

## Appendix 2

# Research Design and Procedures

This study of the impact of the introduction of bilingual education on the educational success of Crow Indian children combines a variety of methodological approaches conducted in depth.

### Participant Observation

I chose the Crow Reservation to carry out this research in language and education largely because retention of the native language was very high in comparison to many other indigenous language groups in the United States. Although I had visited and had memorable experiences there, I was not raised on or near the Crow Reservation. My exposure and curiosity rather than situating me too close to be able to complete unbiased analysis has instead provided me with years of experiences, deep relationships with informants, and some ability to distance myself from emotional engagement that might preclude reasonable anthropological qualitative research. Some distance was also necessary due to my leadership position in the school district.

Participant observation began almost immediately and continued throughout my tenure. The one year that was spent teaching and studying on the University of California, Berkeley, campus gave rise to an opportunity to reconnect with three of my key informants for a week at the TESOL Conference<sup>1</sup> in Hawaii where we presented a workshop, roomed together, and enjoyed scouting the island for uniquely colored tropical bird feathers for the artwork of those Crow family members left at home. These three Crow women – a teacher, a school district administrator, and a parent active in the local parent advisory committee – are representative of the breadth and depth of the types of informants whose words and ideas appear in my research.

Workdays often included travel to schools all over the reservation and could extend late into the night at school board meetings anywhere within a 65-mile radius of my home. Over the course of the field work, I had close personal interaction with representatives of all the various groups involved in bilingual education. I observed students, teachers, and paraprofessionals in classrooms and talked with them during off-duty hours. I spoke with parents, elders, and other community members in my official capacity with the school district and talked informally with them as a neighbor and friend. I worked intimately with the Crow Indian staff of the Bilingual Materials Development Center at Crow Agency and with many Indian educators employed at other

sites on the reservation and beyond. I served on the Board of the Montana Association for Bilingual Education. I also served on the Central Education Committee of the Northern Cheyenne Tribe because our school district provided flow-through funds from federal sources to their district. Some of this work was chronicled by James Crawford in his 1999 book, *Bilingual Education: History, Politics, Theory, and Practice*, and in *A Well Organized Indian Project in ESEA Title VII Case Studies* published by Development Associates of Arlington, Virginia.

In my free time, I was fortunate to be included in many uniquely Indian events, frequently being the only white person present. I was invited to attend private ritual ceremonies such as the Sun Dance and Tobacco Society initiation and annual tribal events such as mid-winter handgame tournament and late summer Crow Fair.<sup>2</sup> I shared times of tragedy – the death of a child, terminal illness, spousal abuse, divorce – and times of jubilation – a graduation party, successful rodeo ride, cattle roundup, family picnics, powwow activities, and many, many more. Over the years, I came to count several Crow Indian women among my dearest friends. All of this has added up to hundreds of hours of personal and intimate conversation with Crow Indian parents and professionals variously recorded on videotape, audiotape, occasionally conducted in Crow utilizing Crow interpreters, and frequently recorded in handwritten notes scratched in meetings or followed up on late into the night. I took photographs and collected ephemera during both special and routine activities.

## **Language Surveys and Attitude Questionnaires**

While surveys and questionnaires are more often used in sociological research and less often in anthropology, there are clearly times when a well-designed survey will quickly establish parameters in a previously uninvestigated research area – especially when the number of subjects is to be relatively large.

I turned to Frith and Narikawa<sup>3</sup> for guidance in measuring young children's attitudes toward school and to Berdie and Anderson and Robert Cooper for advice on constructing surveys for sociolinguistic purposes.<sup>4</sup> In the case of this research and especially as a platform to design the bilingual program, I deemed it critical to get baseline data as quickly as possible on the Crow language-speaking children among the 1,300 Indian students attending reservation schools. Therefore, a questionnaire incorporating language survey information and attitudes toward school in a five-point Likert scale format was distributed in 1980 to parents and other caregivers at all the schools reservation-wide.<sup>5</sup> A follow-up survey was conducted in 1985. Due to the evidence of rapid change in the use of the Crow language reported among families with children, the language portion of the survey was administered again in 1989 and 1993. In 2002, a former Indian staff member of the Crow

Agency bilingual program administered the language survey solely to parents associated with the Crow Headstart program – a federally funded preschool program for three- and four-year olds.

### **Elder Interviews**

In the 1980 study, 86.5% of the respondents were parents, while 9.5% were grandparents; and 3.9% were other caregivers. Given that the years between generations in Crow families are few and personal knowledge quickly disappears, and in order to achieve some historical perspective on the changes in education over time, I was very interested in the thoughts and attitudes of the oldest living members of the tribe.

It was evident that the cultural knowledge of the few remaining members of the tribe from the days before reservation life was quickly being lost due to the death of these octogenarians. With the help of Crow staff and their friends, we made a list of 14 of the oldest men and women of the tribe. All of these people were invited to be interviewed about their attitudes on education then and now. Not one declined. One man even very much enjoyed his interview from a hospital bed in the Crow Hospital. As most of the elders were proficient speakers only of the Crow language, the interviews were conducted in Crow by assistants from the bilingual program. The interviews, which followed open-ended format, were tape-recorded and transcribed in Crow and finally translated into English under my direction by staff of the Bilingual Materials Development Center. Each of the elders was also photographed. The photographs combined with charming excerpts from the interviews, including some profoundly inspirational quotes, were published as a calendar and distributed to families throughout the reservation. It may well have been the most popular piece ever to be published by the Bilingual Materials Development Center at Crow Agency.

### **Classroom Discourse Analysis**

One element of the research design was analysis of the face to face communications of Crow students with their teachers in the classroom. In one classroom, a Crow teacher – a grandmother with several years of teaching experience – teaches using two languages in a traditional manner; that is, she switches codes in a supportive manner consistent with her sense of identity and ethnic solidarity with the children. She also faces very real challenges in the delivery of math instruction with her Crow-speaking students. In another quite different classroom, a younger Crow woman, who is a trained bilingual teacher and a recent college graduate, delivers instruction alternatively in English and the native language in accordance with the prescriptions of the bilingual program. My discourse analysis of the varied styles of classroom interaction zeroes in on code switching, loan words, complex sentences and

grammatical constructions, prosody, contextualization conventions, and the transfer of knowledge from teacher to student.

## **Standardized Achievement Test Data**

Test scores on the Iowa Test of Basic Skills for the years of the federally funded project are examined. Test scores for Crow Indian students in the bilingual project are compared against the scores of a control group comprised of Crow Indian students with similar linguistic attributes enrolled in a nearby off-reservation setting where no bilingual, nor bicultural, program of instruction was provided. The results constitute the pedagogical standard by which “educational success” is measured in most schools. Such measurements of Crow Indian student educational attainment are a matter of grave concern to most Indian education researchers.<sup>6</sup> This concern has been greatly exacerbated by the federal “No Child Left Behind” legislation that defines proficiency in reading and math so narrowly that few Indian students achieve “proficiency.” Many would call this the most recent episode of misguided federal imposition in the lives of Native Americans.

## **Program Documentation**

Included in the federally funded grant responsibilities was a requirement for routine documentation of program activities as they related to achievement of the grant objectives. Fortunately this led to early benchmark practices and became one arena in which project staff could see results and find some positive reinforcement of their work. This, in and of itself, led to a certain amount of stability over the years of the project. Many of the results were reported in annual evaluation reports. Some made it to the national media. Others are addressed here in retrospective assessment.

## **Notes**

1. TESOL stands for Teachers of English to Speakers of Other Languages.
2. I later learned what a privilege it was for me to be allowed to attend a Tobacco Society initiation, as a contemporary anthropologist was forcibly blocked from an identical ceremony.
3. Frith and Narikawa 1972 specialize in measuring young children’s responses.
4. The work of Berdie and Anderson 1974 and Cooper 1980 provided guidance in developing surveys on sociolinguistic issues.
5. A Likert scale questionnaire allows respondents to specify their level of agreement with a statement – in this case, on a five-point scale (Likert, 1932).
6. For comparison, see the work of these Indian education researchers: Lomawaima 2001, Lomawaima and McCarty 2006, Huff 1997, and Reyhner and Eder 2004.