

**A SUMMARY OF PERTINENT RESEARCH IN BILINGUAL EDUCATION
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APPENDIX D

AN INTRODUCTION TO MADISON COOMBS'S 1969 RESEARCH REVIEW OF BILINGUAL EDUCATION

I worked with Madison Coombs from 1959 through 1969. While I was at Mt. Edgecumbe he was the BIA's, Juneau Area Assistant Area Director, Education. Later he was my immediate supervisor when I was at the BIA's Washington Office. After his retirement I had some occasions to work with him on specific projects. Madison once told me he was a Kansas county school superintendent and joined the BIA because it had no school boards. He thought professional educators could handle the education of children and youth better without the help (interference?) of school boards. Nonetheless I found Madison to be deeply concerned about the education of Natives and Indians.

The reader will find that Coombs has done an excellent job of providing a picture of the status of language education, especially bilingual education. One should remember that the 1960's were the years in which bilingual education in the U.S. emerged as a viable approach to instruction of children whose home language was not English. Coombs mentioned such professionals as Bruce Gaarder of the U.S. Office of Education; Brewton Berry of Ohio State University; James Coleman; Harold Howe Commissioner of the U.S. Office of Education; Oswald Werner of Northwestern University and many others.

While Coombs paper is not exhaustive, it does an excellent job of covering all the important bases. It is important that he also includes a discussion of linguistics as related to language education. In particular the Center for Applied Linguistics which has been involved in Alaska Native and American Indian language education for decades. He also mentions the professional organization Teaching English to Speakers of Other Languages (TESOL) which at the time was less than five years old. Incidentally, I was a member of TESOL's first Executive Committee from its inception to 1969.

Tom R. Hopkins

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L. Madison Coombs

INTRODUCTION

At the outset I must forewarn you of several limitations and characteristics of this paper. First because the group assembled here is a relatively small one and because its members are known to each other and share a common interest and body of experience, the tone of the paper will be informal. It will be less concerned with scholarliness than with relevant communication. Second, those who may expect the presentation of the findings of a large body of carefully controlled research, precisely stated, will be disappointed. One of my principal conclusions is that very little such research has been done. Rather, the paper will attempt a survey of the events and the opinions relating to bilingual education over the period of the last several years, particularly as it relates to the education of Indian Americans and Alaska natives.

The facts are that bilingual education has been close to the center of the ongoing revolution in American education. That revolution, including the Nations new found awareness of the severe and peculiar educational problems of its disadvantaged minorities, no doubt flowed from the school desegregation decision by the Supreme Court in 1954 or at least triggered by that historic decision. It brought into sharp focus the made by anthropologists and linguists for a good many years; that American schools had done a miserable job of teaching languages, including the teaching of English to children whose first language was something else. This, of course, included a high proportion of Indian and Eskimo children. The anthropologists and linguists had, over the years developed a considerable head of steam over what they considered the insensitivity, obtuseness, and arrogance of educators toward the importance of indigenous cultures, including language. The educational revolution gave them the ascendancy and educators went on the defensive.

Harold Howe (15), U.S. Commissioner of Education, signaled a fundamental change in emphasis in his testimony before the Subcommittee on Education of the House of Representatives on the Bilingual Education Act in June of 1967:

MR. HOWE: Let me observe also in response to something Mr. Scheuer said earlier in the hearing. I was very interested that he made the point that the melting pot is no longer the image of the United States in regards to groups coming from other cultures. I would like to second that

point, and put another image in the picture, if I may; perhaps a better image than the melting pot. It is the image of the mosaic, which has a great variety in it, and which gains its strength from the variety.

The persons quoted in this paper for the most part have had an active interest in the education of Indian Americans. Most of them are personally known to me and many of them are no doubt known to you. Whether one agrees with them or not, what they have to say is relevant to the subject of this conference.

David Brinkley said the other day that in the emotionally charged times in which we live, the political and social commentator has no chance to be objective, for to be so would make him a vegetable; he can only be fair.

Maybe so, although I had tried to retain some faith in the possibility of objectivity, at least I will try to be fair.

THE ANTHROPOLOGICAL AND LINGUISTIC POINT OF VIEW

I have mentioned the strongly held views of the anthropologists and linguists concerning the importance to the child of nurturing and dignifying his native tongue and the adverse effects of ignoring or denigrating it. This needs to be spelled out more definitely by quoting a few authorities in the field. There could be an almost endless list of such quotations and, indeed, it will be a recurring theme throughout the paper. There has been no more impassioned spokesman for this point than Dr. Bruce Gaarder (11), Chief of the Modern Foreign Language Section of the U.S. Office of Education. Gaarder testified at the House that bilingual education act hearings as follows:

Every child is harmed if he loses full use of his mother tongue.

Mr. SCHEUER: I wish Chairman Pucinski were here to hear your words.

Dr. GAARDER: Every such child is in some measure harmed. Now let us consider a child such as the Spanish American or Puerto Rican. He is not only cheated of his language, but he is damaged scholastically.

The Spanish American child and children like him who come to school with an inadequate knowledge of English to begin with and who are there in large numbers cannot learn the substantive content of their schooling fast enough to stay up with native speakers of English. Therefore, they become retarded.

They are cheated out of the language and they are damaged scholastically.

When you come to the Indian child, given what seems to be the fact that he cherishes his Indian status to a remarkable extent, and given the fact that his cultural patterns are markedly different from those of the dominant American group, he is not simply cheated out of a language that does not matter internationally anyway, he is not just damaged in school; he is almost destroyed.

As a matter of fact, historically, that is what we tried to do with them; destroy them. All you have to do is read the accounts to know that.

Commissioner Howe (15), while lukewarm in his support of bilingual act because he feared that it would discourage the proper use of Title I of the Elementary and Secondary Education Act, was fully supportive of the bilingual point of view:

A small child entering a school which appears to reject the only words he can use is adversely affected in every aspect of his being. He is immediately retarded in his school work.

Congressman Augustus F. Hawkins (14) of California, testifying in support of the bilingual education bill, said:

“The most single failure in American education,” states Monroe Sweetland, consultant for the National Education Association, “is our failure to provide equality of educational opportunity for the non-English speaking child.” Tragic statistics bear out the fact that our schools have failed in the vital area of providing equal educational opportunities for the child from a non-English speaking background.

THE EDUCATIONALLY DISADVANTAGED INDIAN STUDENT

Few facts have been better documented than the educational disadvantage suffered by Indian Americans. Dr. Brewton Berry (5) of Ohio State University, in a recent definitive bibliography of research in Indian education, has summarized the achievement deficit of Indian students, pp.18 to 25. Briefly, Indian students do fairly well by comparison with the national norms until the intermediate grades and then fall progressively farther behind until by the 12th grade the deficit is typically from 2 to 2.5 grades. Several recent studies, however, give us

increased understanding of the school achievement of Indian children and youth and will be of special interest to Bureau of Indian Affairs educators.

The study of Equality of Educational Opportunity conducted by the U.S. Office of Education in 1965 and reported by Coleman (8), et al, in 1966, has been followed by a series of technical notes prepared by the Office of Education in further definition of the Coleman data. Technical Note by Okada, Stoller, and Weinfeld (21) shows that all disadvantaged minor groups in the country experience the same educational deficit in varying degrees. To the surprise of many, Indian students were not at the bottom of the barrel.

The White students are between 3 to 4 test points above the national means for all 3 tests and at all 3 grade levels. Oriental Americans approximate the national mean for 2 of the 3 tests and substantially exceed the national mean in the mathematics test for the 9th and the 12th grades.

The remaining minority groups are all substantially below the national mean; they exhibit, however, very similar characteristics over subject matter. For example, for all 3 tests, the Mexican Americans are constantly between 8 to 10 test score points below the national mean for all grades. The American Indian and Negroes show the characteristic decreasing learning rates although at much different absolute rates, i.e., the Negro curve has a much more rapid decline. The Puerto Ricans are the only group which exhibit an increasing rate of learning over the grades (in 2 out of 3 tests).

Among the minority groups (except Oriental Americans), in terms of rank comparisons, the American Indians show the least drop measured from the national means, followed very closely by the Mexican Americans. The Negro test scores are higher than the Puerto Ricans or Mexicans in 2 out of 3 tests at the 6th grade level, but by the 12th grade, the Negroes are the lowest of the minority groups.

Nor, apparently, is the low academic achievement of Indian or Eskimo students solely the result of their attending Federal schools, or boarding schools. Herbert K. Small (24), et al, in a remarkably forthright but little publicized study of graduates and dropouts from Lathrop High School here in Fairbanks, Alaska reported the following findings:

A definite dropout problem existed among the native students. The percentage of natives dropping out of school before graduation was two and one-half times as great as the non-natives.

Native students who came from small towns and villages had more difficulty with high school subjects than the native students who had lived in the larger towns and were more closely associated with the dominant culture for the major portion of their lives.

A greater percentage of non-native graduates went to college or universities than native graduates while twice as great a percentage of the natives obtained a trade or technical education as did non-natives.

The percentage of natives who had failing grades was twice as large as non-natives.

A significant difference was evident between the native graduate and the non-native graduate. The native's grades were much lower than the non-native's.

While the following findings are not particularly relevant to this paper, they may be of interest to members of this group:

Native students who attended Bureau of Indian Affairs schools during the majority of their elementary school years received better grades in high school than did those from any other classification of school system.

A native student entering Lathrop High School had a better survival rate if he received the majority of his elementary education in a Bureau of Indian Affairs school or an independent public school than if he came from any other type of school. In the years studied (1964-66) a student transferring from a state-operated rural school had the least chance of graduating.

Native students who graduated and received the majority of their elementary education in Bureau of Indian Affairs schools tended to have a better understanding of the English language and received higher grades than any other type of school.

If a native attended a Bureau of Indian Affairs school, his chances for higher grades in Lathrop High School were better than if he attended an independent public school, private school, or state school.

THE IMPORTANCE OF PRE-SCHOOL LANGUAGE AS A DETERMINER OF ACHIEVEMENT

The assumption that a pre-school language other than English has a depressant effect upon school achievement is almost universal. I, myself, have expressed this assumption frequently. I and my colleagues (9) at the University of Kansas in reporting on our study of the school achievement of Indian and white students in 1958 said:

Investigation of the data reveals an amazingly consistent relationship between the degree of Indian blood and pre-school language on the one hand and level of achievement on the other. With only one notable exception, the smaller the amount of Indian blood in a group and the greater the amount of English spoken prior to school entrance, the higher the group achieved. Stating it another way, the higher achieving race-school groups contained fewer full-blood pupils and more pupils who spoke only English, or at least a combination of English and some other language, prior to school entrance.

This kind of finding, of course, is a good example of “concomingling without proof of causation” and a causative relationship must be inferred. The inference is so attractively logical as to be almost irresistible; however, research which controls for other possible causative variables almost completely lacking.

If pre-school language is as important as most people think it, a high proportion of Indian and Eskimo youngsters are affected by it. Bass (2) in progress reports on an on-going study of high school achievement which the Southwestern Cooperative Educational Laboratory is doing the Bureau of Indian Affairs, reports that of the Indian and Eskimo students studied about two-thirds stated that English was not the language commonly spoken in their homes. Somewhat inconsistently, at least two-thirds of those reported that they spoke English when they started to school, but one may be fairly confident that many of them spoke a very limited brand of English of Juneau Area students, incidentally, reported 37 percent coming from homes where English was the normal language of communication, but 87 percent speaking English when they started to school.

Though it does not seem to have drawn much attention, the data in the Coleman (8) study are most intriguing in one respect. While Mexican American, Puerto Rican, and American Indian students, three groups containing a high percentage of students with non-English speaking backgrounds, all achieve well below white students and the national norms. Negro students, nearly all of whom had English as a first language are the lowest achieving group of all. And Oriental Americans, many of whom, especially Chinese, come from homes where adults at least habitually speak a language other than English, achieve close to the national norms.

The answer, no doubt, is that there are other factors which powerfully influence school achievement. Bernard Spilka (25) and John F. Bryde (7), psychologists at the University of

Denver and the University of South Dakota, respectively, lay great stress on the negative effects of anomie, which they describe as cultural normlessness, and personal alienation of Indian youth from white society.

No one except practicing educators seem to attach much importance to the effects of cultural and geographic isolation which seems bound to produce huge experiential deficits.

INDIAN ATTITUDES TOWARD LEARNING ENGLISH

I do not mean to suggest that any very conclusive evidence can be brought to bear on the question of how Indian people themselves feel about learning English. It is so often implied, however, that Indians are being taught English against their will or that formal instruction in Indian languages is being withheld from them against their wishes that I think we need to address ourselves to the question even though briefly. It is my belief, based largely upon personal observation, that it is non-Indian, rather than Indian people who feel most deeply on this question and are most vocal about it.

Berry (5) quotes Klukhohn and Leighton in the 1962 edition of The Navajo as follows:

The principal conscious educational goal expressed by Navajos today seems to be the ability to use English. They realized that without it they are at a disadvantage, and they have discovered the usefulness of communications and records in writing. At the same time, English is so different from their own language, that it is very difficult for Navajos to learn * * *. The children work at it and are much more likely to practice it among themselves — on the playground for example — than are Pueblo pupils.

He also cites the following statement by Clarence Wesley, Chairman of the San Carlos Apache tribe:

I suspect that failure to comprehend the part of the Indian children accounts in large measure for the lessening of interest and enthusiasm for school which I am told begins for Indian children along about the 5th grade. * * * I would insist upon the employment of teachers especially trained in the skills of teaching English to non — English-speaking youngsters.

Of special interest and perhaps significance are the feelings on the subject expressed by high school graduates in separate but related studies reported by Selinger (23) and Bass(1). Six hundred and seventy Indian high school graduates, 287 from six northwestern and north central

states and 384 from six southwestern states were asked whether they thought it was important to Indian students to be able to speak their native language. About 85 percent of the southwesterners thought it was important with the rest thinking it was not or having no opinion. However, of those who believed it was important, well over half valued it mainly as a means of communication, especially with the older Indian people. About one third of the students attached importance to the Indian tongue because of pride in heritage. Of the students from the northwest, about one-third thought that learning a Indian language was of no importance. Of the remainder did more than half of them valued it mainly as a means of communicating with older generation or getting a job.

While I do not contend that Indian youth are indifferent to their native culture and language, I believe their feelings about it are less intense than their desire to acquire skills which will permit them to do well in the major culture. Whether I am correct or not, it by no means settles the questions about the most effective ways to teach English with which we are concerned in this conference.

THE CENTRAL ISSUE

While it is my hope that the foregoing will provide some useful background for the work of this conference, I have not yet broached the central issue in bilingual education. The central issue is, "What constitutes bilingual education?" Gaarder (11) in his testimony before the House Subcommittee sought to make the answer very clear:

Now we come to bilingual education, a term which is not too widely understood. It is not simply teaching English as a second language, although English must necessarily be taught and necessarily as a second language because the child already has a first language. Bilingual education is the use of two language mediums to teach any part or all of the school curriculum except the languages themselves.

In any bilingual education program we would hope that English would be taught better than it usually is to non-native speakers. English could indeed be taught much better.

Bilingual education could make a great contribution to the Indian child. Let us say that he is a Navajo in a school in which half of the teachers are Navajo speakers and half of them are English speakers. The Navajo teachers, during half the day, present the entire curriculum through that language. The English-speaking teachers, using their own mother tongue, present the entire curriculum through that language during the

second half of the day. Since the child understands Navajo perfectly, there is no mystery about the informational content that is going from teacher and book to pupil. The learns English, but English is not being asked to carry a burden that it can't carry at that time. The pain cause for the child's retardation in school is removed. He has complete access to everything through his own language.

He went beyond this to make a case for the feasibility, indeed the unique suitability, of teaching literacy in Indian languages:

The point here is that any time we develop a writing system for one of these Indian languages — give and take some special problems that I cannot foresee — it would be a perfect fit. It would be a romanized alphabet done scientifically. Therefore, reading it, learning to read in that language, learning all the mechanics of reading would be immensely easier for the Indian child than it is for the normal English-speaking child to learn to read English. Such a reading system for one of the Indian languages makes an exceptionally promising bridge to English.

And finally he cited a school where it is happening:

There is one experimental school for American Indians which incorporates many of the features which I am advocating here. It is the most promising thing in Indian education, the Rough Rock School at Chinle, Arizona.

We will hear about the Rough Ruck Demonstration School in much greater detail in this paper because to a great extent it capsulizes the issue. Dr. Donald A. Erickson (10) of the University of Chicago earlier this year, under a commission from the Office of Economic Opportunity, completed an exhaustive, although inevitably controversial evaluation of the the Rough Rock Demonstration School. A component of that report is a section by Dr. Oswald Werner (27) of the anthropology department of Northwestern University. Werner is even more explicit in his definition of bilingual education than Gaarder:

Regardless of one's stand on the issue of how or with whom Navajo children are competing, there is increasingly compelling evidence that the best predictor of success in the national language is mastery of the native language.

Some degree of bilingual education can be justified on the grounds that being exposed to two lexically, syntactically, and phonologically coded systems provides the student, in a sense, with stereo (binocular, binaural) vision of his and the second language he is acquiring. A bilingual school, however, goes far beyond "some degree" of bilingualism:

A bilingual school is a school which uses, concurrently, two languages as medium of instruction in any portion of the curriculum (except the languages themselves). In this sense the only bilingual school on the Navajo Indian Reservation or in Indian Education is at Rough Rock Demonstration school. This is a fact totally independent of what RRDS does, or how well it does it, or how well other Indian schools do, whatever they are doing. “The teaching of a vernacular solely as a bridge to another, the official language is not bilingual education in the above sense, nor is ordinary Teaching English as a Second Language.”

Bilingual education tries to capitalize on the natural ability of the child to learn languages easily. The young child learns a second language quickly and effectively if it is an unavoidable means to his full-time involvement in all the affairs of his life. Much less than full-time involvement will suffice for him to learn the new language. The optimum time for the child's involvement in the learning of a second language is not known. Short periods must be programmed sufficiently close to each other to be reinforcing. At the Miami Corral Way School the schedule through the 6th grade is as indicated This schedule compares favorably with the proposed bilingual schedule for Rough Rock . . .

Every effort should be made to provide education in the native language. Students should start their schooling in the medium which they understand best. Adding the native language to the curriculum is the only safe measure to avoid the intellectual retardation observed in children with a second-language handicap. The age between five and seven, sometimes extended to three to eight, is crucial for intellectual development because the child learns increasingly to use his language for problem-solving tasks. One of the strongest justifications of bilingual education is to keep one intellectual channel patent while the other one is developed. This is another way of saying that child's progress should be from the known to the unknown. It makes no sense to knock his props out before he has a strong foothold. This is perhaps most crucial in the span of years mentioned above. After this age, the social functions of the native language may increasingly become the deciding justification for the continued maintenance of bilingual education throughout the educational process. This is properly recognized by the newly established Navajo Community College and its program to teach Navajo on the college level, even to Navajos who have apparently lost their ability to speak Navajo.

For the primary and pre-primary child, problem-solving in the second, weaker language is more difficult. The most conclusive demonstration comes from Irish schools observed by MacNamara. Children with English as their first language subjected to Irish Gaelic instruction had greater difficulty solving arithmetical problems presented verbally. Their mechanical ability to calculate did not seem to suffer.

For a good many years now the Bureau of Indian Affairs has tried to articulate its support of such principles as the use of linguistic science in the teaching of English as a second language, the dignifying of native culture and language, the employment of as many teachers of Indian ancestry as possible, and the production of learning materials relevant to Indian culture. It has spent a good deal of time parrying accusations such as its punishing children for speaking an Indian language or a general denigration of Indian culture. It has contended that such charges are anachronistic, going back to an earlier and less enlightened era, and has pointed out that during the 1940's particularly, a great deal of work was done in preparing bicultural educational materials, many of which were bilingual. From 1964 to 1966 it played a significant, if not a leading role in the establishment of a professional organization known as TESOL (Teachers of English to Speakers of Other Languages). It has mounted a strong ESL (English as a second language) program on the Navajo Reservation and a significant one in Alaska — although I think it must be said that it has not done much elsewhere except in a few local situations, such as the Choctaw Reservation in Mississippi. It has added an ESL specialist to its Washington Office staff, has fostered the development of some of its teachers in this field in Alaska and on the Navajo, and has hired as consultants the Center for Applied Linguistics, a national organization, and experts from U.C.L.A., the University of Southern California, the University of Arizona and elsewhere.

None of this or all of it put together meets the definition of bilingual education as laid down by Gaarder and Werner or many of their Colleagues who might have been quoted.

Did the Bureau of Indian Affairs officials have some reason for believing they had the support of linguists when they launched their current ESL programs? They may have thought so. In 1967, Miss Sirarpi Shannessian (20), representing the Center for Applied Linguistics, issued a report on *The Study of the Problems of Teaching English to American Indians*. In it she said in part:

At present the education of the Indian student depends to a very great extent on how efficiently he is taught English and how well he is taught English and how well he is able to learn it. Since all his other subjects will have to be learned through its medium, in a sense all his teachers are teachers of English also.

Many more Indian children are said to start school knowing some English at present than they did a decade ago. Interference from the students' native languages is the most prevalent and obvious problem, but interference from non-native English learned from parents by first generation monolinguals in the language, lack of vocabulary and experiential background, and the often highly artificial usage of English in the classroom may be regarded as additional problems.

However, she also sounded the linguist's characteristic warning:

The second (assumption) is that at present a better understanding of linguistic and cultural relativity, among other factors, has resulted in a greater respect for and sympathy towards the language and cultural heritage of minority groups in the United States. It must be stated again that Indians are not immigrants to this country, the setting of their cultural heritage is still where they live today, and their problems are not the same as those of immigrant groups.

Lois McIntosh (17), writing in the first newsletter which the Center for Applied Linguistics produced for the Bureau of Indian Affairs, English for American Indians, Fall, 1968, said:

The greatest need of the Indian child, who brings to his early school life his first six or seven years of experience and training in a different language and culture, is probably an adequate command of American English, the language in which he will be formally educated. (Bilingual education, increasingly advocated by thoughtful educators, has not yet fully been developed. It will be some time before Indian children can be educated in both their first and second languages, with the beneficial results of membership in the best of two worlds.

It is up to us, as teachers of the second language, the school language, American English, to make sure that the learner's introduction to and progress in this new tongue will be as effective as we can make it.

In October of 1968, however, Ohannessian (19), reporting the conclusions and recommendations of a planning conference for a bilingual kindergarten program for Navajo children, struck a somewhat different note, possibly reflecting the opinions of other consultants who had been called into the conference:

The conference was in complete agreement in its endorsement of the concept of bilingual kindergartens for Navajo children. The importance of beginning the child's education in his own language and in

his own cultural background, building a sense of security and pride in his own culture, and the need for strengthening this sense, of pride were stressed again and again during the conference. Indeed, the conference felt that to be truly effective bilingual education should be extended into the elementary school, though it was realized that attempts to use Navajo at higher levels might increase the, already existing problems — in the use of Navajo as a medium of instruction, the teaching of Navajo to those who are monolingual in English both in purely Navajo and mixed schools, — and the preparation of materials and teachers for instruction in and through the medium of the Navajo language.

Although some participants felt that there was considerable evidence that Indian parents appreciate bilingual education for their children, others felt that there was insufficient information on what Indian parents really thought on the subject and that further documentation and self-evaluation of the community were needed.

Members of the BIA present assured the conference of the Bureau's policy that bilingual kindergartens would operate only in areas where they were requested by the local chapter, school board and parents and would be entirely voluntary.

There was general agreement with the policy that most kindergarten activities should be conducted in the language of the child at the start of the program, and that this language should be the main medium for activity throughout the program. It was also agreed that oral English should be introduced and taught as an integral part of the program in preparation for transition to the English medium instruction which obtains in both state and BIA elementary schools at present. The proportion of Navajo and English to be used for kindergarten activity was discussed, but no conclusions were reached since it was felt that this would depend to a large extent on local circumstances including, the amount of English already known by children, the needs of the community, the wishes of parents, the availability of staff and materials, and other considerations.

TWO POSITIONS ON THE ISSUE

I think it would be fairly accurate to say that the issue has evolved in such a way as to put the social scientists and linguists on the one hand and the educational practitioners on the other into two separate but not altogether hostile camps. Many school people today, if they have gone into the matter very deeply, would be willing to concede that initial instruction in the native Indian language or dialect, or concurrent instruction with English, might get better results, but they have not been shown very, impressive empirical evidence to that effect. But beyond that they feel that such considerations as shortages of qualified teachers who are competent in the

native language, and the ambivalence of native people themselves on the question make the effort impractical in terms of either time or money. Many also feel that if an error was made at some time in the past hour is now too late to reverse it.

The linguists on the other hand concede that the obtaining of enough suitable bilingual teachers would be a problem although they have little patience with the educator's rigid certification requirements. They also believe that with a crash effort materials and programs could developed fairly rapidly. They suspect that the present situation, having been caused by the insensitivity of educators and the general public in the past, continues because of "foot-dragging" and lack of conviction. I do not mean it to sound snide when I say that most scholars have not experienced the trauma of trying to get public appropriations which most public administrators have endured.

Perhaps the differing emphases can be well illustrated by statements made by our good friend Don Webster (26) and our own Bill Benton (4) at the workshop held in Anchorage two years ago this coming January.

Mr. Webster said:

Native languages are the most functional media for their way of life.

The human mind is not like a sponge — having a saturation point with one language. Rather, the more it is used, the more it can be used. The more languages one speaks, the easier it is to learn yet another. "When I know how to talk English and Eskimo, it's like having two heads." (Eskimo Elder).

"We should not attempt" to impart a disdainful attitude toward the Native language and culture of the students. Linguistics and anthropology are clear with regard to the worth of each. Our goal should be to make the students bilingual and bicultural rather than merely having them switch language, culture, and allegiance to their traditions." (Robert Lado).

The acquisition of a second language need not supplant the first. Rather, true bilinguals are said to have acquired two coordinate systems.

Mr. Benton's comment was:

Language is the central element in any culture. It is the vehicle through which the culture is expressed. It cannot be disassociated from the culture in which it exists. If, then, the Indian or Eskimo or Aleut child is to become capable of competing in our culture, a mastery of English is a very necessary part of equipping him for the competition. I don't mean

that he should adopt our culture whole hog. Certainly there are elements of both cultures which are desirable. I also do not mean to imply that he should forget his Native language. There is experimentation going on in teaching the Native child in his own language for part of the day. Perhaps this will prove to be a better method of education. That remains to be seen. Right now, however, we have neither the teachers nor the materials to teach the native child in his own language, so until we do, English must be the language of instruction.

THE INTERNATIONAL PERSPECTIVE

In August of this year an international conference on Cross-Cultural Education in the North was held in Montreal. Seven circumpolar countries — Denmark, Sweden, Norway, Finland, the Soviet Union, Canada, and the United States, were represented. A number of persons who are here today were delegates. It was my privilege to serve as chairman of one of six discussion groups. While it cannot be said that consensus was reached — indeed, none was sought — clear focus was achieved on several points. Chief among these were: 1) a role for minority groups in decision-making concerning the educational programs which serve their children and, 2) bilingual education, including instruction in the native language. Four nations were represented in the group I chaired: Denmark, Canada, the United States, and the Soviet Union.” Delegates were, for the most part, social scientists and school officials. It seemed to me that, for the most part, opinion divided among the group much along the lines I have described in the preceding section. Canada’s experience has been much the same as ours, and Denmark is engaged in implementing in Greenland a bilingual education program enacted in 1967. The situation of the Soviet Union has been different. A generation or more ago they did for their northern ethnic groups what many are now advocating we should do — or certainly should have done. But the Soviet delegate, a member of the Politburo and the Praesidium, made it clear that their principal goal was competence in the national language. I believe that some quotations from papers prepared by various delegates will be of interest to you.

Miss Inez Boon (6) of the University Press in Oslo, Norway, was one of the most fervent advocates of the anthropological-linguistic point of view:

The language problem is old, and since a long time this problem has called forth struggle. A historic review shows that between 1710 and 1870 there were shorter periods with cultural humaneness and good will on the side of the authorities. However, from 1870 until the last world war

the authorities tried to “Norwegianize” the Lapps in a very hard way, and the Lappish language was absolutely forbidden in the school.

The Lapp parents considered the school as an unnecessary evil. According to their opinion, the children learned next to nothing there. On the other hand the children did not get the opportunity to learn the far more important and useful things which their parents could have learned (sic) them in the same time at home.

However, from the year 1963 a big change of mentality took place. At first with the authorities, later with the Lapp population. The most important feature of the attitude of the authorities was that they recognized that it was impossible that a harmonic development and an effective information could take place without being connected to Lapp language and culture.

It was stated by law that the Lapp language could be introduced at the elementary school, both as a teaching language and as a subject.

Moreover, one is planning a special bilingual course at the teacher training seminar in Tromso, which is to prepare teachers for their work in bilingual districts.

Slowly, however, mistrust and misunderstanding seem to disappear. Among others the teachers have contributed to this by developing an intensive informative activity, e.g., about the advantages the use of the mother – tongue during the first school year is supposed to give for a more efficient teaching during the whole school period. In 1967 the first experiment with teaching reading, writing and arithmetic through the mother–tongue only, was started. The Norwegian language was used only half an hour every day, and only for elementary oral exercises.

Already after one year the experiment showed to be successful. Today many parents send their children to classes where the mother–tongue method is used. They did not only find out that their children performed better than children did before them, but they also found out that the children liked to be at school and were really interested and engaged in what was going on in the classroom.

It will be noted that Miss Booms evaluative comments concerning the success of the program she describes are extremely casual and sketchy. One gets the impression that she really felt they were unnecessary, so convinced is she of the rightness of the program.

Miss Chislaine Girard (12) of Canada, in describing a bilingual education program started by the Province of Quebec for Eskimos and Indians in its northern latitudes, reveals an ideology and a zeal similar to Miss Boon’s and, like her, pretty much ignores any evaluation of the “outputs” of the program. Her paper will be worth reading when it becomes available to you,

as it will, for she deals in some detail with what was done about the training of teachers and the development of materials:

It has been underlined that it was necessary for the child to be instructed first in his own language because this language is for him the only way of learning to understand and express his environment.

In 1962, following a survey of the situation, the Government of Quebec decided to commit itself deeply and globally in its Northern territory with special respect to Eskimo and Indian Affairs in this region.

“For the child, language develops at the same time as the frames of his conceptual thought and his first structures of logical thinking; even if language is not a sine qua non condition of thought, it is its precious auxiliary at different steps of its evolution. The sooner the child can acquire an easy manipulation of verbal expression, the, sooner he will be free to benefit from the use of this precious tool in all the fields of its social and intellectual adaptation.” To ask the child to learn a second language at this moment in his development, would be to limit him in the discovery of his personality and his milieu. It would also retard, if not prevent him reaching mastery of verbal expression in his own language.

For the above reasons, it was decided that all subjects in the first cycle—kindergarten, first and second years — would be taught in Eskimo. The language of instruction in the second cycle—grades 3 to 6 — would be either French or English, with Eskimo retained in the curriculum as a subject of study. Upon completion of their elementary course in grade 6, students may register for the third and final cycle of the regular northern school system at the Regional School of Poste-de-la Baleine, where studies include academic subjects as well as accelerated vocational options.

One of the basic background papers for the conference was prepared by Mr. Bent Gunther (13) of Denmark, Education Advisor to the Ministry for Greenland. In 1967 Denmark passed a sort of “local option” law which permitted Greenlandic communities to decide whether instruction should be in the native language. Many of Mr. Gunther’s comments are typical of the public official grappling with difficult problems:

One of the greatest problems of the school in Greenland is the lack of Greenlandic-speaking teachers. This is primarily due to the fact that the training of native teachers has been unable to keep pace with the enormous increase in the number of children.

The Danish Teachers Training Act of 1966 maintains a standard training for all primary school teachers in Denmark, but in other countries many primary schools employ teachers of varying standards of training.

Although it is, in many ways, an advantage that all the teachers in the primary school have received the same training, still, on the

background of the difficulties already mentioned, it must be considered fully justifiable to use bilingual assistance in the school in Greenland.

It is, however, important to establish the fact that these assistants are not real teachers but only tutors who are qualified to undertake a number of limited tasks in the school.

As regards the placing of the subject Greenlandic a good deal of discussion was going on prior to the passing of the 1967 Act. From political quarters in Greenland was given the target: Bilingualism.

The Act provides as follows: "After a parents meeting has been held, the local School Board shall, with due regard to the necessary teaching staff able to teach the subject Greenlandic being available at the school in question, submit to the Board of Education to what extent Greenlandic shall be taught at the school in question in the first and second school years, or whether the teaching of this subject should be postponed until the beginning of the third school year."

By this formulation it is, among other things, acknowledged that the number of Greenlandic-speaking teachers is insufficient to cover the demand.

In view of this situation the school in Greenland must, as already mentioned, to rather a great extent be expected to be based on teaching in Danish in the future.

Just to give a "world view" to school achievement, Gunther says:

Levels of Attainment. In spite of the improved educational standard, especially in the towns, the results obtained in general are still below the results obtained by pupils on the same age level in Denmark.

It appears from the investigation that the 4th and 5th grade pupils must, in general, be said to be one year behind in the subject Danish compared with Danish pupils of the same age, whereas the difference at the end of the 7th grade is given as 1.5 – 2 years.

COMPARATIVE STUDIES

Have there been studies which compare the relative effectiveness of the monolingual and bilingual approaches to teaching English? Apparently there have been only about a half dozen. Bass, Caplan, and Liberty (3) of the Southwestern Cooperative Educational Laboratory in a proposal for A Comparative Study of Four Approaches to Bilingual Education (so far as I know the proposal, designed for the Navajo, has not yet been funded or implemented describe the following studies:

There have been relatively few studies comparing the effectiveness of monolingual and bilingual approaches. One by Grieve and Taylor (1952) in Ghana, hampered by unmatched and research-naïve teachers, reports findings supportive of the bilingual approach. An important study

done in the Philippines (Orata 1953), compared experimental groups using the native language as the medium of instruction for the first two years and English in the third year with control groups using only English throughout. The study reports a noticeable superiority in achievement by the experimental groups in the first two years when they were tested in the native language and the control groups were tested in English. In the third year, when both groups were tested in English, the experimental group still showed higher, but not significantly higher achievement. The conclusions of the study have frequently been questioned because of sketchy statistical reporting, and the possible influence of the halo phenomenon.

A similar experiment was carried on in Sweden by Osterberg (1961), with children who were already fluent speakers of the local dialect, Pitean. He found that the experimental group, which was taught to read for the first ten weeks in Pitean before changing over to literary Swedish, made greater school progress than the control group taught throughout in the literary Swedish. This superiority held true at the end of ten weeks when the experimental group was tested in Pitean and the control group in literary Swedish, and also when all the children were tested in literary Swedish at the end of the school year.

A study conducted by Modiano (1966), with Indian students in Mexico, observed and studied the monolingual approach in local, Federal, and State schools, which teach in Spanish, and the National Indian Institute schools which teach in tribal languages prior to teaching in Spanish. It was found that a higher proportion who first learned to read in their mother-tongue became literate in the national language and read it with significantly greater comprehension than did those who had received all early instruction in the national language. One of the suggestions for further investigation coming out of this study is that similar research should be conducted with other groups for whom the national language is not the mother-tongue.

Vera John, Vivian Horner, and Judy Socolov (16), writing in The Center Forum for September, 1969, have the following to say:

But while many of the arguments put forth for bilingual education are supported by common sense and the testimony of those who have experienced the effects of having to give up their mother-tongue to become educated in an English-speaking system, the relevant research is scant and is likely to remain so for some time. Given present limitations in the social sciences, a research validation of the complex interaction of language with the individual in his many roles presents a task of formidable difficulty.

On the other hand, the claims for the pedagogical soundness of a bilingual approach in educating the child who is not a speaker of the

national language are based on constantly accruing research evidence. A number of foreign educational institutions, drawing upon the experience of other polylingual nations, are for the first time taking a serious look at the potential of bilingual education. In addition, some limited experimentation has begun in the United States as well.

John and her colleagues then describe the Philippine, Swedish, and Mexican experiments as having results favorable to the bilingual approach; they omit the experiment in Ghana and add projects in the Coral Way School in Dade County, Florida and in the public schools of San Antonio, Texas:

Closer to home is a noteworthy bilingual program being carried out at the Coral Way School in Miami, Florida. This program includes both Spanish-speaking and English-speaking children, and has as its teaching goal the total mastery of both languages for all children. The evaluation data now available, covering a three-year period, indicate that while the children are not yet as fluent in their second language as their first, they learn equally well in either. In addition, the results demonstrate the bilingual curriculum is as effective as the standard curriculum in all academic subjects.

Another United States bilingual program in San Antonio, Texas, is achieving similar results. An experimental group of children of Spanish-speaking background, instructed in both Spanish and English during their first grade in school were able at the end of the year to read, speak, and write in both languages. The children scored better on tests measuring cognitive growth, communication skills, and social and emotional adjustment, than did their control peers who were taught solely in English. Tests administered at the end of the second year of their bilingual instruction indicate similar results.

Modiano (18) herself, writing in *America Indigena* for April 1968, describes the study she conducted in Mexico in the Highlands of Chiapas. She found the bilingual method to get better results than the monolingual method in Spanish, using both teacher ratings and test results as criteria. This study is the one most often cited by proponents of the bilingual method, and I, myself, find it the most persuasive. For one thing, I suspect that the children in her study were more nearly like our Navajo and Alaskan children than those studied elsewhere. Furthermore, she deigned to submit her data to statistical analysis and found the differences to be significant at the .01 level of confidence.

In speculating concerning the reasons for the superiority of the bilingual method she suggests: 1) in performing the reading act, a greater ability on the part of the non-Spanish

speaking children to attach meaning to the graphic symbols in the native language, 2) a better self image when using the native language, and, 3) a more sympathetic attitude on the part of the bilingual teachers even though they were less well educated.

The bilingual program at the Coral Way School in Dade County, Florida, referred to earlier by both Vera John and her associates (16) by Werner (27) may be of doubtful validity as a model for bilingual programs in Indian and Eskimo schools. A large proportion of the children in the project were middle class Cuban refugees from families literate in Spanish. Also some of the refugees were professional teachers, Spanish language readers were available and there is a well-developed body of literature in Spanish. There is a full description of the Coral Way project in the House hearings on the Bilingual Education Act, previously alluded to.

THE ROUGH ROCK DEMONSTRATION SCHOOL

Now finally we return to the Rough Rock Demonstration School for a closer look at the experience there. The full story of the Rough Rock School needs to be written — for it has not yet been done — but this is obviously not the place to do it. It must be said, however, that Erickson's task as he set out to evaluate it was a difficult, if not an impossible one. The school had received so much national publicity, all of it laudatory, from United States Senators and the news media on down, that any criticism of its program was not only unwelcome but nearly intolerable to its chief advocates. Nevertheless, Erickson and his assistant, Henrietta Schwartz (22), approached the task with an attitude that, while completely sympathetic to the Rough Rock goals and purposes, was highly professional. As Professor Werner (27) has written a special section of the report on bilingual education, Mrs. Schwartz has written a special section on Teaching and Learning in General. Both of these evaluators observed not only Rough Rock but also the Bureau of Indian Affairs Rock Point School as well. In addition, Mrs. Schwartz observed at the Bureau's Chinle Boarding School. The Rock Point School had been used by the Bureau as a demonstration center for its developing ESL program on the reservation and many persons in the ESL field had a high regard for its principal and staff. Mrs. Schwartz describes the Chinle school as a "run of the mill" reservation school which may be an apt characterization.

It is not easy to synthesize or compare Schwartz's and Werner's evaluations. Werner brought to his observation the perceptions of the anthropologist-linguist; Mrs. Schwartz those of

the professional educationist and master teacher. Mrs. Schwartz was able to give much more time to the job:

At Rough Rock, no single observation lasted less than two hours, and all teachers but two (one in the primary grades and one in the upper grades) were observed from one to five times.

Eight of Rock Point's ten classroom teachers were observed, each for at least two hours and most for a day or more.

Werner, on the other hand, spent three days in all, only a half day at Rock Point where he interviewed ten students but, I gather, did not observe instruction.

They did agree that the best teaching at Rough Rock was being done by Navajo teachers in the primary grades and that Navajo teachers have a great advantage in teaching Navajo children.

Otherwise, Mrs. Schwartz clearly felt that the teaching program at Rock Point was superior. I believe her verbatim comments show this.

First, Rough Rock:

Each classroom teacher at Rough Rock was given the services of an aide, and, in the Phase I classrooms, a room mother. The aides were bilingual and the mothers were Navajo-speaking. In the classrooms of Anglo teachers, with few notable exceptions, the aides were used as clerks and messengers and the mothers as disciplinarians. There were no Navajo core teachers at the Phase II level, and only one of the Anglo teachers was fluent enough in Navajo not to have to depend on the aide to translate.

Rough Rock teachers enjoyed much freedom in planning daily activities in their classrooms. There was no prescribed curriculum; the principal of the Phase I program encouraged teachers to develop their own programs. She subscribed to the philosophy that a child must be literate in his own language first, before he could successfully learn a second language. Unfortunately, not all of her staff shared her views. The planning for lessons in the Phase I program ran the gamut — from the new Anglo teacher who played it by ear ("I just ask the kids what they would like to do each day, and we go from there") to an experienced Navajo teacher who followed a highly structured and predictable program each day.

We felt that the Navajo teachers in the beginners, kindergarten, and first year classes were the most effective in the school, primarily for two reasons: 1) they were all Navajo, and 2) all but one had either training or experience to provide the techniques necessary for teaching at this level.

There was little uniformity or structure in the TESL programs in the Phase I classes, but emphasis on language training in all of them.

What we missed was any school-wide assessment of the effectiveness of one method over another, or some attempt to integrate the program from one level to the next.

One of two young male teachers interviewed felt the curriculum center should establish some long-term skill and content goals for a time period in school — two years or three years. Both young men noted their own inadequacies in knowledge of how to teach reading. They felt that most other faculty members sensed the same need. One of them said it was entirely possible for a child to go through eight years of schooling here and learn spoken languages very well, but not be able to read and write his own name.

The TESL program was conducted in each classroom by the core teacher, but without any uniform pattern in the Phase II classes. However, it did seem that students' dislike and poor performance of phonics exercises prompted teachers to give less attention to this phase of the program.

With reference to Rock Point:

In rooms where the coordinate bilingual program was being used, Anglo teachers were given Navajo aides. (There were no room mothers at Rock Point). Often it was difficult to tell who was the teacher and who was the aide, for the aide was the teacher for the Navajo phase of the program. In one beginners class, with the help of the principal and with close cooperation between the aide and the teacher, the program was being run in fifteen-minute modules. One group of children would work at one end of the room, in English with the Anglo teacher, the other group at the opposite end of the room, covering the same material in Navajo, under the direction of the aide. At the end of each fifteen minutes, the groups would switch. The children were reminded that “in this part of the room we speak English; there, we talk Navajo.” The effort and enthusiasm of the teacher and her aide apparently were transmitted to the children. This was one of the most exciting classrooms we had seen in years. At Rock Point, deliberate techniques were used to increase the children's attention span. When pupils became a bit restless, they were told, “Just two minutes more, and then we will have recess,” or “When the clock looks like this pointing, you can go to lunch.”

The older children at Rock Point were more responsive than those at Rough Rock or Chinle, though less responsive than most Anglo children of the same age. Each teacher was aware of how his program meshed with others. Some teachers maintained informal tutoring arrangements for groups of students needing help with math, reading, and science. Two teachers arranged to have students in the older class spend time after school listening to second grade brothers and sisters (actual or clan) reading and helping them with pronunciation.

The emphasis at Rock Point was on English. Students in the upper grades kept logs in which they were free to write anything they wished, so long as they wrote something each day.

There was a sense of controlled urgency at Rock Point. Teachers pushed the children and pushed themselves. Their engagement in a common task seemed to promote high morale in both groups.

Werner describes his interview with pupils at both Rough Rock Rock Point as follows:

The interview consisted primarily of evaluating the children's understanding of the following definition (adapted from the Webster's Collegiate Dictionary): "A unicorn is an animal of the fairy tales. It looks like a horse and has a horn in the middle of its forehead." We asked questions like "what does a unicorn look like? How many horns does it have? Where is its horn? What is a fairy tale?" The test was less than successful. Children who did not respond to the English version responded equally negatively to the all Navajo version. Monosyllabic answers were preferred in both schools. One girl at Rock Point knew what a unicorn was. One boy at RRDS, we suspect, knew this too.

Werner has the following comments on the results:

The English of pupils in an open ended casual interview seems roughly comparable at RRDS with Rock Point. The RRDS children's response is very Navajo: often less than a whisper. The Rock Point children respond louder and clearer, almost in American Middle class fashion. The main difference in the English of the two schools seems to be loudness. The higher performance demands (and/or the Bereiter-Engelman method?) placed on the Rock Point children may be responsible for this. The loudness carries over into speaking Navajo with strangers. Nevertheless the RRDS children seemed on the whole a bit more willing to speak Navajo. Both groups of children liked the teaching of Navajo in school. One child in each group had negative feelings about the Navajo language.

I have no way of judging that allegedly the level of the 8th grade at Rough Rock is comparable to 6th grade elsewhere.

Earlier, we quoted Professor Werner's views on bilingual education. He has these additional comments:

The bilingual teacher has a very simple basic unassailable advantage over the weaker second language: he can make himself understood and promote intellectual learning. I suggest anyone doubting this assertion should try to learn Navajo.

ESL (i.e., the audio-lingual approach now popular on the Reservation), like other instructional methods, is unfortunately not a panacea to Indian educational problems. The RRDS bilingual approach need special implementation of the audio-lingual approach by other methods (e.g., meaning-translation). The teachers' complaints (and students' complaints too) about the dullness and repetitiveness of ESL is serious too. This latter charge is, by the way, applicable to the ESL approach everywhere

Finally, he has some recommendations for ESL for the Navajo:

More scientific knowledge of the structure of the Navajo language is necessary, for example, to assess the order of difficulty of English exercises in the ESL programs for Navajo children. We do not know enough about Navajo to even guess intelligently. This is true of all ESL programs on the Reservation.

The nature of ESL for a bilingual program needs to be evaluated, and expanded to include the specialized requirements. Meaning-translation exercises have to be brought up to date and included as part of ESL.

The chief problem of Indian education in the past was that it discouraged translation and interpretation. Audio-lingual ESL perpetuates this approach. There is a desperate need for interpreting Anglo culture to mature Navajos and Navajo culture to Anglos. Some parents have already noted the willingness of RRDS children to interpret. This trend must be encouraged. Nothing else will bring the Navajos smoothly into the 21st Century.

Few if any of either Werner's or Schwartz's findings are quantifiable. It remains then, only to provide a short digest of Erickson's report of achievement test data on pupils in the schools. First he reports on testing done earlier:

Through a cooperative arrangement in May, 1968, achievement test batteries from the California Test Bureau were administered to pupils at Rough Rock, Rock Point, and two other BIA schools (elementary boarding schools at Lukachukai and Many Farms). The results for the test battery as a whole . . . are presented. In all four grades in which comparisons between Rough Rock and and Rock Point were possible (Rock Point was offering only four grades at the time) — Rock Point emerged as superior. In one case, the extent of the superiority was the equivalent of an entire grade-year, as estimated in terms of national norms. In the other three cases, the differences were fairly small. No tests were performed to determine which differences were statistically

significant.

Erickson felt, however, that it would be more defensible to compare pupils on the basis of years spent in school rather than grade level and so after grouping the children in this way he again analyzed the scores:

When boys and girls are considered separately in this way, Rough Rock emerges as slightly superior in one comparison out of eight; in the other seven, Rock Point is superior, though the differences are small except in the 5th year (roughly equivalent to the 4th grade) in which sizeable differences emerged.

Partly because the earlier data did not permit him to make subject-by-subject comparisons, and partly because he wanted to include the Chinle Boarding School in the study, Erickson did some testing of his own in January of 1969. To his surprise, he found no significant difference among the three schools. He comments:

If we take the test results seriously, they are flattering to neither Rough Rock nor Rock Point in comparison with what is regarded as a run-of-the-mill BIA school. It could be, of course, that reading and arithmetic are areas of special strength at Chinle Boarding, and there is some evidence in our classroom observations, in fact, that arithmetic may have been. It is possible, further, that Chinle is much better than it is touted to be. The observations do not encourage us to think so generally, though a few teachers at Chinle Boarding were apparently very effective. It appears, then, that we must simply leave on the record an interesting, unanticipated finding. It is inconclusive and difficult to interpret in the absence of further evidence. We hope further achievement test comparisons will be conducted with Rough Rock, Rock Point, and Chinle Boarding. We would like to know what these data mean.

CONCLUSION

This paper has not settled the issue of bilingual education, nor was it intended to, although I hope it has illuminated it. I think it does show that this conference can keep itself usefully busy for the next three days.

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