
ABSTRACT

The purpose of the audit report on the Bilingual Education Program (1969-70) of the Harlandale and San Marcos Independent School Districts is to give a critique on the quality of the project evaluation, to discuss the comparative findings of the project evaluation and the audit, and to confirm or question the need for program modifications proposed in the evaluation. The audit report is divided into 5 sections: (1) introductory and general comments on the quality of the project evaluation and the comparative findings of the project evaluation and the audit; (2) detailed critique of the product, process, and management evaluation for each component, based on an assessment of the instruments used, data collection procedures, data analysis techniques, and data analysis presentation; (3) description of the auditor's on-site visit findings and correlation with the evaluator's data and reports on a component by component basis, summary of consistencies and discrepancies; (4) recommendations for evaluation design revisions with a rationale for each recommendation; and (5) confirmation or questioning of the need for program modifications proposed in the project evaluation.

(Author/NG)
EDUCATIONAL ACCOMPLISHMENT AUDIT
OF THE
BILINGUAL EDUCATION PROGRAM

Harlandale Independent School District
San Marcos Independent School District
Southwest Texas State University
1969-1970

Submitted to:

Dr. B. E. Hughes
Project Director

and

The United States Office of Education as an educational accomplishment audit of the first year's operation of a program under the provisions of Title VII of P. L. 89-10, as amended.

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EDUCATIONAL ACCOMPLISHMENT AUDIT REPORT

Purpose of the Report

This Audit Report is made in compliance with the contractual agreements, legal prescriptions, and official directives under the Provisions of Title VII of Public Law 89-10, as amended, for the establishment and operation of bilingual education programs. This is an Audit Report on the Bilingual Education Program of the Harlandale Independent School District, The San Marcos Independent School District, and the Southwest Texas State University, with Dr. D. E. Hughes as program director.

The purpose of this report is to give a critique concerning the quality of the project evaluation and discuss the comparative findings of the project evaluation and the audit and to confirm or question the need for program modifications which have been proposed as a result of project evaluation.

Scope of the Report

The Audit Report follows rather closely the Suggested Audit Report Content Areas received from the United States Office of Education and made a part of the contractual agreement between the auditor and the program director, as follows:

1. Introductory and general comments concerning the quality of the project evaluation and the comparative findings of the project evaluation and the audit.

2. Detailed critique of the product, process, and management evaluation conducted for each component, based on an assessment of the instruments used, data collection procedures, data analysis techniques, and data analysis presentation.
3. Description of the auditor's on-site visit findings and their correlation with the evaluator's data and reports, on a component by component basis; summary of consistencies and discrepancies, and interpretation of the discrepancies.

4. Recommendations for revisions of the evaluation design, including a rationale for each recommendation. Since the auditor's objectivity can be retained only if the selection of a specific corrective action is a local decision, he should provide general rather than specific recommendations, posing several alternative actions or possible sources of assistance to the LEA in correcting the deficiency.

5. Confirmation or questioning of the need for program modifications which have been proposed as a result of project evaluation.

Each of the audit areas described above will be referred to as sections with the section numbers corresponding with the audit area description numbers.

SECTION I

General Comments Concerning the Quality of the Project Evaluation and on Comparative Findings

The extent of the effectiveness of an evaluation is primarily determined by how well the evaluating techniques quantify through objective measurements the quality and extent of pupil learning for which the project is chiefly responsible. A careful examination of the written evaluation, as well as the evaluation design, techniques, and procedures, reveals that this has been its major objective -- to measure the learning outcomes and the progress in learning. These measurements have been in terms of the extent of attainment of behavioral objectives and in comparisons with control groups and baseline
data. Some of these measures have been obtained by well recognized and properly validated tests using standard procedures. Some have been obtained by rather hastily contrived scales and tests that appear to have considerable merit and face validity. Other local tests were to measure the learning achievement in terms of the specifics of the locally designed curriculum program and were most ambitiously conceived but were not completed in time to be tried out and validated for use in spite of the diligent work of the teacher writing teams under coordinator direction. The intervals between pre- and post-tests were in many instances much too short for significant changes in quantity of learning to have taken place.

In general the evaluation has much merit and is well done. The evaluation design, procedures, and techniques, have emerged as the program developed. This could not have been otherwise since the directives from the United States Office of Education were not really clarified until after the Evaluation Conference at Newport Beach, California, in November. Considerable revision was necessary to implement the principles set forth in that conference and subsequent interpretative communications. A reformulation of the behavioral objectives shortened some of the pre- and post-test intervals and delayed local test construction.

The shortcomings which have just been mentioned should not lead to the hasty inference that the evaluation is inadequate. The evaluation has a remarkably strong base and is most adequate. This is especially true when one considers that the developing program was so slow in assuming a measurable structure.
The evaluation places heavy emphasis on whatever interpretations may be obtained by examining and comparing the size of the means of the scores. As important as this is, the meanings and interpretations that might have been obtained from the other measures of variability and relative positions for individual scores are not represented adequately by the means. This leaves unanswered questions about how the various aspects of the program affect the slower than average or the faster than average learners. The extreme differences among the sections are not adequately accounted for by a comparison of means. Again, in all fairness, it must be noted that there are very real extenuating circumstances. The Project Director is only half time. Not only does he have total responsibility for project management and direction but he has to do the evaluation, too. In addition to the fact that there was inadequate time to do the most thorough type of evaluation, there is some question as to whether anyone should be called on to do the principal evaluation of his own handiwork. The project should have an evaluator who could devote at least fifty percent of his time to evaluation.

In spite of all that has been said in this analysis, the evaluation is adequate for a first year, and has much merit. The findings are most credible.

The differences in the findings of the evaluator and the auditor were miniscule. Whatever differences that do exist are more of an interpretative nature than of fact. They do not merit mention in this generalized discussion, for they are not worthy of that much emphasis. Those that do exist will be specifically pinpointed in subsequent sections in their proper context.
SECTION II

Critique of the Product, Process, and Management Evaluation for Each Component

1. Curriculum Development Component. The development of curriculum outlines, teaching units, and testing devices, and assembling of various types of teaching materials suitable for bilingual instruction in grades 1-3.

The pertinent facts in the evaluation concerning this component, briefly summarized, are somewhat as follows: Harlandale had a rudimentary bilingual guide. This and other curriculum and audio-visual materials were examined. Two writers from each of the two districts, working with an instructional systems consultant, produced curriculum guides in the summer of 1969.

The indicated evaluation of these guides consisted of their approval by the director, the coordinators, by college professors at Southwest Texas State University, by curriculum supervisors, and by consultants. The use of the expert jury technique for the preliminary evaluation of the curriculum guides is justified since there is no adequate way of evaluating curriculum materials until they are empirically tested in the classrooms.

During the year the teachers who used the materials made comments and suggestions to be used by the writing teams in making revisions during the summer of 1970. The evaluation report could have included a sampling of the kinds and types of suggestions that the teachers made for the revisions. It would also be interesting to know the extent to which the teachers participated in making these revision suggestions.
In response to questions, a few of the teachers made very specific suggestions to the auditor, but in most instances the comments were generalized and indicated approval of the materials. This component is so interlocking with the instruction component that the real evaluation of materials comes in their effectiveness in improving the instructional program through increasing the amount of learning.

The locally made tests to accompany the curriculum guides were not completed in time to be reproduced and tried out. The auditor is aware that considerable effort has been put forth in this enterprise but neither the tests nor what they purport to measure can be evaluated at this time.

2. *Instructional Component.* Instruction in both Spanish and English.

The evaluation of this component begins with the point that both the teachers and pupils were willing participants in the program and that the parents and the communities strongly endorsed the bilingual approach to instruction. This point is well established throughout the evaluation and is confirmed by the auditor's on-site visits.

The schools, the teachers, and the number of pupils in each class are reported in Table I. The mean number of pupils was found to be 27.7. The further observation might be made that the variation from this mean was slight with a low of 24 and a high of 32 in the public schools. St. Johns has a low of 23. It seems to be rather well established that 27 pupils are too many for the most effective instruction in the first grade. The number of pupils who spoke little or no
English is surprisingly low, varying from 0 to 29 in the first grades. However, these figures should not be taken too seriously, for the auditor has found that teachers vary greatly in their judgment of what constitutes little or no English.

It might be useful to make a more careful and detailed study of the demographic characteristics of the pupil population in each of the participating elementary schools. These factors could affect the curriculum and the instructional program needed in the schools.

The evaluator has commented on the problem with having usable control groups. It is almost impossible to have effective control groups in the public schools because administrative convenience and the efforts to keep teacher-pupil loads equalized makes it difficult to keep them constant or equal with the experimental groups. But even with the unfavorable circumstances that exist some useful comparisons can be made. While it is true that control groups were initially higher than the bilingual groups in mean I. Q. as measured by the Otis Alpha Mental Ability Test, Non-verbal, it should be noted that the bilingual sections achieved more learning and ability progress during the school year than the control groups did. Since the I. Q. as reported in Table II of the evaluation reflects the effect of a moving chronological age in the pre- and post-tests of the Otis, to maintain the same I. Q. score is to indicate normal progress in learning with the general population of first grade pupils. This certainly is a most commendable achievement for a bilingual group. In fact a further analysis of the scores shows that 16 of the 20 first grade
bilingual sections made some gain in mean I. Q. scores in the post-test. Administration of the verbal portion of the Otis Test along with the non-verbal in the post-test sessions would have probably given more credibility to the findings from comparative I. Q. scores. The use of other statistical measures along with the mean would have made further analysis possible, particularly the progress of high and low pupils in the first grade sections. It would also be helpful to know how well the Goodenough Draw-a-Man Test, the Otis Alpha Mental Ability Test, Non-verbal, and the Metropolitan Readiness Test correlate with one another when administered bilingually with a pupil population that has a high percentage who have Spanish as a first language and live in low-income areas. If the correlation is high among the three tests then perhaps it would not be necessary to give all three tests. Much additional information could be extracted from many of the measures by an evaluator who had more time and was not encumbered with directorship duties.

The Metropolitan Reading Readiness Tests and the Metropolitan Achievement Test, Primary I Battery, were administered in October and May respectively, and the scores were treated as pre- and post-test data for the measurement of learning in language arts and mathematics, Table III and Table IX in the evaluation. Even though there is some rationale for this procedure and a belief that the results would be loosely indicative of the extent of the learning in these areas, it would be entirely erroneous to accept at face value the unfavorable results portrayed by the mathematical differences between the pre- and
The Metropolitan Readiness Test required no reading ability and was given bilingually. The Metropolitan Achievement Test, Primary Battery I, required reading and was given in English to obtain both the reading and mathematics scores. To expect these percentile scores to be equivalent is unreasonable. These statements are further substantiated by the unfavorable comparison with the control groups which had a higher percentage of English speaking children. It is not the purpose of this program to compensate totally for the language deficiency in one year. It is not even surprising that the control groups lost 18 percentage points while the bilingual groups were losing 23 percentage points. It suggests that even the control groups probably have enough Spanish speaking pupils to profit from bilingual instruction. Furthermore, it is not surprising that the Oral Language Education group (Thompson) was the lowest in the two school systems. Concepts, not excessive drill, are needed here. The methods of measuring the learning in transition from readiness activities to actual reading should be reviewed.

The Metropolitan Achievement Test scores in reading are much more valid on a pre- and post-test basis and show normal progress with the general pupil population at the second and third grade levels in that the means of the percentages do not deviate from constancy appreciably. The second and third grade pupils achieved this even though most of them had not previously been taught bilingually. Much more data could be obtained for analysis by looking beyond the general means. Comparison of grade level equivalents analyzed by sections could be quite
revealing. Relating this to the amount of time spent on Spanish might prove more interesting.

In the absence of any satisfactory tests in Spanish language proficiency, the program staff and the teachers were quite ingenious in creating interim tests. These tests apparently do measure the ability to pronounce Spanish words, to associate certain words with objects, to spell in Spanish, and to make statements in Spanish. This measures to some extent familiarity with the Spanish language and some aspects of its usage. However, since Spanish is a highly phonetic language, it is possible for a pupil to read orally with very little comprehension or conceptual understanding. The auditor agrees with the evaluator that the search for suitable Spanish language tests or the development of such tests must be pursued with much vigor. The use of the Pruebas Lectura Interamericano Serie at all grade levels except the first on a pre- and post-test basis is advisable if better tests cannot be found. Even in the first grade it should be given at the end of the year.

It should not be overlooked that the Spanish testing was done in accordance with the behavioral objectives and indicated goal achievement except in spelling.

Comments have already been made on the first grade mathematics test. The evaluator's analysis and comments on the second and third grade mathematics tests say all that need to be said.

The development of social concepts and skills in relation to the Mexican-American culture and heritage was measured only through classroom tests given by the individual teacher. The teachers report that
progress in these phases of the social studies program was satisfactory but no data are available. More adequate measure of the learning in the social studies awaits the completion of the locally made tests.

The efforts to measure the development of the self concept were commendable and may be quite effective when implemented as the evaluator has recommended. The auditor recommends that the use of attendance as any kind of a measure of self concept be discontinued. This measure is not compatible with the culture.

3. Teacher Improvement Component. The development of a comprehensive program of teacher improvement through systematic preservice and inservice training of teachers.

The evaluator's report of the preservice teacher training aspects of this component seem to be entirely accurate and the program officials are to be commended for this contribution to bilingual education. The teachers in both Harlandale and San Marcos were high in their praise of the efficient help and contributions made by these student teachers and internes. The teacher aides were also a definite asset to the program.

The auditor was able to attend quite a few of the inservice training sessions and found them to be quite effective. Perhaps the frequency of these sessions could be increased and their scope made more comprehensive. The teachers seemed to profit from the sessions held if one may judge by teacher comments.

The use of the teacher rating scales is commendable. The coordinators and the principals used discriminating judgment. It is the auditor's opinion that the teachers were generally rated a little too high even though there is no question that they are doing a highly.
satisfactory job of teaching as a whole. The degree of teacher satisfaction speaks well for the program. It is obvious that the teacher aides need a continuous and specific training program.

The data on teacher ratings reported in Table XVII, XVIII, and XIX would be more revealing if they were not all combined into one composite score for each teacher.

4. **Community Involvement Component.** The development of appropriate strategies for maximizing the involvement of parents and community resources.

As previously indicated all available evidence indicates that both communities had strong parental and community endorsement of the bilingual instructional program. The auditor joins the evaluator in commendation of the Harlandale coordinator on the success of the Parents' Circle meetings. The high percentage of questionnaires to parents returned further reflects the success of these meetings and other efforts to involve the parents. Perhaps these meetings can be held more consistently and more regularly at all the schools.

5. **Project Coordination Component.** The development of an efficient, cooperative administrative structure among the schools.

This component is so interlocking with the other components that it can hardly be considered a separate component. Since this program is in the nature of an administrative overlay rather than completely integrated into the administrative organization of the two school districts, naturally there have been problems where the overlay crinkled a little bit at times. The auditor has observed that there was always an overwhelming desire on the part of all persons concerned with major
responsibilities to be cooperative with perhaps one or two temporary exceptions. The project director has been especially successful in welding together the many aspects of the program and many persons involved into a productive ongoing bilingual instructional program. In this he has had the efficient cooperation of the Harlandale coordinator who is held in highest esteem by the Harlandale teachers both as a person and as a bilingual educator. The principals and top administrative officials have been most supportive. For a consortium with the distances involved, it has done extremely well in coordinating its activities. In fact, it may have done this too well with curriculum materials with not enough allowance for the individual differences between the districts. The auditor found the teachers most cooperative in both districts.

SECTION III

Description of the Auditor's On-site Visit
Findings and their correlation with the Evaluator's Data and Reports on a Component by Component Basis; Summary of Consistencies and Discrepancies, and Interpretation of Discrepancies

The auditor's on-site visits consisted of visiting classrooms and observing teaching and learning activities, talking with teachers to obtain their viewpoints and attitudes, discussions with the principals, frequent discussions with the program coordinators, particularly in Harlandale, many visits with the project director, discussions with school administrators in both districts, examination of curriculum
guides and teaching materials in the classrooms and in the central offices, examination of tests and proposed tests, looking at test scores and test results, and talking with teacher trainees working in the project.

The scope of this section overlaps with the previous section dealing with the critique so much that many of the things called for in this section have already been discussed. However, some of them will be reviewed and reemphasized here.

1. **Curriculum Development Component.**

There were no real discrepancies in the findings of the evaluator and the auditor in this component. However, questions were raised. (1) Are the pupil populations of San Marcos and Harlandale so similar that their curriculum materials can be prepared by a unified writing team and the two districts use identical or similar curriculum materials? (2) To what extent did the classroom teachers actually make written suggestions for the revision of the curriculum materials?

2. **Instructional Component:**

The evaluator and the auditor both find that the teachers and the pupils are willing participants in the program and that the program has strong parental and community endorsement in both school districts.

The auditor suggests that the demographic characteristics of the pupil populations be explored in more specific detail in the future to ascertain curricular and instructional needs.
The evaluator and the auditor are in substantial agreement on the meaning and interpretation of the test results. However, the auditor has suggested that additional information might be obtained from the data by using other statistics in addition to the mean so that the learning progress of the high and low scoring pupils, those who deviate somewhat from the mean, might be more fully explored. It is also observed that this cannot be done very satisfactorily until an evaluator is added to the project, for the program director, who is now the evaluator, does not have time to go into this much statistical detail.

The auditor questions whether the Metropolitan Readiness Test and the Metropolitan Achievement Test, Primary Battery I, should be used in pre- and post-test sequence for measuring growth in language arts and mathematics in the first grade. The evaluator also indicated that this should be reviewed.

Comments on the inadequacy of the Spanish language tests were discussed in considerable detail in the previous sections. The auditor recommends using Pruebas Lectura Interamericano Serie if better tests are not found.

The auditor is in agreement with evaluator's comments and analysis of the second and third grade mathematics tests.

The auditor shares with the evaluator the opinion that the tests made by individual classroom teachers are somewhat less than adequate in social studies and looks forward to the more comprehensive tests now in preparation. The auditor and evaluator are in agreement that McDaniel's Inferred Self-concept Scale may be useful in measuring
self-concept development, but the auditor recommends that the use of attendance as an implied measure of self-concept be discontinued since this measure is not compatible with the culture.

3. **Teacher Improvement Component.**

The findings and observations of the auditor and the evaluator in this component are in almost total correlation.

The auditor recommends a more detailed analysis of the teacher rating scales rather than just reporting the composite score.

4. **Community Involvement Component.**

The auditor joins the evaluator in commending the Harlandale coordinator in the use of the Parents' Circle for community and parental involvement and recommends that it be expanded.

5. **Project Coordination Component.**

The program administrators are commended for welding many diverse persons and interests, even geographical separation, into a coordinated, effective learning program and reducing contradictory forces to a minimum.

**SECTION IV**

Recommendations for Revisions of the Evaluation Design

The recommendations for revisions of the evaluation design were all made in direct context relationships in Section II, the Critique of the Product, Process, and Management Evaluation of Each Program Component. Some of them were repeated and reemphasized in Section III. Further repetition seems unnecessary here.
SECTION V

Confirmation or Questioning of the Need for Program Modifications Which Have Been Proposed as a Result of Project Evaluation

The bilingual program should continue with vertical expansion. The evaluation has confirmed that the program was as successful as could be expected for a first-year developing program. The specifics of the indicated successful achievements have been discussed in previous sections of this audit report.

The consortium approach has been well coordinated and the program should continue as a cooperative effort between Harlandale, San Marcos, and Southwest Texas State University.

The curriculum guides have been most useful but the need for revision is apparent to everyone. It is recommended that the revision not be limited to suggestions made by the classroom teachers but that their suggestions should certainly be given careful consideration.

The need for more trained bilingual teachers who are closely identified with the culture is apparent. Therefore, teacher training programs should be expanded and made more comprehensive. Present accomplishments are to be commended. An evaluator should be added to the project so that those duties would not have to be performed by the project director. An evaluator could make the evaluation more comprehensive, develop and use more instruments, supervise test administration more closely, extract more information from the data by using
additional statistical processes, and do more interpretative evaluation because he would have more time.

Progress could be more adequately measured by having as much time elapse between pre- and post-tests as possible.

Adequate Spanish language tests are badly needed.

Dr. B. E. Hughes, the program director, and Mrs. Dorcas DeSoto, the Harlandale Coordinator, are to be commended for their capable and enthusiastic leadership. The new coordinator in San Marcos should be equally competent.

The auditor wishes to express his appreciation for the many courtesies and willing cooperation extended to him by everyone connected with the program.