CHILDREN'S LEARNING AND THE DESIGN OF ENGLISH LANGUAGE TEACHING PROGRAMS

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INTRODUCTION

When I began teaching English to Spanish-speaking elementary school children in the mid 1960's, I received a set of English language teaching materials that reflected the view that language learning was habit formation, the learning of new patterns to replace the old ones that the children already had. The materials had been developed by well known applied linguists who previously had worked with adults. Emphasis in the lessons was on the repetition and memorization of a limited number of sentence patterns (This is a ____/I have a ____) with the slotting in of various lexical items. Children were also expected to practice minimal pair drills where they contrasted, for example, the /sh/ of *ship* with the /ch/ of *chip*. The focus was on accurate pronunciation and, as much as possible, error free production of complete sentences. If children produced sentences with errors in them, or if they used incomplete sentences, teachers were directed to correct them and to require them to produce complete sentences. The view of teaching and learning on which these materials were based was the behaviorist, stimulus-response, audiolingual perspective on language learning. Behaviorism also represented the prevailing view of the United States educational psycholinguists about children's learning in general.

Thirty years later, we have a new set of understandings about children's learning in general and their language learning in particular. In this paper, I will first explain what I believe to be some major aspects of our current understandings or current theories of learning. I will then suggest some implications of these understandings for the design of English language teaching materials for children.

The Constructivist Perspective

In recent years a theory about children's learning that has influenced a considerable amount of instructional practice in elementary school classrooms has been that of constructivism. Articulated by the Swiss developmental psychologist Jean Piaget and his students, constructivism's base is the tenet that knowledge is actively constructed or invented by the children, not passively received from the environment. Children do not actually learn by being told, by having information transmitted to them, although much school practice appears to be based on a transmission model of learning. Rather, according to constructivists, from birth children are busy acting on their environments. It is through this continuous interaction with the physical and social environment, which necessitates manipulating objects, hypothesizing and predicting, posing questions, and researching answers that children acquire knowledge. All knowledge is constructed from existing knowledge in the learner's mind. Children's understandings are undergoing continuous changes as they experience the world (Duckworth, 1987; Fosnot, 1989; Piaget, 1977).

According to Piaget, children move through a series of developmental stages before they think about and understand the world around them as adults do. Most primary or elementary school children (children approximately 6 to 12 years of age, although Piaget and his colleagues have warned us not to take ages literally) find themselves in what has been called the concrete operational stage, which means that their knowledge is constructed not from the hearing or reading about abstract principles or generalizations (for example, the adult pronouncement that certain objects with certain properties float and others do not) but rather from direct experiences with those objects (for example, predicting or hypothesizing which objects in a set of objects might float and then experimenting to see if one's predictions were realized or not) (Piaget, 1977).

Educators influenced by Piaget thus advocate that school-based learning experiences involve experimentation and play, include topics of interest to children, focus on authentic questions and the working out of answers to those questions, and allow for children's discovery or construction of specific principles or realities. In order to really learn, children

must be in control of their learning and must be actively involved in discovering for themselves how the world works. The focus is on the child's mental or cognitive work (Surbeck, 1995).

A Sociocultural View of Learning

A different perspective on children's learning, but one that I believe to be complimentary to constructivism, is one first proposed by Russian psychologist Lev Vygotsky and since articulated by his followers. This view, sometimes called the sociocultural model, emphasizes the social nature of learning and, in part, states that learners acquire new knowledge within the context of social interactions and with the assistance of more capable peers or teachers who take them on as apprentices in whatever task is at hand. Learning takes place in what Vygotsky called the zone of proximal development, or *zoped*. The zoped has been defined as the distance between the individual's actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978). So while Piaget focuses on the individual's intellectual work in the construction of new knowledge and new understandings, Vygotsky emphasizes the roles of more capable or more knowledgeable others in assisting the learner in his creation of new understandings.

Knowledge is socially constructed, and learners most probably will be able to learn more when they are collaborating with others than when they are working in isolation. This is true because for most tasks carried out collaboratively by groups of learners, there will be those who bring more prior knowledge and those who bring less, and these positions will change depending upon the task. Thus, in the example of what sinks and what floats, there may be learners who have had more experiences around water and who may well be able to provide explanations to back up their predictions about what will float and what will not. These explanations may assist others in their own explorations. But each learner still reaches his/her own understandings of the phenomenon (Bayer, 1989).

Children's First Language Acquisition

Moving from the broader perspectives of constructivism and sociocultural learning to the more narrow focus of language learning, I interpret the research to include both cognitive and social or sociocultural views of language learning. To begin with the cognitive, it is currently accepted that language acquisition is <u>not</u> essentially a process of imitation, repetition, and habit formation. Instead, the process is one, from infancy on, of children's construction or generation of the rules of the language for themselves. Children work to figure out how the language works. They make hypotheses or guesses about the language, about how to say what they want to say. Inevitably they create utterances that do not correspond to adult speech. Over time, however, their hypotheses change and their speech, as it moves through cooing and babbling, single word utterances, formulae, to multiple word combinatory speech, moves closer to the ways that adult members of a given community express themselves (Genishi and Dyson, 1984; Lindfors, 1987).

Essentially, language acquisition is a process of creative construction; children are figuring out for themselves how to say what they want to say (Lindfors, 1987; Wells, 1986). The individual child is engaged in cognitive activity that involves relating objects, events, people and concepts in the world to specific forms. Thus, children have to attend not only to what is happening in their worlds, but also to how those around them are expressing linguistically what is happening in their worlds, but also to how those around them are expressing linguistically what is happening (Clark, 1983). But while children's language is cognitive in that children are engaged in constructing the rules for their language, that is, in developing linguistic competence, language acquisition is also deeply and profoundly social in nature (Lindfors, 1987).

The view of language acquisition that is most currently accepted is the one that has been termed the social interactionist perspective with its focus on the social nature of language learning (Genishi and Dyson, 1984). According to this view, children acquire language as they are living in their worlds, as they are growing up in families and communities where they are figuring out how to function as family and community members, as they are accomplishing their purposes in the world. Language is one tool that children observe others use and work to use themselves to participate in the world; language is one way that children have of making sense of the world and of acting in it. As social beings, children acquire language because it is useful to them. Language is one way that children have of making and maintaining contact with others. Through language, children are able to have their needs met; children use language to express both their own individuality and, simultaneously, their connections with others. So, language learning and daily living are not separate spheres of activity. Children learn language as they live

their daily lives in the company of other people (Lindfors, 1990).

Children's Second Language Acquisition

Narrowing the focus even more to second language learning in children, in the last twenty years researchers who have studied preschool and elementary school age children's learning of a second language have concluded that, like first language acquisition, second language acquisition is both a social and a cognitive process. Researcher Lily Wong Fillmore has identified both cognitive and social strategies of child English as a Second Language learners (Fillmore, 1976), and she has noted that the cognitive and the social intertwine. Cognitively, children are involved actively in figuring out how the new language works, often repeating elements they have heard and rehearsing and trying out the new language; experimentation with the new language is necessary and mistakes are a natural and necessary part of language learning. Risktaking is crucial. Socially, children make use of both peers and adults around them, both in terms of language input they receive and in terms of using the new language to accomplish their purposes. Other researchers have noted that it is quite common for children to go through a period when they continue to use their first language in the second language setting, often followed by a period when they do not verbalize in their new language, but rather closely and they communicate nonverbally, using strategies such as making noises including whimpering, and/or connecting with others through gestures and facial expressions (Tabors and Snow, 1994).

Eventually, although with tremendous individual differences in willingness to express themselves, in rate of acquisition of the new language, and in a general observor or participator stance with regard to language learning, children begin to use English, initially using memorized bits of the language that will allow them to participate in activities, and later engaging in hypothesis generating and testing as they figure out how English works. During all of this process it is essential for them to have others with whom to interact. Sometimes these others are peers and sometimes they are adults (Fillmore, 1976; Lindfors, 1987; Tabors & Snow, 1944). All of this suggests that second language acquisition in children is more similar to first language acquisition than it is different, and that both the social interactionists and the cognitivists have something to contribute to our understanding of children's second language learning.

Written Language Acquisition

Up until now this consideration of language learning has focused on children's use of spoken language. But a significant amount of work also has been done in an area that some term emergent literacy, which focuses on describing how children become readers and writers (Teale and Sulzby, 1986). While some of this research has examined the literacy acquisition of native speakers of English and other languages (e.g., Ferreiro & Teberosky, 1982; Strickland & Morrow, 1989; Goodman, 1990), some investigators have documented how children become readers and writers of English as a second language (e.g., Carger, 1993; Goodman & Flores, 1979; Hudelson, 1984, 1989; Seawell, 1985). What has been discovered is clearly relevant to educators concerned with designing English language programs for children.

In general terms, for at least the last fifteen years it has become increasingly clear that children living in print oriented or print saturated societies (urban areas such as Cali and Bogotá certainly qualify for this designation) are engaged, from very early on in their lives, in making sense of the printed word, in figuring out the symbolic nature of print, and in discovering that print may serve a variety of functions in their lives. Children are also engaged in experimenting with that print, whether they are interpreting print written by someone else (reading) or creating their own written texts (writing) (Baaghban, 1984; Clay, 1975; Weaver, 1994). If this sounds like the notion of creative construction, it is. There is a significant amount of evidence that just as they creatively construct spoken language, children creatively construct written language. It is also the case that the social interactionist perspective applies to written language as well, for this creative construction occurs as children observe demonstrations of written language use around them and as they engage in written language use with others who respond to their efforts to make meaning (Barron, 1991, Lindfors, 1987; Weaver, 1994). What follows are some examples of contexts or social settings in which children engage with written language.

One of the most common of these settings is print in the world around us, including print in children's communities and homes and print on television. This kind of written language has come to be termed environmental print, and because children see this kind of print and associate it with particular destinations, activities and so on, they become aware very early in their lives that the print, the label stands for something else. Early awareness of and interaction with environmental print occurs across socioeconomic

classes in print oriented societies (Harste, Burke & Woodward, 1984). And once children understand the symbolic nature of print in their native language, they will also begin to construct meaning from print in the second language.

In my own work with Spanish-speaking children learning English, for example, several years ago I interviewed an eight-year-old child recently arrived in the United States from Mexico. As we talked about what he was learning in English, he mentioned that there was a sign on a house in his neighborhood that he was able to read. When I asked him what the sign said he told me *"Que no se acerque al perro."* which is a reasonable rendition semantically of BEWARE OF THE DOG sign in his neighborhood. On another occasion I was visiting a first grade bilingual class in which the teacher and children had created a grocery store in the corner of the classroom. As a part of their ESL work, the children engaged in role playing a visit to the grocery store. The children had to prepare shopping lists to go to the store, and when I examined their lists I noted that they had written down product names in English, using the labels available to them in English as guides. Environmental print was salient for these English language learners.

Early investigations of children's knowledge of environmental print gradually extended into work documenting home literacy environments, which is another context for demonstrations of and engagements in literacy (Taylor, 1983; Taylor & Dorsey-Gaines, 1988). Studies have examined both varieties of written and the kinds of home literacy events observed by and often engaged in, even by preschool children. What this research demonstrated is that children engaged in the kinds of reading and writing that they saw family members engage in. If, for example, children saw their parents reading newspapers and books, children engaged in this behavior although not in the conventional ways that their parents did. If children saw parents writing lists, they also wrote lists. If children saw their parents writing letters to distant grandparents, they also wrote letters, even if their writing did not take a conventional form but instead looked like scribbles to adults (Baghban, 1984). Over time these scribbles come to more closely resemble adult writing.

Early letter forms children produce, whether in strings or in certain combinations, resemble the orthographic system that surrounds them, even though the letters do not represent specific sounds. Eventually, however, children figure out that the squiggles or forms in some way represent the sounds or words of the language they are writing. At this point, in alphabetic languages such as Spanish and English, children begin to relate the letters they are writing to the words they are creating and use what has been called constructed or invented spelling. There is substantial evidence that children's invented spellings are logical and reasoned, although they do not conform to adult orthography. There is also substantial evidence that these inventions change over time, as children's understandings of sounds and letters become more conventional (Hudson, 1981-82; Read, 1975; Weaver, 1994).

In second language settings, too, children construct the written language. In my own work, I have seen Spanish speaking children with no formal literacy in English engage in letter writing in English to pen pals or to residents of a retirement center because they realized that their correspondents did not know any Spanish. Here is the beginning of one child's letter to a friend who had moved to another: Deer Jimmy, Jou ar yu? We al mist yu. (Dear Jimmy. How are you? We all missed you.) The orthography this child and the others used was influenced heavily by Spanish, but the children were constructing messages in their new language because they had a real need to communicate.

A third context or social setting for emerging literacy is that of storybook reading, a literacy experience in which many young children participate, whether at home or school. In this event, adults intentionally engage in listening to and responding to stories. Numerous studies of preschool storybook reading in English language settings have been conducted. In general, this research has shown that, in spite of significant differences in how storybook reading is conducted (Martinez and Teale, 1993), and in spite of differences in children's socio-economic status and life experiences (Barone, 1993; Dickinson and Smith, 1994), through storybook reading young children learn new vocabulary and come to understand both how stories are structured and the specific language of stories, meaning that story talk is not the same as conversation or talk (Baghban, 1984; Doake, 1985; Teale and Sulzby, 1986). By participating in storytime young children also come to understand that both the illustrations and the print are significant; that the illustrations help convey the story's meaning and that the print represents the language of the story. They come to understand how to handle books, what the parts of a book are, and the concept of directionality both for a whole book (front to back) and for print on a page (left to right in Spanish and English) (Clay, 1985).

Very often children participate in multiple readings of the same favorite story, and gradually they begin to

interpret the story themselves. Their hypotheses about how to read a familiar story change over time. Children begin more globally by retelling their favorite stories, constructing the overall story plot and using the pictures in a general reconstruction of the story. As the story becomes more familiar, children focus in on the story's actual words. Children begin to attend to the actual text or language of the story and store syntactic and semantic aspects of it. From there, they frequently pay more attention to the actual words, trying to match the words they are saying to the squiggles on the page. Thus, they cue in to individual words and letters. There is a natural process of reading acquisition, then, which moves from whole to part, with children beginning with more general global notions of what reading is and gradually refining their notions (Weaver, 1994).

While most of the work to date documents this phenomenon in a native language, a few investigations have been and are being done in ESL settings. These have demonstrated that with repeated readings of the same story, second language learners develop confidence with a story and begin to "read" themselves. The more the same stories were read the closer were the children's approximations to the stories and the more vocabulary from the stories the learners used. Thus, storybook reading contributed to the children's learning vocabulary in English and to the children viewing themselves as English readers (Carger, 1993; Seawell, 1985).

In a research project I have been involved in, two colleagues and I have documented the Spanish and English as a second language literacy development of 5 through 9 year old Spanish-speaking children in a bilingual program. We discovered that the children who had become readers and writers in Spanish began to add on English literacy of their own accord, when there was a real purpose for them to do it and when they were in control of their learning. Thus, they began to add on writing when there was a need to write to someone in English, as in the examples noted earlier, when they were writing to pen pals and adults who didn't know Spanish.

They began to add on reading in English because their teachers read them story books in English. After the teachers' demonstrations of English reading, the children would pick up the books themselves. They would often begin by looking at the pictures and retelling the general plot, but soon they focused in on the words and began rereading from a combination of memory and utilization of sound letter clues from Spanish. The teachers' demonstrations of English reading with fun, predictable books with good stories led them to read in English themselves. This began happening early on in the children's experiences with English when many of them still were not comfortable speaking English. This has led us to maintain that the children were constructing their own second language literacy (Hudelson, 1994; Hudelson 1992; Hudelson & Serna, 1994).

Conclusions/Challenges for Curriculum Design

What this paper has tried to demonstrate is that both spoken and written language are learned by children as children observe demonstrations of spoken and written language use and as they themselves engage in using spoken and written language in their lives. In social settings, children creatively construct their knowledge of spoken and written language over time, moving from less to more conventional language use. This happens in native language settings, but it also happens in second language environments. So, what might these findings mean for the design of curriculum for English language teaching to children in Colombia? I suggest that they offer many challenges for you to consider. Some of these challenges are:

1) The creation of curricula that build, at least partially, on children's interests and children's questions. Topics must be engaging intellectually from the child's point of view.

2) The creation of curricula that provide opportunities for children to work collaboratively on activities and to use spoken and written English to accomplish the activities. Large group work must be accompanied by small group and pair work.

3) The creation of curricula that offer hands on experiences to learners. Children need to be active if they are to learn.

4) The creation of curricula that balance a concern for form and correctness with a concern for functionality. Learners need to use language creatively and purposefully even if they make mistakes. They also need to practice language forms, but perhaps a concern for the conventional forms need to follow an emphasis on the language functions. And creativity will be required in the development of engaging and fun ways for children to practice the forms.

5) The creation of curricula that acknowledge that written language development goes hand in hand with spoken language development, rather than coming after it. Curricula need to provide multiple opportunities for children to use written as well as spoken language and to engage with whole, authentic texts rather than workbook pages and exercises.

6) The recognition on the part of language teachers that children have to be provided encouragement to listen to, read and produce the new language even if they make mistakes. It will be important to build an understanding of children's language learning among language teachers, so that teachers will be more willing to allow mistakes, both on the parts of learners and themselves as teachers.

7) The realization that there will be tremendous variation in children's rates of language learning, as well as in their interest in English and their willingness to use the new language. Such variation is natural but is often not considered in the design of curricula.

These challenges and others, I am sure, await those who are engaged in the struggle to provide the most effective learning environments for child language learners in Colombia.

BIBLIGRAPHY

Baghban, M. (1984). *Our daughter learns to read and write*. Newark, DE: International Reading Association.

Barone, D. (1993). Wednesday's child: Literacy development of children prenatally exposed to crack cocaine. In *Research in the Teaching of English*. 27 (1), 7-45.

Barron, M. (1991). *I learn to read and write the way I learn to talk*. New York: Richard C. Owen.

Bayer, A. (1989). *Collaboration apprenticeship learning: Language and thinking across the curriculum*. Mountain View, CA: Mayfield.

Carger, C. (1993). Louie comes to life: Pretend reading with second language emergent readers. *Language Arts*, 70 (7), 542-47.

Clay, M. (1985). *The early detection of reading difficulties*. Portsmouth, NH: Heinemann.

Clay, M. (1975). *What did I write?* Auckland: Heinemann Educational Books.

Dickinson, D. & Smith, M. (1994). Long-term effects of preschool teachers' book readings on low-income children's vocabulary and story comprehension. *Reading Research Quarterly*, 29 (2), 104-123.

Doake, D. (1985). Reading-like behavior: Its role in learning to read. In A. Jagger & M. Trike Smith-Burke (Eds.), *Observing the language learner*. Newark, DE: International Reading Association.

Duckworth, E. (1987). *The having of wonderful ideas and other essays on teaching*. New York: Teachers College Press.

Ferreiro, E. & Teberosky, A. (1982). *Literacy before schooling*. Exeter, NH: Heinemann.

Fillmore, L.W. (1976). *The second time around: Cognitive and social strategies in second language acquisition.* Unpublished doctoral dissertation, Stanford University.

Fosnot, C. (1989). *Enquiring teachers enquiring learners: A constructivist approach for teaching*. New York: Teachers College Press.

Genishi, C. & Dyson, A. (1984). *Language assessment in the early years*. Norwood, NJ: Ablex.

Goodman, K., Goodman, Y. & Flores, B. (1979). *Reading in the bilingual classroom: Literacy and biliteracy*. Rosslyn, VA: National Clearinghouse for Bilingual Education.

Goodman, Y. (Ed) (1990). *How children construct literacy: Piagetian perspectives*. Newark, DE: International Reading Association.

Harste, J., Burke, C., & Woodward, V. (1984). *Language stories and literacy lessons*. Exeter, NH: Heinemann.

Hudelson, S. (1994). Literacy development of second language children. In F. Genesse (Ed.), *Educating second language children: The whole child, the whole curriculum, the whole community*. (pp.129-158). New York: Cambridge University Press.

Hudelson, S. (1992). *Reading in a bilingual program. Canadian Children*, 17, (2), 13-26.

Hudelson, S. (1989). *Write on: Children writing in ESL*. Englewood Cliffs, NJ: Prentice-Hall.

Hudelson, S. (1981-82). *An introductory examination of children's invented spelling in Spanish.* National Association for Bilingual Education Journal, VI, 53-68.

Hudelson, S. & Serna, I. (1994). Beginning literacy in English in a whole language bilingual program. In A. Flurkey and R. Meyer (Eds.), *Under the whole language umbrella: Many cultures, many voices* (pp.278-294). Urbana, IL: National Council of Teachers of English.

Lindfors, J. (1990). Speaking creatures in the classroom. In S. Hynds and D. Rubin (Eds.), *Perspectives on talk and learning*. Urbana, IL: National Council of Teachers of English.

Lindfors, J. (1987). *Children's language and learning*, 2nd. ed. Englewood Cliffs, NJ: Prentice-Hall.

Martínez, M., & Teale, W. (1993). Teacher storybook reading style: A comparison of six teachers. *Research in the Teaching of English*, 27 (2), 175-99.

Piaget, J. (1977). *The development of thought: Equilibration of cognitive structures*. New York: Viking Press.

Read, C. (1975). *Children's categorization of speech sounds in English*. Urbana, IL: National Council of Teachers of English.

Seawell, R. (1985). *A micro-ethnographic study of a Spanish-English bilingual Kindergarten in which literature and puppet play were used as a method of enhancing language growth*. Unpublished doctoral dissertation, University of Texas at Austin.

Strickland, D., & Morrow, L. (Eds). (1989). *Emerging literacy: Young children learn to read and write*. Newark, DE: International Reading Association.

Surbeck, E. (1995) *Constructivism and Children's creation of games*. Presentation at the IRA Regional Institute on Early Childhood Literacy, Tempe, AZ.

Tabors, P. & Snow, C. (1994). English as a second language in preschool programs. In F. Genesee (Ed.), *Educating second language children: The whole child, the whole curriculum, the whole community*. New York: Cambridge University Press.

Taylor, D. (1983). *Family literacy: Young children learn to read and write*. Exeter, NH: Heinemann.

Taylor, D. & Dorsey-Gaines, C. (1988). *Growing up literate: Learning from inner city families*. Portsmouth, NH: Heinemann.

Teale, W. & Sulzby, E. (Eds.)(1986). *Emergent literacy: Writing and reading*. Norwood, NJ: Ablex.

Vygotsky, L. (1978). *Mind in society*. Edited by M. Cole, S. Scribner, V. Steiner and E. Souberman. Cambridge, MA: Harvard University Press.

Weaver, C. (1994). *Reading process and practice, 2nd ed*. Portsmouth, NH: Heinemann.

Wells, G. (1986). *The meaning-makers*. Portsmouth, NH: Heinemann.