Bilingual education programs are usually evaluated by means of educational testing instruments whose validity and reliability is such that conclusive findings are unlikely. In reference to Navajo bilingual education evaluation, it is particularly important that consideration be given to the economic, sociological, political, cultural, and psychological context in which the program is developed, as the Navajo Nation is experiencing social change. For example, if the Navajo Division of Education meets its goal of producing 1,000 Navajo teachers in 5 years, the socioeconomic impact of teachers coming back to the reservation from mainstream society may well alter reservation communities. The bilingual Navajo teacher may serve as a change agent or "cultural broker", for he will undoubtedly bring some mainstream values back to the reservation which could influence the sociological, socioeconomic aspect of reservation life and ultimately the development of bilingual programs. It is important, therefore, that key social factors affecting bilingual programs be identified. A more concrete goal would be to construct matching typologies--types of communities which give rise to types of sociolinguistic situations leading in turn to types of bilingual programs. (JC)
SOCIOECONOMIC IMPLICATIONS OF BILINGUAL EDUCATION

ON THE NAVAJO RESERVATION

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In the continuing quest for quality and value-for-money in education in this country, evaluation has a major role. Virtually all educational programs these days are subject to periodic inspection and assessment as a matter of course, and bilingual programs are no exception. In fact, they are more at the mercy of the evaluators than many other programs in that, being of recent origin and having an element of faddism about them, they have no assurance of continued Federal or State support. They risk falling victim to the rhetoric of their proponents if the positive effects that were anticipated cannot be demonstrated. The problem created is two-fold: choosing what to evaluate and measuring what has been chosen.

Characteristically, evaluation of bilingual education programs has focused on the efficacy of the instructional process as reflected in measures of the students' cognitive and linguistic development. However, as part of the rationale for bilingual education is that minority group children are often penalized by the use of Anglocentric instruments, there is a clear need to develop more appropriate measures. Test development is never a simple process. It is complicated in the bilingual situation by the fact that two languages are involved, one of which may not previously have been used as a medium of instruction. Beyond that is the question of what reference group to use in standardizing such bilingual tests: should purely local norms be established or should a wider validity be sought?

To follow this line of reasoning, though, is to accept that evaluation of bilingual education should proceed along similar lines to that
of monolingual education, with appropriate adaptation. This is to ignore the fact that very often bilingual education involves more than a new kind of curriculum organization. It may represent a whole new approach to education and reflect complex processes of social change to which it contributes in turn. As Spolsky, Green and Read (1974) have argued, educational results are only one set of outcomes among several that are relevant. At each stage of development, starting from the decision to establish a bilingual program, there are economic, political, sociological, psychological, religious and cultural factors and effects that need to be taken into account. What happens in the classroom is important, but it is also necessary to study the school in relation to the community it serves.

Since our research interests center on the Navajo Reservation (Spolsky 1974a) we shall base the rest of our discussion on that situation. Moves to introduce bilingual education there should be seen in the context of broader developments in the Navajo Nation. Navajo people have been concerned about the schooling of their children for a long time. This was given formal expression in the 1930's when the newly reconstituted Tribal Council appointed its own advisory Education Committee. However, the possibility of controlling the schools that their children attend and implementing an overall Navajo education policy is much more recent. The first community controlled school was established at Rough Rock, Arizona, in 1966. It was a "demonstration" school, intended to prove to the Navajos themselves and to the educational authorities that such a school was viable and beneficial for the children. Since then, three more communities have
taken control of their local schools and others will no doubt follow. This trend reflects changing policies on Indian education at the Federal level, as illustrated for example by the setting up of community advisory boards at BIA schools and the requirement in the Indian Education Act (Title IV) that applications for funding under the act be developed "in open consultation with parents of Indian children."

At the same time, the Navajo Tribe has taken other important initiatives. The Tribal Council has stated its belief in the value of education in improving the socioeconomic situation on the Reservation. The Navajo Division of Education, established in 1971, has reviewed the educational situation as it now exists and published a comprehensive program of planning and development (Navajo Division of Education, 1973) in preparation for the time when the BIA will turn over to the Tribe all the Bureau's present operations on the Reservation, including the schools. Eventually it is intended that all Navajo schools will be community controlled and under the supervision of a Tribal Education Agency, analogous to a state department of education.

Navajo bilingual education, then, is not an independent phenomenon so much as an integral part of the overall development plan. It is tied up with the question of who should control the schools, which is clearly a political matter, part of the Indian struggle for self-determination. The process of transition to community control and its effects on the school are certainly of interest, but fall beyond the scope of this paper. We wish rather to focus on socioeconomic implications of bilingual education in the Navajo case.
If we pursue the logic of bilingual education, it becomes clear that economic effects are inevitable. A primary rationale for bilingual education is the fact that the students come to school not knowing English and, at the very least, something must be done to facilitate their transition to instruction in English. On the Navajo Reservation, sociolinguistic studies (Spolsky 1970, 1971) have shown that 90% of the first graders speak Navajo and nearly 70% of them either know no English or have insufficient knowledge to do first-grade work in it. So the case for using Navajo in early grades is strong, and made stronger by the fact that the attempt to ban Navajo from the classroom has failed to improve student achievement. This means that school staff need to speak Navajo. In 1974 there were nearly 3000 teachers in schools on the Navajo Reservation and it was estimated that no more than 100 of them spoke the language. This is the result of the prevailing policy of hiring already certified teachers from off the Reservation rather than recruiting and training Navajos. A lot of these teachers now find their jobs at stake, as bilingual education is more and more widely adopted.

It would be theoretically possible for large numbers of the present teachers to learn Navajo, but that is unlikely in more than a handful of cases. This is not only because it is a difficult language to learn, but also because there is a strong sentiment among Navajos in favor of having their own people teaching in the schools. Another possibility is the compromise situation that is commonly found, not just in Indian schools, where bilingual aides are employed to assist the teacher in communicating with the children and in teaching them about their culture. While the
teacher-aide team works well in many cases, resentments do arise. Teachers may feel their position in the classroom is undermined if the aide has a more effective rapport with the children. An aide may resent the fact that she (or he) does the same work as the teacher, yet has a lower salary and inferior status. In fact, many aides have the opportunity to take courses for college credit and receive training that leads to teacher certification. Furthermore, the Navajo Division of Education has established the goal of producing a thousand Navajo teachers in five years and serious efforts are being made to achieve this, through recruiting Navajo Education majors at Southwestern universities and through teacher training programs conducted mainly on-site at Reservation schools. Another program sponsored by the Division of Education is providing graduate-level training for Navajo school administrators.

Thus, the number of teaching jobs available to non-Navajos will decline in the next few years, though even if a thousand Navajo teachers are produced, there will still be twice as many non-Navajos in the schools. Nonetheless, it is interesting to speculate what kind of socioeconomic impact the new teachers will have. Two possibilities may be set out as follows:

1) There will be a large number of Navajos going into well-paying jobs previously held almost exclusively by non-Navajos. They will be distributed throughout the Reservation, rather than being concentrated in a few relatively urbanized communities in the border areas. Their spending power is likely to have considerable effect on the economies
of local communities. Of greater significance will be their relatively high level of education and knowledge of the ways of the outside world, which will enable them to be valuable "culture brokers" for the local community. For example, they will be in a better position to interpret government policy affecting the community and to lobby for basic services, such as roading, electricity and water.

Many of the potential teachers are older married people who have some experience of the outside world, but have returned to the Reservation and have a commitment to their community as well as some social standing there. These people will have largely been trained in a program based at a Reservation school, with the primary concern being to provide training that responds to the needs of Navajo children. They should be able to become respected members of the community and help break down the barriers that have existed between Navajo schools and the communities they serve.

2) A lot of the new teachers will be graduates of Colleges of Education in the Southwest, who have completed a regular teacher certification program. Their several years of study and life in the non-Navajo college world will undoubtedly have affected them and caused varying degrees of acculturation, so that the prospect of returning to the Reservation may not be congenial. Some may prefer to teach off the Reservation, but find that jobs are not available because of the prevailing economic conditions and a surplus of teachers. Thus, their return will be motivated by economic necessity, rather than a genuine desire to work there.

Such teachers will not find it easy to relate to an isolated rural
community, far from civic amenities. For their part, the local people may not have much respect for them, especially if they do not originally come from that community, so good school-community relations will be difficult to foster. It is not inconceivable that Navajo teachers would adopt the same "compound mentality" as Anglo teachers have characteristically exhibited till now: living on the school campus, having minimal contact with community people, sending their children to an off-Reservation school. Like teachers in the society at large, many will want to live in urbanized communities, rather than remote rural areas where basic services are poor and accessibility to the outside world is limited.

Of course, there will be Navajo teachers of both kinds, and others that do not fit either of these patterns. Further, there is an underlying assumption in the above outlines that the Navajo teachers should be expected to go beyond their primary role of educating children in the classroom and play a leading part in community development, an assumption that might be challenged. Another temptation is to idealize "the Navajo community". The Navajos have a tradition of pragmatic adaptation to changing times and we find today communities with different degrees of acculturation to the mainstream society. In addition, there are divisions within many communities, often based on different religious affiliations but having their effect on local affairs generally. It is misleading, then, to conceive of Navajo communities as closely
knit groups sharing a consensus on what their social and economic goals should be. The development plans articulated by the Tribal Council and its agencies are not necessarily understood or accepted by people at the grassroots level. A pervasive concern is expressed for an improvement in the economic opportunities available to their children, but there is no agreement as to how this should be achieved.

At a more concrete level, the economic importance of a school to a Navajo community is quite clear. Even if there are no Navajo teachers, many local people can find work there as teacher aides, cooks, dormitory aides, bus drivers, secretaries and maintenance personnel. The school may be the only major source of employment in the area. It is for this reason that a transition to community control has considerable economic significance, since an important element of control is the power to hire and fire staff. While a school board may not feel competent to evaluate applicants for teaching and professional positions, they are likely to take very seriously the hiring of cooks, bus drivers and other service employees drawn from their own community. There will undoubtedly be a concern that as many people as possible should benefit financially from the school, a concern that may tend to override considerations of economics.

We now wish to set out some specific lines of research designed to give a socioeconomic perspective on Navajo bilingual education. Ideally we need detailed community studies which document as many relevant factors as possible so that they may form the baseline for research on the changing situation in later years. Such studies would need to be primarily
ethnographic in nature, since many of the socioeconomic measures used elsewhere are inappropriate and misleading when applied to the Reservation. A prime example of this is found in the U. S, Census, which significantly underestimates the population and gives an inaccurate picture of employment patterns among the Navajos.

However, there are measures that may prove useful in understanding the educational situation. For example, Spolsky (1974) found a significant relationship between the degree of language maintenance in a Navajo community and its accessibility to an off-Reservation town. The indication was that the closer a community was to an urban area (and the better the quality of the roads), the greater the likelihood that the children knew English. Road building, then, is a variable which seems to reflect the advance of English and the Anglo culture, but there must be others. It is worth investigating the quality of housing, together with the provision of electricity, running water and inside plumbing, as a variable cluster that may show the same process at work. There are Tribal agencies responsible for developing housing and utilities, so figures are available, at least for new units and services provided since the agencies began operation.

It should be noted, though, that modern amenities have uneven effects on the acculturation process. Let us take motor vehicles, for instance. The most common form of transport on the Reservation is the pickup truck, a vehicle designed to withstand the rigors of bumpy ungraded roads and, with its large freight capacity, appropriate for an agricultural economy. Automobiles are less suited to the environment and are confined to the more developed areas with better roads. Of course, owning any motor vehicle involves capital outlay and maintenance costs, which require a cash income, but the choice between a pickup and a car seems more significant
than the mere fact of having a vehicle. Or look at the communications media. Transistor radios are cheap and, with battery power, can be used almost anywhere. In the hinterland of the Reservation, there are a dozen radio stations with a combined total of more than 150 hours programming in Navajo each week, so that radio listening and monolingualism in Navajo are quite compatible. By contrast, a television set is expensive and requires an electricity supply. Programs are almost entirely in English, with only a token amount of Navajo per week on one station. One would expect, too, that the visual images of television would have a greater impact than the purely auditory nature of radio. Thus, the incidence of modern conveniences is indicative of social change, but we should not assume that they all have a uniform impact on Navajo culture.

Another kind of research should focus on school budgeting. It would be interesting to compare the allocation of resources in a school before and after the introduction of a bilingual program, to see whether it reflects a new set of priorities. Of particular relevance in this regard are the community controlled schools, whose school boards have real power to determine how the funds made available by the Bureau of Indian Affairs are to be spent. The introduction of the bilingual program itself is usually based on a separate new grant from ESEA Title VII, not on funds reallocated from other programs in the school. However, our feeling is that the whole school budget will be affected by the change. We would expect an increase in the percentage of the instructional component being spent on teaching about Navajo society and culture, including the employment of members of the community as resource persons. More emphasis
is likely on adult education, with literacy classes, aide training and the teaching of technical skills. Another area of interest is support services, like the cafeteria, health clinic, school buses, maintenance and repairs, especially to the extent they benefit not just the school but the community too.

Of course, changes will be reflected not only in budgetary categories but also in the way current resources are used. A nice illustration of this is found in the case of Borrego Pass School, an elementary day school on the edge of the Navajo Reservation that was turned over to community control in 1972, just when the Bureau of Indian Affairs was on the point of closing it. One of the first decisions of the new school board was that the school buses should henceforth drive up to the children's homes, rather than picking them up along the main roads at points that were often some distance from the homes. This immediately boosted the school enrollment, the decline in which had been a major reason that the BIA wanted to close it.

A further area of study concerns curriculum development and the extent to which it incorporates community input. There is widespread confusion in Navajo schools as to what should be taught, what kind of curriculum to follow, what goals education should have for Navajo children. There are no firm guidelines yet to govern what teachers do in the classroom; no comprehensive bilingual program has appeared. To a large extent, this reflects the incipient state of transition to community control and Tribal coordination of education on the Reservation. All kinds of problems are involved here, so let us restrict our attention to socioeconomic
concerns. A lot of lip service is paid these days to needs assessment and community input in educational planning. Parents are assumed to have social and economic aspirations, if not for themselves at least for their children. This is commonly expressed as a desire that the school should stress the teaching of English, so that the children will be able to get good jobs when they leave school. So the school makes serious efforts to promote English, but finds that there is little improvement in the pupils' competence in the language, and neither are they any more successful in obtaining better employment. A conventional evaluation may or may not find fault with the quality of instruction the school offers, but this could well be insignificant as an explanation, when compared to social factors. In a great many Navajo communities, the universal medium of communication outside the classroom is Navajo and someone using English is teased for trying to be like an Anglo. Similarly the kind of mobility orientation that is characteristic of success in the mainstream society is often either lacking or not reinforced in a Navajo setting.

Thus, for the purposes of curriculum development, the goal of improving English needs to be related to the socioeconomic situation and the role of English in the community. Perhaps it will be necessary for the community to find ways of promoting wider aspirations in the children outside the school, so that the community is perceived as supporting the school's efforts. The way in which the parents and children perceive the Navajo teachers is relevant here, too, to the extent that they function as models of biculturalism able to bridge the gap between the Navajo and Anglo worlds.
The tentativeness of our proposals reflects the complexity of the phenomena we are trying to understand. What we are working towards is the identification of key social factors that can be shown to affect the way a school - or a bilingual program - operates. A more concrete goal is to construct matching typologies: types of communities which give rise to types of sociolinguistic situations leading in turn to types of bilingual programs. Whether this can be achieved at a level of generality that is still relevant to the real world remains to be seen. This will be in the first instance a descriptive approach, though hopefully it will give insight into mismatches between social factors and aspects of the school program that will prove useful in evaluating bilingual education. Thus, we return to our opening theme: a call to broaden the scope of the evaluation process for bilingual programs, so that the social environment is given a much more central place. It is necessary to take account of significant trends in the community that are independent of the program and may be working against it. Only in this way can we approach a full assessment of the effects of a program.
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