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Rosenbusch, Marcia Harmon, Ph.D.

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Second language learning in young children

by

Marcia Harmon Rosenbusch

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Department: Professional Studies in Education
Major: Education (Curriculum and Instructional Technology)

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Iowa State University
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GENERAL INTRODUCTION

The dramatic growth in interest in the teaching of second languages to children in the United States can be observed by the recent establishment of two organizations which promote second language learning for children, Advocates for Language Learning and the National Network for Early Language Learning. A new conference focusing on the children as second language learners, The International Conference on Children's Second/Foreign Language Acquisition, has also recently been established.

The abilities of older children and adults as second language learners have been researched extensively. The variables that have been examined in these studies include age, sex, intelligence, parent attitude toward second language learning, student attitude toward the target language and culture, and student motivation to learn the second language.

Few studies have focused on the second language learning abilities of young children, ages three through five years-old. And even fewer studies have examined the learning of a second language by young children in a second language classroom. Dockrell and Brosseau (1967) examined the variables of age, intelligence, parent attitude; and

Schmid-Schonbein (1980) studied the effects of intelligence, sex, social status, and parent's knowledge of a foreign language. These two studies agree only on the finding that there was no significant relationship between intelligence and communication skills. Clearly more information is needed concerning the variables and their interrelationships in young children's second language learning.

While motivation to learn the second language has not been examined in any study of young children, in a non-quantitative study of young children enthusiasm to learn the language was observed by the second language teacher and the classroom teacher to be related to success in second language learning (Rosenbusch & Draper, 1985). This variable appears to be one that may have an effect on young children's second language learning.

Several journal articles offer suggestions on the teaching of second languages to young children (Szymanski, 1979; Schmid-Schonbein, 1980). Curriculum materials for teaching a second language to young children have also recently become available commercially (Gonzalez-Mena & Gonzalez-Mena, 1985; Marquez, 1982; Pirz, 1985). There has been, however, no curriculum for the teaching of a second language to young children for which the results of the

learning outcomes have been analyzed statistically. In order to develop appropriate curricula for teaching young children it is evident that serious study of young children as second language learners is necessary.

The present study is an attempt to obtain information about the second language learning abilities of young children. The three objectives of the study were:

1. To review the literature and identify variables which may effect young children's ability to learn a second language.

2. To develop a curriculum based on early childhood education theory and second language education theory to teach Spanish to young children, three through five years-old.

3. To investigate the interrelationships among age, sex, intelligence, children's motivation to learn Spanish, parental attitude toward bilingualism, and young children's oral ability in Spanish as determined by children's abilities in listening comprehension, oral production, pronunciation, and vocabulary following 11 1/2 hours of Spanish instruction over a six month period.

This dissertation contains three articles prepared for publication: (a) a review of the literature concerning second language learning in children; (b) a curriculum for the teaching of Spanish to young children with appendices on the Spanish language content, Spanish songs, sources for teaching materials, a sample class plan, and an excerpt

from a lesson an cultural awareness; (c) a report on the empirical investigation of the interrelationships of selected variables and the ability of young children to learn a second language with appendices which include letters to parents, the instruments used, and a detailed description of the posttest procedure.

SECTION I: THE IDENTIFICATION OF VARIABLES RELATED TO SECOND LANGUAGE LEARNING IN YOUNG CHILDREN: LITERATURE REVIEW

INTRODUCTION

Interest in the teaching of second languages to children has increased markedly in recent years resulting in the establishment of second language programs in preschools and at the elementary school level (Rosenbusch, 1985; Rosenbusch and Draper, 1985). This increase in interest has been stimulated by several national reports which have advocated the teaching of second languages to children: President's Commission on Foreign Language and International Studies (1980), National Commission on Excellence in Education (1983), and Council of Chief State School Officers (1986). These reports indicate that beginning the study of a second language in high school or college is too late because the achievement of communicative competence in a language requires more time and effort than students at those levels can invest. Andersson (1969) notes that as early as 1956 the Modern Language Association concluded that, "The optimum age for beginning the continuous learning of a second language seems to fall within the span of ages four through eight..." (p. 45). Because of growing interest in young children as second language learners, an understanding of

the variables which affect their learning of a second language is necessary in order to develop curricula appropriate for this age group.

The purpose of this paper is to identify and examine variables which influence young childrens' ability to learn a second language. To date, few researchers have studied second language learning in young children. Therefore, studies of second language learning in older children and adults will be reviewed as well as studies of young children in order to identify the important variables.

LITERATURE REVIEW

Age

Research on the relationship of age to ability to learn a second language has been of two types: (a) studies comparing subjects' age of arrival and length of stay in the country to second language ability, and (b) studies comparing the rate of second language acquisition of young children with those of older children and adults. The latter studies have been performed either in a naturalistic setting, or in the research laboratory.

Age of Arrival

Both age of arrival and number of years of residence were examined by Oyama (1975). Two English speech samples of 60 male, Italian-born immigrants were judged for pronunciation. Results revealed a strong age effect but no effect from the number of years of residence. Subjects who had arrived before 10 years of age had the most native-like pronunciation and those arriving after age 16 had the most non-native accent.

Similar results on age of arrival were reported by Seliger, Krashen, and Ladefoged (1975). Interviews of 394

adult immigrants were made to determine their age of arrival and to ask whether native speakers of the language believed them to be immigrants or native speakers. Subjects who had arrived before 9 years of age were thought to be native speakers and those who arrived at 16 years of age or older were judged as having a non-native accent.

Asher and Garcia's (1969) results differ from the previous studies in that the significant age of arrival was younger and length of residence was significant. Asher audiotaped the reading of four English sentences by 71 Cuban immigrants aged 9 through 17. Judgements on the fidelity of pronunciation revealed that the most native-like pronunciation was acquired by children arriving in this country before 6 years of age. Children residing here from 5 to 8 years had better pronunciation than those whose residence was 4 years or less.

Ramsey and Wright (1974) obtained scores of English skills on 1200 immigrant children who had learned English as a second language and correlated these scores with age of arrival. A decrease in English language skills was related to arrival after 6 to 7 years of age.

In summary, age of arrival has been found to affect the acquisition of native-like pronunciation: children younger than 10 years of age acquire better pronunciation

than older children and adults. Length of residence in the country may also affect pronunciation ability.

Rate of Acquisition

Snow and Hoefnagel-Hohle (1977) conducted a laboratory study in which 5-year-old to adult English speakers repeated each of 5 Dutch words 20 times. The repetitions were judged for correctness of pronunciation. Results indicate that older groups performed significantly better than younger groups because their initial pronunciation was more correct and they showed faster improvement.

Olson and Samuels (1982) drilled a group of elementary school (ages 9.5 to 10.5 years), high school, and college subjects on 33 German phonemes during 10 sessions. Their results differed from those of Snow and Hoefnagel-Hohle (1977) in that the pretest indicated no significant difference by age, but posttest results concurred with the findings of Snow and Hoefnagel-Hohle. Olson and Samuels observed a significant age group effect: high school and college students demonstrated significantly better pronunciation than elementary students.

In a longitudinal study, Snow and Hoefnagel-Hohle (1977) studied the pronunciation ability of forty-seven

3-year-old to adult English speakers who were learning Dutch as a second language in a naturalistic setting. Subjects were tested on both imitation and spontaneous production of words at three different points of time during a year. In spontaneous production an age effect was found at Time 1; adults and older children performed significantly better than younger children. Significant differences were not observed at Times 2 and 3. In imitation, 3 through 5-year-old children were initially worse, but were equal to or surpassed older subjects by the end of the year. These findings suggest that adults and older children are better than young children in pronunciation initially. Over time young children continue their period of active acquisition longer to eventually attain or surpass the pronunciation ability of older learners.

This conclusion is consistent with the previously cited findings from laboratory settings by Snow and Hoefnagel-Hohle (1977) and Olson and Samuels (1982). Yet, one study done in a laboratory setting indicates that young children are better at pronunciation than older children. Yamada, Takatsuka, Kotake, and Kurusu (1980) examined rate of vocabulary acquisition by teaching foreign vocabulary words to 30 subjects aged 7, 9, and 11-years-old. Yamada

et al. report that younger children learned vocabulary words faster than older children. The authors hypothesize that an interaction between the motor ability involved in accurate pronunciation of unfamiliar sounds and the rote-memory involved in the retention of the association of words with the corresponding pictures or meaning results in ability to learn foreign words. The authors suggest that this ability deteriorates with age.

Fathman (1975) examined the relationship between age and rate of acquisition using an oral production test for pronunciation, morphology, and syntax with 200 subjects 6 to 15-years-old who were learning English as a second language in this country. Results indicated that older subjects (11 through 15-year-olds) performed better on morphology and syntax and that younger subjects (6 through 10-year-olds) performed better on phonology. In a later study, Fathman and Precup (1983) rated 80 subjects on fluency, pronunciation, grammar, and communicative ability. Again, younger subjects (aged 12 and under) performed better on pronunciation and older subjects (aged 16 and older) performed better on morphology and syntax. The authors note that children appeared to be more concerned with communication and adults, with structural error.

Age difference in the rate of acquisition of

vocabulary, morphology, and syntax were examined in a longitudinal study by Snow and Hoefnagel-Hohle (1978) whose subjects were 3-year-olds through adults. For all measures, the 3 through 5-year-old group received lower scores than older groups. Of all subjects, the 12 through 15-year-old group showed the most rapid acquisition of morphological and syntactic skills.

Ervin-Tripp (1974) tested children aged 4 through 9 who were learning French in a naturalistic setting on syntax, morphology, and pronunciation. Older children were found to be better on all measures. Children aged 7 through 9-years-old performed better than children aged 4 through 7-years-old on most aspects of pronunciation. These findings are similar to those of Fathman (1975), Fathman and Precup (1983), and Snow and Hoefnagel-Hohle (1978) for morphology and syntax, but are inconsistent with the studies of Fathman and Fathman and Precup for pronunciation.

Krashen, Long, and Scarcella (1979) suggest that the differences in findings on pronunciation in the Fathman and Ervin-Tripp studies may be due to the length of residence of subjects. Maximum length of residence in the Ervin-Tripp study was 9 months; minimum length of residence in the Fathman study was one year. The implication of this

conclusion would be consistent with that made from the longitudinal study on pronunciation by Snow and Hoefnagel-Hohle (1977), that is, that over time younger children out perform older children on pronunciation.

Only one study has examined differences in rate of attainment of a second language learning among very young children. Dockrell and Brosseau (1967) studied 40 English-speaking kindergarten children who were learning French (age: M = 60.4; SD = 7.3). No significant difference in pronunciation ability was observed by age, but older children showed a greater increase in vocabulary size than did younger children.

Summary

Most short term studies examining children's pronunciation ability have found that older children out perform younger children (Ervin-Tripp, 1974; Olson and Samuels, 1982; Snow and Hoefnagel-Hohle, 1977). Long term studies, however, indicate that younger children perform equal to or better than older children and adults in pronunciation and oral ability (Fathman, 1975; Fathman and Precup, 1983; Snow and Hoefnagel-Hohle, 1977). Studies which have examined the acquisition of morphology and syntax concur in the finding that older children are better

at this task than younger children (Snow and Hoefnagel-Hohle, 1978; Fathman, 1975; Fathman and Precup, 1983; Ervin-Tripp, 1974). Among very young children no differences were found in pronunciation but older children out performed younger children on vocabulary (Dockrell and Brosseau, 1967).

Sources of variation

Results of a study by Scarcella and Higa (1981) suggest that differences in the language environment may be a source of these differences in acquisition. Scarcella and Higa (1981) paired native English speakers to second language learners of English in a block-building task to examine the nature of native speaker input to the second language learner and to examine the conversational negotiation devices of the second language learner. Input to younger second language learners (aged 8.5 to 9.5 years) was more simplified than input to the older learner (aged 15.5 to 16.5 years). But older learners were better than younger ones at negotiating input by participating in such a way that the conversation was sustained and that which they did not understand was explained to them. In this way older learners received more optimal input than did younger learners. A factor affecting rate of second language

acquisition could be the receiving of optimal input.

After reviewing the literature, Dulay, Burt, and Krashen (1982) suggest that differences in rate of second language acquisition by age may be due to a combination of factors. They cite the following as possible sources for the observed differences: (a) differences in the language environment such as those suggested by Scarcella and Higa (1981), (b) biological factors, (c) the learner's cognitive developmental stage, and (d) differences in affective filter.

Biological factors are the basis for the hypothesis proposed by Lenneberg (1967) that the specialization in function (lateralization) of the left and right hemispheres of the brain by puberty decreases the ability to learn a second language. Krashen (1973) presented evidence that suggests that lateralization is completed much earlier than puberty. Although at one time considered to be the explanation for age differences in second language acquisition, completion of lateralization is not currently considered to be a barrier to second language acquisition and cannot adequately explain age differences in acquisition.

Krashen (1975) suggested that the onset of Piaget's stage of formal operations at puberty may affect second

language acquisition. In this stage the learner begins to become aware of thought processes, begins to function in the abstract rather than the concrete, and is interested in formulating general solutions or "rules" to problems (Brainerd, 1978). This stage of cognitive development is more suited to formal instruction in a second language and may be a factor in the observed ability of older children and adults to understand the morphological and syntactic aspects of the language.

Another outcome of the stage of formal operations is adolescent egocentrism in which the adolescent conceptualizes the thought of others but fails to differentiate their point of view from his/her own and believes that they are as focused on him/herself as he/she is (Brainerd, 1978). Krashen (1975) suggests that the self-consciousness of the adolescent results in an affective filter being raised that inhibits his/her participation in language learning activities that are ego threatening. Thus, the affective filter may explain some differences in language acquisition by age. As Dulay, Burt, and Krashen (1982) propose, further study of all of these factors is necessary to clarify age differences in second language acquisition.

Sex

Sex has not often been included as a moderator variable in studies of second language acquisition, but when it has, and when significant results have been found, they have often indicated that females are better learners of a second language than males. These results have been reported in studies of all age levels of subjects.

Hansen and Stansfield (1981) examined the relationship of field independence/dependence to linguistic and communicative competence in 300 college students enrolled in a first semester Spanish course. The moderator variable sex was found to have a significant positive correlation with all measures of second language proficiency, ranging from $\underline{r} = .11$, $\underline{p} < .05$, to $\underline{r} = .28$, $\underline{p} < .001$, indicating that females consistantly out performed males in second language learning ability. There was no significant relationship between sex and field independence/dependence.

Students in middle school and high school (N = 337) were studied by Muchnick and Wolfe (1982) who found that sex was related ($\underline{r} = .38$, $\underline{p} < .01$) to attitudinal and motivational scores. Females had significantly higher scores than males regardless of school, year in school,

course level, grade in Spanish, or general attitude toward school. Females reported attitudes that were more positive toward second languge in general and Spanish in particular, as well as toward Hispanics.

In a small study of German kindergarten children (N = 36), Schmid-Schonbein (1980) observed that girls showed better results in learning English as a second language than did boys. Measures of learning were listening comprehension, articulation, and active speaking.

Trites and Price (1977) included sex as a variable in their assessment of readiness of 200 kindergarten children for French immersion programs. Comparisons made with t-tests on the Early Identification Assessment Battery indicated superior performance by females on a number of measures: reading readiness, knowledge of letters and numbers, knowledge of color names, problem-solving ability, manual dexterity tasks, and in several subtests of the intelligence test (WPPSI); but there was no significant difference on verbal or performance IQ scores. Females also received higher scores on teachers' ratings of ability, social maturation, motivation, and lower ratings on expected difficulty in school χ^2 (2, $\underline{N}$ = 200) = 9.21, $\underline{p}$ < .05.

Powell and Littlewood (1982) examined the results of

a 1975 nationwide investigation in Great Britain concerning curriculum offerings and report that fewer males (24%) than females (40%) studied second languages. In search of explanations for the difference in enrollment by sex, the authors propose the following: (a) later maturation for males which causes them to miss opportunities to develop language skills because they are judged as inferior in that area, (b) the predominance of female teachers who favor female over male students, (c) males are less anxious to please teachers than females and are thus viewed unfavorably by the teacher, (d) the content of the syllabus, and the teaching methodology used are less interesting to males than to females, (e) second languages are considered to be non-important subjects for males who are directed toward the sciences.

Summary

Females appear to out perform males at all age levels on second language listening and speaking skills as well as in the academic skills of reading and writing (Hansen and Stansfield, 1981; Muchnick and Wolfe, 1982; Schmid-Schonbein, 1980). The more positive attitude observed in females toward learning (Trites and Price, 1977) and second language learning specifically (Muchnick

and Wolfe, 1982; Powell and Littlewood, 1982) may be an important factor in this difference. Other factors may also play a part such as the disadvantage of a slower maturation rate in language development in males, the predominance of female teachers which utilize methodology and curriculum which are more appealing to females and which encourage the traditional view that language learning is a female activity (Powell and Littlewood, 1982).

Intelligence

Carroll (1981) concluded that there is overlap between second language aptitude and the components of intelligence and academic aptitude. Yet, Carroll notes that the fact that second language aptitude, intelligence, and academic abilities do not share the same patterns of correlation suggests that they are not exactly the same thing.

Cummins (1979) reviewed the literature on second language learning and proposed the existence of a cognitive/academic language proficiency factor (CALP) that is directly related to IQ and academic achievement. Cummins proposed that CALP is: (a) empirically distinguished from interpersonal communicative skills, (b) an underlying factor in both first and second language

acquisition, and (c) more developed in older children because of their first language experience. The latter characteristic of CALP would allow older children to progress more rapidly in cognitive-academic tasks in the second language than younger children.

Several previously cited studies lend support to this hypothesis in reporting that older children out perform younger children on the more cognitive-academic skills of vocabulary, morphology, and/or syntax (Ervin-Tripp, 1974; Fathman, 1975; Fathman and Precup, 1983; Snow and Hoefnagel-Hohle, 1978). Support for this hypothesis also comes from those studies that find that younger children out perform older children on the less cognitive-academic communicative skills (Asher & Garcia, 1969; Fathman, 1975; Fathman and Precup, 1983; Oyama, 1975; Ramsey and Wright, 1974; Seliger, Krashen, and Ladefoged, 1975; Snow and Hoefnagel-Hohle, 1977; Yamada et al., 1980). Four studies are cited below, two of older children, and two of younger children, which directly examine the role of intelligence in cognitive-academic and communicative language skills.

Genesee (1976) examined the relationship of intelligence to academic language skills and interpersonal communication skills in children of 4th, 7th, and 11th grades in a French immersion school. Intelligence was

measured by the Canadian Lorge-Thorndike Test of Intelligence. A significant positive relationship of intelligence to ability in reading, spelling, vocabulary, grammar, and mathematics was found for students at all grade levels. No consistent relationship was found with IQ on listening comprehension nor on interpersonal communications.

Ekstrand (cited in Cummins, 1979) reports results similar to Genesee's in a study of the relationship of intelligence to second language learning skills among immigrants. A higher positive correlation was observed between IQ and reading comprehension, dictation, and free writing (r = .41 to .46) than was observed in the correlation of IQ with listening comprehension, free oral production, and pronunciation (r = .22 to .27).

Dockrell and Brosseau (1967) related second language learning ability of young children with intelligence as measured by the Stanford Binet. Subjects were 4 to 6-year-old English-speaking children enrolled in a French preschool. A significant positive correlation (r = .38, p < .05) was found between IQ and vocabulary size as measured by a French translation of the Peabody Picture Vocabulary Test. Small negative correlations were found between IQ and the teacher's judgement of two communication skills:

improvement in pronunciation (r = -.13) and improvement in general comprehension of spoken French (r = -.19).

Schmid-Schonbein (1980) taught English during one year to German-speaking kindergarten children and at three points in the year evaluated their comprehension, articulation, and active speaking abilities in the second language. Intelligence was measured by the non-verbal Columbia Mental Maturity Scale and correlated with the combined measures of second language ability resulting in no significant correlation (r = .12). These results are similar to those of Dockrell and Brosseau in that no significant correlation was found between the measure of intelligence and the measures of communication skills.

Summary

Intelligence has been observed to have a positive, and in some studies, a significant correlation with the cognitive-academic related skills of vocabulary, reading, writing, and grammar (Dockrell and Brosseau, 1967; Ekstrand, 1979; Genesee, 1976). With the communicative skills, including pronunciation, intelligence has been observed to have an inconsistent relationship (Genesee, 1976), a low positive correlation (Ekstrand, cited in Cummins, 1979), or a negative correlation (Dockrell and

Brosseau, 1967; Schmid-Schonbein, 1980). Intelligence, then, appears to be related positively to cognitive-academic related skills, but there is no indication of an equally strong relationship with communicative skills.

Attitude and Motivation

Definitions

Lett (1977) reviewed definitions of the term attitude used in the fields of social psychology and second languages, and proposed the following definition: the amount of positive or negative affect that one holds toward a specific social object or class of social objects. Lett noted that attitudes and motives are not considered to be the same thing by most social psychologists. He suggested that the term motivation refers to goal-directed behavior that is influenced by one's attitudes toward an object and one's beliefs and attitudes regarding the behaviour itself. Lett proposed that second language studies of attitudes and motivations distinguish between the attitude toward the study of a second language and the type and intensity of motivation for engaging in the study. In actuality, the terms attitude and motivation have been used by some

researchers interchangeably, and the term orientation has been used to refer to both attitudes and motivations.

Integrative and instrumental orientation Gardner and Lambert (1972) proposed the constructs of integrative and instrumental motivation in a report of their classic twelve-year research project which examined differences in ability to learn a second language among high school students in both monolingual and bilingual settings. Integrative motivation was defined as a sincere and personal interest in the people and culture represented by the language and a desire to affiliate with and be accepted by members of the language group. Instrumental motivation was defined as the practical value and advantages of learning a new language, for example, the social recognition the language would bring, or the usefulness of the language to one's career. Both integrative and instrumental attitude have been observed to be in significant relationship with second language proficiency. Gardner and Lambert published an attitude/motivation test battery for high school students and parents in the report of their research project which has been used in subsequent research studies.

Gardner and Lambert's (1972) identification of integrative and instrumental orientation was reconfirmed by

Ely (1986) who examined the types of motivation present among first-year university students of Spanish in northern California as follows: (a) a group of students were asked to name reasons for studying a second language, (b) item analysis was used to select the most useful reasons for further study, (c) a second group of students ranked the importance of the selected reasons, and (d) these responses were factor analyzed. The three resulting factors were an integrative-type orientation, an instrumental-type orientation, and a course-requirement motivation. The first two orientations were found to positively predict strength of motivation, while the last orientation negatively predicted strength of motivation.

The adequacy of the constructs of integrative and instrumental motivation and the influence of milieu on the acquisition process were examined by Clement and Kruidenier (1983). They prepared a questionnaire made up of 37 items chosen from previous studies on motivation and administered the questionnaire to 871 eleventh-grade students representing all possible combinations of setting (mulitcultural or unicultural), ethnicity (English or French), and target language (official or minority language). A factor analysis of the results indicated that instrumental, travel, friendship, and knowledge

orientations were stable and generalizable for all groups studied. The authors suggest that integrative orientation, as defined by an initimate affective bond, is affected by milieu since it emerged for only two groups of respondents. The authors conclude that the interaction of structural factors defining the learning situation, such as the relative status of learner and target group as well as the availability of the latter in the immediate environment, are important determinants of the emergence of orientations and should be examined in future studies.

Measurement

Gardner and Smythe (1981) described the development of the attitude/motivation test battery first published by Gardner and Lambert (1972). Gardner and Smythe emphasized the care taken in the development of such an instrument and stressed the importance of using measures that are reliable and valid in attitude/motivation research. Lett (1977) also stressed the care with which instruments for measuring attitudes must be developed. He noted that unlike other tests, attitude test items must be "statements of desired behavior or assumed attributes and not statements of fact" (p. 280). He suggested that if a valid and reliable instrument already exists for a given research purpose that

it should be used intead of attempting to develop another.

Some researchers have adapted Gardner and Lambert's instruments to incorporate indirect methods of assessing motivation (Chihara and Oller, 1978; Oller, Baca, and Vigil, 1977; Oller, Hudson, and Liu, 1977). These researchers concluded that indirect attitude scales seemed to produce more meaningful variance than direct measures. Lett (1977) points out that direct measures of attitude are subject to the problem of systematic variance in the subject's tendency to respond in ways that appear socially desirable and the tendency to follow a set pattern in one's responses. Assuring the anonymity of the subject, and reversing the polarity of items helps to control the problem of response sets.

Factors affecting attitude and motivation

Social influences The influence of the setting on motivation and proficiency has been the focus of several studies. Oller, Baca, and Vigil (1977) observed that Mexican-American subjects learning English as a second languge (ESL) in this country appeared to be anti-integrative and to have instrumental orientation toward Anglo-American culture. Oller, Hudson, and Liu (1977) report, however, that Chinese ESL subjects learning

in China were also instrumentally motivated but did not have negative feelings toward American people.

Genesee, Rogers, and Holobow (1983) hypothesized that achievement in the second language is affected by the social context in which learning occurs and the extent to which high school learners believe that their motives for learning the target language are supported by the target language group. Results indicated that learner's perceptions of motivational support from the target language group, and their willingness to belong to social groups that include members of the target language group were positively correlated with learners' self-rated proficiency.

In a study of teachers' views of Native American students' motivation to learn English, Gardner (1968) observed a decrease in childrens' motivation between 1st and 7th grades, after which motivation increased. Teachers estimated the amount of peer group pressure exerted to avoid the use of English, and the influence of cultural barriers impeding English acquisition, both of which appeared to be inversely related to childrens' motivation to learn English.

Lett (1977) notes that attitudes formed in a bilingual setting may have little to do with attitudes

formed in a monolingual environment. Lett states that attitudes are affected by a great many variables and urges replication of research with subjects from different environments to clarify this question. Clement and Kruidenier (1983) proposed that three aspects of the learning context might affect attitudes: the ethnicity of the learner, the availability of other ethnic groups in the community, and the specific target language and its politico-linguistic status.

Parental influence The question of how attitudes develop was addressed by Lambert and Klineberg (1967) who concluded from a cross-cultural study of children's views of foreign people that parents play a major role in shaping their child's attitudes toward persons of other ethnic groups. Feenstra (1969) found that when parents had a favorable orientation to speakers of the target language, their children also demonstrated positive attitudes toward the target language group and had better second language achievement. A positive relationship between parent attitude and student achievement was also observed by Gardner (1968) and Gardner and Lambert (1972).

In an attempt to identify a set of variables predictive of success or failure in French immersion programs, Trites and Price (1977) studied 4-year-olds and

their parents. They found that parents who chose the immersion programs for their children had themselves studied French, could speak French or expressed a desire to speak French, and had more positive attitudes toward learning French than parents who chose the English program. These parents also expressed the belief that young children learn second languages better than adults.

Personality In a study of 6-year-olds learning English as a second language in an immersion school setting, Wong Fillmore (1979) observed that the greatest ability to progress in the language was that of the child whose personality, interests, and motivations caused her to seek out, and relate to, English-speaking children rather than speakers of her own language. This naturalistic observation is supported by the classroom observations of Gardner and Lambert (1972) who found a student's attitudes to be a stable personal characteristic which influenced or determined the student's achievement.

Rosenbusch and Draper (1985) report that among gifted preschoolers 3 through 6-years-old the Spanish teacher's rating of children's enthusiasm for learning Spanish was directly related to the classroom teacher's observation of the children's enthusiasm for learning other subject matter. Enthusiasm for learning Spanish was measured by

the child's willingness to leave his/her current activity during the free choice period to attend the Spanish class.

Gayle (1981) studied the effects of personality on second language learning among university students and concluded that field-dependent students were consistently and significantly more integratively motivated than field-independent students. Gliksman, Gardner, and Smythe (1982) observed that among high school students, integratively motivated students tended to volunteer more in the second language classroom, have more correct responses, and be more satisfied and rewarded for their participation. No significant differences were observed among students in this study according to teacher initiated interactions, nor were there significant changes in a student's participation during the four-month observation period, suggesting that these effects are long-term and internally motivated.

Classroom Environment Strong (1984) examined the relationship between integrative motivation and acquired second language proficiency in Spanish-speaking kindergarteners and observed that there was no positive association between integretive motivation and English proficiency. In comparing beginners and advanced level English speakers, it was found that the advanced children

had signficantly greater integrative orientation to English-speakers than did the beginners. In contrast to the previous studies, this finding suggests that integrative attitudes follow second language acquisition skills rather than precede them.

Hermann (1980) also questions the idea that attitudes determine the success of second language acquisition, and instead proposes the reverse relationship. The results of a study of ESL learners suggest that subjects whose achievement in English was far below average displayed significantly higher degrees of prejudice against the English than against other groups, and that subjects who had little information about the English did not hold as unfavorable attitudes against them. Herman's interpretation of these findings is that poor achievement in the second language class results in an aversion to speakers of the target language. Herman suggests that the skilled and sympathetic teacher might be able to modify student's attitudes.

Feenstra (1969) suggests that when the target language is a foreign language and there are a limited number of models available, the teacher of the foreign language comes to represent the foreign community to the students and will, thus, help shape the students' attitudes

toward that community. Muchnick and Wolfe (1982), however, studied the attitudes and motivations of high school students enrolled in Spanish classes and concluded that subjects separated their positive attitudes and motivations for learning Spanish from their negative attitudes toward the Spanish teacher and Spanish course.

Ladousse (1982) considers motivation to be a dynamic process related both to the personality and age of the learner and to the setting in which the language is taught. Ladousse suggests that pedagogical strategies can affect students' motivation, for example, an anxiety-free classroom situation, a hierarchical organization of the target language (accomplished by breaking down language learning goals into feasible objectives), and success in the learning situation would contribute to positive motivation. Ely (1986) concludes that both instrumental and integrative motivations contribute to any student's overall motivation, so both should be encouraged in the classroom through the selection of instructional experiences and materials.

Summary

Attitudes and motivations have been observed to be significantly related to second language proficiency in

numerous studies. The various factors that affect attitudes and motivations which have been examined in these studies are: (a) the learner's ethnicity, the politico-linguistic status of the language to be learned, and the existence of ethnic groups within the community (Clement and Kruidenier, 1983; Gardner, 1968; Genesee, Rogers, and Holobow, 1983; Oller, Baca, and Vigil, 1977; Oller, Hudson, and Liu, 1977); (b) parental attitudes (Feenstra, 1969; Gardner, 1968; Gardner and Lambert, 1972; Lambert and Klineberg, 1967; Trites and Price, 1977); (c) the learner's personality and learning style (Gayle, 1981; Gliksman, Gardner, and Smythe, 1982; Wong Fillmore, 1979); (d) the teacher, peers, curriculum, and methodology (Ely, 1986; Gardner, 1968; Feenstra, 1969; Hermann, 1980; Ladousse, 1982; Muchnick and Wolfe, 1982).

The constructs of instrumental and integrative orientation are used to describe two basic attitudinal and/or motivational orientations to second language learning which have been observed in parents and in older students enrolled in second language classes. Few studies have examined attitudes and motivations among young children who are language learners (Strong, 1984; Trites and Price, 1977; Wong Fillmore, (1979).

CONCLUSIONS

Little information is found in the literature concerning young children's ability to learn a second language. The few studies available indicate that the age, sex, intelligence, and parent attitude are variables of significance. Yet, none of these studies used as subjects children as young as 3-year-olds; most of the studies used 5-year-old subjects.

The literature on second language learning of elementary school children, older children, and adults can be useful in indicating the direction of influence of these variables on older second language learners. Of course, it must be kept in mind that if these studies were replicated among young children the difference in age might result in very different findings. Yet these studies are useful, along with the studies on young children, in determining the possible effects of these variables among young children.

From the research, it appears that younger children out perform older children on communicative skills, but are out performed by the older children on the more cognitive/academic skills of vocabulary, reading, writing, and grammar. Girls have been observed to score higher than

boys on all second language skills. Intelligence is reported to be related to the cognitive/academic second language skills, but not to the communicative skills. Parent attitude influences children's ability to learn a second language; children whose parents have positive attitudes toward second languages perform better than children whose parents are not as positive.

Studies of motivation in older children suggest that motivation is an important variable in second language learning. Motivation to learn the second language appears to be affected by the personality of the learner, parent attitude, the social situation, and the classroom environment including the teacher, peers, methodology, and curriculum. With young children, enthusiasm for learning the second language was observed to be directly related to enthusiasm for learning other subject matter. Motivation to learn may also be an important variable in young children's ability to learn a second language.

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SECTION II: A CURRICULUM FOR TEACHING SPANISH TO PRESCHOOLERS AND KINDERGARTENERS

INTRODUCTION

Secondary school has been the time when most students begin the study of a second language in this nation. Recent national reports, however, have emphasized the importance of beginning the learning of a second language earlier than secondary school (Council of Chief State School Officers, 1985; President's Commission on Foreign Language and International Studies, 1980; National Commission on Excellence in Education, 1983; National Council of State Supervisors of Foreign Languages, 1982). These reports note that an early start provides a longer sequence of instruction which is necessary for the development of communicative capability in the second language.

Interest in elementary school second language programs has increased dramatically in recent years (Rosenbusch, 1985, 1986), and at the same time, parents of prechool children have expressed interest in second language programs for their children (Rosenbusch & Draper, 1985). And, among those who attended the International Conference on the Teaching of Second Languages to Children in 1986 were several preschool second language teachers.

In addition, curriculum materials for teaching a second language to preschoolers have become available commercially (Gonzalez-Mena, & Gonzalez-Mena, 1985; Marquez, 1982; Pirz, 1985).

Few research studies, however, have reported on the second language learning ability of young children (Dockrell & Brosseau 1967; Schmid-Schonbein, 1980). Although descriptions of methodology for teaching young children have been published in the literature (Freudenstein, 1979; Szymanski, 1979), no program for young children could be found for which the results of the second language learning had been statistically analyzed and an extensive description of the instruction was available. Nor has there been an attempt to utilize theory as the basis for the development of a second language curriculum for young children.

THEORY

Early Childhood Education Theory

Early childhood educational practice has not been closely tied to theory. Elkind (1982) notes that practice has developed independently of theory and has grown principally by oral tradition. Kamii (1986) notes that even the theorists who have dealt with children's cognitive development, such as Gesell and Vygotsky, have expressed ideas that are too diverse to unite into a theory of instruction and are too sketchy to use for curriculum development. Kamii believes that only Piaget's theory of cognitive development is complete and coherent enough to be useful in curriculum construction. Hohmann, Banet, and Weikart (1979) state that even the theory base of Piaget is inadequate for deductively arrived educational practice. Since the early 1960s they have attempted to implement Piaget's theory in a preschool program and have concluded that a framework derived from theory together with practice is more adequate.

Based on Piaget's theory and on practice, Hohmann, Banet, and Weikart (1979) consider the central assumption of their curriculum methodology to be <u>active learning.</u>

They state that, "All preschool learning activities should be built upon active experiences with objects" (p. 8). Activities should be sequenced from the concrete to the abstract and the simple to the complex (p. 8). They delineate the key experiences in active learning as: (a) exploring actively with all the senses, (b) discovering relations through direct experience, (c) manipulating, transforming and combining materials, (d) choosing materials, activities, purposes, (e) acquiring skills with tools and equipment, (f) using the large muscles, and (g) taking care of one's own needs (p. 3).

Hohmann, Banet, and Weikart (1979) propose that in the bilingual/bicultural classroom there be a naturalistic approach to language learning, and that culture be experienced directly in play, language, art, and music rather than in "lessons". They note that ideally, all adults in the program sould be bilingual to avoid an uneven distribution of power and responsibility by language dominance.

Piaget's theory and Hohmann, Banet, and Weikart's (1979) interpretation of it, influenced this curriculum in several ways: (a) the use of concrete objects to represent all nouns taught, (b) the use of objects which would stimulate the children's senses of sight, touch, taste, and

smell, (c) the opportunity for children to choose objects and to actively manipulate them in the learning activities, (d) the use of activities stimulating children to use their large muscles, (e) the ordering of the Spanish language content from the simple to the more complex. Because of the limitations of this project, the language and cultural learnings were not incorporated into the entire school day, as advocated by Hohmann, Banet, and Weikart, nor was the teacher a part of the regular preschool staff. Instead, the Spanish teacher's role was that of a small-group teacher, and Spanish was taught as a teacher-planned lesson during small-group time.

Second Language Education Theory

By tradition, the teaching of second languages since the time of the Romans has been either (a) a direct-method approach which emphasizes communication and through which the language is learned by direct exposure, or (b) a grammar approach which focuses on the teaching of the rule system and on translation. Until the late 1950s it was generally believed that language was learned by imitation, memorization, and behaviorial reward system. Chomsky (1968) began a theoretical revolution by proposing that an innate language acquisition device (LAD) is the central

force in a child's learning of the first language. During the past twenty years, Chomsky's theory has stimulated extensive research into language learning and acquisition.

The theory of Dulay, Burt, & Krashen (1982) is the most comprehensive research-based language learning theory to have evolved from Chomsky's proposals. This theory is a communicative-approach direct-method theory which incorporates the following elements:

1. Language Environment. The most beneficial language environment is one where language is used naturally for communication.
2. Filter. The internal factors of the individual's emotions and motivations controls the entry of language for mental processing.
3. Organizer. Language which has passed the filter is organized in a way common to all second language learners regardless of their first language or the organization of the teaching curriculum.
4. Monitor. Internal factors control the conscious application of rules in communication.
5. Internal factors. The learner's personality traits and age which may either inhibit or enhance learning by affecting the filter, organizer, and

monitor.

Of the language environment, Dulay, Burt, and Krashen (1982) further explain that the second language is best learned in contexts where "the learner is focused on understanding or expressing an idea, message, or other thought in the new language. Concrete 'here and now' topics are essential for language acquisition" (p. 4). They also emphasize the importance of visuals as an aid in comprehension and the importance of not forcing learners to speak before they have a desire to communicate (p. 14).

Second language theory, as well as early childhood learning theory, emphasizes the importance of the use of concrete objects in the classroom to represent the meaning of nouns. Second language theory also influenced this curriculum in the following ways: (a) the focus on communication instead of on rules and translation, (b) the use of topics that were of interest to young children, (c) the encouragement, but never the pressuring, of children to speak in the second language, (d) the awareness of and respect for the basic nature of each child's personality, and (e) the recognition that most pronunciation errors are developmental.

Naturalistic use of the language, as suggested by

theory, was not utilized because of the limited amount of contact time with the children in this project. Instead, English was used to establish rapport with the children, and Spanish was used in the learning activities. Gradually Spanish came to be used throughout most of the class time.

THE CURRICULUM

The curriculum described in this article was used in an empirical investigation of the ability of preschool and kindergarten children to learn a second language, the statistical results of which are reported elsewhere (Rosenbusch, 1987). Children who participated in this study were enrolled in the laboratory school of the Department of Child Development, Iowa State University, Ames, Iowa. The children were enrolled either in kindergarten, extended day care, or Project Pegasus, a program for intellectually and creatively advanced preschool children. Of the 52 subjects in this study there were 28 males and 24 females who were distributed by age as follows: 11 3-year-olds, 21 4-year-olds, and 20 5-year-olds.

The second language taught in this program was Spanish. A pretest of the children's prior knowledge of Spanish indicated that all subjects were novices to the Spanish language. No child could spontaneously name more than three Spanish nouns. Each laboratory group was divided by the classroom teacher into three small groups which met with the Spanish teacher in their regular

classroom during small group time. The small groups met once every three days in 1/2 hour sessions for a total of 11 1/2 hours of instruction per child during a six month period.

Every Spanish group received the same instruction which was developed by the Spanish teacher. The curriculum is based on early childhood education theory and second language education theory as well as on the experience of teaching Spanish to children of elementary school age (Rosenbusch & Graber, 1982) and gifted preschoolers (Rosenbusch & Draper, 1985). The goals of the curriculum were to develop: (a) a positive orientation toward the learning of a second language, (b) skill in listening comprehension and oral production of Spanish, and (c) awareness of cultural similarities and differences.

The learning activities of the curriculum were built upon concrete, active experiences. Except for greetings, all vocabulary and expressions taught were represented concretely either by objects or actions. Included in the material taught were 28 nouns, the numbers from 1 through 10, and 9 action verb commands, for example, "Levántate" (Stand up). The corresponding definite article "el" or "la" (the), was always taught together with a noun (see Appendix A).

The objects used to represent the nouns in instruction were varied: real fruits of which the children tasted; stuffed toy animals which were soft to touch; brightly colored vehicles and figures representing family members; textured rubber puzzle parts in the shapes of fruits and animals; comical plastic face parts to stick on plastic heads; and an assortment of colorful flannel cutouts to stick on a flannelboard. A variety of laminated picture cutouts and flashcards were also used. Numbers were not taught with the arabic number alone, rather, objects were first provided for the children to count, such as plastic snap beads and the dots on dominos. Later, objects and numbers were provided together, such as in puzzles, pictures, poker playing cards, or flashcards containing drawings of objects and the corresponding arabic number. All objects were selected on the basis of their: (a) attractiveness to young children, (b) sturdiness, (c) clarity as a symbol of the concept being taught (see Appendix B).

Action verb commands were first given by the teacher to the group as a whole: "Den la vuelta" (Turn around). The meaning of a new command was demonstrated through gesture by the teacher. When the children had learned to respond to several commands as a group, commands were given

to individual children: "Gloria, da la vuelta." (Gloria, turn around.) As the children became familiar with the individual commands, the teacher asked for volunteers to give a command to a companion. The command, "Dame" (Give to me), was used by the children together with a noun of their choice to construct a sentence which would communicate what object they wanted a companion to give to them: "Dame el gato." (Give the cat to me.)

Pronunciation of Spanish was taught through modeling, that is, after the teacher had used a new word or expression several times, the children were invited to repeat it as a group. Individuals who mispronounced a word were never singled out, rather, the group was asked to listen carefully, to observe the teacher as the word was spoken, and to imitate the teacher in forming the word. The development of good pronunciation was encouraged by providing many opportunities for the children to use the words in a relaxed setting and by the use of positive reinforcement.

Only the second language skills of listening and speaking were taught, not the skills of reading and writing since these children had not yet learned to read or write in their first language. The children were, however, introduced to the existence of the written word through the

reading of illustrated storybooks written in Spanish. The children were encouraged to make intelligent guesses about what they were hearing by asking them to listen for familiar words in Spanish and to deduce what was occurring in the story based on these words, the book's pictures, and the gestures made by the teacher to illustrate the action. Well-known fairy tales were used as well as books with themes based on the vocabulary taught in Spanish such as "dogs" or "vehicles" (see Appendix B).

The one-half hour class period utilized an average of eleven short activities (see Appendix C) which varied from the active, that is, responding physically to commands or accompanying a song with gestures which dramatize the meaning, to the quiet activity, counting objects or pulling objects from a bag and naming them. Many opportunities for practicing previously introduced vocabulary and expressions were provided. Each class day a special activity was planned to vary the class routine and to keep children's interest high. These activities included offering children a piece of a real apple or pineapple as they learned the Spanish word for the fruit, the reading of a new Spanish book, the introduction of a new Spanish song, the celebration of the birthday of one of the already-familiar animals, or the introduction of objects from Hispanic

countries as a way of stimulating cultural awareness.

The selection of Spanish songs for use in this program was based on the following criteria: (a) the utilization of short, simple and/or familiar melodies, (b) the repetition of simple words and phrases, (c) the possibility of accompanying the song with physical actions to dramatize meaning, and (d) the incorporation of, or extension of, the known Spanish vocabulary. Both authentic songs from Hispanic countries and songs that were adapted from English and Spanish were taught (see Appendix D).

The celebration of the birthdays of the toy animals was an especially enjoyable activity for the children because this activity included both surprise and humor. Birthdays were celebrated for the cat, dog, bear, and duck with a plastic birthday cake and a real candle which was lit while the children sang "Cumpleaños feliz" (Happy Birthday). For each birthday, a surprise was added to vary the activity: on the cat's birthday, Spanish birthday cards the cat had received were shared; on the bear's birthday, the bear was given a Mexican sombrero of just the right size wrapped as a present; the dog's birthday cake was decorated with dog food, and the duck's birthday cake was decorated with small fish-shaped crackers.

The introduction of objects from Hispanic countries,

was included in the curriculum as a means of developing cultural awareness. The children learn about similarities and differences in lifestyles among Hispanic countries and their own country as they examined the objects. Culture kits from Spain, Mexico, Costa Rica, and Argentina were borrowed from the International Resource Center, Iowa State University, Ames, Iowa (Weltha, 1985). These kits contained clothing, household articles, dolls, posters, pictures, arts, and crafts. The items selected from these kits and their manner of presentation to the children helped to stimulate the children to imagine themselves living in that country (see Appendix E).

In summary, this curriculum is a theory-based program that utilizes concrete objects and action-verb commands to teach listening and speaking skills in Spanish. Songs, storybooks and objects, from Hispanic countries are used to stimulate children's interest in the Spanish language and in Hispanic culture.

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APPENDIX A: THE SPANISH VOCABULARY

THE SPANISH VOCABULARY

Nouns

Animals
el oso - bear
la rana - frog
el gato - cat
el pato - duck
el perro - dog
el pollito - chick
el pez - fish

Foods
la manzana - apple
la piña - pineapple
el agua - water

Body Parts
la cabeza - head
la mano - hand
el pie - foot
el ojo - eye
la boca - mouth
el pelo - hair
la nariz - nose
la barba - beard

Family
el bebé - baby
la mamá - mom
el papá - dad

Transportation
el auto - car
el autobús - bus
el tren - train
el avión - airplane
el bote - boat

Other
la casa - house
el sombrero - hat
buenos días - good morning
adiós - good bye

Numbers

uno - one
dos - two
tres - three
cuatro - four
cinco - five
seis - six
siete - seven
ocho - eight
nueve - nine
diez - ten

Commands

Levántate. - Stand up.
Da la vuelta. - Turn around.
Tócate la boca. - Touch your mouth.
Brinca. - Jump.
Duérmete. - Go to sleep.
Siéntate. - Sit down.
Dame el oso. - Give me the bear.
Pon el perro. - Put on the dog.
Saca el pato. - Take off the duck.

APPENDIX B: TEACHING MATERIALS

TEACHING MATERIALS

Listed below are the teaching materials used in the Spanish classes and, when known, information about where the materials were purchased.

Flashcards

Title: Peabody Picture Vocabulary Kit, Level P
Source: American Guidance Service
Publishers' Building
Circle Pines, NM 55014
Description: Large colorful flashcards of animals, foods, people, clothing, household items, toys, school items, and vehicles.

Title: National Dairy Council, Catalogue 0012A Food Models
Source: Dairy Council Inc.
101 N. E. Trilein
Ankeny, IA 50021
Description: Colorful photographs of food models.

Others: Stickers of a house, animals, and vehicles were placed on 3 x 5 cards and laminated. Face parts were drawn with marking pens on 3 x 5 cards and laminated.

Toys

Title: Animal Space Puzzle
Familiar Things Picture Puzzle
Body Parts Puzzle
Source: Nasco
901 Janesville Avenue
Fort Atkinson, WI 53538
Descriptions: Soft, colorful textured puzzles, the parts of which were used in teaching- dog, cat, bear, mother, father, child, house, etc.

Source: Fisher-Price
Division of the Quaker Oats Company
East Aurora, NY 14502
(Purchased at local store)
Descriptions: Durable plastic family members, boat, airplane, bus.

Others: Inexpensive toys purchased in local stores- boat, airplane, car, bus, duck, frog, etc.

Stuffed Animals

Source: Dakin Toy Company
499 Point San Bruno Blvd.
San Francisco, CA 94080
(Catalog received from the company, but items purchased in local store.)
Descriptions: Soft, attractive stuffed animals.

Numbers

Source: Local stores
Descriptions: Dominos, poker playing cards

Flannel Cutouts

Description: Shapes of family members, house, animals, vehicles, face parts were designed and prepared by the teacher.

Books

Titles: Los Perros, Colección Primer Disney
Los Números, Colección Primer Disney

Los Automoviles, Colección Primer Disney
Esteben Pío Pío, Editorial Juventud
Source: Imported Books
P.O. Box 4414
Dallas, TX 75208
Descripton: A selection of inexpensive books that are excellent for use with young children.

Titles: El Patito Feo, Colección Muñequitos
Cenicienta, Colección Muñequitos
Los Tres Osos, Colección Muñequitos
Source: Editorial Sigmar S.A.
Buenos Aires, Argentina
(Purchased in Argentina.)
Description: Excellent Japanese illustrations in attractive, durable books.

Titles: ¿Qué te gusta comer?, Colección Sonrisas
Hora de dormir, Colección Sonrisas
Author: Gyo Fujikawa
Source: Editorial Atlátida
Republica Argentina
(Purchased in Argentina.)
Description: Colorful, delightful illustrations in durable books.

Curriculum resources

Title: Conversational Spanish for Children: A Curriculum Guide (1982).
Author: Rosenbusch and Graber.
Source: Iowa State University Press
2121 South State Avenue
Ames, IA 50010
Description: A description of the basic methodology used in the Spanish classes.

Title: Aprendiendo con Movimientos: Método TPR Espanol (1982).
Author: Marquez.
Source: Sky Oaks Productions, Inc.
P.O. Box 1102
Los Gatos, CA 95031
Description: A selection of Total Physical Response (TPR) commands for use with young children.

APPENDIX C: SPANISH CLASS PLAN

SPANISH CLASS PLAN

1. Greetings: The teacher greets the children: Good morning, children.* The children return the greeting: Good morning.*

2. Review Song: The teacher says: Let's sing* 1, 2, 3 fingers*; 1, 2, 3 cats"; 1, 2, 3 bears*. The teacher asks the children to explain what they are singing about with each variation of the song.

3. Review Counting: The children take turns pulling out a number-counting card and counting* the number of dots in response to the teacher's question: How many are there?*

4. Review nouns: Rubber objects have been placed in a small cardboard box. The teacher shakes the box and asks: What is in the box?* When the children guess* an object correctly, the teacher removes it and shows them the object, then continues until all are named.

5. Review song: The teacher pulls out the rubber duck and asks: What is this?* When the children name the duck the teacher says: Let's sing* Duck, little duck.* The teacher passes the duck around so the children can greet it. The teacher reminds the children not to kiss the duck, just to pet it.

6. Introduce nouns: The teacher introduces the baby*, mother*, father*, and house* with flannel cutouts and the flannelboard. The teacher gives the children commands with the new vocabulary: Touch --.* Put on --.* Remove --.* Give me --.*

7. Review song: The teacher says: Let's sing* The little chicks*.

8. Read book: The teacher reads Stephen, peep, peep.* The teacher asks the children to guess what is happening. The teacher asks individual children to count* the objects on the pages by asking: How many dogs are there?*

9. Cultural awareness activity: The teacher says: Raise your hand if your parents drink coffee; raise your hand if they drink tea. If you lived in Argentina, your parents might also drink mate. The teacher shows a picture of gaucho drinking mate; then shows a gourd; and finally shows a mate and straw and bag of hierba. The teacher names* each item.

10. Review commands: The teacher gives* all the commands to the children as a group and they respond physically: Stand up.* Touch your mouths.* Etc.

11. Review all objects: The teacher pulls out an object and asks: What is this?* When all objects are named, the teacher asks: Who wants a turn?* The teacher calls on the children, and the children pull objects from the bag and name* them.

12. Review command: The teacher collects all the objects saying: Give me the cat,Jim.* The teacher lines up the objects on the floor in front of the group, and asks: Can you say, "Give me the cat?* Give me the dog?*" After the whole group practices, the teacher tells them: If you see a toy you want, raise your hand. I will call on you and you can say, "Give me the cat.*" The teacher ends the activity by saying: Put the cat in the bag, Jane.*

13. Review all body parts: Using the stick-on body parts the teacher says: Put on the eye, Billy.* When all are on, the teacher says: Remove the hair, Jill.*

14. Greetings: The teacher says good-bye individually: Adiós, Billy.*

Note. Asterisk indicates that the preceeding item was said in Spanish.

APPENDIX D: SPANISH SONGS

SPANISH SONGS

Cu-cú
Cu-cú cu-cú
Cantaba la rana
Cu-cú cu-cú
Debajo del agua.

Uno, Dos y Tres Dedos
Uno, dos y tres dedos,
Cuatro, cinco, seis dedos,
Siete, ocho, nueve dedos,
Diez dedos son.

Cumpleaños Feliz
Cumpleaños feliz,
Cumpleaños feliz,
Cumpleaños feliz,
Cumpleaños feliz.

Pato, Patito
Pato, patito,
Pato chiquitito.
Cuá cuá-cuá cuá-cuá
Cuá-cuá cuá-cuá cuá-cuá.

Los pollitos
Los pollitos dicen
Pío, pío, pío,
Cuando tienen hambre
Cuando tienen frío.

Los perritos dicen
Guau, guau, guau,
Cuando tienen hambre,
Cuando tienen frío.

Los gatitos dicen
Miau, miau, miau,
Cuando tienen hambre,
Cuando tienen frío.

APPENDIX E: CULTURAL AWARENESS ACTIVITY

DEVELOPING CULTURAL AWARENESS

The following is an excerpt from the activity which introduces the country of Costa Rica to the children. The goal of this activity is to help the children imagine what it would be like to live in Costa Rica while being introduced to certain aspects of life in that the country. As indicated by the questions, a dialogue is established with the children.

If you lived in Costa Rica your father might be a farmer.
Can you guess what crop your father might grow on your farm?
Coffee!
Coffee comes from a bean which grows on a plant like this (show picture of a coffee bean plant).
The beans are picked and roasted.
Here are some coffee beans that have been roasted (show beans).
Sometime coffee beans are ground before they are sold like these (show ground coffee).
The coffee beans are put in a can and sent to a store.

If you lived in Costa Rica and your father was a farmer who grows coffee you might have a cart on your farm like this (show model of a colorful Costa Rican cart).
You might get to help paint your cart beautiful colors like this cart is painted.
Do you know what would make your cart go?
It would be pulled by oxen like these (show picture of oxen pulling cart).
If your father had a cart like this, you might stand right up here (show position on picture) and ride with your father.
Would you like to ride in the cart with your father?

SECTION III: THE INTERRELATIONSHIPS AMONG SELECTED VARIABLES AND SECOND LANGUAGE LEARNING IN YOUNG CHILDREN

INTRODUCTION

The number of elementary school second language programs has increased dramatically in Iowa in recent years (Rosenbusch, 1986). Parents of preschool and kindergarten children also have expressed interest in and support for second language programs for their children (Rosenbusch & Draper, 1985). Statistics on second language programs for children in other states have not been published, but several events suggest a growing interest nationally and internationally in the teaching of second languages to children: (a) the organization of Advocates for Language Learning, a national association of parents interested in promoting educational opportunities in second language acquisition and the study of second languages for children, (b) the establishment of the International Conference on Second/Foreign Language Learning in Children, and (b) the organization of a national networking system among educators and parents interested in early second language education, The National Network for Early Language Learning.

Second language programs for children were popular in the 1950s and 1960s but declined abruptly due in part to

lack of quality instructional materials and realistic goals (Rhodes & Schreibstein, 1983). To plan effective second language programs for children, an in-depth understanding of young children's ability to learn a second language is essential. Yet a review of the literature indicates that few researchers have examined the ability and characteristics of the young language learner.

The present study reports an empirical investigation of the ability of preschool and kindergarten children to learn a second language. Interrelationships among the following variables were examined: age, sex, intelligence, children's motivation to learn Spanish, parental attitude toward bilingualism, and children's oral ability in Spanish as determined by children's abilities in listening comprehension, oral production, pronunciation, and vocabulary following 11 1/2 hours of Spanish instruction over a six-month period. The variables of interest were identified in a review of the literature on older children and adults as second language learners and from the few studies of young children as second language learners.

Research on the relationship of age to ability to learn a second language has been of two types: (a) studies comparing subjects' age of arrival and length of stay in the country to second language ability, and (b) studies

comparing the rate of second language acquisition of young children with those of older children and adults. Age of arrival has been found to affect the acquisition of native-like pronunciation: children younger than 10 years of age acquire better pronunciation than older children and adults (Asher & Garcia, 1969; Oyama, 1975; Ramsey & Wright, 1974; Seliger, Krashen, & Ladefoged, 1975). Although short-term language learning and language acquisition studies (less than nine months of treatment or length of residency) examining pronunciation ability have found that older learners out perform younger learners (Ervin-Tripp, 1974; Olson & Samuels, 1982; Snow & Hoefnagel-Hohle, 1977), long-term studies of language acquisition (more than one year and up to five years of length of residency) support the results of age-on-arrival studies indicating that younger children perform equal to or better than older children and adults in pronunciation and oral ability (Fathman, 1975; Fathman & Precup, 1983; Snow & Hoefnagel-Hohle, 1977). In the one short-term study which compared young children 4 through 6-years-old, no significant difference in oral abililty was observed by age ($\underline{r}$ = .28), but a significant difference was observed by age for aural ability ($\underline{r}$ = .46, $\underline{p}$ < .01) with older children performing significantly better than younger

children (Dockrell & Brosseau, 1967).

Studies which have examined the acquisition of morphology and syntax concur in the finding that older children are better at this task than younger children (Ervin-Tripp, 1974; Fathman, 1975; Fathman & Precup, 1983; Snow & Hoefnagel-Hohle, 1978). In vocabulary learning among young subjects, older children out performed younger children ($\underline{r}$ = .62, $\underline{p}$ < .01) (Dockrell & Brosseau, 1967), yet among subjects 7, 9, and 11-years-old, younger children learned vocabulary words faster than older children (Yamada, Takatsuka, Kotake, & Kurusu, 1980).

Dulay, Burt, and Krashen (1982) suggest that the observed differences in rate of second language acquisition by age may be due to a combination of factors. They cite the following as possible sources for the differences: (a) differences in the language environment, (b) biological factors, (c) the learner's cognitive developmental stage, and (d) differences in affective filter.

Intelligence has been observed in various ages of subjects to be in positive relationship with cognitive-academic related skills but there is no evidence of a similar relationship between intelligence and communicative skills. In older children, intelligence correlated positively with the cognitive-academic skills of

reading comprehension, dictation, and free writing (Ekstrand, cited in Cummins, 1979); and was in a significant positive relationship with reading, spelling, vocabulary, grammar,and mathematics (Genesee, 1976). In young children, Dockrell and Brosseau (1967) reported a significant positive correlation (r = .38, p < .05) between intelligence and vocabulary.

With communicative skills in older children, intelligence was observed to have an inconsistant relationship (Genesee, 1976), and a non-significant positive correlation (Ekstrand, cited in Cummins, 1979). With young children, a non-significant negative correlation (Dockrell & Brosseau, 1969) and a non-significant positive correlation (Schmid-Schonbein, 1980) were reported between intelligence and listening comprehension and speaking skills.

Cummins (1979) proposed the existence of a cognitive/academic language proficiency factor (CALP) directly related to IQ and academic achievement. This factor is proposed to be: (a) empirically distinguished from interpersonal communicative skills, (b) an underlying factor in both first and second language acquisition, and (c) more developed in older children because of their first language experience.

Sex has not often been included as a moderator variable in studies of second language learning, but when it has, and when significant results have been found, they have usually indicated that females are better learners of a second language than males. College females significantly out performed males in grammatical knowledge, listening comprehension, and speaking (Hansen & Stansfield, 1981). High school and middle school females had significantly more positive attitudes than males toward second languages in general, Spanish in particular, and toward Hispanic people (Muchnick & Wolfe, 1982). Kindergarten females were reported to be better at listening compehension, pronunciation, and speaking (Schmid-Schonbein, 1980).

The more positive attitudes observed in preschool females toward school tasks (Trites & Price, 1977) and in middle school and high school females toward second language learning specifically (Muchnick & Wolfe, 1982; Powell & Littlewood, 1982), may be important factors in this difference in performance. Other factors may also play a part such as the predominance of female teachers which utilize methodology and curriculum which are more appealing to females and which encourage the traditional view that language learning is a female activity (Powell &

Littlewood, 1982).

Attitudes and motivations have been observed to be significantly related to second language proficiency in numerous studies of older children and adults. The various factors that affect attitudes and motivation which have been examined in these studies are: (a) the learner's ethnicity, the politico-linguistic status of the language to be learned, and the existance of ethnic groups within the community (Clement & Kruidenier, 1983; Gardner, 1968; Genesee, Rogers, & Holobow, 1983; Oller, Baca, & Vigil, 1977; Oller, Hudson, & Liu, 1977); (b) parental attitudes (Feenstra, 1969; Gardner, 1968; Gardner & Lambert, 1972; Lambert & Klineberg, 1967); (c) the learner's personality and learning style (Gayle, 1981; Gliksman, Gardner & Smythe, 1982; Wong Fillmore, 1979); and (d) the teacher, peers, curriculum, and methodology (Ely, 1986; Feenstra, 1969; Gardner, 1968; Hermann, 1980; Ladousse, 1982; Muchnick & Wolfe, 1982).

Although few studies on motivation have been reported on young children, those that exist indicate that parental attitude and child motivation affect young children's learning of a second language. A study of variables predictive of success or failure in French immersion programs reported that parents who chose immersion programs

for their 4-year-old children had themselves studied French, could speak French or expressed a desire to speak French, and had more positive attitudes toward learning French than parents who chose the English program. These parents also expressed the belief that young children learn second languages better than adults (Trites & Price, 1977). Several studies of older children suggest that there is a positive attitude between parent attitude and student achievement in the second language (Feenstra, 1969; Gardner, 1968; Gardner & Lambert, 1972).

Two studies report contradictory findings on young children's attitudes and motivation toward the acquisition of a second language. Wong Fillmore (1979) studied six year-olds learning a second language by acquisition and observed that the greatest ability to progress was found in the child whose personality, interests and motivations caused her to seek out, and relate to, speakers of the second language. Strong (1984) examined attitude and acquired second language proficiency in Spanish-speaking kindergarteners by comparing beginners and advanced level English speakers. He found that the advanced speakers had significantly greater integrative orientation to English-speakers than did the beginners. This finding suggests that integrative attitudes follow second language

acquisition skills rather than precede them.

No research was found on the attitudes or motivations of young children learning a second language in the classroom, but an observation is reported on the enthusiasm of gifted children aged 3 through 6 years-old to learn Spanish in a class situation. Enthusiasm to learn the second language was measured by the child's willingness to leave his/her current activity during the free choice period to attend Spanish class. Of the twenty-three children who participated in the classes, seven children were very enthusiastic, twelve were of average enthusiasm, and four were not enthusiastic. The classroom teachers indicated that the children's enthusiasm for learning Spanish was similar to the children's enthusiasm for learning other subject matter (Rosenbusch & Draper, 1985).

Based on the available research the present study was designed with the following expectations:

1. Older children will out perform younger children on vocabulary but there will be no difference in scores on oral production, listening comprehension, and pronunciation.

2. Children who have high intelligence test scores will receive higher scores on vocabulary than children who have low intelligence test scores, but there will be no

difference in scores by intelligence on oral production, pronunciation, and listening comprehension.

3. Females will receive higher scores than males on all measures of second language learning.

4. Children of parents who have positive attitudes toward bilingualism will score higher on all measures of second language learning than children of parents who do not have positive attitudes.

5. Children who have high scores on motivation to learn the second language will score higher on all measures of second language learning than children who have low motivation scores.

METHOD

Subjects

The subjects in this study were 52 volunteer children enrolled in the laboratory school of the Department of Child Development, Iowa State University, Ames, Iowa. The children participated either in kindergarten (N = 20), extended day care (N = 14), or Project Pegasus, a program for intellectually and/or creatively advanced preschool children (N = 18). A letter was sent to the parents of all children enrolled in the laboratory classrooms (N = 54) describing the research project, requesting permission both for participation by the child and a parent (mothers = 79%), and for the child's intelligence test score to be used for analysis as data in the research project (see Appendix A). Together with the letter was a questionnaire on the parent's attitude toward bilingualism and questions concerning demographic data as well as the parent's experiences with second language learning (see Appendix B). Permission to participate in the study was granted for 53 children. One child was later dropped from the study by classroom teacher decision.

Subjects were distributed by age and gender as

follows: 5 male and 6 female 3-year-olds, 12 male and 9 female 4-year-olds, and 11 male and 9 female 5-year-olds. For data analysis, age was measured in months. The mean for intelligence (Stanford Binet, Form L-M, 1972 Norms) was 128.25 with a range of 93 to 160. English had been learned as a second language by four subjects; eight others had had some contact with another language, only one of these was with Spanish.

Spanish Pretest

All children were tested individually in their classrooms by the experimenter to determine their prior knowledge of Spanish (see Appendix C). Most (86%) of the children had viewed Sesame Street. Except for numbers, no child could spontaneously name more than three Spanish words, but 27% could name up to three words. When words were named by the experimenter for recognition, 42% could recognize the two words adios and aqua. Neither of these Spanish words was included in this study. Spanish numbers were offered by 11% of the children: two children counted to 5 and two counted to 6; one child counted to 10 and one counted to 20. The Spanish numbers 1 - 10 were included in the teaching and posttest but were not included for data analysis. Essentially all subjects were considered novices

to the Spanish language.

Instruments

A questionnaire (20 items) concerning parental attitude toward bilingualism developed and tested by Mosley (1969) was used to measure parent attitude toward bilingualism. To develop the questionnaire, Mosley prepared a preliminary questionnaire made up of 50 expressions of opinion toward Spanish-English bilingualism selected from the literature and reviewed by experts. He field-tested the questionnaire with Anglo-American (N = 64) and Mexican-American (N = 47) parents of elementary school children in Texas. Pearson product-moment correlation coefficients between item score and total score were computed as well as cross-validation of items between the Anglo-American and Mexican-American subjects. The 20 items highest in correlation and cross-validation (significant at the .01 level of confidence) were selected for the final questionnaire. A coefficent of internal consistency was calculated on the final questionnaire and corrected with the Spearman-Brown prophecy formula giving a reliability estimate of 0.79.

The questionnaire was adapted to the geographic location of the present study by substituting the words

Latin-American for Mexican-American, or Iowa for Texas in seven items. The personal data questions which accompanied Mosley's questionnaire were changed to questions of interest for this study. The five-point Likert scale for scoring questionnaire items was adapted in wording and format to make scoring easier for the respondent: 5 = strongly agree, 4 = agree, 3 = no opinion, 2 = disagree, 1 = strongly disagree.

A pilot study of the adapted questionnaire was conducted using parents of children attending another preschool in the community. A letter to parents was attached to the questionnaire explaining the reasons for the pilot study and asking for parents' comments on the questionnaire. As a result of these comments, two items were reworded in order to better assess parents' attitudes toward bilingualism, not their attitudes toward the Spanish language (items 6 and 10). A statement prefacing the attitude scale, as suggested by Jakobovits (1970), was added to avoid having parents misidentify the statements of opinion in the attitude scale as the opinions of the experimenter (see Appendix B).

The child's motivation to learn Spanish was judged using questionnaires developed by the experimenter with versions appropriate for the experimenter/Spanish teacher,

classroom teacher, and the child's parent (see Appendix D). Each motivation questionnaire contained four items which were parallel across the three versions of the questionnaire. For example:

1. Parent questionnaire: He/she has talked enthusiastically about the Spanish activities at home.

2. Classroom teacher questionnaire: Has talked enthusiastically about the Spanish activities in the regular classroom or on the playground.

3. Experimenter/Spanish teacher questionnaire: Participates enthusiastically in the Spanish small group activities.

Items were scored on a 5-point Likert scale identical to that used in the parent attitude toward bilingualism questionnaire.

Together with the parent motivation questionnaire were two other types of questions concerning:

1. Experiences the child had had outside of the classroom with the Spanish language during the time this study was being conducted (10 items).

2. Previous experiences the child had had learning languages other than his/her first one (4 items).

The oral posttest procedure and rating form were developed by the experimenter and pilot tested twice with

four elementary school children from kindergarten and first grade who were learning Spanish from the Spanish teacher/experimenter. In both pilot tests, the videotaped oral posttests were rated by two judges who were requested to evaluate the rating form and procedure of the oral posttest. Changes based upon suggestions made by the judges were incorporated into the final procedure and oral posttest.

The finalized Spanish oral posttest included all nouns and articles, oral commands, and numbers that had been taught during the experimental treatment. The posttest consisted of the following measures: (a) recall of nouns and articles (27 items each), (b) listening comprehension of oral commands (9 items), (c) production of oral commands (9 items), (d) counting from 1 to 10 (10 items), and (e) pronunciation of nouns, oral commands produced by the child, and numbers (see Appendix E).

Nouns, articles, listening comprehension, and numbers were scored on a scale of 0 to 4: 0 = no response, 1 = inaudible/not visible, 2 = incorrect response, 3 = correct response after incorrect attempt, 4 = correct response. Production of oral commands was scored on a scale of 1 to 4: 1 = inaudible, 2 = incorrect command, 3 = correct command but plural; 4 = correct command in singular.

Pronunciation errors that would be evident to a native speaker were noted and recorded on the nouns in the recall of nouns and articles, the verbs in the production of oral commands, and the numbers. Only words that were not recognized by any child in the pretest of prior knowledge of Spanish were used in the analysis of data.

Procedure

Each laboratory group was divided by the classroom teacher into three small groups which met with the experimenter/Spanish teacher once every three days in 1/2 hour classes for a total of 11 1/2 hours of instruction per child. There were 15 classes in the fall and 8 classes following a seven week school vacation in December and January. The groups met in the classroom during the small-group activity period. Every Spanish group received the same instruction which was designed by the experimenter to develop listening and speaking skills through a concrete-action methodology in which objects and actions were used to illustrate meaning. Each class period included an average of 11 short activities, for example: songs, story books, flannelboard, commands to group/individuals, counting, viewing objects from Spanish-speaking countries and pulling objects out of a bag

and naming or choosing a flashcard and naming.

During the last two weeks of instruction, one class period was held in the testing room for all but one small group (due to scheduling conflicts) in order to familiarize the children with the testing situation. The experimenter explained the posttest procedure and answered the children's questions about the testing situation.

During the two weeks after the conclusion of the Spanish classes, subjects were taken individually by the experimenter to the testing room for the oral posttest which was recorded by an assistant on 1/2 inch videotape using remote-controlled cameras. Sound was recorded both by a boom microphone and a lapel microphone. The lapel microphone was used on the subject during all but the listening comprehension measure when the subject responded to commands with physical movement. The same posttest procedure was used for each subject (see Appendix F).

At the conclusion of posttesting, the same parent that had completed the first questionnaire on parent attitude toward bilingualism was asked to complete a second identical questionnaire together with the following additional sections of questions: a) parents' occupation and education, (b) child's motivation for learning Spanish, (c) experiences with Spanish the child had had concurrent

with the research project, (d) child's previous experiences with learning languages other than his/her first one (see Appendix G). At this time, both the experimenter/Spanish teacher and the classroom teacher completed questionnaires concerning each child's motivation for learning Spanish (see Appendix C). To finalize the project for parents and children, the Spanish teacher/experimenter prepared an audiotape of the songs and vocabulary taught, a vocabulary list, and a list or Spanish resources and made them available to the parents (see Appendix H).

Two members of the Spanish faculty of the Department of Foreign Languages and Literatures, Iowa State University, Ames, Iowa, were the judges of the oral posttests. The judges also aided in the development of the final oral posttest procedure and scale by participating in the pilot tests. One judge took part in only the second pilot test, and the other judge participated in both. The experimenter trained the judges individually in the use of the final posttest rating scale (see Appendix E) by providing a detailed written explanation of the judgement criteria and procedures and by reviewing the written explanations verbally (see Appendix I). The experimenter determined that the judges understood the procedure by reviewing their use of the scale in rating a child from the

videotape of the second pilot test. Judges viewed and scored all experimental subjects independently.

Data Analysis

Oral posttest

Due to technical problems with the videotape recording, scores of 23% of the subjects were incomplete on the last section of the posttest, that is, counting from 1 to 10. For this reason, numbers were not included in the data analysis. Additionally, 11% of the children knew some numbers in the pretest of previous knowledge of Spanish.

Two subjects had missing data on the first two nouns and articles of the oral posttest because the data were not recorded on the videotape. Each subjects' mean noun score, and mean article score were substituted for the missing values in order to complete the data set.

Scores of "inaudible response" were negligible on nouns (.2%), as were scores of "response not visible" on listening comprehension (.7%) and "inaudible" on oral verb production (.6%). For statistical analysis, all scores on the oral posttest were condensed similarly:

1. Noun scores were condensed to incorrect = 0 (scores of 0 = no response, 1 = inaudible response, or 2 =

incorrect response) and correct = 1 (scores of 3 = correct response after incorrect attempt, or 4 = correct response).

2. Listening comprehension scores were condensed to incorrect = 0 (scores of 0 = no response, 1 = response not visible, or 2 = incorrect response) or correct = 1 (3 = correct response after incorrect attempt, 4 = correct response).

3. Oral production of verbs were condensed to incorrect = 0 (1 = inaudible, 2 = incorrect command) and correct = 1 (3 = correct command, but plural, 4 = correct command in singular).

4. Pronunciation errors on nouns and oral production of verbs were converted to error noted = 0 and no error noted = 1. Only pronunciation errors on nouns scored as correct = 1 (score of 3 = correct response after incorrect attempt, or 4 = correct response) and oral production verbs scored as correct = 1 (score of 3 = correct command, but plural, and 4 = correct command in singular) were used for data analysis.

The oral posttest scores were intercorrelated for each individual rater. High intercorrelations were found between each rater's noun and article scores (Rater 1, $r = .94$, $p < .0001$; Rater 2, $r = .93$, $p < .0001$). Only noun

scores were used as a measure of vocabulary for data analysis.

Interrater reliability was calculated on the two raters' scores for the criterion variables of vocabulary, oral verb production, and listening comprehension. High interrater reliability was found for all three criterion variables: vocabulary $r = .98$, $p < .0001$, oral command $r = .90$, $p < .0001$, and listening comprehension $r = .91$, $p < .0001$. Because of these high interrater correlations, means of the raters' scores were calculated on each criterion variable for each subject and were used as the subject's criterion variable scores in the data analysis.

The pronunciation score by rater for a subject was obtained by summing the pronunciation score on correct nouns and dividing by the rater's summed noun score for that subject. For each subject, a mean pronunciation score between the two raters was calculated and multiplied by 100 to transform the score to integers. The mean pronunciation score was used as the criterion variable for pronunciation in data analysis.

Moderator variables

The coefficient of internal consistency was calculated on the individual preteaching parent attitude

toward bilingualism instrument, for which scores were obtained before the teaching of Spanish (Alpha = .85). Similarly Chronbach's Coefficient Alpha was calculated on the identical postteaching parent attitude instrument, for which scores were obtained upon the completion of the project six months later (Alpha = .79). Also, the coefficient of internal consistency was calculated on the combined preteaching and postteaching parent attitude instruments (Alpha = .90).

The coefficient of stability was calculated on the parent attitude toward bilingualism instrument using the summed preteaching scores and the summed postteaching scores ($r = .75$, $p < .0001$). Since the preteaching parent attitude measure represented the home climate in which the child began the learning, the summed preteaching parent attitude score was used as the moderator variable for parent attitude in the data analysis. The maximum possible score for parent attiude was 100. No parent attitude measure was available for one male.

Chronbach's Alpha and standardized item Alpha were calculated on the individual parent (Alpha = .82), classroom teacher (Alpha = .55), and Spanish teacher (Alpha = .95) measures of the child's motivation as well as on a combined measure (Alpha = .83). Two of the 12 items of the

combined measure which had identical low item-total correlations (r = .22) were dropped. The two items were: (a) child uses Spanish at home, and (b) child uses Spanish in the classroom. The resulting 10-item instrument was used as the measure of child's motivation (Alpha = .85). For data analysis, scores on this instrument were summed resulting in a maximum possible score for child's motivation of 50.

RESULTS

Means, standard deviations, and ranges for each of the criterion and moderator variables are reported in Table 1. Intercorrelations among all criterion and moderator variables are presented in Table 2. Among criterion variables, there was a significant correlation only between vocabulary and oral commands, $r = .51$, $p < .001$. Significant correlations among criterion and moderator variables were found between age and pronunciation, $r = .31$, $p < .05$; motivation and vocabulary, $r = .54$, $p < .001$); motivation and oral verb production, $r = .43$, $p < .01$; and motivation and pronunciation, $r = .37$, $p < .01$. Although listening comprehension was the only criterion variable with which motivation did not correlate significantly, a positive correlation in the same direction as the other motivation relationships was found, $r = .24$, $p < .09$. Motivation also correlated significantly with the two moderator variables of age, $r = .29$, $p < .05$, and sex, $r = .28$, $p < .05$. There were no other significant correlations among moderator variables.

Table 1

Means, Standard Deviations, Medians, and Ranges, on Criterion Variables and Moderator Variables Except Sex

	Mean	SD	Median	Range
Criterion variables:				
Vocabulary[a]	13.42	5.39	12.50	3 - 24.5
Oral commands[b]	2.16	1.52	2.00	0 - 7
Listening comprehension[c]	7.28	1.19	7.50	4 - 9
Pronunciation[d]	85.98	11.28	87.30	50 - 100
Moderator variables:				
Age in months	55.58	8.56	57.00	40 - 71
Stanford Binet IQ	128.25	16.27	128.50	93 - 160
Parent attitude[e]	82.98	7.15	84.00	63 - 99
Motivation[f]	43.73	4.96	45.00	26 - 49

[a] Maximum possible score for vocabulary = 27.

[b] Oral commands = 9.

[c] Listening comprehension = 9.

[d] Pronunciation = 100.

[e] Parent attitude = 100.

[f] Motivation = 50.

Table 2

Intercorrelations among criterion and moderator variables

	Vocabulary	Oral Commands	Listening Comprehension	Pronunciation	Age
Vocabulary	1.00				
Oral Commands	.51***	1.00			
Listening Comprehension	.24	.20	1.00		
Pronunciation	.23	.07	.25	1.00	
Age	.24	-.02	.11	.31*	1.00
Sex	-.02	.002	.12	.18	-.04
IQ	-.04	-.12	.02	.22	.04
Parent Attitude	-.15	.05	-.16	-.08	.01
Child Motivation	.54***	.43**	.24	.37**	.29*

* $p < .05$. ** $p < .01$. *** $p < .001$.

ıge	Sex	IQ	Parent Attitude	Child Motivation
00				
04	1.00			
04	.11	1.00		
01	.13	.20	1.00	
29*	.28*	.10	-.07	1.00

No significant relationships were found between intelligence and any criterion variables. The prediction that subjects with high scores on the Stanford Binet test of intelligence would receive higher scores on vocabulary than subjects with low scores on the Stanford Binet was not supported. But as predicted, no difference in scores by intelligence was found for oral production, pronunciation, and listening comprehension.

Neither were significant relationships found between parent attitude and any of the criterion variables. The hypothesis that children whose parents scored high on the attitude toward bilingualism measure would perform better on measures of vocabulary, oral commands, listening comprehension, and pronunciation than subjects whose parents scored low on the attitude measure was not supported.

It was predicted that subjects who received high motivation scores would perform significantly better than subjects who received low motivation scores on vocabulary, oral commands, listening comprehension, and pronunciation. It was predicted that older subjects would receive higher scores than younger subjects on vocabulary, but there would be no difference in scores on oral commands, pronunciation and listening comprehension. It was predicted that females

would receive higher scores than males on vocabulary, oral commands, listening comprehension, and pronunciation.

A multiple classification analysis of variance procedure (2 X 2 X 2) was used to assess the combined effects of motivation, age, and sex. Subjects were divided at the median (45.00) into the high motivation group (scores of 45 - 49, n = 26) and the low motivation group (scores of 26 - 44, n = 26). The median for age (57.00) was used to separate subjects into two groups by age: older (57 - 71 months, n = 26) and younger (40 - 56 months, n = 26).

Results of ANOVA for the criterion variable vocabulary revealed significant main effects for motivation, F (1, 44) = 7.15, p < .01 (see Table 3). Highly motivated subjects (M = 15.69) performed significantly better than subjects with low motivation (M = 11.15). Significant main effects for motivation were also found for oral commands, F (1, 44) = 7.57, p < .01 (see Table 4). Again, highly motivated subjects (M = 2.73) performed significantly better than subjects of low motivation (M = 1.60). For listening comprehension no significant main effects were found for motivation. Thus, the motivation prediction was not supported for listening comprehension, but was supported for vocabulary and oral

commands.

No significant main effects were found for age for any criterion variable. The age prediction was not supported for vocabulary but was supported for oral production and listening comprehension.

For the criterion variable pronunciation, no significant main effects for motivation and age were found, but a significant interaction was observed between motivation and age for pronunciation, F (1, 44) = 5.05, p < .03 (see Table 5). The interaction plot (see Figure 1) revealed greater differences by age among low motivated children (young, low motivation, M = 79.67; older, low motivation, M = 92.00) than among highly motivated children (young, high motivation, M = 89.25; older, high motivation, M = 88.17). Young, low motivation children did the poorest on pronunciation, whereas old, low motivation children did the best on pronunciation. In fact, the old, low motivated children out performed both the old and young high motivated groups.

No significant main effects or interactions were found for sex for any criterion variable. Thus, the prediction for sex was not supported.

Table 3

Analysis of Variance of Vocabulary by Age, Sex, and Motivation

Sources of Variation	df	Mean Squares	F-value
Age	1	25.42	1.03
Sex	1	7.02	0.29
Motivation	1	175.74	7.15**
Age X Sex	1	72.83	2.96
Age X Motivation	1	0.18	0.01
Sex X Motivation	1	2.55	0.10
Age X Sex X Motivation	1	7.17	0.31
Residual	44	24.58	

** $p < .01$.

Table 4

Analysis of Variance of Oral Commands by Age, Sex, and Motivation

Sources of Variation	df	Mean Squares	F-Value
Age	1	0.28	0.13
Sex	1	0.48	0.23
Motivation	1	15.99	7.57**
Age X Sex	1	1.43	0.68
Age X Motivation	1	0.36	0.17
Sex X Motivation	1	1.87	0.88
Age X Sex X Motivation	1	3.94	1.86
Residual	44	2.11	

** $p < .01$.

Table 5

Analysis of Variance of Pronunciation by Age, Sex, and Motivation

Sources of Variation	df	Mean Square	F-Value
Age	1	430.18	3.90
Sex	1	222.10	2.01
Motivation	1	40.91	0.37
Age X Sex	1	1.48	0.01
Age X Motivation	1	557.22	5.05*
Sex X Motivation	1	116.65	1.06
Age X Sex X Motivation	1	72.79	0.66
Residual	44	110.38	

* $p < .05$.

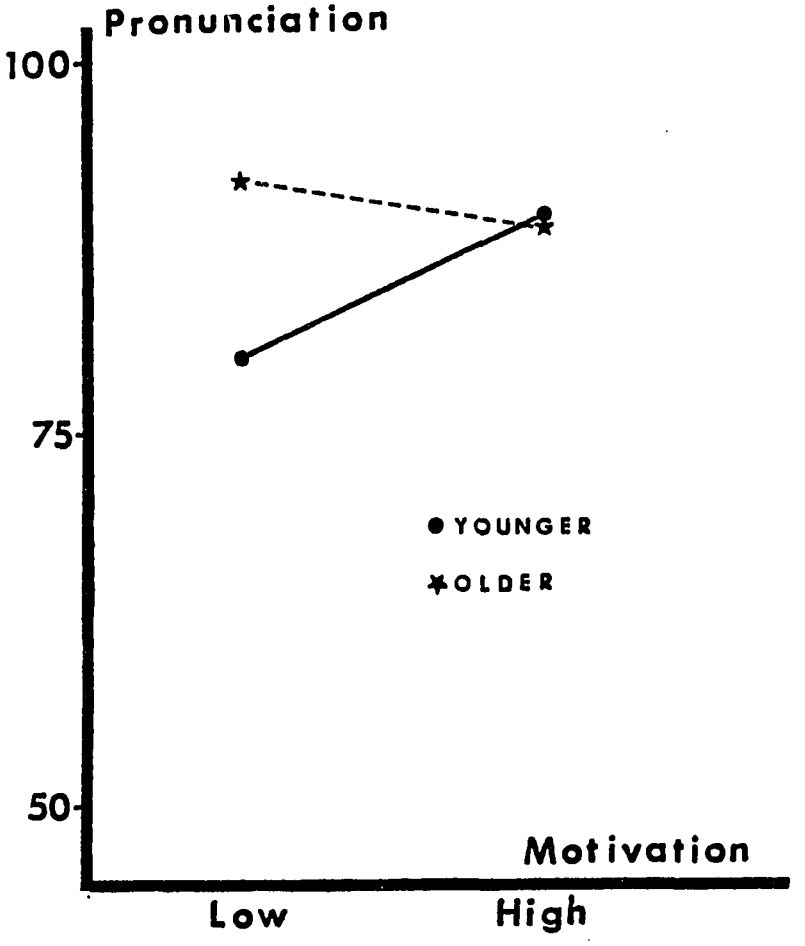

Figure 1. Interaction plot between motivation and age for pronunciation.

DISCUSSION

The interaction of age by motivation for pronunciation indicated that highly motivated subjects scored similarly regardless of age. Additionally, older subjects' pronunciation scores were about the same regardless of level of motivation. It was with the younger subjects that motivation trends were seen. Young, low motivated subjects scored poorly when compared to young high motivated subjects, who scored about the same as either of the older groups.

The explanation for this interaction can only be speculative. One possible explanation is related to neurological maturation. In first language learning, mastery of the phonological system is in part dependent upon neurological maturation which is complete at approximately 6 years of age (Fishbein, 1984; Scarr, Weinberg, & Levine 1986). When children younger than 6-years-old are learning a second language, maturation is likely to affect their ability to pronounce the second language. The present study suggests that high motivation to learn the second language may result in greater phonological ability (by compensating for immaturity) in

the language learning of younger children. In older children when physical and neurological maturation are more complete, the effects of motivation on pronunciation may be less evident.

Another explanation may be related to motivation. Due to a lack of pretest measures of motivation, it is not known if there were differences initially between the younger and the older children on motivation to learn Spanish. Assuming that there were no differences initially, it may be that the learning activities were more appealing to the younger children and, thus, their motivation to learn Spanish was stimulated resulting in higher scores for pronunciation for the young, highly motivated subject.

Significant relationships were supported between child's motivation and the criterion variables of vocabulary and oral commands, but were not supported for listening comprehension. This finding may be related to differences in the nature of the tasks. Both vocabulary and oral commands are based on production skills, while listening comprehension is based on reception skills.

This finding may also indicate that the activities utilized in teaching listening comprehension were appropriate for all young children regardless of their

motivation. The high mean score attained by subjects on listening comprehension (M = 7.28 out of 9) most likely indicates that subjects performed well on this measure regardless of the strength of their motivation to learn Spanish. The activities used in teaching vocabulary and oral commands appear to have been affected by the child's level of motivation since success appears to have been related to motivation. Caution is necessary, however, in making this generalization from these results because fewer items were taught in listening comprehension (9 items) than in vocabulary (27 items). There were also fundamental differences in the nature of the task between recalling a vocabulary word when presented with a flash card stimulus (vocabulary), recalling an oral command without any direct stimulus (oral command), and recognizing and responding physically to an oral command (listening comprehension).

Except for the interaction of age and motivation for pronunciation, age was not found to be significantly related to any other criterion variable. This surprising finding is contrary to results reported in numerous studies comparing younger and older children (Ervin-Tripp, 1974; Fathman, 1975; Fathman & Precup, 1983; Olson & Samuels, 1982; Snow & Hoefnagel-Hohle, 1977, 1978; Yamada et al., 1980). A study that examined the age differences among

children four through six-years-old (Dockrell & Brosseau, 1967) also reported an age difference: older subjects out performed younger subjects in aural ability and vocabulary. In the present study, the distribution of scores observed for listening comprehension (4 - 9 out of 9 possible, M = 7.28, SD = 1.19) indicates that a ceiling effect could be reducing the effects of age on listening comprehension by creating an artificial restriction on the distribution of scores across levels of ability. Examination of the range, mean, and standard deviation of the other criterion variables indicates that a ceiling effect is not likely to have affected vocabulary, oral ability, or pronunciation (see Table 1). In some studies the treatment and/or the posttest do not appear to be equally valid for all subjects in the age range studied. Children are not as likely as adults to perform well when asked to repeat numerous phonemes (Olsen & Samuels, 1982) or meaningless words (Snow & Hoefnagel-Hohle, 1977). It may be that in the present study the treatment and posttest were appropriate for the age range of subjects resulting in no differences in learning by age.

A previous study which utilized young children as subjects (Schmid-Schonbein, 1980) reported that females out performed males in second language learning. In the

present study, no significant relationships were found between sex and any of the criterion variables. This difference in results may be related to the type of treatment utilized. Schmid-Schonbein reports using workbooks in teaching the second language. In the present study, the treatment did not involve paper and pencil activities, rather, the learning involved interaction by the subjects with toys which represented the vocabulary items, and active physical response by the subjects to commands. Since it has been reported that females out perform males on school readiness tasks (Trites & Price, 1977), females may prefer the more school-like paper and pencil activities. Sex differences may not have been found in the present study because this treatment, in contrast to traditional methodology, is neutral, that is, equally appealing to males and females.

Intelligence was not found to even approach significance with any of the criterion variables. This finding was especially interesting because of the reported relationship between intelligence and vocabulary in younger children (Dockrell & Brosseau, 1967) and in older children (Genesee, 1976). Since intelligence has been suggested to be related to a cognitive/academic language proficiency factor (Cummins, 1979), the non-academic nature of the

treatment may again, have affected the outcome. The lack of a significant relationship between IQ and the criterion variables suggests that all children within a wide range of intelligence (Range: 93 - 160, M = 127) are capable of learning a second language with this treatment.

The unexpected observation that parent attitude was not significantly related to any of the criteron variables may be due to lack of variablity in attitude toward bilingualism in this group of parents. This conclusion is supported by the greater variability in the population observed by Mosley (1969), M = 76.87, and SD = 11.11, than found in this study, M = 82.98, SD = 7.15.

There were several threats to internal validity in this study. Maturation of language learning skills and attitudes affecting the child's sensitivity to learning a second language could have been a confounding factor because the study extended over a period of six months and there was no control group. The lack of control group also introduces the threat of history which was minimized by requesting that classroom teachers refrain from using Spanish with the subjects and inform the researcher of class projects involving the study of other languages or cultures. The threat of testing was minimal because the pre and post tests were separated by a six month interval

and because they were substantially different tests. The threat of instrumentation was minimized by utilizing two posttest judges, by providing a form for evaluating the posttest objectively, and by measuring interrater reliability.

Threats to external validity include both active and passive effects of the experimenter because of the central, active role of the experimenter in this research. Utilizing a population that was accessible rather than randomly selected limits the generalization of the findings of this study to similar populations. Posttest sensitization could have occurred because the posttest was unlike the treatment in that it was held in a different environment, there was one-to-one interaction between the experimenter and subject, and the posttest was videotaped.

The variable of child's motivation would be important to include in future research on young children as second language learners because of the significant relationships observed in the present study. Replication research utilizing the motivation instrument developed for this study and the parent attitude toward bilingualism instrument would be valuable in assessing the reliability and validity of these instruments.

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APPENDIX A: FIRST PARENT LETTER AND CONSENT FORM

July 3, 1985

Dear Parents,

I am a doctoral candidate at Iowa State University. As part of my degree program I am studying preschool children's ability to learn Spanish as a second language under the guidance of Dr. Dianne Draper and Dr. Elaine Jarchow. My interest in this study developed from my experiences working with preschools in Argentina, and, more recently, in teaching Spanish to preschoolers in this country. Very few studies have been done of preschooler's ability to learn a second language even though several recent national reports have pointed out the imperative of second language learning for our nation's students and the importance of starting to learn a second language early in life.

The children who take part in this study will first meet with me for an oral pretest in order to determine if they have any current knowledge of Spanish. From September through March I will meet with them as one of the small groups during small group time to teach simple conversational skills, Spanish songs, games, and poems in their preschool or kindergarten group. In April they will participate in a 15 minute oral post test in which I will meet with them individually to check their conversational learnings through activities similar to those of their Spanish class. The oral post test will be videotaped so that the children's responses can be observed by Spanish language professionals who will rate their oral ability with the language.

At the beginning of the study a parent of each participating child will complete a questionnaire concerning his/her attitudes toward the Spanish language and culture. At its conclusion, the same parent will be asked to complete a questionnaire concerning his/her observations of the child's motivation to participate and learn through this project. Each questionnaire requires 10 - 15 minutes to complete. (It is important to have the same parent complete all information forms for the child throughout this study.)

An intelligence test will be given to each child in order to study the relationship of intelligence to children's ability to learn a second language. You will be contacted by phone this summer to set up a time for the intelligence test.

Throughout this study all information will remain confidential and participants will be identified only by code number. At the conclusion of this study all videotapes and questionnaires will be destroyed. Your child is free to withdraw from the study at any time.

For your child to participate in this project please fill out the accompanying consent form and return it when your child comes in for the intelligence test. If you have questions about the study, please feel free to call Marcia Rosenbusch (232-5232) or Dr. Dianne Draper (294-5612). Messages may be left for us at 294-3040. We will be happy to discuss this study with you and answer any questions you might have.

You and your child's participation in this study will help greatly in furthering knowledge in this area in which little is known. Thank you very much.

Sincerely,

Marcia H. Rosenbusch
Ph.D. Candidate

Dr. Dianne Draper
Co-Major Professor in charge of research

Consent Form for Spanish Project:

Please fill out this form and return it together with the Parent Information Form and the Parent Questionniare when your child comes in for the intelligence test. (You will be contacted by phone this summer to set up a time for the intelligence test.) Thank you.

I agree to participate, and to have my child _____ participate in the Spanish preschool project. I understand our identities will not be revealed in any publication, recording, computer data storage, or in any other way which relates to this study. I understand that I am free to withdraw my consent and discontinue at any time following the notification of the researcher.

I give my consent to the use of my child's intelligence test scores for analysis as data in the Spanish preschool project.

_____ _____

Date Parent's Signature

APPENDIX B: PARENT INFORMATION FORM AND PARENT ATTITUDE QUESTIONNAIRE

(Both forms are to be filled out by the same parent and returned at the time of your child's intelligence test.)

PARENT INFORMATION FORM CODE NUMBER:_____

1. I am the father __ mother __ of one or more children attending preschool. (Check one.)

2. I am: (Check one or specify.)

   Latin-American __ Anglo-American __

   Other (specify)_____

3. The language that I generally heard during my childhood was: (Check one or specify.)

   Spanish ___
   English ___
   Other (specify)_____

4. Besides my first language, I am able to converse fluently in the following languages: (Specify.)

5. Besides my first language, I am able to read and write the following languages: (Specify.)

6. If your child's school were to teach only one second language to be determined by parental choice, which <u>one</u> language would you choose? (Check one or specify.)

   French _____
   German _____
   Spanish _____
   Other (specify) _____

7. I studied second languages in: (Specify.)

Level:	Length of time: (years)	Languages:
preschool	_____	_____
elementary school	_____	_____
jr high	_____	_____
high school	_____	_____
university	_____	_____
other	_____	_____

PARENT QUESTIONNAIRE

The following statements are ones with which many people agree, and many people disagree. There are no right or wrong answers since many people have different opinions. Please indicate your agreement or disagreement by circling the answer which best describes your feelings.

1. Being bilingual (being able to understand or speak two languages) has more advantages than disadvantages.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

2. Both Latin-Americans and Anglo-Americans should be bilingual.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

3. Latin-American children who are residing in the United States should try to forget Spanish so they can improve their English.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

4. Being able to converse in two languages is a satisfying experience.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

5. If properly educated, Latin-American children residing in the United States have an unusual opportunity to become truly bilingual.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

6. A good school will encourage the learning of a second language as well as the learning of English on the part of all pupils attending.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

7. Learning to speak two languages takes more time than it is worth.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

8. Being bilingual is a source of pride.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

9. Bilinguals are happier than those who speak only one language.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

10. Bilingualism is so important in Iowa that all Iowa schools should try very hard to teach both English and a second language to every child.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

11. Bilingualism is a handicap.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

12. Latin-Americans residing in the United States can enjoy the best of two cultures if they are properly educated and learn both English and Spanish.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

13. One has to just about become an Anglo and cut him/herself off from the Latin-American community if he/she wants to learn to speak English well.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

14. Latin-Americans residing in the United States are proud of being able to speak English.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

15. People who speak more than one language have cultural advantages.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

16. Bilingualism is a valuable tool which Latin-Americans residing in the United States should learn to use well.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

17. Bilingual people can be of more help than monolinguals in solving the world's problems.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

18. Many adults should study and learn a second language.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

19. Studying a second language is not worthwhile for an adult because he/she will always have an accent.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

20. Most people of great influence know only one language, which indicates that schools should do a good job of teaching just one language.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

Thank you very much!

APPENDIX C: SPANISH PRETEST

PRETEST OF PRIOR KNOWLEDGE OF SPANISH

The Spanish teacher/experimenter met individually with the children during the free play period in the classroom for the pretest as follows:

1. The child was asked, "Do you ever watch Sesame Street?" If the child's answer was "No" the experimenter proceeded to item 4; if the child's answer was "Yes", the experimenter proceeded to item 2.

2. The child was shown a picture of Maria from the television program Sesame Street and asked: "Do you know who this is?" If the child did not know, the child was told, "This is Maria from Sesame Street. She speaks English like we do and Spanish." The experimenter proceeded to item 4. If the child did recognize Maria, the child was told, "Very good!" and the experimenter proceeded to item 3.

3. The child was asked, "What languages does Maria speak?" If the child did not name "Spanish" as one of the languages, the child was told,"Maria speaks Spanish and English," and the experimenter proceeded to item 4. If the child answered "Spanish" or "Spanish and English", the experimenter said, "Very good!" and proceeded to item 4.

4. The child was asked, "What words can you name in

Spanish?" If the child knew no Spanish words, the experimenter proceeded to item 5. If the child named any Spanish words he/she was told, "Tell me all the Spanish words you know and I will write them down." Upon completing what he/she knew the child was told, "Excellent!" and the experimenter proceeded to item 5.

5. To prompt the child's memory for Spanish words, pictures of a cat, an apple, and the Arabic numbers one, two, and five were shown one at a time to the child and he/she was asked, "How do you say cat in Spanish?" (These words are ones taught in Spanish on Sesame Street.) If the child still knew no words in Spanish, the experimenter proceeded to item 6. If the child named Spanish words, he/she was told, "Very good! Tell me all the Spanish words you know and I will write them down." When the child had named all words he/she knew the experiementer proceeded to item 6.

6. The child was asked one at a time if he/she knew what each of the following words means in Spanish (if the child had not already named them): gato, agua, uno, dos, cinco: "Do you know what the word adios means in Spanish?" If the child did not know the meaning of the words, the experimenter proceeded to item 7. If the child recognized some of the Spanish words, he/she was told "Very

good!" When no more Spanish words were ellicited from the child, the experimenter proceeded to item 8.

7. If the child did not know any words in Spanish, it was explained to him/her that not everyone in the world calls a cat cat and he/she was told that cat is called by some people el gato or gato. He/she was asked if he/she knows two different words for the same object. If this does not elicit any Spanish words, the experimenter proceeded to item 8. If the child named Spanish words he/she was told "Very good!" and the experimenter proceeded to item 8.

8. The child was told, "I will soon be teaching you Spanish words when we start Spanish class."

APPENDIX D: MOTIVATION QUESTIONNAIRES AND CHILD INFORMATION FORM

SPANISH TEACHER'S RATING OF CHILD'S MOTIVATION TO LEARN SPANISH - POSTTEST

Child's code number: _____

1. Goes willingly to the Spanish small group when it is his/her turn.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

2. Uses Spanish willingly in the Spanish small group.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

3. Demonstrates that he/she likes the Spanish teacher.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

4. Participates enthusiastically in the Spanish small group activities.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

Comments:

CLASSROOM TEACHER'S RATING OF CHILD'S MOTIVATION TO LEARN SPANISH
- POSTTEST

Child's name: _____ Code Number: _____
(To be added by researcher)

1. Goes willingly to the Spanish small group when it is his/her turn.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

2. Has used Spanish in the regular classroom or on the playground.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

3. Demonstrates that he/she likes the Spanish teacher.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

4. Has talked enthusiastically about the Spanish activities in the regular classroom or on the playground.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

Comments:

PARENT'S RATING OF CHILD'S MOTIVATION TO LEARN SPANISH
- POSTTEST

1. My child expresses positive feelings about the Spanish classes.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

2. He/she has used Spanish at home.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

3. My child demonstrates that he/she likes the Spanish teacher.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

4. He/she has talked enthusiastically about the Spanish activities at home.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

Note. This form is part of the Second Parent Questionnaire found in its entirety in Appendix G.

APPENDIX E: SPANISH POSTTEST

SPANISH PROJECT POSTTEST EVALUATION: ORAL PRODUCTION - NOUNS

Evaluator: _____ Code Number: _____

1. el oso

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

2. la rana

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

3. la manzana

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

4. el gato

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

5. la cabeza

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

6. la mano

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

7. el pie

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

8. la piña

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

9. el pato

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

10. el agua

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

11. el ojo

Noun- Circle	Article- Circle	Pronunciation- Note errors made:
0 = no response	0 = no article	
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

12. la boca

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

13. el pelo

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

14. la nariz

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

15. el sombreo

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

16. el perro

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

17. el pollito

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

18. el bebé

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

19. la mamá

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

20. el papá

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

21. la casa

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

22. el pez

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

23. el auto

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

24. el autobús

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

25. la barba

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

26. el tren

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

27. el avión

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

28. el bote

Noun- Circle	Article- Circle	Pronunciation- Note
0 = no response	0 = no article	errors made:
1 = inaudible response	1 = inaudible	
2 = incorrect response	2 = incorrect article	
3 = correct response after incorrect attempt	3 = correct article after incorrect attempt	
4 = correct response	4 = correct article	
9 = not tested	9 = not tested	

SPANISH PROJECT POSTTEST EVALUATION: LISTENING COMPREHENSION

Evaluator: _____ Code Number: _____

1. Levántate. (Stand up.)

0 = no response
1 = response not visible
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

2. Da la vuelta. (Turn around.)

0 = no response
1 = response not visible
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

3. Brinca. (Jump.)

0 = no response
1 = response not visible
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

4. Tócate la boca. (Touch your mouth.)

0 = no response
1 = response not visible
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

5. Duérmete. (Go to sleep.)

0 = no response
1 = response not visible
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

6. Levántate. (Stand up.)

Already scored as number 1, don't score again.

7. Siéntate. (Sit down.)

0 = no response
1 = response not visible
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

8. Dame el gato. (Give me the cat.)

0 = no response
1 = response not visible
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

9. Pon el perro. (Put on the dog.)

0 = no response
1 = response not visible
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

10. Saca el pato. (Take off the duck.)

0 = no response
1 = response not visible
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

SPANISH POSTTEST EVALUATION: ORAL PRODUCTION - COMMANDS

Evaluator: _____ Code Number: _____

To score: Score only the commands the child uses.
If the command is used more than once, score only the first usage.
Since this section is open-ended, space for comments of any type is included.

One Word Commands:

Levántate.

Verb-
1 = inaudible
2 = incorrect command
3 = correct command, but plural
4 = correct command in singular

Pronunciation- errors made:

Note

Comments-

Da la vuelta.

Verb-
1 = inaudible
2 = incorrect command
3 = correct command, but plural
4 = correct command in singular

Pronunciation- errors made:

Note

Comments-

Brinca.

Verb-
1 = inaudible
2 = incorrect command
3 = correct command, but plural
4 = correct command in singular

Pronunciation- errors made:

Note

Comments-

Duerméte.

Verb-
1 = inaudible
2 = incorrect command
3 = correct command, but plural
4 = correct command in singular

Pronunciation- errors made:

Note

Comments-

Siéntate.

Verb-
1 = inaudible
2 = incorrect command
3 = correct command, but plural
4 = correct command in singular

Pronunciation- Note errors made:

Comments-

Commands with Nouns:

Tócate ___.

Verb-
1 = inaudible
2 = incorrect command
3 = correct command, but plural
4 = correct command in singular

Noun-
1 = inaudible
2 = incorrect noun
3 = correct noun after incorrect attempt
4 = correct noun

Pronunciation- Note errors made:

Comments:

Dame ___.

Verb-
1 = inaudible
2 = incorrect command
3 = correct command, but plural
4 = correct command in singular

Noun-
1 = inaudible
2 = incorrect noun
3 = correct noun after incorrect attempt
4 = correct noun

Pronunciation- Note errors made:

Comments:

Pon ___.

Verb-
1 = inaudible
2 = incorrect command
3 = correct command, but plural
4 = correct command in singular

Noun-
1 = inaudible
2 = incorrect noun
3 = correct noun after incorrect attempt
4 = correct noun

Pronunciation- Note errors made:

Comments:

Saca ___.

Verb-
1 = inaudible
2 = incorrect command
3 = correct command, but plural
4 = correct command in singular

Noun-
1 = inaudible
2 = incorrect noun
3 = correct noun after incorrect attempt
4 = correct noun

Pronunciation- Note errors made:

Comments:

SPANISH PROJECT POSTTEST EVALUATION: ORAL PRODUCTION - NUMBERS

Evaluator: _____ Code Number: _____

Uno- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

Dos- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

Tres- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

Cuatro- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

Cinco- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

Seis- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

Siete- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

Ocho- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

Nueve- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

Diez- Circle
0 = no response
1 = inaudible response
2 = incorrect response
3 = correct response
after incorrect attempt
4 = correct response
9 = not tested

Pronunciation- Note
errors made:

APPENDIX F: POSTTEST PROCEDURE

POSTTEST PROCEDURE

Each child was approached in the classroom by the experimenter who explained, "Today you can have your turn to go downstairs with me for Spanish class. Are you ready to go now?" If the child was not ready at that time an appointment was made with the child for the same day at a later time. This time of the appointment was written on paper and given to the child.

The Spanish teacher/experimenter began the oral posttest with the following explanation, "Do you remember the microphone that I wore when we had Spanish class in this room? Today you can have a turn to wear it. Would you like me to put it on you?" If the child did not want the microphone clipped on him/her, the experimenter positioned it so that it would pick up the child's voice. The experimenter then explained, "I have some of the things we've used in Spanish class. I'm going to show them to you and you tell me what they are in Spanish." The child was presented one by one with visual representations of the 28 nouns in the sequential order of their presentation in the curriculum. All nouns were represented by flashcards familiar to the children except the last noun bote (boat)

for which no flashcard had been used in class. This noun was represented by a toy boat.

The experimenter kept the testing environment as similar as possible to the classroom environment. All children were encouraged by the experimenter's comments of, "Good!", and "Good job!", when: (a) they got their first item right, (b) when they got an item right after a wrong one, and (c) after several correct items in sequence. When a child was silent upon presentation of an item, the experimenter gave the child time to think of the answer without interruption. If the child could not think of the answer, the experimenter would ask, "Would you like some help?" If the child indicated "Yes", the experimenter gave the child the answer. If the child did not want help, the experimenter continued waiting for the child to think of the answer. When a child misidentified a noun, the experimenter gave the correct answer without further comment if the noun the child had given was yet to be presented. Only the child's spontaneous answers were scored as correct by the judges.

In preparation for the child's physical response to the listening comprehension oral commands given by the experimenter, the lapel microphone was removed from the child with the explanation, "I'm going to tell you some

things to do in Spanish so I'll take this (microphone) off for now. I'll put it back on in a minute." The experimenter then proceeded to give the oral commands to the child, for example: Levantate. (Stand up.)

Upon completion of the listening comprehension items, the experimenter clipped the microphone on the child and said, "I've been telling you what to do, now can you tell me to stand up in Spanish?" If the child could not remember how to say this, the experimenter prompted him/her saying, "You can tell me Levantate. (Stand up.)." If the child repeated this, the experimeter responded by standing up and saying, "Good! Can you tell me something else to do in Spanish?" If the child responded with another command the experimenter said, "Very good! What else can you tell me to do in Spanish?" When the child could think of no more commands, the teacher indicated the objects and items on the flannelboard used in telling the child commands during listening comprehension and asked, "Can you tell me what to do with these?" If the child could tell no more commands the experimenter continued the next part of he posttest.

The experimenter presented the child with ten plastic beads snapped together in a string and said, "Can you count these for me in Spanish?" If a child reached the tenth

bead and had only counted to nine the experimenter would say, "If there were one more bead what would it be?" If the child reached the ninth bead and had counted to ten the experimenter explained, "And if we have one more bead that would be once (eleven). Upon completion of the posttest the experimenter accompanied the child back to the classroom.

APPENDIX G: SECOND PARENT LETTER AND QUESTIONNAIRE

March 18, 1986

Dear Parents,

Thank you for your cooperation and interest in the Spanish project. I have enjoyed working with your children very much through this year. During the next few days I will complete the posttesting of the children.

Together with this letter you will find a short Parent Information Form, a Parent Questionnaire, and a Child Information form. Please complete these forms and return them to the envelope marked "Spanish Project" outside your child's classroom door by March 25. For this information to be of use in this project, all forms need to be filled out by the same parent who completed the first set of forms.

Your forms have been assigned a code number so that strict anonymity will be followed. In no way will your responses be associated with your own or your child's name, thus, all information on the forms will remain confidential. At the conclusion of this study all questionnaires will be destroyed.

Thank you very much for your participation in this study.

Sincerely,

Marcia H. Rosenbusch
Ph.D. Candidate

CODE NUMBER:_____

PARENT INFORMATION FORM (All forms are to be filled out by the same parent who completed the first set of forms. Please return completed forms to the envelope marked "Spanish Project" outside your child's classroom door by March 29.)

1. I am the father ___ mother ___ (Check one.) of a child attending preschool or kindergarten.

2. Occupation (Fill in for both.)
Father: _____
Mother:_____

3. Highest educational level attained (Fill in year in school for both.)

Father:_____ Mother:_____

PARENT QUESTIONNAIRE

The following statements are ones with which many people agree, and many people disagree. There are no right or wrong answers since many people have different opinions. Please indicate your agreement or disagreement by circling the answer which best describes your feelings.

1. Being bilingual (being able to understand or speak two languages) has more advantages than disadvantages.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

2. Both Latin-Americans and Anglo-Americans should be bilingual.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

3. Latin-American children who are residing in the United States should try to forget Spanish so they can improve their English.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

4. Being able to converse in two languages is a satisfying experience.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

5. If properly educated, Latin-American children residing in the United States have an unusual opportunity to become truly bilingual.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

6. A good school will encourage the learning of a second language as well as the learning of English on the part of all pupils attending.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

7. Learning to speak two languages takes more time than it is worth.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

8. Being bilingual is a source of pride.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

9. Bilinguals are happier than those who speak only one language.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

10. Bilingualism is so important in Iowa that all Iowa schools should try very hard to teach both English and a second language to every child.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

11. Bilingualism is a handicap.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

12. Latin-Americans residing in the United States can enjoy the best of two cultures if they are properly educated and learn both English and Spanish.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

13. One has to just about become an Anglo and cut him/herself off from the Latin-American community if he/she wants to learn to speak English well.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

14. Latin-Americans residing in the United States are proud of being able to speak English.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

15. People who speak more than one language have cultural advantages.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

16. Bilingualism is a valuable tool which Latin-Americans residing in the United States should learn to use well.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

17. Bilingual people can be of more help than monolinguals in solving the world's problems.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

18. Many adults should study and learn a second language.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

19. Studying a second language is not worthwhile for an adult because he/she will always have an accent.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

20. Most people of great influence know only one language, which indicates that schools should do a good job of teaching just one language.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

CHILD INFORMATION FORM

1. My child expresses positive feelings about the Spanish classes.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

2. He/she has used Spanish at home.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

3. My child demonstrates that he/she likes the Spanish teacher.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

4. He/she has talked enthusiastically about the Spanish activities at home.

5	4	3	2	1
strongly agree	agree	no opinion	disagree	strongly disagree

5. Please indicate whether your child has had experiences in Spanish through this year outside of class.
Circle "Yes" if your child has had the experience, or "No" if your child has not had the experience:

a. Spanish stories read or told to child	Yes	No
b. Spanish dictionary used with child	Yes	No
c. Spanish audiotapes used with child	Yes	No
d. Videotapes or television programs all in Spanish viewed by child	Yes	No
e. Videotapes or television programs with some Spanish (such as Sesame Street) viewed by child	Yes	No
f. Spanish games played with child	Yes	No

g. Spanish songs or poems taught to child Yes No

h. Spanish taught in this project practiced with child Yes No

i. Direct contact with Spanish speakers experienced by child Yes No

j. Other (Please describe) Yes No

6. The language my child first learned was: (Check or specify.)

English ___ Other (Specify.)_____

7. My child has had an opportunity to learn another language besides his/her first one and this year's experience with Spanish (Circle one.):

Yes No (If you circle "No" you may ignore questions 8 and 9.)

8. If you answered "Yes" to question 7, please tell how much experience your child has had with each of the languages he/she has had an opportunity to learn <u>besides</u> the first one and this year's experience in Spanish.

(Circle an answer for each language.)	(Specify to which language/s your answer applies.)
a. One year or less	_____
b. More than one year to three years	_____
c. More than three years to six years	_____

9. If you answered "Yes" to question 7, please describe the nature of the language experiences your child has had with each of the languages he/she has had an opportunity to learn <u>besides</u> the first one and this year's experience with Spanish.

(Circle all that apply.)	(Specify to which language/s your answer applies.)
a. Classes	_____
b. Parent taught child.	_____
b. Informal contact with speakers of the language in this country	_____
c. Lived in the country where the language is spoken	_____
d. Other (Describe.)	_____

<u>Thank you very much!</u>

APPENDIX H: LAST PARENT LETTER WITH VOCABULARY AND RESOURCES

April 21, 1986

Dear Parents,

Several of you have asked for information about what was taught in the Spanish classes and how you could continue your child's learning of Spanish. Together with this letter I am including a list of the vocabulary and commands that were taught in class and a list of some Spanish resources you might find helpful.

I have prepared an audiotape of the vocabulary and songs that the children learned in Spanish class. If you would like a copy of this tape, sign up with your child's classroom teacher by paying $1.45 for the cost of the tape and copying. Please bring exact change or a check made out to Marcia Rosenbusch. Please sign up by Friday, April 25.

Working with your children through this year has been a very enjoyable experience for me. Thank you again for your cooperation with the Spanish project.

Sincerely,

Marcia H. Rosenbusch
Ph.D. Candidate

Dr. Dianne Draper
Co-Major Professor

SPANISH FOR PRESCHOOL AND KINDERGARTEN

VOCABULARY LIST

Animals
el oso - bear
la rana - frog
el gato - cat
el pato - duck
el perro - dog
el pollito - chick
el pez - fish

Foods
la manzana - apple
la piña - pineapple
el agua - water

Body Parts
la cabeza - head
la mano - hand
el pie - foot
el ojo - eye
la boca - mouth
el pelo - hair
la nariz - nose
la barba - beard

Family
el bebé - baby
la mamá - mom
el papá - dad

Transportation
el auto - car
el autobús - bus
el tren - train
el avión - airplane
el bote - boat

COMMANDS

Levántate. - Stand up.
Da la vuelta. - Turn around.
Brinca. - Jump.
Tócate la boca. - Touch your mouth.
Duérmete. - Go to sleep.
Siéntate. - Sit down.
Dame el oso. - Give me the bear.
Pon el perro. - Put on the dog. *
Saca el pato. - Take off the duck. *
* (With the flannelboard)

Numbers
uno - one
dos - two
tres - three
cuatro - four
cinco - five
seis - six
siete - seven
ocho - eight
nueve - nine
diez - ten

Other
la casa - house
el sombrero - hat
buenos días - good morning
adiós - good bye

Marcia H. Rosenbusch
Child Development Laboratory School
Iowa State University

SPANISH RESOURCES

Gessler Publishing Company, Inc.
900 Broadway
New York, N.Y. 10003

The First Thousand Words in Spanish
A delightfully illustrated picture wordbook with phonetic guide to pronunciation.

Babar in Spanish
A set of four books with color illustrations.

Aires Favoritos
A songbook with 30 modern and traditional songs with simple musical score.

National Textbook Company
4256 West Touhy Avenue
Lincolnwood, Ilinois 60646-1975

Five Disney Favorites
Five booklets including Winnie the Pooh, Mary Poppins, and Dumbo.

Six Children's Stories
Walter Lanz booklets with a minimum of text in easy Spanish.

Había Una Vez
"The Three Bears" and two other stories are in this book. A cassette tape of these stories is also available.

"Cantando" We Learn
A book/cassette program of 20 original songs for kindergarten through 4th grade. The songs teach basic vocabulary.

Imported Books
P.O. Box 4414
Dallas, TX 75208

The following are inexpensive children's books that were used in your child's Spanish class:

Los Perros	Coleccion Primer Disney
Los Números	"
Los Automóviles	"
Esteben Pío Pío	Editorial Juventud

APPENDIX I: GUIDELINES FOR SCORING POSTTEST

SPANISH PROJECT POSTTEST EVALUATION:
VOCABULARY

Purpose:
This posttest examines:
1) the child's memory for nouns taught in Spanish class
2) the child's ability to remember the correct articles for the nouns
3) the errors of pronunciation

Procedure:
The vocabulary is tested in the chronological order that it was taught in class. The child will be shown flashcards, flannel cutouts, and objects representing the words in the order listed below. Please rate each word on the scale provided.

Rate only the child's spontaneous production of the noun. If the child asks for help from the teacher, or if the teacher sees that he/she needs help and offers it, rate that as"0 = no response", because there was no spontaneous response. Do not rate the child's repetition of the teacher's prompt.

Use "3 = correct response after incorrect attempt" if the child spontaneously responds incorrectly, then spontaneously corrects his/her response.

Use "9 = not tested" if that item was not tested at all, i.e., forgotten, or cut off of the tape.

EXAMPLES OF SCORING:

Note: All items need to have a score. There is a reponse category to fit every instance. If you come across something you feel there is no category for, make a note to me on the answer sheet about it, if it is a one time happening. If it is recurring, please contact me so we can resolve it.

VOCABULARY - NOUNS
Example to be tested: "la manzana" shown on flashcard

a. Child's response: "la manzana"
   Score: 4 = correct response

b. Child's response: "la piña"
   Score: 2 = incorrect response

c. Child's response: "I can't remember."
   Teacher says: "la manzana"
   Child's response: "la manzana"
   Score: 0 = no response
   (because there was no spontaneous response)

d. Child's response: none
   Teacher says: "Do you need some help?
   It's 'la manzana'."
   Child repeats "la manzana".
   Score: 0 = no response
   (because there was no spontaneous response)

e. Child's response: "la piña...no, la manzana"
   Score: 3 = correct response after incorrect attempt

f. Child's response indistinguishable because it is not picked up well by the microphone, the teacher interrupts the child, or an extraneous noise covers it
   Score: 1 = inaudible

g. Child's response not on the video tape, either not tested by the teacher or the videotape didn't record the response
   Score: 9 = not tested

VOCABULARY - DEFINITE ARTICLES

a. Child's response "manzana"
   Score: 0 = no article

b. Child's response "el manzana"
   Score: 2 = incorrect article

c. Child's response "la piña"
   Score: 2 = incorrect article

   Note: If you have an incorrect noun automatically mark an incorrect article

d. Child's response "la manzana"
   Score: 4 = correct article

e. Child's response "uh manzana"
   Score: 1 = inaudible response

f. Scores of 3, and 9 are as described under item 1 of scoring the noun above

SPANISH PROJECT POSTTEST EVALUATION:
LISTENING COMPREHENSION

Purpose:
This posttest examines the child's comprehension of Spanish commands.

Procedure:
Comprehension is tested by presenting the commands in the chronological order that they were taught in class; the child's physical response to the command is observed and scored.

To score: Circle the appropriate score for each response on the scale indicated.

Note: Evaluate only the physical response to the command not the comprehension of the noun, that is, if the child is told "Touch your mouth" and he/she touches his/her nose, score it as "4 = correct response" because the child understood "Touch".

Score only the child's spontaneous response. If the child asks for help consider that "0 = no response" because it was not a spontaneous.

EXAMPLES OF SCORING:

LISTENING COMPREHENSION
To be tested: child's spontaneous physical response to the teacher's verbal command:"Tócate la boca"

a. Child's response: Touches mouth
   Score: 4 = correct response

b. Child's response: Touches nose.
   Score: 4 = correct response (Note: because you score only the command, not the noun)

c. Child's response: cannot see child touching any body part nor making any other physical response
   Score: 0 = no response

d. Child's response: "I don't remember."
   And/or the teacher prompts child by saying "Touch your mouth."
   And/or the teacher prompting by touching her mouth. And the child touches his/her mouth.
   Score: 0 = no response (because there was no spontaneous physical response)

e. Child's response: turns around/jumps/etc.
   Score: 2 = incorrect response

f. Child's response: not visible that is, camera not on the child
   Score: 1 = response not visible

g. Child's response: starts to jump, but stops and touches mouth
   Score: 3 = correct response after incorrect attempt

h. Child's response: not on tape, forgotten by teacher or cut off of tape.
   Score: 9 = not tested

SPANISH PROJECT POSTTEST EVALUATION:
ORAL PRODUCTION - COMMANDS

Purpose:
This posttest examines:
1) the child's general memory for commands
2) the child's use of commands in the correct person of the verb
3) the child's pronunciation ability

Procedure:

1. The following question will be used by the teacher to elicit the child's oral production of commands:
"I've been telling you what to do, now can you tell me to stand up in Spanish?"

2. If the child does not remember how to say this, the teacher will prompt this command by saying, "You can tell me 'Levántate".

3. When the child says this, the teacher responds by standing up and says, "Good! Can you tell me something else to do in Spanish?"
If the child gives another command the teacher responds physically and praises the child, "Very good!"

4. Then the teacher asks, "What else can you tell me to do in Spanish?"
If a another command is given, the teacher repeats 3. then 4.

5. If the child hasn't used 'Pon', Saca', or 'Dame', the teacher will indicate the flannel-board, and toys, and will say, "Can you tell me what to do with these?"

6. When the child can give no further commands, the posttest is over, and the teacher converses with the child, finalizing the experience in a positive way.

To score: Score only the commands the child uses spontaneously, i.e. if the child need's the teacher's

prompt, "Levántate", for the first command, do not score it because it was not spontaneously produced.

If a command is used more than once, score only the first usage. Since this section is open-ended, space is included for any comments you might want to make about the child's response.

EXAMPLES OF SCORING:

ORAL PRODUCTION - COMMANDS
To be tested: child's spontaneous verbal command to the teacher - "Siéntate"

a. Child's command: "Siéntate"
   Score: 4 = correct response

b. Child's command: "Siéntense"
   Score: 3 = correct command but plural

c. Child's command: "Siéntate" or "Siéntense"
   Teacher sits down but child protests,
   "No, turn around."
   Score: 2 = incorrect command (because child thought the command he/she gave was for the action - turn around.)

d. Child's command: "How do you say 'Sit down'?"
   Teacher responds with "Siéntate"
   and child repeats it
   Score: none at all since this command was not given spontaneously

e. Child's command: Inaudible to you but the teacher sits down in response to apparantly "Siéntate"
   Score: 1 = inaudible

Don't mark anything on commands the child does not use at all.

Score only the first use of the command.

SPANISH PROJECT POSTTEST EVALUATION:
ORAL PRODUCTION - NUMBERS

Procedure:

Score in the same way that "Nouns" were scored in the first part of the posttest. Score only the spontaneous oral production of the numbers.

Please note that all children were presented with the same ten plastic beads, but since they do not all have one to one equivalance in counting, some got to the last bead with "nueve". I than asked them if there were one more bead what it would be. Score "diez" as if spontaneously given if the child gives it spontaneously at this point.

On the children whose videotape recording is cut off early, mark "9 = not tested" for the missing numbers.

EXAMPLES OF SCORING:

ORAL PRODUCTION - NUMBERS
To be tested: child's spontaneous counting of ten plastic beads, naming the numbers sequentialy

a. Child's response: child names "tres" in correct sequence, after "dos" and before "cuatro"
On item "tres", Score: 4 = correct response

b. Child's response: "tres" after "uno" skipping "dos" and going on to "cuatro, cinco....."
On item "dos" Score: 0 = no response
On item "tres" Score: 4 = correct response

c. Child's response: "thres" (sic) after "dos" before "cuarto". On item "tres" Score:
4 = correct response
Note down the pronunciation error

d. Child's response: randomly naming numbers, that is, tres, siete, cinco
Score: 2 = incorrect response on all numbers named since they are not in any sequence, and
Score: 0 = no response on numbers not named at all

e. Child's response: reaches "nueve" and finds there are no beads left. Teacher says, "And if there were one more what would it be?" Child says, "diez"
Score 4 = correct response

f. Child's response: names "seis" in sequence, then pauses and asks for help from the teacher who prompts "siete" which the child repeats
On "siete" Score: 0 = no response

g. Child's response: cut off the videotape
Score: 9 = not tested

h. Use as before:
1 = inaudible, and
3 = correct response after incorrect attempt

SUMMARY

The results of numerous studies on the second language learning ability of children and adults were reviewed and summarized. Variables which may affect young children's learning of a second language were identified for study in the empirical investigation.

The theories of early childhood education and second language education were reviewed and utilized as the basis for the development of a curriculum for the teaching of Spanish to young children, three through five years-old. The curriculum which was developed was described in detail. The description included examples of the teaching methodology, the Spanish language content, the Spanish songs, the sources for the teaching materials, a sample class lesson plan, and an excerpt from a lesson designed to develop cultural awareness.

A detailed description of the empirical investigation was reported. Subjects were 52 volunteer children, three through five year-olds, who received a pretest to determine their prior knowledge of Spanish. All children were considered novices to the Spanish language. Parents of the children completed an attitude toward bilingualism questionnaire both previous to and immediately following

the instruction. The children received instruction in Spanish from the experimenter through a six-month period as described in the curriculum. Immediately following the instructional period the children participated in the posttest which was videotaped. Two Spanish faculty members viewed the videotapes and rated the children on the criterion variables: vocabulary, listening comprehension, oral production, and pronunciation. Also following the instruction the experimenter, the classroom teacher, and the parent judged the child's motivation to learn Spanish. Moderator variables were age, sex, intelligence, children's motivation to learn Spanish, and parental attitude toward bilingualism.

Descriptive statistics were observed for all moderator and criterion variables and intercorrelations were calculated to reveal significant relationships among all variables. No significant relationships were observed between intelligence and any of the criterion variables. These findings are consistent with findings on the relationship of intelligence with communicative skills by other studies of younger children (Dockrell & Brosseau, 1967; and Schmid-Schonbein, 1980). The lack of a significant relationship between intelligence and the criterion variables suggested the appropriateness of this

curriculum for use with children within the range of intelligence studied in this investigation: normal intelligence and above.

No significant relationships were observed between parent attitude toward bilingualism and any of the criterion variables. The homogeneity of variance observed in parent attitude may explain the lack of an observed relationship between parent attitude and children's second language learning in this study.

To further examine the relationships that were revealed through correlation, a multiple classification analysis of variance procedure (ANOVA) was used. Results of this procedure revealed a significant interaction between motivation and age for pronunciation. This interaction suggested that among the younger children high motivation compensated for neurological immaturity.

Results also indicated that highly motivated subjects performed better on vocabulary and oral production but not on listening comprehension. This finding may indicate that the activities used in teaching listening comprehension were appropriate for all young children. Caution is necessary, however, because of differences in the quantity of items and the nature of the items used to measure the criterion variables.

The results of the ANOVA procedure also revealed no significant relationship between age and the criterion variables. This finding contradicts results reported in studies comparing younger and older children (Ervin -Tripp, 1974; Fathman, 1975; Fathman & Precup, 1983; Olson & Samuels, 1982; Snow & Hoefnagel-Hohle, 1977, 1978; Yamada et al., 1980) and in one study of younger children in which older subjects outperformed younger subjects in aural ability and vocabulary (Dockrell & Brousseau, 1967). The results of the present study suggested the adequacy of this curriculum for children within this age range, three through five years-old.

The ANOVA procedure also revealed no significant relationship between sex and any of the criterion variables. These results contradicted those of Schmid-Schonbein (1980) who reported that females outperformed males. A difference can be observed between the teaching methodology used in the studies: Schmid-Schonbein used school-like tasks, that is, the use of paper and pencil activities. In the present study a concrete-action methodology was utilized in which there were no paper and pencil activities. The results suggested that the methodology of the present study may be equally appealing to males and females and, thus, appropriate to

all children regardless of sex.

The results of this study suggested the importance of including motivation in future research on young children as second language learners. Utilization of the motivation instrument developed for this study and the parent attitude toward bilingualism instrument in replication studies would be valuable in further assessing the reliability and validity of these instruments.

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The Iowa State University Committee on the Use of Human Subjects in Research reviewed this project and concluded that the rights and welfare of the human subjects were adequately protected, that risks were outweighed by the potential benefits and expected value of the knowledge

sought, that confidentiality of data was assured, and that informed consent was obtained by appropriate procedures.