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ABSTRACT

A School Improvement Program (SIP) was piloted at five schools of the Columbus Public Schools during 1982-83. The SIP had as its focus the improved pupil acquisition of basic skills through inservice support for professional staff at the building level in the characteristics of instructionally effective schools. Five evaluation objectives received technical support: needs assessment, survey of parents, inservice for teachers, Teacher Expectations and Student Achievement (TESA) inservice for teachers, and measures of overall program effectiveness (achievement test scores). The results of these evaluations are reported here. A large percent of the parents believed that the SIP helped their children. The inservice sessions were rated as successful, and participants indicated that they applied specific strategies in their work. Participants were also satisfied with the TESA inservice programs. Student achievement in both arithmetic computation and reading comprehension improved more than is usually expected. (BW)

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FINAL EVALUATION REPORT  
SCHOOL IMPROVEMENT PROGRAM

JULY, 1983



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Pupil acquisition of basic skills is an essential ingredient for an effective school. Too many students, however, attend schools without ever achieving a mastery of the minimum basic skills necessary to further their own education and obtain gainful employment. In light of the current economic conditions of high unemployment, and the ongoing transition to high technology in business and industry, the problem of pupil acquisition of basic skills becomes evermore crucial, not only for the pupils themselves, but also for the state and nation.

Educational research, by Edmonds (1982), Brookover (1978, 1982) and others, has focused on a number of different schools in an effort to determine the reasons why some schools are more effective than others in helping pupils achieve mastery of basic skills. "Effective schools" are defined as those in which all students master basic school skills. Effective schools all hold certain basic characteristics (Source: State Department of Education, Division of Equal Educational Opportunities, 1981):

1. A Sense of Mission
2. Strong Building Leadership
3. High Expectations for All Students and Staffs
4. Frequent Monitoring of Student Progress
5. A Positive Learning Climate
6. Sufficient Opportunity for Learning
7. Parent/Community Involvement

The Department of Staff Development and Human Relations, Division of Elementary Schools, and Division of Middle and High Schools piloted a School Improvement Program at five schools during the 1982-83 school year: Wedgewood Middle School, and Fair, Trevitt, West Broad, and Windsor Elementary Schools. These particular schools were given the opportunity to participate, based on the numbers of pupils on free and reduced price lunches, and previous levels of pupil achievement at the particular buildings. The program was funded by ECIA Chapter 2.

The School Improvement Program had as its focus the improved pupil acquisition of basic skills through inservice support for professional staff at the building level in the characteristics of instructionally effective schools. To achieve this goal, a full-time SIP liaison was assigned to each of the five participating schools to coordinate efforts and to report to the Program Director concerning the success of those efforts. The evaluation design for the program is outlined as follows by evaluation question as described in the project narrative section of the 1982-83 program proposal.

### Evaluation Design

Evaluation Question 1.1, 1.2, 1.3 (Orientation): Do 90% of the participants responding to an orientation evaluation form for each workshop rate the activity as successful in terms of meeting its stated objectives on a Likert type rating scale?

During the months of May and June, 1982 the Executive Directors, as well as the five principals and their school staffs, would develop an in-depth awareness, understanding and acceptance of the School Improvement Program concept. Additionally, the Director of Staff Development and Human Relations would orient each participating school staff in the philosophy and characteristics of effective schools, as well as the expectations for staff as participants in the School Improvement Program. The Staff Development Workshop Evaluation Form (Appendix A) would be used by workshop participants to evaluate each activity in terms of its success in meeting stated objectives. The Program Director would be responsible for conducting the evaluation of this component.

Evaluation Question 2.1 (SIP Committee): Will there be a roster as evidence of a SIP committee at each school?

By September, 1982 each of the participating schools would organize a SIP committee, comprised of the principal, representative staff, and representative parents. The SIP liaison at each building would also be a member of this committee. A roster of committee members at each school would be provided for the Program Director, who would maintain a file of such rosters for review by Evaluation Services.

Evaluation Question 2.2 (School Data Collection and Analysis): Is there evidence that the SIP team collected and analyzed the data?

By September, 1982 the SIP committee at each school would be responsible for having collected and analyzed data concerning the school and students. These data would include the following: (a) reading achievement scores; (b) mathematics achievement scores; (c) State Department Program Evaluation Report; (d) volunteers in the building; (e) discipline records; (f) information related to parent involvement in the school; (g) number of children served by free or reduced price lunches; (h) number of children served by State and Federal Programs; (i) interviews with parents and teachers; and (j) process checklist information. To accomplish this task, the Program Director would develop a SIP Process Checklist to report what and how data were collected and analyzed at each school.

Evaluation Question 2.3 (Needs Assessment): Is there a written needs assessment document?

By October, 1982 each participating school would conduct a needs assessment reflecting both the characteristics of effective schools and the previously completed data analysis. data obtained from the assessment would be analyzed and reported to the participating schools by the Department of Evaluation Services.

Evaluation Question 2.4 (School Program Plans): Is there evidence that a School Improvement Program plan is developed for consideration at each school?

By January, 1983 a School Improvement Program plan would be developed by each participating school. This plan would be reviewed by the school staff, submitted to the Division of Elementary Schools and the Division of Middle and High Schools for approval, and presented to parents for clarification. The plans would be kept on file by the Program Director to ascertain that priority needs are addressed first and that effective school characteristics are included in the plan.

Evaluation Question 3.1 (District Mission Statement): Was an overall mission statement developed for the district?

By September, 1982 the SIP committee from each of the five participating schools would develop an overall mission statement related to the district School Improvement Program. The Program Director would assume responsibility for the development of such a statement.

Evaluation Question 3.2 (Schools Mission Statements): Was a mission statement developed for each school? Do 90% of the staff members possess an understanding of the mission?

By October, 1982 the SIP committee at each of the five participating schools would provide leadership in formulating a school mission statement related to school improvement. The Program Director would keep on file a copy of mission statements from each building, and evaluate the understanding of the mission statement by school staff members at each building.

Evaluation Question 3.3 (Community/Parent Survey): Do 90% of a sample group of parents and community responding to a questionnaire indicate that the mission of the school was communicated to them?

Throughout the 1982-83 school year, each participating school would communicate the school mission to the students, parents, and community members in order that the entire school community possessed a clear understanding of the schools' mission. By May, 1983 a sample group of parents and community persons randomly selected from each school would be surveyed to ascertain their awareness of the school mission. The Department of Evaluation Services would assist in the development of the survey, analyze the data collected, and report the results. The Program Director would be responsible for the distribution and collection of survey forms.

Evaluation Question 3.6, 3.7 (Inservicoe for Principals and Teachers): Do 90% of the participants in each workshop who complete the workshop evaluation form indicate that the workshop was "very successful or successful" in meeting its stated objectives and do 90% of the participants who complete a follow-up survey provide indication that they have tried/applied specific skills or strategies in the classroom or school setting?

During the 1982-83 school year, the principals of participating schools would be trained in the skills necessary to provide the leadership for implementing a school improvement plan. Examples of topics that would be presented during the year are instructional leadership, management styles, and staff expectations.

Teachers would be trained during the school year in one or more of the following characteristics of effective schools: (a) high teacher expectations for all students; (b) frequent monitoring and evaluation of pupil progress; (c) a positive learning climate; (d) sufficient opportunity for learning; and (e) parent/community involvement with schools.

At the conclusion of each of the inservice programs, participants would complete a locally developed instrument, the SD/HR Workshop Evaluation Form, a copy of which is found in Appendix A. Participants would be asked to rate the success of the workshop in terms of meeting its stated objectives. Response choices on the form range from 1-No Success to 5-Very Successful. Opportunity would also be provided for participants to make written comments concerning the inservice program. In addition, four weeks after the initial inservice program, participants would be requested to complete another locally developed instrument, the SD/HR Follow-Up Survey Form, a copy of which is found in Appendix B. Participants would be asked to indicate the degree to which skills presented during inservice sessions have been implemented in classroom or related situations, as well as the success of such implementation. The Program Director would administer and collect such forms with the help of SIP liaisons at each school. The Department of Evaluation Services would analyze the data received and would report the results.

Evaluation Question 3.8 (TESA Program): Do 90% of the teachers responding to the workshop evaluation forms for each workshop rate their understanding of the strategies presented as "perfectly clear to clear" on the seven point rating scale and rate their overall satisfaction with the workshops as "completely satisfied to satisfied" on a seven point rating scale?

During the 1982-83 school year, 34 teachers from the five participating schools would be trained in the Teacher Expectations and Student Achievement (TESA) Training Program. The program, designed to help teachers improve pupil academic achievement, consists of an orientation, five three-hour workshops, and an evaluation meeting. At the conclusion of each workshop, participants are to complete evaluation forms that were developed by the Los Angeles County School System and are part of the TESA Teacher Handbook. In responding to the items on the evaluation form, participants are asked to complete seven point Likert-type scales and also to provide written comments. A copy of the instruments are found in Appendix C. The Department of Evaluation Services would analyze and report the data received from the Staff Development specialists conducting the workshops.

Evaluation Question 3.8 (TESA Follow-Up): Do 90% of the teachers responding to a follow-up of the TESA workshops indicate that they attempted to apply the strategies presented in the workshops in their class and rate the strategies as helpful?

Teachers who participated in the TESA training program would be requested to attend the TESA evaluation meeting. Participants would then be asked to indicate whether they attempted to apply the 15 strategies presented in the workshops. Response choices ranged from 1-Never to 5-All of the Time. Participants would also be asked to rate the helpfulness of the 15 strategies. Response choices range from 1-Of No Help to 5-Very Helpful. A copy of the instrument is found in Appendix C. Staff Development specialists who conducted the session would be responsible for collecting the evaluation data, while the analysis and reporting of findings would be conducted by the Department of Evaluation Services.

#### 4.1: Evaluation of Overall Program Effectiveness

The Department of Evaluation Services provided technical support for the SIP program. This support included the analysis and reporting of results from the needs assessment conducted at each of the five participating buildings during October, 1982, the analysis and reporting of results from both the Fall pretest and Spring posttest of the CTBS Arithmetic Computation Test and Reading Comprehension Test administered at each of the five participating buildings, and the development, analysis, and reporting of results for various evaluation instruments, such as the SD/HR Workshop Evaluation Form; used at inservice sessions, and the Parent Survey, distributed to parents during April, 1983.

#### Major Findings

The Department of Evaluation Services has reported on those evaluation objectives that have received technical support services from the department: (a) needs assessment, (b) survey of parents, (c) inservice for teachers, (d) TESA inservice for teachers, and (e) measures of overall program effectiveness, specifically the CTBS pretest and posttest administered during the 1982-83 school year. The Program Director assumed responsibility for reporting on the remaining evaluation objectives.

#### 2.3 Needs Assessment

During the month of October, 1982 each participating school conducted a needs assessment based on the School Social Climate Study directed by Dr. Wilber B. Brookover of Michigan State University (1978). Copies of the Teacher Questionnaire used in the Michigan study were distributed to teachers at each of the five participating SIP schools. The data obtained from the completed questionnaires were analyzed by the Department of Evaluation Services. In addition to frequency distributions of all items, and crosstabulations of selected items, scale scores were calculated on five school climate variables as described in the Michigan Study (see Appendix D). The scale score items, or teacher school climate variables, consisted for the following items:

TSCL1 Ability, Evaluations, Expectations and Quality of  
Education for College (12 items: 23-29, 32, 33, 43,  
61, 63)

- TSCL2 Present Evaluations and Expectations for High School Completion (9 items: 19-22, 30, 31, 42, 44, 62)
- TSCL3 Teacher-Student Commitment to Improve (10 items: 45-47, 51-55, 58, 59)
- TSCL4 Teacher Perception of Principal's Expectations (5 items: 37-41)
- TSCL5 Teacher Academic Futility (7 items: 48-50, 57, 60, 6A, 77)

A comparison of the means and standard deviations on the school climate variables between the Columbus and Michigan samples is summarized in Table 1. A review of this table indicated that the Columbus sample achieved a slightly more positive academic climate than the Michigan sample for all school climate variables, except for the first variable (TSCL1 Ability, Evaluations and Quality of Education for College). However, since the Michigan sample provided the only comparable baseline data available, Columbus school staffs were encouraged to examine data from individual items in order to adequately assess the needs at each particular school building. The results of these analyses were shared with the principal and SIP liaison from each of the five participating SIP schools, and were the subject of staff meetings held later at the individual school buildings. As a result of the assessment of each building's school climate, the criterion specified in Evaluation Question 213 was attained.

Table 1

Comparison of Means and Standard Deviations on School Climate Variables (Scale Scores) for Columbus SIP School Staffs, and a Sample of Michigan Schools

Scale Score Item:	Columbus			Michigan		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
TSCL1	59	42.68	8.47	327	31.60	6.19
TSCL2	58	20.28	5.27	327	35.24	3.05
TSCL3	55	28.91	5.74	327	31.52	3.86
TSCL4	67	14.28	3.89	327	16.01	3.77
TSCL5	64	25.44 <sup>a</sup>	3.03 <sup>a</sup>	327	21.86	2.34

Note. Smaller scale scores represent a positive academic climate for all scale scores except TSCL5, for which smaller scores represent a more negative academic climate.

<sup>a</sup>Columbus scale score based on one item less than Michigan scale score.

3.3 Parent Survey

During April, 1983 the Parent Survey Form (Appendix B) was distributed to parents along with their child's report card. A total of 1,041 questionnaires were returned from the five participating SIP schools. The 90% criterion specified in Evaluation Question 3.3 was not attained for the overall project, with only 36.9% of the 1,024 respondents indicating that they were "aware of the school's mission statement for the school year" (Item 2). The results varied from school to school, however. At Trevitt Elementary for example, 53.5% of the respondents indicated that they were aware of the school's mission statement. In fact, responses from Trevitt parents were consistently more positive on each item than the responses of parents from the other schools participating in the School Improvement Program. A large percent of the respondents (85.9%) from all five schools agreed that "the School Improvement Program has helped your child this school year" (Item 9). The overall results, as well as the results for each school are summarized by item in Table 2.

Table 2

Percent and Average Response to Items  
of the Parent Survey Form

Item School	N	Average Response	Percent of Respondents	
			Yes	No
1. Did you know that the school was running the special School Improvement Program (SIP)?				
Wedgewood	259	1.6	39.8	60.2
Fair	108	1.5	50.0	50.0
Trevitt	144	1.2	75.7	24.3
West Broad	348	1.4	63.8	36.2
Windsor	177	1.6	38.4	61.6
Total	1,036	1.5	53.7	46.3
2. Were you aware of the school's mission statement for the school year?				
Wedgewood	258	1.8	20.9	79.1
Fair	105	1.6	37.1	62.9
Trevitt	144	1.5	53.5	46.5
West Broad	344	1.5	48.0	52.0
Windsor	173	1.8	24.9	75.1
Total	1,024	1.6	36.9	63.1

(continued)

Table 2 (Continued)

Percent and Average Response to Items  
of the Parent Survey Form

Item School	N	Average Response	Percent of Respondents	
			Yes	No
3. Did anyone from the school talk with you about the School Improvement Program this year?				
Wedgewood	255	1.8	16.9	83.1
Fair	107	1.7	26.2	73.8
Trevitt	141	1.4	58.2	41.8
West Broad	343	1.6	35.3	64.7
Windsor	176	1.8	22.7	77.3
Total	1,022	1.7	30.7	69.3
4. Do you better understand the school's academic program this school year?				
Wedgewood	250	1.6	42.8	57.2
Fair	103	1.5	54.4	45.6
Trevitt	139	1.2	77.0	23.0
West Broad	329	1.3	67.1	32.9
Windsor	167	1.6	44.3	55.7
Total	987	1.4	57.1	42.9
5. Do you think the school expects each child to learn at least the basic skills in each subject?				
Wedgewood	256	1.1	92.6	7.4
Fair	105	1.0	96.2	3.8
Trevitt	143	1.0	99.3	0.7
West Broad	346	1.0	97.1	2.9
Windsor	172	1.1	93.6	6.4
Total	1,022	1.0	95.6	4.4
6. Has your child's progress in learning the basic skills been reviewed frequently this year by the school?				
Wedgewood	222	1.2	78.4	21.6
Fair	95	1.2	83.2	16.8
Trevitt	138	1.1	93.5	6.5
West Broad	327	1.1	91.7	8.3
Windsor	154	1.2	76.0	24.0
Total	936	1.1	85.4	14.6

(continued)

Table 2 (Continued)

Percent and Average Response to Items  
of the Parent Survey Form

Item School	N	Average Response	Percent of Respondents	
			Yes	No
<b>7. Has your child been assigned enough homework during this school year?</b>				
Wedgeood	251	1.3	72.5	27.5
Fair	103	1.2	82.5	17.5
Trevitt	140	1.2	84.3	15.7
West Broad	332	1.2	81.9	18.1
Windsor	170	1.4	63.5	36.5
Total	996	1.2	76.8	23.2
<b>8. Are you satisfied with your child's program in learning the basic skills this year?</b>				
Wedgeood	249	1.2	79.9	20.1
Fair	103	1.3	73.8	26.2
Trevitt	136	1.1	90.4	9.6
West Broad	340	1.1	85.6	14.4
Windsor	171	1.3	73.1	26.9
Total	999	1.2	81.5	18.5
<b>9. Do you think that the School Improvement Program has helped your child this school year?</b>				
Wedgeood	197	1.2	77.7	22.3
Fair	79	1.1	88.6	11.4
Trevitt	138	1.1	94.9	5.1
West Broad	316	1.1	90.2	9.8
Windsor	147	1.2	77.6	22.4
Total	877	1.1	85.9	14.1

### 3.7 Inservice for Teachers

By June, 1983 a total of 22 inservice sessions was reported as having been conducted at the five schools. A chronology of the inservice activities conducted is summarized in Appendix E, including the location, inservice topic, number of participants, length in hours, and goals and objectives for each session from August 30, 1982 to April 22, 1983. A total of 488 personnel (duplicated count across sessions) took part in 110.5 hours of inservice activities. By multiplying the number of participants by the number of hours per session, the total number of person hours of inservice can be calculated. The total number of person hours expended for design Objective 3.7 was 53,924. Inservice sessions were conducted at the individual school buildings.

An analysis of the data obtained from the SD/HR Workshop Evaluation Form, and the SD/HR Follow-Up Survey Form indicated that the criteria specified in Evaluation Question 3.7 were attained, with 94.3% of the 461 respondents to the SD/HR Workshop Evaluation Form indicating that the workshop was "very successful or successful" in meeting its stated objectives, and 90.2% of the 215 respondents to the SD/HR Follow-Up Survey Form indicating that they applied specific skills or strategies in their jobs. The responses to the SD/HR Workshop Evaluation Form are summarized in Table 3, while the responses to the SD/HR Follow-Up Survey Form are summarized in Table 4.

Table 3

Percent of Respondents Rating the Success of the  
Inservice Workshops in Achieving Their  
Stated Objectives

Item 2 from SD/HR Workshop Evaluation Form	N	Percent of Respondents				
		No Success 1	Little Success 2	Undecided 3	Successful 4	Very Successful 5
2. How would you rate this work- shop in meeting its stated objectives?	461	0.0	1.1	4.6	54.8	39.5

Table 4

Percent of Respondents Indicating Application  
of Workshop Skills and Strategies

Item 2 from SD/HR Follow-Up Survey Form	N	Percent of Respondents			
		0	1-2	3-5	6 or more
2. How many of these skills/ strategies have you <u>actually</u> been able to try/apply in your job?	215	9.8	37.2	46.0	7.0

### 3.8 TESA Program

By April, 1983 the five TESA workshop programs had been held for Columbus teachers. Some teachers from the five SIP schools participated in these workshops. A chronology of TESA inservice activities is summarized in Appendix F. A total of 691 personnel (duplicated count across sessions) took part in 75.4 hours of inservice activities related to design Objective 3.8, for a total expenditure of 52,101.4 person hours. All workshops were conducted at either the Shepard or West Mound Service Center.

Workshop evaluation data for SIP participants were available only for the second and fifth TESA inservice sessions. Results from two items of the TESA Workshop Evaluation Forms were used to answer Evaluation Question 3.8 (TESA Program). An analysis of the data collected from the SIP respondents to the evaluation form for the second and fifth TESA workshops, and summarized in Tables 5 and 6 indicated that the criteria specified in the evaluation question were attained for those inservice sessions, with 92.6%, or 25 of the 27 SIP respondents, rating the second workshop as providing a clear understanding of unit interaction and the same number indicating satisfaction with the workshop. For the fifth TESA workshop, all of the 25 SIP respondents rated the workshop as providing a clear understanding of unit interaction and the same number indicating satisfaction with the workshop.

Since no evaluation data were received for SIP respondents at the other inservice sessions, the best estimate of the effectiveness of these workshops would be the results of ratings from all participants. These ratings are also summarized in Tables 5 and 6.

An analysis of the overall inservice data summarized in Tables 5 and 6 indicated that for the overall program, more than 90% of the respondents gave the workshops a rating of 5 or more on the scale of 1 to 7. Specifically, 94.0% of the respondents indicated that they had a clear understanding of the unit interactions discussed in the workshops, and 93.1% of the respondents indicated that they were satisfied with the inservice programs. However, only 89.0% of all respondents in the third TESA workshop indicated a clear understanding of the unit interactions, and 88.1% of all respondents indicated satisfaction with the unit three inservice program. Therefore, the criteria as specified in Evaluation Question 3.8 (TESA Program) were not achieved.

TESA program participants were not asked to attend a TESA evaluation meeting, and did not complete the TESA Follow-Up Survey. Consequently, Evaluation Question 3.8 (TESA Follow-Up) cannot be answered. In lieu of the evaluation meeting and TESA Follow-Up Survey, participants at the last TESA inservice program were asked to complete the TESA Program Evaluation Survey, a copy of which is found in Appendix C. As summarized in Table 7, 88.5% of all respondents gave the program an overall rating of 1 or 2 on a scale of 1 (high) to 5 (low), while all of the SIP respondents gave the program an overall rating of 1 or 2.

Table 5

Percent and Average Response to the Participants' Understanding of the Strategies Presented in the Five TESA Workshops

Item from Evaluation Form	N	Average Response	Percent Responding						
			Perfectly clear		Do not understand them at all				
			7	6	5	4	3	2	1
Do you have a clear understanding of the unit interactions?									
TESA I	140	5.9	24.4	47.1	27.1	4.3	0.0	0.0	0.0
TESA II	143	6.0	33.6	46.1	11.9	5.6	2.1	0.7	0.0
TESA II (SIP only)	27	6.1	37.0	48.1	7.4	7.4	0.0	0.0	0.0
TESA III	127	5.8	19.7	56.7	12.6	8.7	2.4	0.0	0.0
TESA IV	121	6.4	48.8	45.4	5.0	0.8	0.0	0.0	0.0
TESA V	124	6.1	32.3	49.2	13.7	4.8	0.0	0.0	0.0
TESA V (SIP only)	25	6.3	36.0	60.0	4.0	0.0	0.0	0.0	0.0
Overall Ratings	655	6.0	30.8	48.8	14.4	4.9	0.9	0.2	0.0

Table 6

Percent and Average Response to the Participants'  
Satisfaction with the Five TESA Workshops

Item from Evaluation Form	N	Average Response	Percent Responding						
			Completely Satisfied				Utterly Dissatisfied		
			7	6	5	4	3	2	1
How satisfied were you with today's workshop?									
TESA I	141	6.0	34.8	37.6	22.0	5.0	0.7	0.0	0.0
TESA II	142	6.1	36.6	44.4	9.9	7.0	2.1	0.0	0.0
TESA II (SIP only)	27	6.4	55.6	33.3	3.7	7.4	0.0	0.0	0.0
TESA III	126	5.8	22.2	47.6	18.3	8.7	2.4	0.8	0.0
TESA IV	119	6.3	50.4	38.7	9.2	1.7	0.0	0.0	0.0
TESA V	124	6.3	47.6	43.5	3.2	4.8	0.9	0.0	0.0
TESA V (SIP only)	25	6.6	60.0	40.0	0.0	0.0	0.0	0.0	0.0
Overall Rating	652	6.1	38.0	42.3	12.7	5.5	1.3	0.2	0.0

Table 7

Percent and Average Response of All Participants and  
SIP Participants in Overall Rating of the TESA Program

Item	N	Average Response	Percent of Respondents					Low
			High	1	2	3	4	
10. What is your overall rating of the TESA Program?								
All participants	113	1.6	60.2	28.3	8.0	2.6	0.9	
SIP only	25	1.2	76.0	24.0	0.0	0.0	0.0	

On the TESA Program Evaluation Survey participants were also asked to prioritize the three interactions which were most effective, and the three which were least effective. The data concerning the most effective

interactions are summarized in Table 8, while the least effective interactions are summarized in Table 9. The most effective interactions included "equitable distribution" and "delving," while the least effective interactions included "reasons for praise," "compliments," and "higher level questioning." SIP respondents for the most part indicated similar priorities. These "interactions" were representative of a number of strategies presented at the inservice programs to help teachers improve teacher-student interaction as a means of improving student achievement.

Table 8

Percent of TESA Respondents Selecting First, Second, and Third Most Effective Interactions

Interaction Categories	Percent of Respondents		
	First Most Effective	Second Most Effective	Third Most Effective
Equitable Distribution	29.9	4.6	7.5
Individual Helping	19.6	13.0	6.5
Latency	13.1	12.0	5.6
Delving	3.7	16.7	15.9
High Level Questioning	1.9	0.9	0.0
Affirmation	0.9	1.9	4.7
Praise	13.1	11.1	11.3
Reason for Praise	1.9	8.3	5.6
Listening	4.7	10.2	6.5
Accepting Feelings	0.9	0.0	4.7
Proximity	3.7	8.3	6.5
Courtesy	2.9	4.6	9.3
Compliments	0.9	3.8	6.5
Touching	1.9	4.6	7.5
Desisting	0.9	0.0	1.9
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Table 9

Percent of TESA Respondents Selecting First,  
Second, and Third Least Effective Interactions

Interaction Categories	Percent of Respondents		
	First Least Effective	Second Least Effective	Third Least Effective
Equitable Distribution	4.2	2.4	3.8
Individual Helping	1.1	1.2	0.0
Latency	2.1	7.1	7.7
Delving	5.2	9.4	6.4
High Level Questioning	12.6	2.4	15.5
Affirmation	9.5	7.1	6.4
Praise	3.2	4.7	3.8
Reason for Praise	18.9	17.6	9.0
Listening	2.1	1.2	0.0
Accepting Feelings	2.1	2.4	7.7
Proximity	12.6	9.4	3.8
Courtesy	2.1	4.7	10.3
Compliments	7.4	17.6	6.4
Touching	9.5	4.7	7.7
Desisting	7.4	8.1	11.5
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

#### 4.1: Evaluation of Overall Program Effectiveness

A major characteristic of a school improvement program is the monitoring of pupil achievement in the basic skill areas. As part of this process, the Arithmetic Computation Test and the Reading Comprehension Test of the Comprehensive Tests of Basic Skills (CTBS; 1968) were administered to all pupils in the five SIP schools during October, 1982. This test administration served as a pretest measure of pupils' skill levels. Posttest data were collected as part of the district's citywide testing program during April, 1983. In addition, the CTBS Arithmetic Concepts Test and Arithmetic Applications Test were administered to all the pupils at West Broad Elementary. These additional tests were used because the staff at this school was making a major effort to improve pupils' math skills. The test level and form by grade level is reported in Table 10.

Table 10

CTBS Test Level and Form  
Reported by Grade Level

Grade	Arithmetic		Reading	
	Level	Form	Level	Form
4	2	Q	2	Q
5	2	R	2	R
6	3	Q	3	Q
7	3	R	3	R
8	4	Q	3	Q

To be included in the evaluation sample a pupil had to have taken the pretest and posttest in the same school and had to have a non-zero score on both the pretest and the posttest. Of the 1,745 pupils pretested with the Arithmetic Computation Test, 1,459 (83.6%) met the selection criteria and were included in the evaluation sample. Of the 1,701 pupils pretested with the Reading Comprehension Test, 1,427 (83.9%) met the selection criteria and were included in the evaluation sample.

The remainder of this report is a description of the pretest-posttest results. In interpreting these results the reader should be aware of the four types of scores used in carrying out the data analyses. First, the raw score is simply the number of items on which the pupil marked only the correct response. Second, the grade equivalent (GE) score is the grade level at which the median raw score of the norming group was the same as raw score of the pupil tested. That is, if a pupil obtained a grade equivalent of 3.1, the

pupil's raw score was the same as the median score for third grade pupils in the norming group who were tested in October. The grade equivalent is not an equal unit of measurement and provides limited information about the pupil's performance. Third, the percentile (51st) score indicates how the pupil's raw score compares with the raw scores of the pupils in the norming group. A percentile score of 70 indicates that the pupil did as well or better than 70% of the pupils in the norming group. The percentile is not an equal unit of measurement, but does provide comparative information regarding the pupil's performance. Fourth, the normal curve equivalent (NCE) is a standard score with a mean of 50 and a standard deviation of about 21. Unlike the grade equivalent and the percentile, the NCE is an equal unit of measurement. This means that the distance between any two points in the NCE distribution is the same and represents the same amount of change (see Appendix G for the distribution of different types of scores). A major advantage of NCE scores is that arithmetic operations can be done with them. For example, pretest-posttest change scores can be computed and averaged. While percentile and grade equivalent scores are used in this report, the NCE score represents the most accurate picture of pupil growth.

Table 11 contains a summary of pretest, posttest, and change scores for Arithmetic Computation for all five SIP schools reported by grade level. The summary reveals that the average growth in arithmetic achievement exceeded the expected at each grade level. While the expected NCE change is zero, the average overall change in SIP schools was 13.6. This is almost twice the change that ECIA Chapter 1 uses as a general rule to judge that a program is successful. Overall, 27.4% of the pupils were at grade level on the pretest; posttest results showed that 58.8% were at grade level. While the increase in the percent of pupils at grade level was substantial at each grade level, only 34.3% of the seventh-graders and 41.9% of the eighth-graders were at grade level on the posttest. Appendix I contains pretest-posttest results for individual SIP schools.

Table 12 contains a summary of pretest-posttest, and change scores for Reading Comprehension for all five SIP schools reported by grade level. The summary reveals that the average growth in reading achievement exceeded the expected at each grade level. (The average growth at the seventh grade was less than one NCE point.) While the expected NCE change is zero, the average change in SIP schools was 4.2. Overall, 33.7% of the pupils were at grade level on the pretest; posttest results showed that 45.6% were at grade level. While there was a substantial increase in the percent of pupils at grade level in four of the five grade levels in reading, the change was far less dramatic than the change for arithmetic.

Table 11

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Arithmetic Computation Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	531	29.3	3.6	39.9	25.1	61.2	5.0	56.8	63.8	1.3	16.9	38.7
5	582	37.3	4.7	44.5	33.5	63.0	6.1	57.8	63.8	1.5	13.3	30.3
6	121	32.2	5.3	39.2	19.0	54.6	7.0	52.9	51.2	1.7	13.8	32.2
7	108	23.9	5.6	35.4	14.8	35.5	6.8	42.0	34.3	1.1	6.6	19.5
8	117	31.6	6.8	42.6	28.2	45.9	8.4	48.3	41.9	0.9	5.7	13.7
<b>Total</b>	<b>1459</b>			<b>41.5</b>	<b>27.4</b>			<b>55.1</b>	<b>58.8</b>		<b>13.6</b>	<b>31.4</b>

Table 12

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Reading Comprehension Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	527	39.6	3.6	44.4	35.1	47.7	4.6	48.7	47.4	0.9	4.3	12.3
5	570	39.7	4.5	46.0	33.2	46.7	5.5	50.4	46.5	0.9	4.4	13.3
6	121	32.9	4.9	42.6	28.9	43.9	6.2	46.3	43.0	1.0	3.8	14.1
7	104	34.9	6.0	42.7	38.5	39.5	7.0	43.7	39.4	0.7	0.9	0.9
8	105	27.1	6.2	41.6	30.5	42.7	7.9	48.2	41.0	1.2	6.6	10.5
<b>Total</b>	<b>1427</b>			<b>44.6</b>	<b>33.7</b>			<b>48.8</b>	<b>45.6</b>		<b>4.2</b>	<b>11.9</b>

If it is assumed that a pupil who is no more than one year below grade level can adequately function in the classroom, it is of interest to determine the percent of pupils who were no more than one year below grade level on the posttest. Table 13 contains a summary of the percent of pupils at or above one year below grade level for the two achievement tests administered. Approximately 10% more pupils on the posttest scored at or above one year below grade level in Arithmetic Computation. While the increase in the percent of pupils at grades six through eight are encouraging, the fact that 46.3% of the seventh-graders were still more than one year below grade level on the posttest points out a problem in the area of computation at the seventh grade level. The reading results are less encouraging. While there was an increase in the percent of pupils no more than one year below grade level in the middle school grades, almost half the seventh- and eighth-graders scored more than one year below grade level on the reading posttest. When considering these data it should be remembered that approximately a third of the norming sample scored one or more years below grade level.

Table 13

Percent of Pupils At or Above One Year Below  
Grade Level on the Pretest and Posttest  
Reported by Grade Level

Grade	Arithmetic Computation			Reading Comprehension		
	Pretest	Posttest	Change	Pretest	Posttest	Change
4	85.3	90.8	5.5	74.4	71.2	-3.2
5	76.1	85.2	9.1	69.5	65.6	-3.9
6	59.5	76.0	16.5	46.3	55.4	9.1
7	33.3	53.7	20.4	47.1	51.0	3.9
8	47.0	64.1	17.1	44.8	50.5	5.7
Total	72.6	82.5	9.9	65.9	64.6	-1.3

A major theme of most of the literature on effective schools is that a school is effective if the economically disadvantaged pupils in the school learn the basic skills to the same extent as pupils not economically disadvantaged. Analyses of the pretest-posttest SIP data were made to determine the degree to which the achievement gains of pupils in the school district subsidized lunch program were comparable to the gains of pupils not in the lunch program. A pupil whose Student Master File record indicated that the pupil was receiving either a free or reduced price lunch was included in the subsidized lunch group. The achievement gains of these pupils were compared with the gains of pupils not involved in the subsidized lunch program.

Table 14 contains a summary of the pretest, posttest, and cha. scores for Arithmetic Computation reported by subsidized lunch category. Of the 1,459 pupils tested in arithmetic, 71.7% (1,046) were in the subsidized lunch category. At each grade level the mean NCE was lower for the pupils in the

-Table 14

**Mean NCE, Percent At Grade Level, and Percent At  
or Above One Year Below Grade Level for the Pretest,  
Posttest, and Change Scores for Arithmetic Computation  
Reported by Subsidized Lunch Category Within Grade Level**

Grade	Subsidized Lunch	N	Pretest			Posttest			Change		
			Mean NCE	% At Gr. Lev.	% At One Yr. Below	Mean NCE	% At Gr. Lev.	% At One Yr. Below	Mean NCE	% At Gr. Lev.	% At One Yr. Below
4	Yes	422	39.1	23.9	84.4	54.5	59.7	58.6	15.4	35.8	4.2
	No	109	43.1	29.4	89.0	66.0	79.8	99.1	22.9	50.4	10.1
	Total	531	39.9	25.1	85.3	56.8	63.8	90.8	16.9	38.7	5.5
5	Yes	454	44.1	32.6	76.2	56.5	60.8	83.9	12.4	28.2	7.7
	No	128	45.9	36.7	75.8	62.4	74.2	89.8	16.5	37.5	14.0
	Total	582	44.5	33.5	76.1	57.8	63.8	85.2	13.3	30.3	9.1
6	Yes	65	36.5	16.9	49.2	47.5	46.2	69.2	11.0	29.3	20.0
	No	56	42.3	21.4	71.4	59.3	57.1	83.9	17.0	35.7	12.5
	Total	121	39.2	19.0	59.5	52.9	51.2	76.0	13.8	32.2	16.5
7	Yes	52	33.1	13.5	28.9	38.8	32.7	48.1	5.8	19.2	19.2
	No	56	37.5	16.1	37.5	44.9	35.7	58.9	7.5	19.6	21.4
	Total	108	35.4	14.8	33.3	42.0	34.3	53.7	6.6	19.5	20.4
8	Yes	53	39.1	18.9	39.6	43.3	28.3	50.9	4.2	9.4	11.3
	No	64	45.4	35.9	53.1	52.4	53.1	75.0	7.0	17.2	21.9
	Total	117	42.6	28.2	47.0	48.3	41.9	64.1	5.7	13.7	17.1
Overall	Yes	1046	40.8	26.5	73.6	53.6	56.4	81.5	12.8	29.9	7.9
	No	413	43.4	29.8	70.0	59.0	64.9	85.0	15.6	35.1	15.0
	Total	1459	41.5	27.4	72.6	55.1	58.8	82.5	13.6	31.4	9.9

subsidized lunch category. This was true on both the pretest and the posttest. At some grade levels the difference between the means for the two categories was not large. The difference between the percent at grade level for the two categories was consistently in the same direction as the NCE results. However, on the pretest 3.6% more of the pupils in the subsidized lunch category scored at or above one year below grade level.

When pretest-posttest change was compared, mean NCE change was found to be consistently larger for the pupils not in the subsidized lunch category. In arithmetic, pupils not in the subsidized lunch category tended to: (a) score higher on the pretest; (b) score higher on the posttest; and (c) show greater growth between the pretest and the posttest.

Table 15 contains a summary of the pretest, posttest, and change scores for Reading Comprehension reported by subsidized lunch category. Of the 1,427 pupils tested in reading, 71.4% (1,019) were in the subsidized lunch category. At each grade level the mean NCE was lower for the pupils in the subsidized lunch program. This was true for both the pretest and the posttest. The difference between the percent at grade level and the difference between the percent at or above one year below grade level for the two categories was consistently in the same direction as the NCE results. When pretest-posttest change was compared, the mean NCE was found to be consistently larger for the pupils not in the subsidized lunch category. In reading, pupils not in the subsidized lunch category tended to: (a) score higher on the pretest; (b) score higher on the posttest; and (c) show greater growth between the pretest and the posttest. Overall, the percent at grade level increased by 11.9% from the pretest to the posttest. At grades five, seven, and eight the change in the percent was larger for the pupils in the subsidized lunch category.

Table 15

Mean NCE, Percent At Grade Level, and Percent At or Above One Year Below Grade Level for the Pretest, Posttest, and Change Scores for Reading Comprehension Reported by Subsidized Lunch Category Within Grade Level

Grade	Subsidized Lunch	N	Pretest			Posttest			Change		
			Mean NCE	% At Gr. Lev.	% At One Yr. Below	Mean NCE	% At Gr. Lev.	% At One Yr. Below	Mean NCE	% At Gr. Lev.	% At One Yr. Below
4	Yes	419	42.1	29.4	71.1	46.3	41.1	66.6	4.1	11.7	-4.5
	No	108	53.1	57.4	87.0	57.9	72.2	88.9	4.8	14.8	1.9
	Total	527	44.4	35.1	74.4	48.7	47.4	71.2	4.3	12.3	-3.2
5	Yes	446	44.7	28.9	65.7	48.8	42.8	61.9	4.0	13.9	-3.8
	No	124	50.5	48.4	83.1	56.3	59.7	79.0	5.8	11.3	-4.1
	Total	570	46.0	33.2	69.5	50.4	46.5	65.6	4.4	13.3	-3.9
6	Yes	67	37.3	13.4	34.3	40.0	25.4	40.3	2.7	12.0	6.0
	No	54	49.1	48.2	61.1	54.2	64.8	74.1	5.1	16.6	13.0
	Total	121	42.6	28.9	46.3	46.3	43.0	55.4	3.8	14.1	9.1
7	Yes	45	40.7	33.3	46.7	41.0	35.6	46.7	0.3	2.3	0.0
	No	59	44.3	42.4	47.5	45.7	42.4	54.2	1.5	0.0	6.7
	Total	104	42.7	38.5	47.1	43.7	39.4	51.0	0.9	0.9	3.9
8	Yes	42	36.6	16.7	31.0	43.8	28.6	35.7	7.2	11.9	4.7
	No	63	45.0	39.7	54.0	51.2	49.2	60.3	6.2	9.5	6.3
	Total	105	41.6	30.5	44.8	48.2	41.0	50.5	6.6	10.5	5.7
Overall	Yes	1019	42.7	27.8	63.6	46.6	40.0	60.7	3.9	12.2	-2.9
	No	408	49.3	48.5	71.6	54.1	59.6	74.5	4.9	11.1	2.9
	Total	1427	44.6	33.7	65.9	48.8	45.6	64.6	4.2	11.9	-1.3

### Summary

During the 1982-83 school year, the students, staffs, and parents at the five participating schools in the School Improvement Program were involved in numerous activities. Some of the activities, related to the evaluation design specified in the program proposal, are briefly summarized herein.

1. A needs assessment was conducted during the month of October, 1982 to ascertain and to prioritize needs identified by teachers at each building. The needs assessment was based on the work of Brookover in the School Social Climate Study at Michigan State University (1978). The data from the assessment instrument were analyzed by the Department of Evaluation Services and reported to the school staffs in order to serve as a basis for the development of action plans to guide the program efforts at each building for the remainder of the school year.
2. Parents at the five participating schools were surveyed during April, 1983 concerning their awareness of, and reactions to the School Improvement Program. Although only 36.9% of the 1,024 parents responding to the survey were aware of the school's mission statement for the year, a large percent of the parents (85.9) believed that the School Improvement Program helped their children during the school year.
3. Inservice support was provided to the professional staff members at each of the five participating schools, in order to increase their understanding of the concepts and strategies involved in the implementation of the School Improvement Program. By May, 1983 a total of 22 inservice sessions were conducted at the five program schools, involving 488 participants (a duplicated count). The inservice sessions were rated by participants as successful in meeting their stated objectives, and participants indicated that they applied specific skills or strategies in their jobs.
4. Some professional staff members from the five participating schools received additional inservice support during the year. A total of 34 teachers from the five SIP schools participated in the TESA inservice program conducted by the Department of Staff Development and Human Relations. Although evaluation data for SIP teachers were available for only the second and fifth inservice programs, the respondents have generally indicated that the inservice sessions provided a clear understanding of unit interactions, and have indicated satisfaction with the program.

5. As part of the monitoring of pupil achievement in the basic skills, the Arithmetic Computation Test and the Reading Comprehension Test of the Comprehensive Tests of Basic Skills (CTBS) were administered to all pupils in the five SIP schools. The pretest was administered in October, 1982; the posttest was administered in April, 1983 as part of the district citywide testing program. Pretest-posttest scores were obtained on 1,459 pupils in arithmetic and 1,427 pupils in reading. Analyses of these scores showed the pupils change in achievement was greater than expected in both arithmetic and reading. The growth in arithmetic was substantial with 31.4% more of the pupils at grade level on the posttest than at grade level on the pretest. The comparable figure for reading was 11.9%. While the achievement results were very positive, especially for the first year of a program with the scope of SIP, the results suggested that if the program is to fully achieve its goals, consideration must be given to the problem of the lower achievement gains of pupils from low income families.

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## Appendices

- A. SD/HR Workshop Evaluation Form
- B. SD/HR Follow-Up Survey Form
- C. TESA Evaluation Forms (7)
- D. School Climate Variables of the Teacher Questionnaire
- E. Chronology of Inservice Activities
- F. Chronology of TESA Inservice Activities
- G. Distribution of Scores Relative to the Normal Curve
- H. Parent Survey Form
- I. CTBS Pretest-Posttest Results for SIP Schools

**Appendix A**

**SD/HR Workshop Evaluation Form**

<input type="checkbox"/>	FOR OFFICE USE ONLY										
SCHOOL CODE		TYPE	MONTH	DAY	YEAR						

RESERVED FOR USE ONLY

SD/HR WORKSHOP EVALUATION FORM

WORKSHOP TOPIC \_\_\_\_\_

PRESENTER \_\_\_\_\_ SPONSOR \_\_\_\_\_

SCHOOL \_\_\_\_\_ DATE \_\_\_\_\_

DIRECTIONS - IT IS OUR OBJECTIVE TO PROVIDE QUALITY INSERVICE PROGRAMS FOR DISTRICT PERSONNEL. PLEASE RESPOND TO EACH OF THE FOLLOWING QUESTIONS TO HELP US DETERMINE THE EFFECTIVENESS OF THIS INSERVICE PROGRAM.

1. WERE THE OBJECTIVES OF THE INSERVICE PROGRAM CLEARLY STATED?

YES  NO  UNCERTAIN

2. HOW WOULD YOU RATE THIS WORKSHOP IN MEETING ITS STATED OBJECTIVES?

VERY SUCCESSFUL	SUCCESSFUL	UNDECIDED	LITTLE SUCCESS	NO SUCCESS
5	4	3	2	1

3. DID THE INFORMATION PRESENTED INCREASE YOUR AWARENESS OR UNDERSTANDING OF THE ABOVE TOPIC?

YES  NO  UNCERTAIN

4. DID YOU OBTAIN KNOWLEDGE AND/OR ACQUIRE SKILLS AS A RESULT OF THE INSERVICE?

YES  NO  UNCERTAIN

5. POINTS OF THE PROGRAM THAT WERE MOST HELPFUL. \_\_\_\_\_

6. SUGGESTIONS FOR IMPROVEMENT. \_\_\_\_\_

7. AS A RESULT OF TODAY'S SESSION I WILL \_\_\_\_\_

8. PLEASE LIST ADDITIONAL STAFF DEVELOPMENT CONCERNS AND/OR PROBLEMS YOU WOULD LIKE TO SEE COVERED IN FUTURE MEETINGS. \_\_\_\_\_

**Appendix B**

**SD/HR Follow-Up Survey Form**



**Appendix C**

**TESA Evaluation Forms (7)**

EVALUATION → WORKSHOP #1

TESA

Which are you? (check)     Teacher Participant     Guest Administrator  
 Aide Participant     Other  
 Guest Teacher

1. What did you like *best* about the first workshop?

---



---

2. What did you like *least* about the first workshop?

---



---

3. Additional Comments/Remarks

---



---



---

4. Do you have a clear understanding of the Unit 1 interactions?

Perfectly clear    7    6    5    4    3    2    1    Do not understand them at all  
(circle a number)

5. Is there anything about the project that disturbs you at this time?

No     Yes    If "yes," please explain: \_\_\_\_\_

---



---

6. After learning about the project, how enthusiastic do you feel about your participation?

Enthusiastic    7    6    5    4    3    2    1    Reluctant  
(circle a number)

7. How satisfied were you with today's workshop?

Completely satisfied    7    6    5    4    3    2    1    Utterly dissatisfied  
(circle a number)









TESA FOLLOW-UP SURVEY

Grade Level: (Circle only one)  
 (1) Elementary (2) Middle (3) Secondary  
 (4) Other (specify) \_\_\_\_\_

TESA Workshops Attended: (Circle all that apply)  
 (1) TESA I (2) TESA II (3) TESA III  
 (4) TESA IV (5) TESA V

Instructions: Please complete the ratings for items A through F by circling the number that best indicates your reponse. Item G asks for your comments. Be sure to complete the back of this form.

A. Overall, how would you rate the helpfulness of the strategies presented in the TESA workshops?

Of No Help      Of Little Help      Undecided      Helpful      Very Helpful  
 1                      2                      3                      4                      5

B. Have you applied the interaction strategies in your classroom?

Yes      No  
 1              2

C. As a direct result of applying the TESA strategies, do you perceive a reduction in your stress level?

Yes      No  
 1              2

D. As a direct result of applying the TESA strategies, has student attendance improved?

Yes      No      Same  
 1              2              3

E. As a direct result of applying the TESA strategies, has the number of discipline problems been reduced?

Yes      No      Undecided  
 1              2              3

F. As a direct result of applying the TESA strategies, has student academic performance improved?

Yes      No  
 1              2

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

TESA — PROGRAM EVALUATION SURVEY

District: \_\_\_\_\_ School Year: \_\_\_\_\_

Please check the appropriate answer to each item below.

Sex: Male  Female  Years in profession: 1-5  6-10  11-15  16+

Age: 20-25  26-30  31-35  36-40  41-45  46+

Your major assignment: Administrator  Aide  Counselor  Teacher  Other

Grade level assignment: K-3  4-6  7-8  9-12  College/University

PLEASE CIRCLE THE NUMBER THAT BEST REPRESENTS YOUR ANSWER TO THE QUESTION ASKED.

1. To what degree were the objectives of the TESA program clearly communicated to you?..... 1. High 1 2 3 4 5 Low
2. To what degree were the methods employed by the instructor(s) effective in achieving the objectives?..... 2. High 1 2 3 4 5 Low
3. To what degree did the instructor(s) demonstrate a thorough knowledge and understanding of TESA concepts?..... 3. High 1 2 3 4 5 Low
4. To what degree did the instructor(s) succeed in communicating TESA concepts?..... 4. High 1 2 3 4 5 Low
5. To what degree did the instructor(s) demonstrate enthusiasm for the TESA program?..... 5. High 1 2 3 4 5 Low
6. To what degree did the TESA program introduce you to new professional ideas?..... 6. High 1 2 3 4 5 Low
7. To what degree did the TESA program provide you with applied and functional knowledge and practices?..... 7. High 1 2 3 4 5 Low
8. To what degree did your involvement in the TESA program result in positive changes in your attitude and behavior toward perceived "lows"? 8. High 1 2 3 4 5 Low
9. To what degree was the program well organized and managed?..... 9. High 1 2 3 4 5 Low
10. What is your overall rating of the TESA program?..... 10. High 1 2 3 4 5 Low
11. Do you believe TESA should continue as a staff inservice training program in your district?..... 11. Yes  No  Undecided

UNIT	STRAND A RESPONSE OPPORTUNITIES	STRAND B FEEDBACK	STRAND C PERSONAL REGARD
1	1A Equitable Distribution of Response Opportunities	1B Affirmation or Correction	1C Proximity (within arm's reach of student)
2	2A Individual Helping	2B Praise of Learning Performance	2C Courtesy
3	3A Latency (waiting time for student to respond)	3B Reasons for Praise	3C Personal Interest and Compliments
4	4A Delving, Rephrasing, and Giving Class	4B Listening	4C Touching
5	5A Higher Level Questioning	5B Accepting Feelings	5C Desiring

In the above diagram of the Interaction Model, each of the interactions has been coded according to UNIT-STRAND (e.g., Latency = 3A, Courtesy = 2C). In the spaces below, prioritize the three (3) interactions you believe were most effective in bringing about positive change with your perceived "lows"; then prioritize the three which you believe were the least effective.

Code	Code
1st most effective _____	1st least effective _____
2nd most effective _____	2nd least effective _____
3rd most effective _____	3rd least effective _____

**Appendix D**

**School Climate Variables of the Teacher Questionnaire**



Teacher Questionnaire

SCHOOL CLIMATE SURVEY

TSCL1 Ability, Evaluations, Expectations and Quality  
of Education for Colleges (12 Items: 23-29,  
32, 33, 43, 61, 63)

<u>Item No.</u>	<u>Content</u>
23	What percent of the students in this <u>school</u> do <u>you</u> expect to <u>attend</u> college?
24	What percent of students in your <u>class</u> do <u>you</u> expect to <u>attend</u> college?
25	What percent of the students in this <u>school</u> do <u>you</u> expect to <u>complete</u> college?
26	What percent of the students in your <u>class</u> do <u>you</u> expect to <u>complete</u> college?
27	How many of the students in this <u>school</u> are capable of getting mostly A's and B's?
28	How many of the students in your <u>class</u> are capable of getting mostly A's and B's?
29	How would you rate the academic ability of the students in this <u>school</u> compared to other schools?
32	What percent of the students in this <u>school</u> would you say <u>want</u> to go to college?
33	What percent of the students in your <u>class</u> would you say <u>want</u> to go to college?
43	Completion of <u>college</u> is a realistic goal which you set for what percentage of your students?
61	The parents of students in this school are deeply concerned that their children receive a top quality education.
63	How many of the parents of students in this school expect their children to complete college?

Teacher Questionnaire

SCHOOL CLIMATE SURVEY

TSCL2 Present Evaluations and Expectations for High School Completion (9 Items: 19-22, 30, 31, 42, 44, 62)

<u>Item No.</u>	<u>Content</u>
19	On the average, what level of achievement can be expected of the students in this school?
20	On the average, what level of achievement can be expected of the students in your class?
21	What percent of the students in this <u>school</u> do <u>you</u> expect to complete high school?
22	What percent of the students in your <u>class</u> do <u>you</u> expect to complete high school?
30	What percent of the students in this <u>school</u> would you say <u>want</u> to complete high school?
31	What percent of the students in your <u>class</u> would you say <u>want</u> to complete high school?
42	Completion of <u>high school</u> is a realistic goal which you set for what percentage of your students?
44	How often do you stress to your students the necessity of a post high school education for a good job and/or a comfortable life?
62	How many of the parents of students in this school expect their children to complete high school?

Teacher Questionnaire

SCHOOL CLIMATE SURVEY

TSCL3 Teacher-Student Commitment to Improve (10 Items:  
45-47, 51-55, 58, 59)

<u>Item No.</u>	<u>Content</u>
45	Do you encourage your students who do not have sufficient economic resources to aspire to go to college?
46	Do you encourage your students who do not have sufficient academic ability to aspire to go to college?
47	How many teachers in this school feel that all their students should be taught to read well and master other academic subjects, even though some students may not appear to be interested?
51	How many teachers encourage students to seek extra school work so that the students can get better grades?
52	How many students in this <u>school</u> try hard to improve on previous work?
53	How many students in your <u>class</u> try hard to improve on previous work?
54	How many students in this <u>school</u> will try hard to do better school work than their friends?
55	How many students in your <u>class</u> will try hard to do better school work than their classmates <u>do</u> ?
58	How many students in this <u>school</u> will seek extra work so that they can get better grades?
59	How many students in your <u>class</u> will seek extra work so that they can get better grades?

Teacher Questionnaire  
SCHOOL CLIMATE SURVEY

TSCL4 Teacher Perception of Principal's Expectations  
(5 Items: 37-41)

<u>Item No.</u>	<u>Content</u>
37	What percent of the students in this school do you think the principal expects to <u>complete</u> high school?
38	What percent of the students in this school do you think the principal expects to <u>attend</u> college?
39	What percent of the students in this school do you think the principal expects to <u>complete</u> college?
40	How many students in this school do you think the principal believes are capable of getting mostly A's and B's?
41	How do you think your principal rates the academic ability of the students in this school, compared to other schools?

Teacher Questionnaire  
SCHOOL CLIMATE SURVEY

TSCL5 Teacher Academic Futility (7 Items: 48-50,  
57, 60, 64, 77)

<u>Item No.</u>	<u>Content</u>
48	It would be unfair for teachers in this school to insist on a higher level of achievement from students than they now seem capable of achieving.
49	If I think a student is not able to do some school work, I don't try to push him very hard.
50	I am generally very careful not to push students to a level of frustration.
57	How many students in your <u>class</u> are content to do less than they should?
60	The parents of students in this school regard this school primarily as a "baby-sitting" agency.
64	How many of the parents of students in this school don't care if their children obtain low grades?
77	In this school, there is really very little a teacher can do to insure that all of his/her students achieve at a high level.

**Appendix E**

**Chronology of Inservice Activities**

**Chronology of SD/NR Activities Related to Design Objective 3.7  
Including Location, Inservice Topic, Number of Participants,  
Length in Hours, and Goals and Objectives for 1982-1983**

<b>Date</b>	<b>Location</b>	<b>Inservice Topic</b>	<b>Number of Participants</b>	<b>Length in Hours</b>	<b>Goals and Objectives</b>
August 30	West Broad (Trevitt)	SIP I (Effective Discipline Practices for Schools)	40		
September 15	Trevitt	SIP I	17	6.00	To provide Trevitt staff with an opportunity to work and plan together for the implementation of their School Improvement Program. The objectives (briefly stated) included presentation of TESA, overview and review of program, total school reading program, home visits, needs assessment, and development of a Mission statement.
September 16	Windsor	SIP I	20	5.00	To provide an overview and set expectations; to clarify the role of a school liaison person; to obtain knowledge about the TESA program; to complete a needs assessment instrument; to have an opportunity to work on a mission statement for Windsor School.
September 17	Hedgewood	SIP I	37	6.00	To familiarize staff with the factors of effective schools, to provide some direction and guidelines for the School Improvement Program and to give staff an opportunity to generate indicators for their factor.
September 20	West Broad	SIP I	22	5.25	To provide West Broad staff with an opportunity to work and plan together for the implementation of their School Improvement Program. The objectives to meet this goal included an overview and expectations, presentation of Time on Task and its implications, and a session on mathematics as it relates to mastery, problem solving, and time on task.
November 22	Hedgewood	SIP (Testing and Test Score Interpretation)	33	1.75	To provide the Hedgewood staff with an overview of some trends in achievement testing; information regarding the appropriate interpretation of test scores; information regarding the use of CTBS scores for pupil instruction; and a report of SIP fall test scores.
December 3	West Broad	SIP II	16	6.00	Teaching strategies appropriate to teaching problem-solving in mathematics; introduce a proposed revised math monitoring system; discuss grade level concerns; share successful teaching ideas.

Chronology of SB/MR Activities Related to Design Objective 3.7  
 Including Location, Inservice Topic, Number of Participants,  
 Length in Hours, and Goals and Objectives for 1982-1983

Date	Location	Inservice Topic	Number of Participants	Length in Hours	Goals and Objectives
December 8	Trevitt	SIP II	23	6.00	To present strategies about the topic "Building Strength in Children"; deal with learning styles, basic strategies and high expectations.
December 9	Windsor	SIP II	19	5.75	Strategies for teaching reading comprehension and show how these strategies can be used in conjunction with the basal reading; review discipline concerns, identify specific needs, develop action plans with time-lines; developing good school discipline and show how this relates to time on task; provide suggestions for making home visits a positive and mutually beneficial endeavor for both parents and teachers.
December 10	Wedgewood	SIP II (Time on Task)	32	6.00	To develop an understanding of the basic concepts associated with Time-on-Task and classroom management. Participants will be able to identify significant variables associated with time on task, develop skills for evaluating their own teaching and assessing Academic Learning Time effectiveness, participate in a reflective teaching activity that will enhance their understanding of the teaching/learning process and enable them to develop a better understanding of the relationship of instruction procedures to time-on-task concepts.
January 6	Fair Avenue	SIP II	15	5.50	Update of the School Improvement Program at Fair and at the other four schools in the project; share ideas and formulate a plan for Sustained Silent Reading, Writing, and Math; formulate strategies and plans for implementation of the School Improvement Program.

**Chronology of SB/HR Activities Related to Design Objective 3.7  
Including Location, Inservice Topic, Number of Participants,  
Length in Hours, and Goals and Objectives for 1982-1983**

Date	Location	Inservice Topic	Number of Participants	Length in Hours	Goals and Objectives
January 10	Wedgewood	SIP III	29	2.00	Discuss alternatives to the present/future schedule/discipline policies
January 31	West Broad	SIP III	15	6.00	Visit other elementary SIP schools; report out to staff the data from Climate Control Survey; share grade level concerns.
February 2	Fair Avenue	SIP III	12	5.25	Provide an overview of the Climate Survey; Math Problem-solving techniques for implementation of the Sustained Silent Math Program; Houghton Mifflin Test Revisions and Replacements.
February 2	Trevitt	SIP III	13	5.75	Share results of pre-test; communication strategies for improving school climate and problem ownership; present math test taking tips; using the new music series.
February 3	Windsor	SIP III	12	6.00	Share patterns of weak areas in math as indicated by the CIBS Math Computation test, present strategies for teaching these skills; discuss discipline and formulate consequences for various types of misbehavior; discuss areas needing extra attention in reading comprehension as indicated by the CIBS; demonstrate computer classroom management capabilities; learning styles; school climate.
February 4	Wedgewood	SIP III	29	6.00	Provide an understanding of the reading problems of middle school students; direct suggestions to teachers for what they can do about the problems; give understanding of the reading process; explain 3 stages of reading across the curriculum; give teachers examples of strategies for accommodating reading levels in the content areas.
April 18	West Broad	SIP IV	18	6.50	Visitation to Wedgewood Middle School; meet with principal to discuss grade level concerns; hear a Time Management Presentation by Dr. Jane Applegate, Kent State University.
April 19	Fair Avenue	SIP IV	16	5.25	Develop an understanding of Time on Task; discuss identification and mainstreaming of special education programs; correlate grade-level activities and the city-wide testing program.

**Chronology of SB/HR Activities Related to Design Objective 3.7  
Including Location, Inservice Topic, Number of Participants,  
Length in Hours, and Goals and Objectives for 1982-1983**

Date	Location	Inservice Topic	Number of Participants	Length in Hours	Goals and Objectives
April 20	Trevitt	SIP IV	16	6.00	Conduct a workshop entitled "Creative Writing"; planning for unit work in an interdisciplinary approach; visit 2 SIP schools.
April 21	Windsor	SIP IV	22	2.75	Visiting other schools and classrooms to look for different elements of effective schools and noting strategies related to the seven factors; share impressions of the visit.
April 22	Wedgewood	SIP IV	32	5.75	To provide participants with an opportunity to examine their team's effectiveness and plan for desired changes, within a middle school context.

**Appendix F**  
**Chronology of TESA Inservice Activities**

2

**Chronology of SD/NR Activities Related to Design Objective 3.8  
Including Location, Inservice Topic, Number of Participants,  
Length in Hours, and Goals and Objectives for 1982-1983**

<b>Date</b>	<b>Location</b>	<b>Inservice Topic</b>	<b>Number of Participants</b>	<b>Length in Hours</b>	<b>Goals and Objectives</b>
October 4	West Mound	TESA Workshop I	32	5.0	Teachers will be trained to use three of the fifteen research-based strategies of TESA to motivate and support all students.
October 5	Shepard Center	TESA Workshop I	34	5.0	Same as above.
October 6	Shepard Center	TESA Workshop I	24	5.0	Same as above.
October 7	Shepard Center	TESA Workshop I	26	5.5	Same as above.
October 8	Shepard Center	TESA Workshop I	34	5.0	Same as above.
November 8	West Mound	TESA Workshop II	34	2.5	Participants will be trained to use three of the fifteen research-based strategies in the TESA Program.
November 9	Shepard Center	TESA Workshop II	36	2.5	Same as above.
November 10	Shepard Center	TESA Workshop II	19	2.5	Same as above.
November 11	Shepard Center	TESA Workshop II	28	2.5	Same as above.
November 12	Shepard Center	TESA Workshop II	33	2.5	Same as above.
January 10	West Mound	TESA Workshop III	28	2.5	Participants will be trained to use three of the fifteen research-based strategies in the TESA Program.
January 11	Shepard Center	TESA Workshop III	30	2.5	Same as above.
January 12	Shepard Center	TESA Workshop III	20	2.5	Same as above.
January 13	Shepard Center	TESA Workshop III	21	2.5	Same as above.
January 14	Shepard Center	TESA Workshop III	31	2.5	Same as above.

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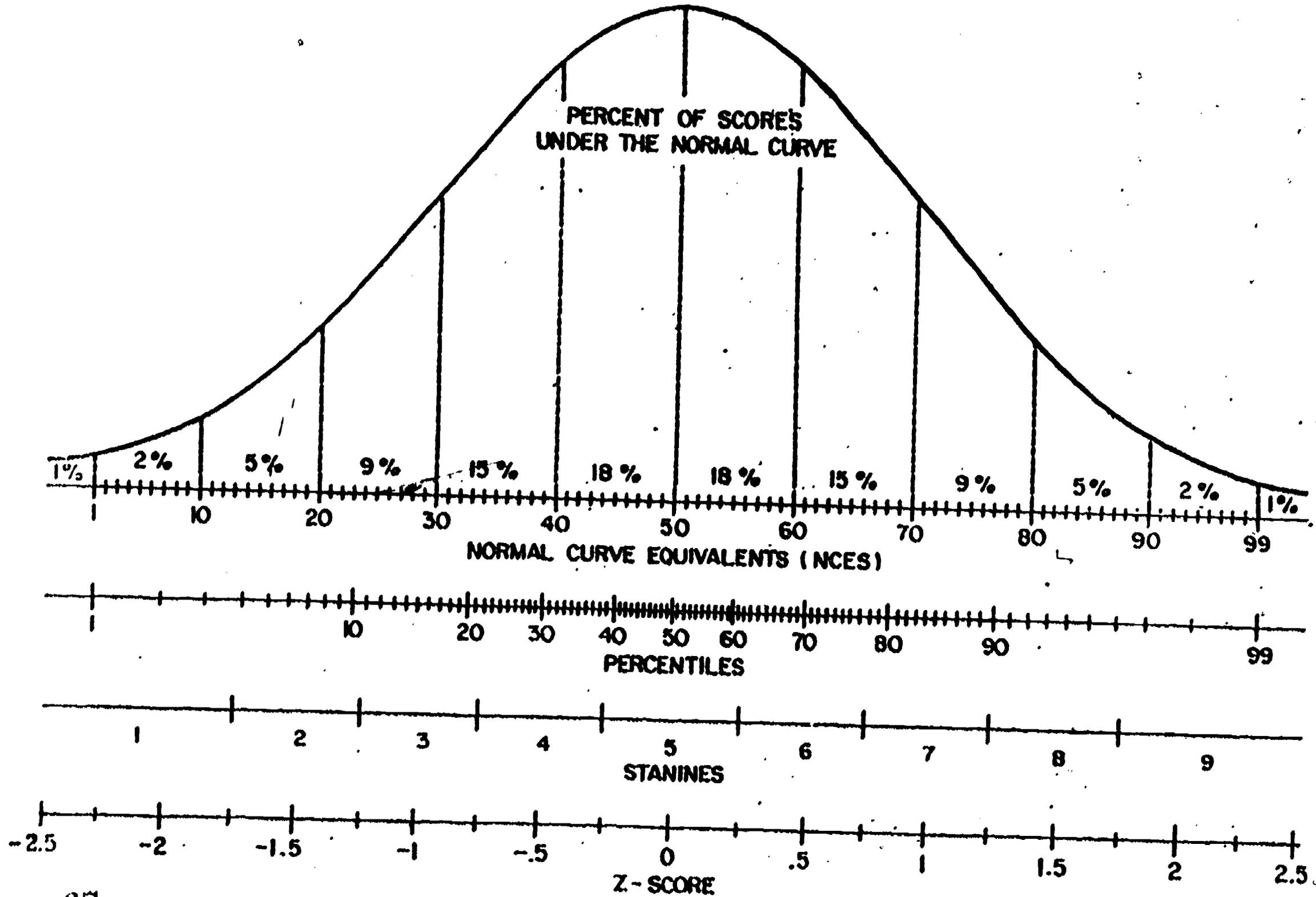
**Chronology of SD/HR Activities Related to Design Objective 3.8  
Including Location, Inservice Topic, Number of Participants,  
Length in Hours, and Goals and Objectives for 1982-1983**

<b>Date</b>	<b>Location</b>	<b>Inservice Topic</b>	<b>Number of Participants</b>	<b>Length in Hours</b>	<b>Goals and Objectives</b>
February 15	Shepard Center	TESA Workshop IV	27	2.5	Participants will be trained to use three of the fifteen research-based strategies in the TESA Program.
February 16	Shepard Center	TESA Workshop IV	18	2.5	Same as above.
February 17	Shepard Center	TESA Workshop IV	24	2.5	Same as above.
February 18	Shepard Center	TESA Workshop IV	30	2.5	Same as above.
February 21	West Hound	TESA Workshop IV	31	2.5	Same as above.
March 21	West Hound	TESA Workshop V	30	2.5	Same as above.
March 22	Shepard Center	TESA Workshop V	29	2.5	Same as above.
March 23	Shepard Center	TESA Workshop V	19	2.5	Same as above.
March 24	Shepard Center	TESA Workshop V	26	2.5	Same as above.
March 25	Shepard Center	TESA Workshop V	27	2.5	Same as above.

**Appendix G**

**Distribution of Scores Relative to the Normal Curve**

PERCENT OF SCORES UNDER THE NORMAL CURVE



**Appendix H**  
**Parent Survey Form**

C

School Improvement Program

PARENT SURVEY FORM

1982-83

This year we are running a special project at Wedgewood Middle School. It is called the School Improvement Program (SIP). You can help us with the project by circling your answer to each question below. Please answer the questions today and return this survey with your child's report card. Thank you.

- |   |     |    |
|---|-----|----|
| 1. Did you know that the school was running the special School Improvement Program (SIP)?                   | Yes | No |
| 2. Were you aware of the school's mission statement for the school year?                                    | Yes | No |
| 3. Did anyone from the school talk with you about the School Improvement Program this year?                 | Yes | No |
| 4. Do you better understand the school's academic program this school year?                                 | Yes | No |
| 5. Do you think the school expects each child to learn at least the basic skills in each subject?           | Yes | No |
| 6. Has your child's progress in learning the basic skills been reviewed frequently this year by the school? | Yes | No |
| 7. Has your child been assigned enough homework during this school year?                                    | Yes | No |
| 8. Are you satisfied with your child's progress in learning the basic skills this year?                     | Yes | No |
| 9. Do you think that the School Improvement Program has helped your child this school year?                 | Yes | No |
| 10. Your comments about the School Improvement Program _____<br>_____<br>_____                              |     |    |

ES: 3/83

**Appendix I**

**CTBS Pretest-Posttest Results for SIP Schools**

**Table A**

**Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Arithmetic Computation for Fair Elementary Reported by Grade Level**

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	101	37.7	3.8	41.5	29.7	69.8	5.2	59.5	73.3	1.4	18.0	43.6
5	114	42.4	4.8	47.2	38.6	57.4	5.9	57.5	62.3	1.2	10.3	23.7
<b>Total</b>	<b>215</b>			<b>44.5</b>	<b>34.4</b>			<b>58.4</b>	<b>67.4</b>		<b>13.9</b>	<b>33.0</b>

Table B

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Reading Comprehension for Fair Elementary Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	98	49.0	4.1	50.5	50.0	57.5	5.2	54.8	61.2	0.9	4.3	11.2
5	111	42.9	4.7	47.9	40.5	58.2	6.4	54.9	54.1	1.1	7.0	13.6
<b>Total</b>	<b>209</b>			<b>49.1</b>	<b>45.0</b>			<b>54.9</b>	<b>57.4</b>		<b>5.7</b>	<b>12.4</b>

Table C

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Arithmetic Computation for Trevitt Elementary Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	121	25.4	3.5	38.0	17.4	44.9	4.6	52.4	47.9	1.1	14.4	30.5
5	145	37.1	4.7	44.5	30.3	75.6	6.6	63.9	71.7	1.9	19.4	41.4
Total	266			41.6	24.4			58.7	60.9		17.1	36.5

Table D

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Reading Comprehension for Trevitt Elementary Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	119	32.7	3.4	39.0	17.7	35.6	4.0	43.0	47.4	0.9	3.9	29.7
5	146	36.4	4.3	43.6	25.3	37.3	4.9	45.8	49.0	0.7	2.2	23.7
Total	265			41.5	21.9			44.5	48.3		3.0	26.4

**Table E**

**Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Arithmetic Computation for West Broad Elementary Reported by Grade Level**

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	183	29.4	3.6	39.7	25.7	73.7	5.3	62.7	76.5	1.7	23.0	50.8
5	196	46.1	4.9	47.9	42.9	75.7	6.6	61.3	72.5	1.6	13.4	29.6
<b>Total</b>	<b>379</b>			<b>43.9</b>	<b>34.6</b>			<b>62.0</b>	<b>74.4</b>		<b>18.0</b>	<b>39.8</b>

Table F

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Arithmetic Concepts for West Broad Elementary Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	183	44.3	3.8	45.8	43.2	64.5	5.2	58.3	72.7	1.6	12.5	29.5
5	196	50.6	5.0	50.2	51.0	55.2	6.0	53.3	53.1	0.9	3.1	2.1
<b>Total</b>	<b>379</b>			<b>48.1</b>	<b>47.2</b>			<b>55.7</b>	<b>62.5</b>		<b>7.6</b>	<b>15.3</b>

**Table G**

**Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Arithmetic Applications for West Broad Elementary Reported by Grade Level**

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	183	41.8	3.8	44.4	42.6	50.4	4.6	51.8	47.5	1.2	7.5	4.9
5	196	45.1	4.7	46.1	37.2	53.4	5.9	51.0	52.0	1.3	4.9	14.8
<b>Total</b>	<b>379</b>			<b>45.3</b>	<b>39.8</b>			<b>51.4</b>	<b>49.9</b>		<b>6.2</b>	<b>10.1</b>

**Table H**

**Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Reading Comprehension for West Broad Elementary Reported by Grade Level**

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Jr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	181	42.6	3.7	45.8	40.3	54.4	4.9	52.2	59.7	1.2	6.4	19.4
5	186	45.3	4.9	48.9	40.3	51.5	5.8	53.1	51.6	0.8	4.2	11.3
<b>Total</b>	<b>367</b>			<b>47.4</b>	<b>40.3</b>			<b>52.6</b>	<b>55.6</b>		<b>5.3</b>	<b>15.3</b>

Table I

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Arithmetic Computation for Windsor Elementary Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	126	32.8	3.7	40.8	27.8	53.0	4.7	50.4	53.2	1.1	9.6	25.4
5	127	24.3	4.2	36.6	18.1	43.9	5.4	45.7	42.5	1.1	9.1	24.4
Total	253			38.7	22.9			48.1	47.8		9.3	24.9

Table J

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Reading Comprehension for Windsor Elementary Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
4	129	36.3	3.5	42.7	32.6	36.4	4.0	44.3	32.6	0.6	1.7	0.0
5	127	34.4	4.2	42.8	25.2	39.5	5.0	47.8	40.9	1.1	5.0	15.7
<b>Total</b>	<b>256</b>			<b>42.7</b>	<b>28.9</b>			<b>46.1</b>	<b>36.7</b>		<b>3.3</b>	<b>7.8</b>

Table K

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Arithmetic Computation for Wedgewood Middle School Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
6	121	32.2	5.3	39.2	19.0	54.6	7.0	52.9	51.2	1.7	13.8	32.2
7	108	23.9	5.6	35.4	14.8	35.5	6.8	42.0	34.3	1.1	6.6	19.5
8	117	31.6	6.8	42.6	28.2	45.9	8.4	48.3	41.9	0.9	5.7	13.7
Total	346			39.1	20.8			48.0	42.8		8.8	22.0

Table L

Median Percentile, Median Grade Equivalent, and Normal Curve Equivalent; and Percent at Grade Level for the Pretest, Posttest, and Change Scores for Reading Comprehension for Wedgwood Middle School Reported by Grade Level

Grade	N	Pretest				Posttest				Change		
		Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median %ile	Median GE	Mean NCE	% At Gr. Lev.	Median GE	Mean NCE	% At Gr. Lev.
6	121	32.9	4.9	42.6	28.9	43.9	6.2	46.3	43.0	1.0	3.8	14.1
7	104	34.9	6.0	42.7	38.5	39.5	7.0	43.7	39.4	0.7	0.9	0.9
8	105	27.1	6.2	41.6	30.5	42.7	7.9	48.2	41.0	1.2	6.6	10.5
<b>Total</b>	<b>330</b>			<b>42.3</b>	<b>32.4</b>			<b>46.1</b>	<b>41.2</b>		<b>3.8</b>	<b>8.8</b>