

DOCUMENT RESUME

ED 352 806

FL 020 782

AUTHOR McLaughlin, Barry
 TITLE Myths and Misconceptions about Second Language Learning: What Every Teacher Needs to Unlearn. Educational Practice Report 5.
 INSTITUTION National Center for Research on Cultural Diversity and Second Language Learning, Santa Cruz, CA.
 SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
 PUB DATE 92
 CONTRACT R117G10022
 NOTE 18p.
 AVAILABLE FROM National Center for Research on Cultural Diversity and Second Language Learning, Center for Applied Linguistics, 1118 22nd Street, N.W., Washington, DC 20037 (\$4).
 PUB TYPE Reports - Evaluative/Feasibility (142) -- Viewpoints (Opinion/Position Papers, Essays, etc.) (120)
 EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS *Age Differences; Cognitive Style; Cultural Context; Cultural Differences; Educational Attitudes; Elementary Secondary Education; Individual Differences; Language Proficiency; Language Skills; *Language Teachers; Learning Processes; Oral Language; Second Language Learning; *Second Languages; *Teacher Attitudes; *Teacher Education; *Time Factors (Learning)

ABSTRACT

By discussing commonly held myths and misconceptions about second language learning, this discussion attempts to clarify a number of important issues concerning the ease and rapidity with which children learn a second language, the optimal age at which to begin second language instruction, the importance of the extent of exposure to the second language, the relationship between oral communication skills and academic language skills, and cultural and individual differences in language learning styles. Each myth presented is followed by a discussion of related research on second language learning and its implications for classroom teachers. Specific attention focuses on the importance of teachers of minority language students understanding that second language learning by school-aged children is a longer, more complex process than most have been led to believe. A 27-item bibliography is included. (MSE)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED352806

MYTHS AND MISCONCEPTIONS
ABOUT SECOND LANGUAGE LEARNING:
WHAT EVERY TEACHER NEEDS TO
UNLEARN

BARRY McLAUGHLIN



FL020782

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

**MYTHS AND MISCONCEPTIONS ABOUT SECOND
LANGUAGE LEARNING: WHAT EVERY TEACHER
NEEDS TO UNLEARN**

**BARRY McLAUGHLIN
UNIVERSITY OF CALIFORNIA, SANTA CRUZ**

**NATIONAL CENTER FOR RESEARCH ON CULTURAL DIVERSITY AND
SECOND LANGUAGE LEARNING**

1992

This report was prepared with funding from the Office of Educational Research and Improvement (OERI) of the U.S. Department of Education, under Cooperative Agreement No. R117G10022. The findings and opinions expressed here are those of the authors and do not necessarily reflect the positions or policies of OERI.

NATIONAL CENTER FOR RESEARCH ON CULTURAL DIVERSITY AND SECOND LANGUAGE LEARNING

The National Center for Research on Cultural Diversity and Second Language Learning is funded by the Office of Educational Research and Improvement of the U.S. Department of Education to conduct research on the education of language minority students in the United States. The Center is operated by the University of California, Santa Cruz, through the University of California's statewide Linguistic Minority Research Project, in collaboration with a number of other institutions nationwide.

The Center is committed to promoting the intellectual development, literacy, and thoughtful citizenship of language minority students and to increasing appreciation of the cultural and linguistic diversity of the American people. Center researchers from a variety of disciplines are conducting studies across the country with participants from a wide range of language minority groups in pre-kindergarten through grade 12 classrooms. Research projects deal with the relationship between first and second language learning; the relationship between cultural and linguistic factors in the achievement of literacy; teaching strategies to help children from diverse linguistic and cultural backgrounds gain access to content material; alternate models of assessment for language minority students; various instructional models for language minority children; and the effect of modifications in the social organization of schools on the academic performance of students from diverse backgrounds.

Dissemination is a key feature of Center activities. Information on Center research is published in two series of reports. *Research Reports* describe ongoing research or present the results of completed research projects. They are written primarily for researchers studying various aspects of the education of language minority students. *Educational Practice Reports* discuss research findings and their practical application in classroom settings. They are designed primarily for teachers, administrators, and policy makers responsible for the education of students from diverse linguistic and cultural backgrounds.

For more information about individual research projects or to have your name added to the mailing list, please contact:

Eugene Garcia and Barry McLaughlin, Co-Directors
National Center for Research on Cultural Diversity
and Second Language Learning
399 Kerr Hall
University of California
Santa Cruz, CA 9506

COLLABORATING INSTITUTIONS

University of California
Santa Cruz

University of California
Berkeley

University of California
Irvine

University of California
Los Angeles

University of California
San Diego

University of California
Santa Barbara

University of Arizona
Tucson

University of Oklahoma
Norman

University of Southern California
Los Angeles

Center for Applied Linguistics
Washington, DC

Technical Education Research Center

MYTHS AND MISCONCEPTIONS ABOUT SECOND LANGUAGE LEARNING: WHAT EVERY TEACHER NEEDS TO UNLEARN

OVERVIEW

By discussing commonly held myths and misconceptions, this paper attempts to clarify a number of important issues in the area of second language learning. These include the ease and rapidity with which children learn a second language, the optimal age at which to begin second language instruction, the importance of the extent of exposure to the second language, the relationship between oral communication skills and academic language skills, and cultural and individual differences in language learning styles.

Each myth presented in this paper is followed by a discussion of related research on second language learning and its implications for classroom teachers. It is important for the teachers of language minority students to understand that second language learning by school-aged children is a longer, harder, more complex process than most of them have been led to believe.

As more and more children enter schools from families in which English is not the language of the home, teachers face the daunting challenge of instructing children who have limited skills in the English language. It is becoming increasingly obvious that this experience is not limited to teachers in certain schools or certain parts of the country. All teachers need to know something about how children learn a second language. Intuitive assumptions are often mistaken, and children can be harmed if teachers have unrealistic expectations and an inaccurate understanding of the process of second language learning and its relationship to acquiring other academic skills and knowledge.

As any adult who has tried to learn another language can verify, second language acquisition can be a frustrating and difficult experience. This is no less the case for children, although there is a widespread belief that children are facile second language learners. This is one of a number of myths that this paper intends to debunk.

The purpose of this paper is to clarify a number of important issues in the area of second language learning by discussing commonly held myths or misconceptions. Throughout, I will try to show the implications of research on second language learning in children for classroom teachers. A thorough discussion of these issues is not possible here; the interested reader will find a more detailed exposition of each of these points and a more extensive bibliography in *Second Language Acquisition in Childhood* (McLaughlin, 1984-1985).

MYTH 1: CHILDREN LEARN SECOND LANGUAGES QUICKLY AND EASILY

One frequently hears this proposition in various forms. It is asserted that children can learn languages faster than adults; that immigrant children translate for their parents who have not learned the language; and that child learners speak without a foreign accent, whereas this is impossible for adult learners.

Typically, when pressed, people asserting the superiority of child learners resort to some variant of the "critical period hypothesis." The argument is that children are superior to adults in learning second languages because their brains are more flexible (Lenneberg, 1967; Penfield & Roberts, 1959). They can learn languages easily because their cortex is more plastic than that of older learners. (The corollary hypothesis is the "frozen brain hypothesis," applied to adult learners.)

The critical period hypothesis has been questioned by many researchers in recent years and is presently quite controversial (Genesee, 1981; Harley, 1989; Newport, 1990). The evidence for the biological basis of the critical period has been challenged and the argument made that differences in the rate of second language acquisition may reflect psychological and

social factors, rather than biological ones, that favor child learners. For example, children may be more motivated than adults to learn the second language. There is probably more incentive for the child on the playground and in school to communicate in the second language than there is for the adult on the job (where they often can get by with routine phrases and expressions) or with friends (who may speak the individual's first language anyway). It frequently happens that children are placed in more situations where they are forced to speak the second language than are adults.

However, experimental research in which children have been compared to adults in second language learning has consistently demonstrated that adolescents and adults perform better than young children under controlled conditions. Even when the method of teaching appears to favor learning in children, they perform less well than do adolescents and adults (e.g., Asher & Price, 1967). One exception is in the area of pronunciation, although even here some studies show better results for older learners. Similarly, research comparing children and adults learning second languages as immigrants does not support the notion that younger children are more efficient at second language learning (e.g., Snow & Hoefnagel-Hoehle, 1978).

Nonetheless, people continue to believe that children learn languages faster than adults. Is this superiority illusory? One difficulty in answering this question is that of applying the same criteria of language proficiency to both the child and the adult. The requirements to communicate as a child are quite different from the requirements to communicate as an adult. The child's constructions are shorter and simpler, and vocabulary is relatively small when compared with what is necessary for adults to speak at the same level of competence in a second language as they do in their first language. The child does not have to learn as much as an adult to achieve competence in communicating. Hence there is the illusion that the child learns more quickly than the adult, whereas when controlled research is conducted, in both formal and informal learning situations, results typically indicate that adult (and adolescent) learners perform better than young children.

What does this mean for the teacher?

One of the implications of this line of research is that teachers should not expect miraculous results from children who are learning English as a second language (ESL) in the classroom context. At the very least, they should expect that learning a second language is as difficult for a child in their class as it is for the teachers as adults. In fact, it may be more difficult, as young children do not have access to the memory techniques and other strategies that more experienced learners can use in acquiring vocabulary and in learning the grammatical rules of the language.

Nor should it be assumed that children have fewer inhibitions or are less embarrassed than adults when they make mistakes in a second

language. If anything, children are likely to be more shy and more embarrassed before their peers than are more mature adults. Certainly, children from some cultural backgrounds are extremely anxious when singled out and called upon to perform in a language they are in the process of learning. Teachers need to be sensitive to these feelings and not assume that, because children supposedly learn the second language quickly, such discomfort will quickly pass.

**MYTH 2: THE YOUNGER THE CHILD, THE MORE SKILLED IN
ACQUIRING A SECOND LANGUAGE**

A related myth concerns the best time to start language instruction. Certainly the optimal way to learn a second language is to begin at birth and learn two languages simultaneously. However, when should a young child who has acquired a first language begin a second? Some researchers take a younger-is-better position and argue that the earlier children begin to learn a second language, the better (e.g., Krashen, Long, & Scarcella, 1979). However, at least with regard to school settings, the research literature does not support this conclusion.

For example, a study of 17,000 British children learning French in a school context indicated that, after five years of exposure, children who had begun French instruction at age eleven performed better on tests of second language proficiency than children who had begun at eight years of age (Stern, Burstall, & Harley, 1975). The investigators in this study, the largest single study of children learning a second language in a formal classroom setting, concluded that older children are better second language learners than are younger ones. Similar results have been found in other studies by European investigators: studies of Swedish children learning English (Gorosch & Axelsson, 1964), of Swiss children learning French (Buehler, 1972), and of Danish children learning English (Florander & Jansen, 1968).

It may be that these findings reflect the mode of language instruction used in European countries, where heavy emphasis has traditionally been placed on formal grammatical analysis. Older children are more skilled in dealing with such an instructional approach and hence might be expected to do better. However, this argument does not explain findings from French immersion programs in Canada, where little emphasis is placed on the formal aspects of grammar, and therefore, older children should have no advantage over younger ones. Yet English-speaking children in late immersion programs (in which the second language is introduced in grades seven or eight) have been found to perform just as well or better on tests of French language proficiency as children who began their immersion experience in kindergarten or grade one (Genesee, 1981, 1987). The research does not always show an advantage to children who begin at an

older age, but differences in performance are by no means as great as relative amount of classroom exposure would lead one to expect.

Pronunciation is one aspect of language learning where the younger-is-better hypothesis may have validity. A number of studies have found that the younger one begins to learn a second language, the more native-like the accent one develops in that language (Asher & Garcia, 1969; Oyama, 1976). This may be because pronunciation involves motor patterns that have been fossilized in the first language and are difficult to alter after a certain age because of the nature of the neurophysiological mechanisms involved. It may also be that we do not understand very well how to teach phonology in a second language. Perhaps if we could develop more advanced (e.g., computer-assisted) methods of instruction, older learners might do better at acquiring a native-like accent in the second language.

Aside from the question of pronunciation, however, the younger-is-better hypothesis does not have strong empirical support in school contexts. The research suggests that younger children do not necessarily have an advantage over older children and, because of their cognitive and experiential limitations when compared to older children, are actually at a disadvantage in how quickly they learn a second language—other things being equal.

What does this mean for the teacher?

The research cited above does not mean that early exposure to a second language is in some way detrimental to a child. An early start for *foreign* language learners, for example, allows for a long sequence of instruction leading to potential communicative proficiency. It also allows children to view second language learning and the insights they acquire into another culture as normal and integral parts of schooling. However, instruction of children with limited English proficiency in the United States involves different considerations from foreign language instruction in the United States or Europe or from French immersion in Canada. Language minority children in American schools need to master English as quickly as possible while at the same time learning subject-matter content. This suggests that in the American context early exposure to English is called for. However, because second language acquisition takes time, children will continue to need the support of their first language, where this is possible, so as not to fall behind in content-area learning.

But teachers should not expect miracles of their young English language learners. The research suggests that older students will show quicker gains, though younger children may have an advantage in pronunciation. Certainly, beginning language instruction in kindergarten or first grade gives children more exposure to the language than beginning in fifth or sixth grade. But exposure in itself does not predict language acquisition. This is the next myth.

MYTH 3: THE MORE TIME STUDENTS SPEND IN A SECOND LANGUAGE CONTEXT, THE QUICKER THEY LEARN THE LANGUAGE

For many educators, the most straightforward way for children from non-English-speaking backgrounds to learn English is for them to be in an environment where they are constantly exposed to English. This is the rationale behind what is called "structured immersion," an instructional strategy in which children from language minority backgrounds receive all of their instruction in English and have the additional support of ESL classes and content-based instruction that is tailored to their language abilities.

Such a program has the advantage of providing more time on task for learning English than in a bilingual classroom. On the face of it, one might expect that the more English children hear and use, the quicker their English language skills develop. However, research evidence indicates that this is not necessarily the case. Over the length of the program, children in bilingual classes, where there is exposure to the home language and to English, have been found to acquire English language skills equivalent to those acquired by children who have been in English-only programs (Cummins, 1981; Ramirez, Yuen, & Ramey, 1991). This would not be expected if time on task were the most important factor in language learning.

Furthermore, many researchers caution against withdrawing the support of the home language too soon. There is a great deal of evidence that, whereas oral communication skills in a second language may be acquired within two or three years, it may take up to four to six years to acquire the level of proficiency for understanding the language in its instructional uses (Collier, 1989; Cummins, 1981). This is a point I shall return to in the next myth.

What does this mean for the teacher?

Teachers should be aware that giving language minority children the support of their home language, where this is possible, is not doing them a disservice. The use of the home language in bilingual classrooms enables the child to avoid falling behind in school work, and it also provides a mutually reinforcing bond between the home and the school. In fact, the home language acts as a bridge for children, enabling them to participate more effectively in school activities while they are learning English.

The research indicates that, over the long run, children in bilingual programs will acquire as much English as children who have more exposure from an earlier age. Furthermore, if the child is able to acquire literacy skills in the first language, as an adult he or she may be functionally bilingual, with a unique advantage in technical or professional careers.

On the other hand, language majority children in foreign language immersion programs have been shown to benefit from extended intensive exposure to the foreign language. The Canadian research clearly shows that immersing children in a foreign language is not detrimental to learning

content material in that language, as long as the home language continues to develop and is supported (Genesee, 1987).

MYTH 4: CHILDREN HAVE ACQUIRED A SECOND LANGUAGE ONCE THEY CAN SPEAK IT

Often, teachers assume that once children can converse comfortably in English, they are in full control of the language. Yet for school-aged children, there is much more involved in learning a second language than learning how to speak it. A child who is proficient in face-to-face communication has not necessarily achieved proficiency in the more abstract and disembedded academic language needed to engage in many classroom activities, especially in the later grades. For example, the child needs to learn what nouns and verbs are and what synonyms and antonyms are. Such activities require the child to separate language from the context of actual experience and to learn to deal with abstract meanings.

A great deal of research has been done on the differences between embedded and disembedded language, and the consensus is that the distinction is a real one, although we are dealing with a continuum of linguistic skills rather than with a dichotomy (Snow, 1987; Wong Fillmore, 1982). The Canadian educator, Jim Cummins (1980a), cited research evidence from a study of 1,210 immigrant children in Canada indicating that it takes these children much longer (approximately five to seven years) to master the disembedded cognitive language skills required for the regular English curriculum than to master oral communicative skills. Cummins and others speak of the "linguistic facade," whereby children appear to be fluent in a language because of their oral skills but have not mastered the more disembedded and decontextualized aspects of the language.

What does this mean for the teacher?

Teachers and other staff need to be cautious in exiting children from programs where they have the support of their home language. Exiting children who are not ready for the all-English classroom may be harmful to the children's academic success. In fact, Cummins (1980b) has argued that it is inappropriate for programs to exit children into an all-English classroom on the basis of language assessment instruments that tap only oral communication skills.

Aside from this question, all teachers in all programs need to be aware that a child who is learning in a second language may be having language problems in reading and writing that are not apparent if the child's oral abilities are used as the gauge of English proficiency. It is conceivable that many of the problems that children from minority language backgrounds have in reading and writing at the middle school and high school levels stem

from limitations in vocabulary and syntactic knowledge in the second language. Even children who are skilled orally can have these gaps. As we have seen, learning a second language is not an easy enterprise and is not finished in a year or two.

MYTH 5: ALL CHILDREN LEARN A SECOND LANGUAGE IN THE SAME WAY

Most likely, if asked, teachers would not admit that they think all children learn a second language in the same way or at the same rate. Yet this seems to be the assumption underlying a great deal of practice. There are two issues here: The first relates to differences among linguistically and culturally diverse groups and the second to differences among learners within these groups.

Research by cultural anthropologists indicates that mainstream American families and the families of many children from minority cultural backgrounds have different ways of talking (Heath, 1983; Ochs, 1982). Mainstream children are accustomed to an analytic style, in which the truth of specific arguments is deduced from general propositions. Many children from culturally diverse groups are accustomed to an inductive style of talking, in which fundamental assumptions must be inferred from a series of concrete statements.

Schools in America emphasize the language functions and styles of talk that predominate in mainstream families. Language is used to communicate meaning, to convey information, to control social behavior, and to solve problems. In the upper grades, especially, the style of talk is analytic and deductive. Children are rewarded for clear and logical thinking. It is no wonder that children who come to school accustomed to using language in a manner that is very different from what is expected in school experience tension and frustration.

Furthermore, there are social class differences. In urban centers of literate, technologically advanced societies, middle-class parents teach their children through language. Instructions are given verbally from a very early age. This contrasts to the experience of immigrant children from less technologically advanced non-urbanized societies. Traditionally, teaching in such cultures is carried out primarily through nonverbal means (Rogoff, 1990). Technical skills, such as cooking, driving a car, or building a house, are learned through observation, supervised participation, and self-initiated repetition. There is none of the information testing through questions that characterizes the teaching-learning process in urban and suburban middle-class homes.

In addition, some children in some cultures are more accustomed to learning from peers than from adults. From their earliest years, they were cared for and taught by older siblings or cousins. They learned to be quiet

in the presence of adults and had little experience in interacting with them. When they enter school, they are more likely to pay attention to what their peers are doing than to what the teacher is saying. At this point, the other children are more important to them than adults.

Besides these differences among cultural groups, there are also differences within groups in how children react to school and learn. Some children are outgoing and sociable and learn the second language quickly because they want to be like their English-speaking peers. They do not worry about mistakes, but use limited resources to generate input from native speakers. Other children are shy and quiet. They learn by listening and by attending to what is happening and being said around them. They say little, for fear of making a mistake. Nonetheless, research shows that both types of learners can be successful second language learners. In classrooms where group work is stressed, the socially active child is more likely to be successful; in the traditional, teacher-oriented classroom, children who are "active listeners" have been found to be more successful than highly sociable children (Wong Fillmore, Ammon, Ammon, & McLaughlin, 1984).

What does this mean for the teacher?

Teachers need to be aware of cultural and individual differences in learner styles. Many culturally and linguistically diverse children enter school with cognitive and social norms that differ from those that govern the mainstream classroom. These differences, in turn, affect the teacher's expectations of the child's ability and the teacher's response to the child. Within the school environment, behaviors such as paying attention and persisting at tasks are valued. Because of their cultural background, however, some children may be less able to make the functional adaptation to the interpersonal setting of the school culture. Unless the teacher is aware of such cultural differences, the child's lack of attentiveness and lack of persistence can influence the teacher's expectations and the way the teacher interacts with these children.

Effective instruction for children from culturally diverse backgrounds requires a variety of instructional activities—small group work, cooperative learning, peer tutoring, individualized instruction, and other strategies that take the children's diversity of experience into account. Many of the important educational innovations in current practice—such as untracking and mixed-age grouping—are the direct result of teachers adapting their teaching to the challenge posed by children from culturally diverse backgrounds.

Finally, teachers need to be aware of how the child's experiences in the home and in the home culture affect values, patterns of language use, and interpersonal style. Children are likely to be more responsive to a teacher who is sensitive to their culture and its behavioral patterns. This means going beyond such cognitive activities as history lessons, slide shows of life in Mexico, Cambodia, or the like. Such cognitive activities, while important,

do not reach children effectively. Effective education of children from culturally and linguistically diverse backgrounds affirms the values of the home culture and develops in children a positive emotional attitude toward their background.

WHERE DO WE GO FROM HERE?

Research on second language learning has shown that there are many misconceptions about how children learn languages. Teachers need to be aware of these research findings and to unlearn old ways of thinking. For the most part, this means realizing that quick and easy solutions are not appropriate for complex problems. Second language learning by school-aged children takes longer, is harder, and involves a great deal more than most teachers have been led to believe. We need consciously to rethink what our expectations should be.

Too often one hears of the "problem" of cultural and linguistic diversity in our country's schools, rather than the "opportunity" that diversity provides. Children from diverse backgrounds enrich our schools and our other students. Student diversity challenges the educational system, but the educational innovations and instructional strategies that are effective with diverse students can benefit all students.

In fact, although the research of the National Center for Research on Cultural Diversity and Second Language Learning, as well as the research of many other investigators throughout the country on instructional conversations, active learning, mixed ability groupings, collaborative learning, holistic instruction, and authentic assessment has been directed at children from culturally and linguistically diverse backgrounds, much of it applies equally well to mainstream students. The challenge of educating diverse students effectively promotes needed educational reform at all levels and for all students.

REFERENCES

- Asher, J. J., & Garcia, R. (1969). The optimal age to learn a foreign language. *Modern Language Journal*, 53, 334-341.
- Asher, J. J., & Price, B. S. (1967). The learning strategy of a total physical response: Some age differences. *Child Development*, 38, 1219-1227.
- Buehler, U. B. (1972). *Empirische und lernpsychologische Beitrage zur Wahl des Zeitpunktes fuer den Fremdsprachenunterrichtbeginn: Lernpsychologischinterpretierte Leistungsmessungen im Frage Franzoesischunterricht an Primaerschulen des Kantons Zuerich*. Zurich: Orell Fuessli.
- Collier, V. (1989). How long: A synthesis of research on academic achievement in a second language. *TESOL Quarterly*, 23, 509-531.
- Cummins, J. (1980a). The cross-lingual dimensions of language proficiency: Implications for bilingual education and the optimal age issue. *TESOL Quarterly*, 14, 175-187.
- Cummins, J. (1980b). The entry and exit fallacy in bilingual education. *NABE Journal*, 4(3), 25-29.
- Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In *Schooling and language minority students: A theoretical framework*. Los Angeles: California State University, Evaluation, Dissemination and Assessment Center.
- Florander, J., & Jansen, M. (1968). *Skoleforsog i engelsk 1959-1965*. Copenhagen: Danish Institute of Education.
- Genesee, F. (1981). A comparison of early and late second language learning. *Canadian Journal of Behavioural Science*, 13, 115-127.
- Genesee, F. (1987). *Learning through two languages: Studies of immersion and bilingual education*. New York: Newbury House.
- Gorosch, M., & Axelsson, C. A. (1964). *English without a book: A bilingual experience in primary schools by audio-visual means*. Berlin: Cornelsen Verlag.
- Harley, B. (1989). *Age in second language acquisition*. San Diego: College-Hill Press.
- Heath, S. B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. New York: Cambridge.
- Krashen, S., Long, M., & Scarcella, R. (1979). Age, rate, and eventual attainment in second language acquisition. *TESOL Quarterly*, 13, 573-582.
- Lenneberg, E. H. (1967). *The biological foundations of language*. New York: Wiley.
- McLaughlin, B. (1984-1985). *Second language acquisition in childhood* (Vols. 1-2). Hillsdale, NJ: Lawrence Earlbaum Associates.

- Newport, E. (1990). Maturation constraints on language learning. *Cognitive Science*, 14, 11-28.
- Ochs, E. (1982). Talking to children in Western Samoa. *Language in Society*, 14, 77-104.
- Oyama, S. (1976). A sensitive period for the acquisition of nonnative phonological system. *Journal of Psycholinguistic Research*, 5, 261-284.
- Penfield, W., & Roberts, L. (1959). *Speech and brain-mechanisms*. Princeton, NJ: Princeton University Press.
- Ramirez, J.D., Yuen, S.D., & Ramey, D.R. (1991). *Longitudinal study of structured English immersion strategy, early-exit and late-exit transitional bilingual education programs for language minority children. Final Report. Volumes 1 & 2*. San Mateo, CA: Aguirre International.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford.
- Snow, C. E. (1987). *Second language learners' format definitions: An oral language correlate of school literacy*. Los Angeles: University of California, Center for Language Education and Research.
- Snow, C. E., & Hoefnagel-Hoehle, M. (1978). The critical period for language acquisition: Evidence from second language learning. *Child Development*, 49, 1114-1118.
- Stem, H. H., Burstall, C., & Harley, B. (1975). *French from age eight or eleven?* Toronto: Ontario Institute for Studies in Education.
- Wong Fillmore, L. (1982). Language minority students and school participation: What kind of English is needed? *Journal of Education*, 164, 143-156.
- Wong Fillmore, L., Ammon, M. S., Ammon, P., & McLaughlin, B. (1984). *Learning English through bilingual instruction (Final Report)*. Washington, D.C.: National Institute of Education.

RESEARCH REPORTS

- RR 1 *Sociological Foundations Supporting the Study of Cultural Diversity* (1991)
Hugh Mehan
- RR 2 *The Instructional Conversation: Teaching and Learning in Social Activity* (1991)
Roland G. Tharp & Ronald Gallimore
- RR 3 *Appropriating Scientific Discourse: Findings from Language Minority Classrooms* (1992)
Ann S. Rosebery, Beth Warren & Faith R. Conant
- RR 4 *Untracking and College Enrollment* (1992)
Hugh Mehan, Amanda Datnow, Elizabeth Bratton, Claudia Tellez, Diane Friedlaender & Thuy Ngo

EDUCATIONAL PRACTICE REPORTS

- EPR 1 *The Education of Linguistically and Culturally Diverse Students: Effective Instructional Practices* (1991)
Eugene E. Garcia
- EPR 2 *Instructional Conversations and Their Classroom Application* (1991)
Claude Goldenberg
- EPR 3 *Language Minority Education in the United States: implications of the Ramirez Report* (1992)
Courtney B. Cazden
- EPR 4 *Rating Instructional Conversations: A Guide* (1992)
Robert Rueda, Claude Goldenberg & Ronald Gallimore
- EPR5 *Myths and Misconceptions about Second Language Learning: What Every Teacher Needs to Unlearn* (1992)
Barry McLaughlin

To order copies of these reports, please write or call:
Dissemination Coordinator
National Center for Research on Cultural Diversity
and Second Language Learning Center for Applied Linguistics
1118 22nd Street N.W.
Washington, D.C. 20037
202-429-9292

**THE NATIONAL CENTER FOR
RESEARCH ON
CULTURAL DIVERSITY AND
SECOND LANGUAGE LEARNING
399 KERR HALL
UNIVERSITY OF CALIFORNIA
SANTA CRUZ, CA 95064
PHONE: (408) 459-3500
FAX: (408) 459-3502**



recycled paper