	19,201	.46	7,848	3.1	27,049	.61
Deaf-Blind	851	.02	915	.36	1,766	.04
All Conditions	4,166,692	100	254,909	100	4,421,601	100

^a Percents are within column.

From *Tenth Annual Report to Congress on the Implementations of the Education of the Handicapped Act*, 1988, Washington, DC: U.S. Department of Education, p.9. Child count information is for the school year 1986-87.

Professional update

UPCOMING MEETINGS

February 15-18, 1989

Association for Children and Adults
with Learning Disabilities
Fontainebleau Hilton
Miami Beach, FL

Contact: ACLD
(412) 341-1515

April 3-7, 1989

Council for Exceptional Children
San Francisco, CA

Contact: CEC
(703) 620-3660