Since only one fourth of the population spoke Spanish, the language of instruction, education before 1955 was essentially precluded for 150,000 Mixtecans living in southern Oaxaca, Mexico. In 1955, 7 elementary schools were established by the National Indian Institute, with teachers from the local population and instruction in Mixteco, the tribal tongue. Spanish was taught using conversational techniques which could be practiced. Age and sex were found to be crucial variables in learning styles. Older boys were accustomed to strenuous work, and experienced difficulty in writing due to poor hand muscle control. Girls of the same age displayed a facility for writing attributed to muscular coordination attained learning to spin, weave, and sew. Older students of both sexes were extremely timid. Within 4 months, Mixtecans children knew the rudiments of reading and writing, and within 9 months most children could read and write their own language and Spanish. These results were attributed to teachers who were familiar with local cultural patterns, and to profusely illustrated primers that related lesson material to the children's daily lives. After 2 years in an institute school, a child could enter a Spanish-language federal school at the second or third grade level. This paper was presented at the Symposium on Cross-Cultural Cognitive Studies, AERA Meeting (Chicago, 1968). (DA)
Mixtecan Children at School

by

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There are 150,000 Mixtecan Indians living near the coast of Oaxaca in southern Mexico, of whom about three-quarters speak only their tribal language of Mixteco; some of the men have learned Spanish while working as government employees or in nearby towns, but women and children rarely speak the national language.

Until 1952 only villages with more than 1,000 inhabitants, some of whom had to be native speakers of Spanish, were entitled to schools. When these schools did exist they were almost always one room affairs, with one teacher and rarely more than 25 pupils. They were supposed to cover the first three grades of primary school, entirely in Spanish. The teachers knew little of the culture of the Indians, nor their language; they did not allow the children to speak it in class. But the Indian children did attend, for the Mixtecs wanted schooling for their children; they were especially eager that their children learn Spanish. The children generally spent several years in school, learning to read without comprehension and write the poorly mastered Spanish. Their knowledge of arithmetic was generally limited.

to simple addition and subtraction, for they could not understand the explanations given for the more complicated processes.

Mixtecs have always learned the essential skills at home, informally. Boys go with their fathers to cut wood, plant, and harvest; by observing and imitating they learn all the men’s skills. Girls help their mothers in all the myriad household tasks, including spinning, weaving, and making ceramics. Child labor is essential for their subsistence economy and by the age of eight most children work alongside their parents throughout the day. However, the Mixtecs have always wanted schooling for their children, realizing the economic advantages it might bring.

In 1955 the National Indian Institute, an autonomous agency of the Federal Government, established seven elementary schools in the Mixtec lowlands, with the ready cooperation of the local communities. These schools were to follow the usual program of the Institute, which was based on the findings of an earlier project among Tarascan Indians. In 1939 Tarascan Indians were recruited and trained to teach reading in their language as a prelude to teaching reading in Spanish; this was part of a larger community development program in the Lake Patzcuaro region. The project was highly successful; Tarascans today number among their members teachers, doctors, engineers and other professionals, including an anthropologist and a librarian.

When the National Indian Institute established its first schools in the Mixtec region in 1955 it lacked both teachers and
schools. The local Indian authorities readily helped with the construction of the school buildings, and recruited teachers, called promotores, from among their own people. They chose youths who, while not necessarily primary school graduates, were strong in their desire to help their people. Our first task was to give them some techniques for the teaching of reading, writing, Spanish, and arithmetic.

Some of the difficulties we encountered during the first three months of operations included:

1. Some parents were so eager for their children to learn Spanish that they distrusted our system of first teaching reading in Mixteco, a here-to-fore unwritten language. They also distrusted our books, which were not the same as the ones used in the all-Spanish Federal schools.

2. In four of the villages, which had schools for the first time, many parents did not understand the need for regular attendance, and sent their children only one or two days a week.

3. Other parents thought they had to pay tuition and, unable to do so, kept their children at home.

After resolving these problems we were able to devote most of our attention to our basic curriculum of the three R's and Spanish. In Spanish we concentrated on simple oral expressions the child could practice in games in school and at home, and teach to his parents and neighbors. Another innovation was that both reading and writing were taught in the same simple manuscript letters; in the Federal schools
the children were generally taught cursive writing from the beginning.

What learning styles were common among the children? Age appeared to be an important variable, especially as it affected the ability to concentrate. Sex was another important variable.

Boys of six or seven generally had very short spans of attention. They liked to form new words with flash-cards in a game-like setting, and to write. Within the first two weeks they learned to handle a pencil and with colored ones drew large letters, although they showed little sense of proportion, so that an h looked like an n, an l like an undotted i, and a g like an a.

The eight and nine year old boys were the most rapid learners of all. They could concentrate for about 20 minutes, and their letters were better formed. They filled the pages of their notebooks completely, not wanting to leave even the smallest spaces blank. They were eager to participate fully in all activities, and were very confident in themselves; for example, each one insisted on reciting the entire lesson during reading time.

Girls were far more timid. It was only with various rewards that we could get them to recite in front of the group. In the beginning, in order to have one girl read out loud it was necessary to have three or four do so simultaneously. At that, they always covered their faces with their hands, the book, or their clothing. They would become even shyer upon making an error; they would not attempt to correct just the mistake, but would read the entire sentence over again. Generally speaking, while they were very diligent, it was very difficult to get
them to answer in more than monosyllables and it was always difficult to get them to answer in front of the boys. The boys, in contrast, were quite expressive, liked to read out loud, and work at the chalkboard. They were very enthusiastic about participating and rarely bothered to correct their errors, each trying to be the first to answer all questions; few were timid.

The older children took longer to learn to write; their letters were very small but well proportioned. They wrote slowly, trying to make exact copies of the letters. When they made an error they would practice intensely until they had mastered the form. It was difficult to convince them to start at the point at which they had corrected themselves, not to erase a whole word and try to write it again. They were perfectionists who readily spotted their mistakes and tried hard to not repeat them. These older boys were used to rough manual tasks and had difficulty in controlling the small muscles of their hands, so much so that they would break into a sweat from the effort of writing. However, once they did learn to write, they did so with confidence. The girls of this age, who already knew how to spin, weave, and embroider, quickly developed clear and well formed letters.

Older students of both sexes resisted answering in front of the group; they were too embarrassed by the laughter of the younger children. The girls were, as usual, more timid than the boys, only daring to recite when they were sure of being correct.
For graphic arts we used clay and Campeche wax, a local material. The children liked to make animals and people in motion. Although they made replicas of almost all the local flora and fauna, spiders and scorpions were their favorites; girls also liked to model miniature household implements. A favorite subject for drawings was airplanes. There are a number of landing strips in this very poorly communicated region, and the children seemed to have observed the little planes keenly, for they drew them in great detail and correct proportion, with amazing accuracy.

The boys, except for the youngest, liked to tell the many tales of their people, but the girls hung back. In singing, however, the roles were reversed, for here the girls participated actively while the boys showed little enthusiasm.

Spanish was taught largely through very short dialogues. All the smaller children enjoyed it very much, as did the middle group of boys; they were not inhibited by their errors or lack of vocabulary. The others resisted participating in these lessons in school, fearing the laughter of the younger children, but they repeated the lessons at home, teaching their parents and neighbors.

Arithmetic was easier for the girls than for the boys. Mixtec women engaged in much small-scale trading, using money as the basis of exchange. Their numerical system is based on twenty; for example, their word for thirty comes out as twenty-plus-ten. This vocabulary helped them with addition; they could solve simple problems faster mentally than by writing them out. All explanations were given in
Mixteco, although some Spanish terms, such as those for addition and subtraction, were used almost from the beginning since no corresponding terms exist in their language. We also taught them the names of the numbers in Spanish, and when we presented problems in mental arithmetic in Spanish they had to answer in that language. This was a favorite activity and they showed far more skill than we had anticipated.

These Mixtec youngsters were hard workers, with much interest in learning, and strong spirit for mutual help. Within four months most had learned the mechanics of reading and writing, and within nine months had learned to read in their own language and in Spanish, although their comprehension in the latter was limited by their lack of vocabulary.

In the Institute we felt that some of the special characteristics of the teachers were instrumental in obtaining these results. The promotores spoke the children's language and related their lessons to their daily lives. They knew how to correct their pupils within culturally approved ways, without offending, and the children saw in their teachers people who thought and acted as they did.

In addition, the books the children used made a difference. The books dealt with topics and contained many illustrations common to the children's lives. The orthography used in the primers corresponded to Spanish orthography.

After spending two years in the Institute schools the children could enter the Federal schools at second or third grade level, where the teachers, normal school graduates, used only Spanish as the medium of instruction. By now the children knew enough Spanish to learn
easily. In the villages in which Federal teachers taught only in Spanish, the children could not learn their school subjects as easily, and took two or three years to learn the basic mechanics of reading and writing, if they ever learned them. Their faulty Spanish also interfered with their learning of the other academic areas. More than anything else, there was a lack of communication between teacher and students. Whatever was learned was learned poorly, in a haphazard fashion, with the student exerting far more energy than if he understood the language. Needless to say, few Indian youngsters exhibited any interest in continuing their schooling.

On the other hand, ten youngsters who began in the Institute schools have continued their education, albeit under very difficult circumstances. They work as promotores and four are continuing their education by correspondence and in-service courses, so that within the next year the first ones will be normal school graduates.