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Language Comprehension of Rural Chicano and Anglo Kindergarten Children

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The purpose of this study was to measure and compare the level of language comprehension of entering rural Chicano and Anglo kindergarten age children with established national norms using the Carrow Test of Auditory Comprehension of Language. Children were pre-tested and then post-tested after 20 weeks of regular classroom instruction. Results of the study indicate that both rural Chicano and rural Anglo children show growth in language comprehension as compared to national norms of children of the same nationality and socio-economic background after 20 weeks of kindergarten instruction. No significant difference in language comprehension was found between male and female children within the rural Chicano or rural Anglo groups either before or after 20 weeks of instruction. Rural Anglo children from a middle socio-economic background scored significantly higher in language comprehension than rural Chicano children of low socio-economic background both before and after 20 weeks of instruction. A random sample of 104 beginning kindergarten children (Chicano, $N=43$, and Anglo, $N=61$) was selected from different geographic regions of the state.

While many Hispanic children live in cities or urban areas, a significant number of second and third generation Hispanic families live in rural agricultural communities throughout the United States. Although many adult members of rural Hispanic families speak or understand Spanish, many Hispanic children have not been adequately exposed to either standard English or Spanish in their homes.

For many Hispanic children, the lack of language skills basic to school success may prove to be an insurmountable obstacle to learning. Studies related to the high school drop-out rate during the past decade verify that students collectively described as being Hispanic have a significantly higher drop-out rate when compared to other ethnic groups [7]. While various factors contribute to this high drop-out rate, Ovando [5] concluded that a major cause of this phenomenon was the Hispanic child's inability to deal with standard English. Rural Hispanic children may be doubly penalized because of their place of residence. In a summary of research related to rurality and educational achievement, Edington [3] found a number of authorities who believed that rurality alone may increase a child's chances of being classified as educationally disadvantaged.

A review of the literature on language development indicated that much of the earlier research focused on Southern economically disadvantaged children and failed to address broader population groups in rural America. Some studies conducted earlier attempted to determine the impact, if any, of the rural environment on the child's language development. One earlier study of rural Southern Anglo children found that the rural environment negatively impacted the language development of rural children. Skinner [6] concluded that the rural environment was not conducive to the development of standard English usage among the children. In another study, Houck et al. [4] found that rural children did not score as high as their urban counterparts on the nationally normed Boehm Basic Concepts Test. In a study conducted by Baughman and Dahlstrom [1] of older students in a rural Southern community, it was found that only Anglo females consistently scored at the national norm on academic achievement tests and then only at specific grade levels.

RATIONALE AND PURPOSE

Rural Hispanic children represent a significant population and can serve to provide valuable comparative data related to language development among the various new and established Spanish speaking groups living in the United States. As the school age Hispanic population increases, the issue of language and language development will become an increasingly important educational and social issue. Since kindergarten is the recognized entry point to formal education, it is appropriate to assess language comprehension at this stage in the child's language development.

The purpose of this study was to determine the level of language comprehension of rural Wyoming Chicano and Anglo children upon entering kindergarten and after 20 weeks of regular classroom instruction. By using the Carrow Test of Auditory Comprehension of Language [2], the rural children's levels of language comprehension

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were compared to national norms. The language comprehension scores of the rural Chicano children were compared to the nationally normed scores for lower socioeconomic Chicano children. The language comprehension scores for the Anglo children were compared to the nationally normed scores for middle socioeconomic children.

METHOD

A random sample of 104 children (Chicano, $N=43$, and Anglo, $N=61$) was selected. Pre-tests and post-tests were conducted to measure and compare the degree of English language comprehension growth of both groups after 20 weeks of kindergarten instruction. Rural Anglo kindergarten age children were included in the study to provide a comparative local and national data base. It is important to note that the study did not attempt to relate language comprehension gains to the effect of formal academic instruction. Generally, the classroom instruction received during this 20-week period was developmental in nature. Formal instruction in reading and mathematics did not begin until the second half of the kindergarten year, if at all. However, most programs emphasized language development because of the classroom teachers' general perceptions that these children needed language experiences to compensate for language development deficiencies. The Chicano and Anglo children were selected from seven elementary schools in different geographic regions of the state.

Children selected for this study met the following criteria:

1. Each child resided in a rural community with a population under 10,000.
2. Each child was between the chronological ages of 5.0 and 6.0.
3. Each child had lived in the rural community for a minimum of two years prior to being tested.
4. Each child was free of any mental, emotional, or physical handicaps that would interfere with normal language development.

The instrument used to measure language performance was the Test for Auditory Comprehension of Language (TACL) developed by Carrow [2]. Carrow standardized the procedure for administering the test by testing 150 children ranging in age from 2.1 to 7.9 years. From 1968 to 1972 the test was used by the Southwest Educational Development Laboratory as a tool to evaluate early childhood education curriculum. National norms were established from the data base gathered during that period. The fourth revision of the test was the instrument used in this study. The test has been shown to have a high test-retest reliability with the r equal to .94 [2]. The validity has been demonstrated in three ways. (1) Since the instrument is a test of the early stages of language comprehension, test scores of children should increase as the child matures. Test results follow this pattern and parallel the child's developmental levels. (2) The test successfully distinguishes between those individuals who have language comprehension disorders and those who do not. (3) The test measures the changes that occur in children who experience intervention in language disorders.

The Carrow instrument provides normative data on both middle and low socio-economic Anglo, Black, and Hispanic children. Since the rural Anglo sample in this study was predominately middle socio-economic status, the Anglo children were compared to the Anglo middle socio-economic norm. The rural Chicano sample in this study was predominately low socio-economic status and was compared to the low socio-economic Chicano norm. Socio-economic status was determined by using a modified *Warner Scale of Social Status* [8]. The TACL does not provide for differentiated year and month scores for children taking the test. National norm scores used for comparison were derived from mean scores of all children taking the TACL who were between the ages of 5.0 and 6.0 years. Both lower socio/economic and middle socio/economic scores were derived by using a similar method. The instrument, consisting of 101 test items, required each child to point to the appropriate word, phrase, or sentence spoken by the examiner. All testing was done by two examiners.

The TACL measures language in three subgroups: vocabulary, morphology, and syntax. The subgroup areas are then totaled for a comprehensive score. Using a criterion group design, the subjects for this study were given a language comprehension pre-test and post-test. The test was given at the beginning of the school year and again after 20 weeks of developmental-based kindergarten instruction. Results were analyzed using the t and Z tests of population means with $\alpha = .05$ as the criterion of significance.

After reviewing related research in the area of language development, the following research questions were formulated.

1. How do rural Wyoming Chicano children score on the TACL compared to the national norms for lower-socio/economic Chicano children at the beginning of kindergarten and after 20 weeks of regular classroom instruction?
2. How do rural Wyoming Chicano males and Chicano females compare on the TACL at the beginning of kindergarten and after 20 weeks of regular classroom instruction?
3. How do rural Wyoming Anglo children score on the TACL compared to the national norms for middle socio/economic children at the beginning of kindergarten and after 20 weeks of regular classroom instruction?
4. How do rural Wyoming Anglo males and females compare on the TACL at the beginning of kindergarten and after 20 weeks of regular classroom instruction?
5. How do rural Wyoming Chicano and Anglo children compare on the TACL at the beginning of kindergarten and after 20 weeks of regular classroom instruction?
6. How do rural Wyoming Chicano and Anglo children

TABLE 1

Mean Scores for Pre- and Post-Tests on the TACL for Chicano and Anglo Children

Sub-Group	Chicano	Anglo	*t*-test
Pre-Test			
Vocabulary	33.37	34.80	2.41**
Morphology	32.93	35.64	2.90*
Syntax	6.56	7.53	3.00*
Post-Test			
Vocabulary	35.54	36.61	2.13**
Morphology	37.09	38.36	1.35
Syntax	7.03	8.13	2.63*

*Significant at the .01 level
**Significant at the .05 level

compare on the TACL on the subtest areas of vocabulary, morphology, and syntax at the beginning of kindergarten and after 20 weeks of regular classroom instruction?

RESULTS

When the language performance results of rural Wyoming Chicano kindergarten children were compared to the lower socio-economic Chicano norm, no significant differences were found on the first testing. However, at post-testing after 20 weeks of instruction, the rural Wyoming Chicano children scored significantly higher ($Z = 6.38$, $p < .05$) when compared to the Chicano norm.

In comparing the sex variable, no significant differences between the rural Chicano males ($N = 24$) and rural Chicana females ($N = 19$) were found on first testing or after 20 weeks of instruction.

When rural Anglo kindergarten children were compared with the national norm group, the Z test indicated a significant difference on the pre-test ($Z = -2.99$, $p < .05$), with rural Wyoming Anglo children scoring below the national norm. However, on the post-test there was no significant difference between the two groups.

There was no significant difference found on either the pre-test or post-test between the Anglo males ($N = 32$) and females ($N = 29$).

When rural Wyoming Chicano and rural Wyoming Anglo children were compared in terms of language comprehension, a significant difference favoring the Anglo children was found ($t = 3.36$, $p < .01$). The post-test results ($t = 2.12$, $p < .05$) again identified significantly higher scores for the rural Anglo children.

Anglo students scored significantly higher than Chicano on the subtest areas of vocabulary, morphology, and syntax at pre-testing and higher on vocabulary and syntax at post-testing (see Table 1).

DISCUSSION

While the rural lower socio-economic Chicano children in this study made significant gains after 20 weeks of regular classroom instruction as compared to children of the same nationality and socio-economic background, their scores on the TACL remained significantly below the national Anglo middle socio-economic norm. During the same time period, the rural Wyoming Anglo children were able to overcome a deficit to reach the national norm for children of the same nationality and socio-economic background.

For the population in this study, the effects of rurality on language comprehension appeared to be more of a factor for the Anglo children prior to the school experience than for the Chicano children prior to the school experience. However, the effects of 20 weeks of developmental kindergarten experience appeared to have a positive effect on language comprehension for both rural Chicano and rural Anglo children.

While the gap in language comprehension between the two groups remained after 20 weeks of instruction, participation in a developmental-based program appears to result in the greatest gains in language comprehension being demonstrated in the areas where the greatest deficiencies exist. With the demonstrated relationship of high school dropout rate to English language deficiency, and the importance of such factors as rurality, nationality, and socio-economic status as they relate to English language deficiency, the necessity for language intervention strategies for affected students is evident. Research has demonstrated that students with English language deficiencies can benefit from instruction that emphasizes English language development, whether the deficiency is a result of nationality, socio-economic status, rurality, or a combination of those factors. Without language development intervention, children affected by the factors involved in this study will continue to be at a higher risk for lack of completion of a high school education. Since Hispanic children are often affected by a combination of the factors studied, it would appear they may continue to constitute an increasing proportion of the educational high risk population in the years ahead.

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