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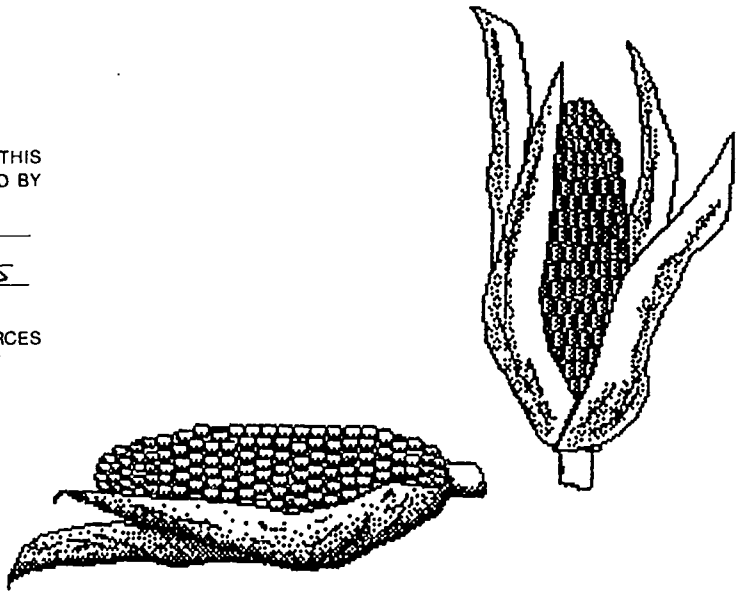
ABSTRACT

An Oklahoma program trained preschool teachers to interact with families of Seminole and Chickasaw children enrolled in Head Start. The program focused on integrating American Indian culture and mathematics. Head Start staff were trained in developmentally appropriate mathematics instruction, with an emphasis on employing culturally relevant materials and activities. Research for materials development was conducted at museums, with tribal members, and through examination of tribal documents and exhibits. Families were encouraged to interpret the meanings and traditions of the cultural elements of the program to their children. To facilitate family involvement, training sessions were conducted at Head Start monthly meetings to familiarize parents with learning packets and curriculum. Screening tests of children entering kindergarten revealed a significant increase in program participant scores when compared to students who had not participated in the program. Families responded well to the program, especially materials dealing with traditional stories, fingerplays, games, music, dance, jewelry, and Native language. Teachers can promote family involvement and strengthen the bond between school and home by providing structured materials and activities that are easy for families to understand and do. Contains 37 references. (LP)

EDUCATING TEACHERS FOR FAMILY INVOLVEMENT WITH YOUNG NATIVE AMERICANS



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BACKGROUND

Teachers who are traditionally trained to present materials in a classroom setting may lack experience or training in involving families, particularly in mathematics. This is especially true for teachers who work in communities with many Native American people. The classroom climate and the home climate are often so different that teachers may find it hard to relate effectively to the lifestyles and concerns of the family. Families, on the other hand, may feel out of place in the school setting and be reluctant to interact with teachers. Thus, Native American children often fall behind because they do not have the coordinated support of home and school. The main problems seem to be (1) communication styles and (2) lack of knowledge of the home culture. In addition, few quality materials are available which integrate culture with the classroom curriculum.

In 1992 a field project was funded in Oklahoma to train teachers and develop more effective techniques for interacting with families of young Native American children. This training is needed because the largest number of Indians in the United States reside today in Oklahoma. The project was funded by the Eisenhower Foundation and targeted the Oklahoma Seminole Nation Head Start. The objectives of this project were to (1) train teachers, (2) develop culturally relevant math materials, and (3) involve families. During 1993 this project was refunded and extended to the Oklahoma Chickasaw Nation Head Start. Future expansion is under consideration for the Oklahoma Choctaw Nation Head Start.

METHODS

Training sessions were planned to include public school teachers as well as Head Start staff members. The focus of these sessions was on developmentally appropriate mathematics

instruction and evaluation for young children based on standards established by NAEYC (National Association for the Education of Young Children) and NCTM (National Council of Teachers of Mathematics). One of the key features of Head Start training sessions was the introduction of culturally relevant mathematics materials and activities. An example of such material was the "Dancing Ribbons" activity with which each training session was begun. The Seminoles have traditionally participated in a "ribbon dance." Indeed, dancing is a very important part of both the Seminole and Chickasaw cultures. As authentic Native American music played, each participant was given three different colors of crepe paper streamers to swirl through the air while moving to the music. Trainers demonstrated and suggested that the dancers become aware of spatial positions of the ribbons such as high and low, over and under, and also the designs made in the air as the "ribbons" moved through it. Research for materials development was conducted at museums, with tribal members and through examination of tribal documents and exhibits to select the most appropriate elements for inclusion. In the Seminole tribe, patchwork plays an significant role. The traditional clan patchwork designs became an important part of the math materials. One of these materials was the bird claw puzzle. An emphasis on accuracy and staying true to the tribal traditions was of foremost importance. However, it was left to families to interpret the meanings and traditions relating to cultural elements since these tend to vary from family to family. The natural Oklahoma environment particularly relating to plants and animals was reflected in the materials. When fall leaves were to be gathered, only those from trees such as the oak, hickory and willow were used because they naturally grow in Oklahoma. Some animals used in the material were those that are familiar and found in Oklahoma such as the mouse, possum, and spider. Some of these animals have important places within the Seminole and Chickasaw culture. Again, families were free to emphasize the cultural meanings or ignore them as they preferred.

To facilitate family involvement, training sessions were conducted at the regular Head Start monthly meetings and at the Open House day at the beginning of school. This family training was important in the development of the concept of families as first teachers. When family members came, they explored the packets and took them home. Those not attending received them from school. All the materials were packed in easy carry bags for families or children to carry home. A local grocery store provide an excellent price on the large number of plastic bags needed. Several community resources such as Braums, the ECU Bookstore, and Thompson's Bookstore donated easy carry all bags for the project.

RESULTS

Screening tests of the children entering kindergarten at the target elementary school indicated an educationally significant increase. The scores were compared with those of children from the previous year who had not been involved in the project.

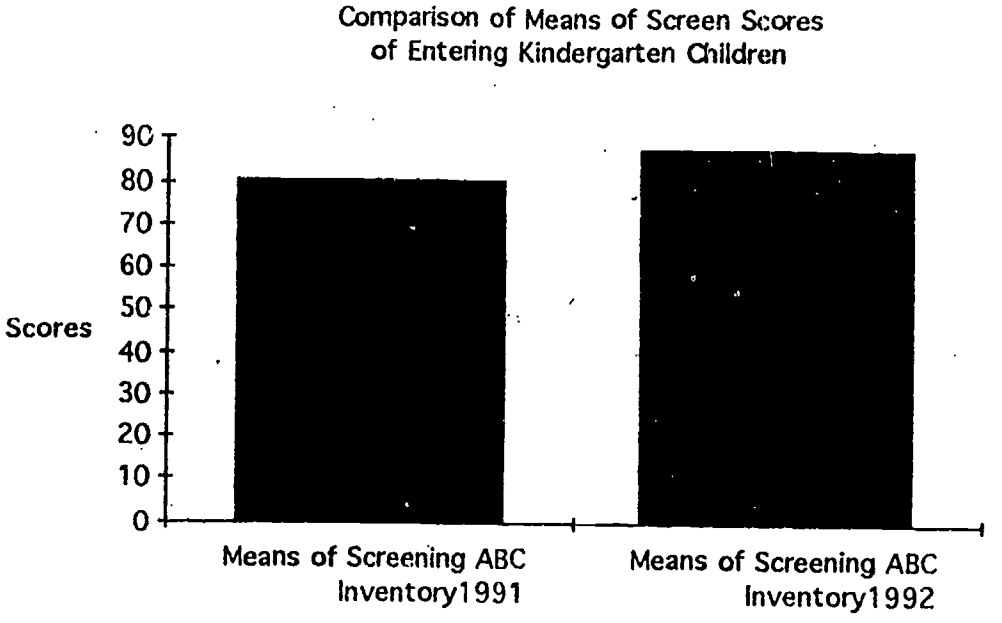

Figure. 1 1991 and 1992 Compared

Teacher interviews and group sharing sessions revealed that teachers who were involved in the project have expressed a new understanding of the meaningful role of mathematics for young children. Most seem to have gained a concept that mathematics goes beyond pencil and paper tasks and rote counting. They were especially enthusiastic about new activities which were easy to do, fun and could involve everyone. They seemed to appreciate the integration of culture, and since many Head Start teachers were Native Americans themselves, their eyes lit up when they saw their culture reflected in the packets. They wanted to use the packets, which had been developed for the home, in their classrooms.

We were surprised by the response of the families. We had been told that no one would come to the meetings. We had been told that they did not care. But many did come and became enthusiastically involved in the exploration with us. We were surprised to see so many men, both young and old, who came and participated. They sang the songs with us, performed the finger plays and played the games. Best of all were the children. We had expected to need babysitters, but the Seminole children came and participated with focused interest yet with a quiet demeanor and gracefulness unusual in children so young. This surprised us perhaps more than anything. Seminole families seem to be able to communicate orderliness to their children in behavior without much overt giving of directions. The children learned from the grown-ups and the grown-ups learned from the children in a naturally interactive way. It was an atmosphere of mutual respect.

CONCLUSION

During the past year as the project has evolved it is clear that Native American people, particularly from the Southeastern tribes, have been neglected in the development of materials relating to mathematics. This has proven to be one of the most important parts of this project. Teachers, families and tribes

have greeted this development enthusiastically. We have found that families respond well to materials but with some selectivity. Though responses to individual packets, it was found that they seem to favor traditional stories, fingerplays, games, music and dance, jewelry and are highly interested in the use of native language. We have found that puppets were not greeted as enthusiastically as we had predicted. Puzzles were very popular and easily adapted to cultural motifs. In the future more emphasis on the use of the native language, role models and traditional stories will be developed. Plans to include the translation of some of the books into the native languages and paper dolls representing important men and women were also done after finding these things out from the families. The translations and paper dolls were very popular. Many Seminole people in the area were descendants of the tribal chiefs (a man and a woman chief) chosen for the paper dolls.

It was found that teachers should be reluctant to form opinions concerning family interest in school until careful observation and experience has justified conclusions. Families can get involved when they have tools and know what to do. Teachers can help with family involvement by providing specific structured materials and activities that are easy for families to understand and do. By fostering the interest of families while the child is young, teachers can strengthen the bonds between school and home and help provide the young children with a strong experiential background so necessary for "school" learning most especially in mathematics. Because of this project, undergraduate education majors are participating in local museum projects, doing field experiences in the tribal Head Start projects, and developing culturally appropriate materials for use in their field work with children.

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