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ABSTRACT

A total of 359 retained seventh and eighth grade students from the Austin (Texas) Independent School District's junior high schools participated in a summer enrichment program that was designed to improve their basic skills and decision making skills and tc provide them with a successful school experience. Diagnostic information was used to assign students to reading and mathematics classes, but assignment to decision making classes was done on a random basis. The academic classes were individualized as much as possible, while the decision making classes involved lectures, films, and student participation in decision making activities. Pre and posttest data included the reading comprehension, math concepts and problems, and math computation subtests of the Iowa Tests of Basic Skills (ITBS), writing samples, and scores on a decision making test. The results showed that the program's objective of producing gains in 60% of the students was met on the math computation subtest of the ITBS and in writing ability, but not on the remaining subtests of the ITBS nor on the decision making test. The findings also revealed that seventh grade students showed significant improvement only on the math computation subtest, while eighth grade students improved significantly on all three subtests. (FL)

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OFFICE OF RESEARCH AND EVALUATION
AUSTIN INDEPENDENT SCHOOL DISTRICT

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*Approved:*

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*The project represented or reported herein was performed pursuant to a Grant from the Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policy of the Department and no official endorsement by the Department should be inferred.*

*The prevailing policy of the Office of Research and Evaluation is to undertake evaluations only on those programs which provide evaluation resources at a level permitting the production of information adequate to make decisions about the program. The Office maintains that an inadequate evaluation may be of less value than no evaluation. The ESAA Basic evaluation budget represented a very small percentage of the program budget. These levels were insisted upon by ESAA funding sources. The Office of Research and Evaluation, therefore, has been forced to conduct an evaluation far below our usual standards.*

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# ESAA BASIC SUMMER SCHOOL REPORT

## INTRODUCTION

The ESAA Basic Summer Enrichment Program was a cooperative program between Austin Independent School District's Department of Secondary Education and the Region XIII Educational Service Center. The purpose of the Summer Enrichment Program was to provide seventh- and eighth-grade retainees with a successful school experience and to improve significantly their academic and decision-making skills. More generally, the purpose of the Summer Enrichment Program was to increase the probability that these students would succeed during the 1980-81 school year.

Program students were selected from lists of retainees obtained from each of AISD's junior high schools. The program was conducted at one site (Martin Junior High School) with a total enrollment of about 359 students.

The Summer Enrichment Program had two objectives:

1. To improve basic skills (reading, math, and writing)

2. To improve decision-making skills.

Diagnostic information was used in assigning students to reading and mathematics classes, but assignment to writing/decision-making classes was done on a random basis. Classes were small (N = 10-15) and were oriented toward active participation of students and strong individual attention. Academic programs were individualized as much as possible, based on the students' past performance.

The decision-making curriculum was based on the assumption that the types of students who are found in programs such as the Summer Enrichment Program are likely to adhere to a highly deterministic philosophy vis-a-vis the problems that they face on a daily basis. Many of these students believe that they can contribute very little to the solution of their problems. The curriculum was aimed toward changing students' attitudes toward decision making, as well as toward developing decision-making skills. Activities included listening to lectures about decision-making skills, watching films, and participating in decision-making exercises.

The program took place during June of 1980 for 3½ hours a day.

## PART I

## ACHIEVEMENT TEST ANALYSES

*Analyses of the achievement test results of the Summer Enrichment Program students revealed the following findings:*

1) *The objective that 60% of the students would show positive pre- to posttest gains was met only on the Math Computation subtest.*

2) *Statistically significant pre- to posttest gains occurred on all three subtests.*

3) *Seventh graders showed statistically significant improvement only on the Math Computation subtest, while eighth graders improved significantly on all three subtests.*

## Purpose

Results from the Iowa Tests of Basic Skills (ITBS) were studied in order to collect information relevant to the following questions:

Decision Question D1: Should the ESAA Basic Summer Enrichment Program be continued as is, modified, or discontinued?

Evaluation Question D1-1: Have the objectives for the Summer Enrichment Program been met for the 1980 funding period?

Outcome Objective D1-1a: At the conclusion of the Summer Enrichment Program, 60 percent of the students will show improvement in academic achievement, as measured by the following ITBS subtests: Reading Comprehension, Math Concepts and Problems, and Math Computation.

## Procedure

### Testing

All junior high students were administered the ITBS, Form 7, in April, 1980, as part of the District's regular testing program. Seventh graders were administered Level 13, and eighth graders, Level 14. Scores from this administration were used as the pretest measure for students participating in the Summer Enrichment Program. More complete information concerning this test administration can be obtained from the 1979-80 Systemwide Testing Technical Report (Publication No. 79.14).

On June 30, 1980, the last day of the Summer Enrichment Program, the program's math and reading teachers administered the Reading Comprehension subtest, the Math Concepts and Problems subtest, and the Math Computation subtest of the ITBS (Form 7). The teachers were provided with adapted instructions from the ITBS manual, as well as a checklist, specifying the procedures to be followed in administering the ITBS. Observations of the testing procedures in two randomly selected classrooms suggested that, due to time constraints, some of the math teachers may have had to shorten the allotted testing time for the Math Concepts and Problems subtest. Results of this subtest need to be interpreted cautiously in view of this observation.

Since the reading and math classes were not completely segregated by grade, special attempts were made to insure that the students were administered the same levels of the ITBS during the pre- and posttest sessions. Two or three instances occurred during the summer school testing, however, in which seventh graders were administered Level 14, and eighth graders were administered Level 13.

No makeup testing session was conducted for the Summer Enrichment Program.

Data Analyses

Pretest ITBS raw scores were obtained from the master printout for districtwide testing. ITBS grade equivalant scores were obtained from the ITBS manual and verified. The posttest scores were obtained by machine-scoring the answer sheets, using an adapted version of the computer program that was used to score the answer sheets for the 1979-80 districtwide testing program. Pre- and posttest grade equivalent scores were written out on data sheets, with student ID and grade coded. The data were keypunched and verified at U. T. The card file layout is shown in Figure 1.

Results were analyzed by means of SPSS computer libraries at U. T. Frequency distributions were computed to determine the number and percentage of students, by grade, making positive gains (greater than zero) on each subtest, based on grade equivalent scores. T-tests were calculated to determine the statistical significance of the pre- to posttest gains on each subtest, by grade. Scores for a total of 146 seventh graders and 171 eighth graders were used in these analyses. Only students for whom both pre- and posttest scores were available were included.

## Results

Objective: Sixty percent of the students attending the Summer Enrichment Program will show improvement in academic achievement.

The objective was met for the Math Computation subtest, but not for the Reading Comprehension or Math Concepts and Problems subtests. Figure 2 shows the percent of students making positive gains (greater than zero), by grade and subtest. Improvement was shown by 73.3 percent of the students in Math Computation, by 56.6 percent of the students in Math Concepts and Problems, and by 52.8 percent of the students in Reading Comprehension. Eighth graders met the objective in both Math Computation and Reading Comprehension, but seventh graders met it only in Math Computation.

FILE ID ___/___/_____ CARD FILE LAYOUT . LOCATION:

COMMENTS ITBS Grade Equivalent Scores, ESAA Basic Summer Enrichment Program

80.19

FORMAT FOR ANALYSES

| Field | Columns | Description |
|---|---|---|
| | 1-7 | Student I.D. |
| | -8 | Grade: 7 or 8 |
| | 9-11 | Pre 1 (Reading Comp. Grd. Equiv.) |
| | 12-14 | " 2 (Math Concepts " " ) |
| | 15-17 | " 3 (Math Computa. " " ) |
| | 18-20 | Post 1 (Reading Comp. Grd. Equiv.) |
| | 21-23 | " 2 (Math Concepts " " ) |
| | 24-26 | " 3 (Math Computa. " " ) |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Figure 1. GRADE EQUIVALENT SCORES, ESAA BASIC SUMMER ENRICHMENT PROGRAM.

| SUBTEST | 7th (N = 146) | 8th (N = 171) | Total (N = 318) |
|---|---|---|---|
| Reading Comprehension | 50.0 | 62.6 | 56.6 |
| Math Concepts and Problems | 49.3 | 56.1 | 52.8 |
| Math Computation | 71.9 | 74.9 | 73.3 |

Figure 2. PERCENTAGE OF STUDENTS SHOWING POSITIVE GAINS (GREATER THAN ZERO) IN ITBS GRADE EQUIVALENT SCORES.

Figure 3 shows the tests of significance of pre- to posttest gains, by grade and subtest. Seventh graders showed significant improvement only on the Math Computation subtest, whereas eighth graders, as well as the total group, improved significantly on all three subtests.

A comparison of the above results with those of the 1979 Summer Enrichment Program reveals two commonalities. First, in both cases, the program's impact was more evident on eighth graders' achievement than on seventh graders' achievement. Eighth graders met objectives and showed significant gains on more subtests than seventh graders did. Second, both programs seemed to impact more on Math Computation scores than on either Reading Comprehension or Math Concepts and Problems scores. Objectives were met and significant gains occurred more frequently on the Math Computation subtest than on the latter two subtests. In general, eighth graders tended to improve on all subtests, while seventh graders tended to improve only on the Math Computation subtest.

## PART II

## WRITING SAMPLE ANALYSES

*Analyses of students' writing samples revealed the following:*

1) *The objective that 60 percent of the program students would improve in writing ability was met.*

2) *A significant pre- to posttest gain occurred in writing ability.*

### Purpose

Writing samples were obtained from the students to provide information relevant to the following questions:

Decision Question D1: Should the ESAA Basic Summer Enrichment Program be continued as is, modified, or discontinued?

Evaluation Question D1-1: Have the objectives for the 1980 funding period been met?

Outcome Objective D1-1b: Sixty percent of the students attending the Summer Enrichment Program will show improvement in writing ability measured by a locally developed writing instrument.

SEVENTH GRADE (N = 146)

| SUBTEST | PRETEST MEAN GRADE EQUIVALENT | POSTTEST MEAN GRADE EQUIVALENT | T-RATIO | SIGNIF |
|---|---|---|---|---|
| Reading Comprehension | 6.1 | 6.1 | .55 | ns |
| Math Concepts and Problems | 6.3 | 6.4 | 1.25 | ns |
| Math Computation | 6.3 | 6.9 | 7.35 | * |

EIGHTH GRADE (N = 171)

| SUBTEST | PRETEST MEAN GRADE EQUIVALENT | POSTTEST MEAN GRADE EQUIVALENT | T-RATIO | SIGNIF |
|---|---|---|---|---|
| Reading Comprehension | 6.6 | 6.9 | 2.77 | * |
| Math Concepts and Problems | 7.0 | 7.2 | 1.81 | * |
| Math Computation | 7.0 | 7.8 | 9.52 | * |

COMBINED GROUP (N = 138)

| SUBTEST | PRETEST MEAN GRADE EQUIVALENT | POSTTEST MEAN GRADE EQUIVALENT | T-RATIO | SIGNIF |
|---|---|---|---|---|
| Reading Comprehension | 6.3 | 6.5 | 2.37 | * |
| Math Concepts and Problems | 6.6 | 6.8 | 2.20 | * |
| Math Computation | 6.6 | 7.3 | 11.97 | * |

Figure 3. T-TESTS OF THE DIFFERENCE BETWEEN PRE- AND POSTTEST ITBS GRADE EQUIVALENT SCORES BY GRADE.

*Refers to a significant difference at the .05 level of probability.
ns refers to a non-significant difference at the .05 level of probability.

## Procedure

### Instrument Description

The writing instrument was developed to aid in evaluating both the writing and the affective components of the Summer Enrichment Program. Region XIII staff developed the writing stimulus, which is shown in Attachment 1. The writing stimulus will be discussed in greater detail in the section dealing with affective measures.

The scoring procedures for the writing sample were developed by a Project Specialist from AISD's Department of Secondary Education, with technical assistance from ORE staff. The instrument was specifically geared toward measuring progress in the writing of very "basic" writers, who are typically found in programs such as the Summer Enrichment Program. The scoring form is shown in Attachment 2. Individual items reflect the objectives toward which writing instruction was directed in the Summer Enrichment Program. The instrument taps such areas as word fluency, spelling, sentence indicators, usage, paragraph development and writing content. The Scoring Manual, which was developed by the Project Specialist from Secondary Education, explains the rationale and procedures for scoring the individual items in detail. It is shown in Attachment 3.

### Testing

The writing teachers obtained the writing samples (along with an affective instrument to be described in Part III) in the writing classes on the first and last days of the Summer Enrichment Program. Because no alternate form of the writing stimulus was available, half of the students were assigned to a pretest group, and half to a posttest group. Students were paired within classes on the basis of sex and ethnicity, with members of each pair being randomly assigned to either the pretest or posttest group. For students who had no match in a given class, the following matching procedures were utilized: (1) if possible, they were matched on the basis of sex; if not, (2) an attempt was made to match them on ethnicity; and if neither of these two options was possible, (3) they were matched randomly with other unmatched students in the class. "Leftover" students in classes containing an odd number of students were eliminated from the analyses. Lists of the students to be pre- and posttested were given to the writing teachers before the first and last days of class, along with brief instructions for administering the instruments and checklists reminding the teachers of the testing procedures.

### Coding the Writing Samples

Four Ph.D. students from U. T. with strong backgrounds in English grammar and sentence structure were hired to rate the writing samples, using the locally developed instrument. A two-hour training session was conducted by

the Project Specialist from Secondary Education on Wednesday, June 25. Training consisted of explanation of and practice with the scoring procedures, using writing samples obtained from students who were not in the Summer Enrichment Program.

Originally, it was planned to have the coders rate the pre- and posttests together, without telling them which essays were pretests and which were posttests. When it was learned, however, that the project's funds could not be spent after June 30, this plan was altered. The pretests were coded on Thursday, June 26, and Friday, June 27, while the posttests were coded on the afternoon of Monday, June 30, as soon as they were collected from the writing teachers. An interrater reliability study was conducted by having each coder recode approximately 12 pre- and 12 posttest writing samples that had been previously coded by another coder. The four coders spent a total of approximately 40 hours rating more than 400 writing samples.

Data Analyses

Because of limited funding resources, it was not possible to analyze pre- to posttest gains on the individual items of the writing instrument. Instead, a total score was derived from the writing sample, and pre- to posttest gains were calculated on it. The total score was obtained by treating each item as a two, three, or five-point rating scale, with zero as the origin. For the first five items, which were coded in terms of raw frequencies and percentages, arbitrary scales were used to transform them into rating scales. In order to maximize the sensitivity of each of the first five items, a rough estimate of the range of scores on each item was obtained and used as a guide for establishing the rating scales.

For Item IA, which measures word fluency, it was determined, after examining 20-30 randomly selected writing samples, that the samples rarely contained more than 60 words. Subsequently, the rating scale that was adopted involved assigning a score of zero to writing samples containing 1-15 words, a score of one for 16-30 words, and so on, up to a score of four for 61 or more words. Similarly, for Item IA2, which measures the percent of words spelled correctly, it was seen that few students spelled less than 80 percent of the words correctly. Thus, a score of zero was assigned to writing samples showing 0-80 percent of the words spelled correctly, a score of one for 81-85 percent spelled correctly, and so forth. For items IB1-IB3, which measure the percent of sentence indicators included in the writing sample, relative to the potential number of sentence indicators, it is possible to obtain percentages that are greater than 100. Since 100 percent is the ideal score for these items, a score of four was assigned to writing samples showing 81-120 percent of the potential sentence indicators, a score of three for both 61-80 percent and 121-140 percent etc.

The pre- and posttest writing samples were collated according to the lists of matched student pairs and were keypunched and verified at U. T. Only pairs of students for whom both pre- and posttests were available were included in the analyses. The data were keypunched directly from the scoring forms, with the exception of the first five items, which were manually recoded before they were keypunched. The card file layout is shown in Figure 4.

The individual items were prioritized according to how much weight the Project Specialist thought they should carry in determining the total score, and were weighted in the computer programs. In Attachment 2, the numbers corresponding to the choices for the last 10 items show how the items were weighted.

SPSS computer libraries at U. T. were used to analyze the writing sample data. Interrater reliability was examined by calculating Spearman correlation coefficients on the individual items, and Pearson Product Moment correlation coefficients on the total writing scores. The protocols that were included in the reliability study were recollated and keypunched separately, using a similar format to the one in Figure 4. A frequency distribution was calculated to determine the number and percentage of matched student pairs showing positive pre- to posttest gains (greater than zero) on the total writing scores. A t-test was calculated to determine whether the mean pre- to posttest gain in total writing scores was significantly greater than zero. Only pairs of writing samples for which both pretests and posttests were available were included in the analyses (N = 139).

## Results

Figure 5 shows the results of the interreliability study. The pre- and posttest reliability coefficients of .773 and .865 show that the writing instrument is adequately reliable and that the reliability seemed to increase as the coders gained coding experience from pre- to posttest. Items of low reliability included II (usage), IIB1 (presence of topic sentence within paragraph), IIB2 (presence of "expansion" sentences), and B (giving information, ideas or details called for in stimulus).

The frequency distribution showed that 66.9 percent of the posttest students showed higher writing sample scores than those of matched pretest students. This finding indicated that the objective that 60 percent of the students would show positive pre- to posttest gains in writing sample scores was met. The t-test showed that the posttest writing scores were significantly higher than the pretest scores, at the .0005 level. The mean pretest writing score was 28.88, whereas the mean posttest score was 38.47 (n = 139). The t-ratio was 5.88.

FILE ID / / CARD FILE LAYOUT LOCATION:

COMMENTS: WRITING SAMPLE, ESAA BASIC SUMMER ENRICHMENT PROGRAM

80.19

FORMAT FOR KEYPUNCHER

| Field | Columns | Description |
|---|---|---|
| | 1 - 11 | PRETEST STUDENT'S (FIRST STUDENT'S) LAST NAME |
| | 12 - 19 | " " " " FIRST NAME |
| | | SCORES FOR PRETEST STUDENT (FIRST STUDENT) |
| | | IN COLUMNS 20 - 34 |
| | 20 | ITEM IA 61+=4, 46-60=3, 31-45=2, 16-30=1, 0-15=0 |
| | 21 | " IA2 96-100%=4, 91-95%=3, 86-90%=2, 81-85%=1, 0-80%=0 |
| | 22 | " IB1 81-120%=4, 61-80%=3, 41-60%=2, 21-40%=1, 121-140%=3, 141-160%=2, 161-180%=1, 181%=0 0-20%=0 |
| | 23 | " IB2 " " " " " |
| | 24 | " IB3 " " " " " |
| | 25 | " II GENERALLY STANDARD=2, SOME LAPSES=1, FREQUENT LAPSES=0 |
| | 26 | " IIA1 YES = 1, NO = 0 |
| | 27 | " IIA2 " " |
| | 28 | " IIB1 " " |
| | 29 | " IIB2 2 or + = 2, 1 = 1, 0 = 0 |

Figure 4. WRITING SAMPLE ANALYSIS FORMAT. (Page 1 of 3.)

FILE ID / /  CARD FILE LAYOUT  LOCATION:

COMMENTS WRITING SAMPLE, ESAA BASIC SUMMER ENRICHMENT PROGRAM

80.19

FORMAT FOR KEYPUNCHER

| Field | Columns | Description |
|---|---|---|
| | 30 | ITEM IIB3 2 or + = 2, 1 = 1, 0 = 0 |
| | 31 | " IIB4 YES = 1, NO = 0 |
| | 32 | " A TO A GREAT EXTENT = 2, TO SOME EXTENT = 1, NOT AT ALL = 0 |
| | 33 | " B " " " |
| | 34 | " C " " " |
| | 35 - 45 | POSTTEST STUDENT'S (SECOND STUDENT'S) LAST NAME |
| | 46 - 53 | " " " " FIRST NAME |
| | | SCORES FOR POSTTEST STUDENT (SECOND STUDENT) IN COLUMNS 54 - 68 |
| | 54 | ITEM IA 61+ = 4, 46-60 = 3, 31-45=2, 16-30 = 1, 0 - 15 = 0 |
| | 55 | " IA2 96-100%=4, 91 - 95% = 3, 86 - 90% = 2, 81 - 85% = 1, 0 - 80% = 0 |
| | | 121 - 140% = 3, 141 - 160% = 2, 161 - 180% = 1, 120% + = 0 |
| | 56 | " IB1 81-120% = 4, 61 - 80% = 3, 41 - 60% = 2, 21 - 40% = 1, 0 - 20% = 0 |
| | 57 | " IB2 " " " " " |
| | 58 | " IB3 " " " " " |

Figure 4. (Page 2 of 3.)

FILE ID ___/___/___ CARD FILE LAYOUT LOCATION:

COMMENTS WRITING SAMPLE, ESAA BASIC SUMMER ENRICHMENT PROGRAM

80.19

| Field | Columns | Description |
|---|---|---|
| | 59 | ITEM II GENERALLY STANDARD = 2, SOME LAPSES = 1, FREQUENT LAPSES = 0 |
| | 60 | " IIA1 YES = 1, NO = 0 |
| | 61 | " IIA2 " " |
| | 62 | " IIB1 " " |
| | 63 | " IIB2 2 or + = 2, 1 = 1, 0 = 0 |
| | 64 | " IIB3 " " " |
| | 65 | " IIB4 YES = 1, NO = 0 |
| | 66 | " A TO A GREAT EXTENT = 2, TO SOME EXTENT = 1, NOT AT ALL = 0 |
| | 67 | " B " " " |
| | 68 | " C " " " |
| | | |
| | | |
| | | |
| | | |

Figure 4. (Page 3 of 3.)

| ITEM | PRETEST R | (N = 45) Signif | POSTTEST R | (N = 49) Signif | TOTAL R | (N = 94) Signif |
|---|---|---|---|---|---|---|
| IA | .985 | .001 | .982 | .001 | .986 | .001 |
| IA2 | .740 | .001 | .812 | .001 | .770 | .001 |
| IB1 | .592 | .001 | .560 | .001 | .575 | .001 |
| IB2 | .647 | .001 | .530 | .001 | .590 | .001 |
| IB3 | .637 | .001 | .659 | .001 | .646 | .001 |
| II | .415 | .003 | .264 | .034 | .330 | .001 |
| IIA1 | .915 | .001 | .948 | .001 | .932 | .001 |
| IIA2 | .217 | .077 | .711 | .001 | .434 | .001 |
| IIB1 | .247 | .052 | .122 | .203 | .212 | .021 |
| IIB2 | .309 | .022 | .313 | .015 | .363 | .001 |
| IIB3 | .419 | .003 | .676 | .001 | .570 | .001 |
| IIB4 | .482 | .001 | .802 | .001 | .674 | .001 |
| A | .729 | .001 | .536 | .001 | .639 | .001 |
| B | .423 | .002 | .356 | .007 | .390 | .001 |
| C | .912 | .001 | .949 | .001 | .930 | .001 |
| WRITING TOTAL | .773 | .001 | .865 | .001 | .838 | .001 |

Figure 5. INTERRATER RELIABILITY COEFFICIENTS FOR WRITING SAMPLE: INDIVIDUAL ITEMS AND TOTAL WRITING SCORE.

## PART III

## ANALYSES OF DECISION-MAKING MEASURES

*Analyses of students' tests of decision-making skills revealed the following points:*

1) *The objective that 60 percent of the Summer Enrichment Program students would improve in decision-making skills was not met.*

2) *Pre- to posttest gains in decision-making skills were not significantly greater than zero.*

### Purpose

The ESAA Basic Summer Enrichment Program tests of decision-making skills were administered to provide information relevant to the following questions:

Decision Question D1: Should the ESAA Basic Summer Enrichment Program be continued as is, modified, or discontinued?

Evaluation Question D1-1: Have the objectives been met for the funding period, 1980?

Outcome Objective D1-1c: Sixty percent of the students will show gains in decision-making skills at the end of the Summer Enrichment Program, as measured by instruments designed to measure those skills.

### Procedure

#### Instruments

The Decision-Making Questionnaire and the Decision Sample were both developed by O. R. E. staff, in coordination with the Project Staff, to measure the affective outcomes in the Summer Enrichment Program. The Decision-Making Questionnaire is an 18-item, five-point Likert scale, that taps all of the projected student outcomes of the decision-making component of the Summer Enrichment Program. Some items were written to show attitudinal changes toward decision making; e. g., "I always have chances to choose different ways to act," and "I would rather make my own decisions than let someone else make them for me," whereas others were written to obtain a self-report measure of the students' skills vis-a-vis the critical aspects of the decision-making process; e.g., "When I have a problem, I can usually see two or three ways to handle it," and "I can imagine what might happen (both good and bad) when I decide." The Decision-Making Questionnaire is shown in Attachment 4.

The Decision-Making Sample, which is narrower in scope than the Decision-Making Questionnaire, measures students' attention and performance in critical aspects of the decision-making process, as evidenced by their written responses to a stimulus. For this instrument, the same stimulus that was used for the Writing Sample was utilized (see Attachment 1). The stimulus begins with a paragraph-length description of a person who has a problem to solve, followed by seven multiple choice and short answer questions, designed to orient the students' thinking toward the critical aspects of the decision-making process. At the end, there are instructions to write a letter to the person who is described in the stimulus, in order to advise the person of the important things that she should consider in making her decision. The Decision-Making Samples are analyzed using items such as "Number of alternative courses of action mentioned," and "Proportion of alternatives and consequences endorsed by the student that are likely to move Sally toward her goal of becoming a veterinarian." The Decision Sample Scoring Form is shown in Attachment 5.

Testing

The Decision-Making Questionnaires were administered by the writing teachers in the writing classes, together with the writing samples on the first and last days of the Summer Enrichment Program. Brief directions were provided for both instruments, as well as checklists to remind the teachers of the testing procedures. Half of the students were pretested and half were posttested. Assignments to the pretest and posttest categories were the same for the Decision-Making Questionnaires as for the writing samples. (See Part II, Testing Section, for an explanation of the assignment procedures.)

Coding the Decision Sample

Three matched pretest-posttest pairs of writing samples were randomly selected from each teacher's folder and coded for decision-making skills, using the Decision-Making Sample form. A total of 30 pre- posttest pairs were coded.

Data Analysis

The Decision-Making Questionnaires were keypunched and verified directly from the instruments at U. T. The card file layout is shown in Figure 6. Only matched pairs for which both pretests and posttests were available were included in the analyses. Several matched pairs were eliminated due to incomplete responses. One hundred eleven pairs of Decision-Making Questionnaires were included in the analyses. The analyses of the Decision-Making samples were calculated by hand.

FILE ID / /

CARD FILE LAYOUT

LOCATION:

80.19

COMMENTS DECISION-MAKING QUESTIONNAIRE, ESAA BASIC SUMMER ENRICHMENT PROGRAM

FORMAT FOR KEYPUNCHER

| Field | Columns | Description |
|---|---|---|
| | 1 - 11 | PRETEST STUDENT'S (FIRST STUDENT'S) LAST NAME |
| | 12 - 19 | |
| | | SCORES FOR PRETEST STUDENT (FIRST STUDENT) IN COLUMNS 20 - 37 |
| | 20 | ITEM 1 STRONGLY AGREE = 5, STRONGLY DISAGREE = 1 |
| | 21 | " 2 reverse |
| | 22 | " 3 |
| | 23 | " 4 |
| | 24 | " 5 |
| | 25 | " 6 |
| | 26 | " 7 |
| | 27 | " 8 |
| | 28 | " 9 |
| | 29 | " 10 |
| | 30 | " 11 |

Figure 6. DECISION-MAKING QUESTIONNAIRE ANALYSIS CARD FILE LAYOUT. (Page 1 of 3.)

FILE ID ___/___/___ CARD FILE LAYOUT LOCATION:

COMMENTS DECISION-MAKING QUESTIONNAIRE, ESAA BASIC SUMMER ENRICHMENT PROGRAM

80.19

FORMAT FOR KEYPUNCHER

| Field | Columns | Description |
|---|---|---|
| | 31 | Item 12 reverse |
| | 32 | " 13 |
| | 33 | " 14 |
| | 34 | " 15 |
| | 35 | " 16 |
| | 36 | " 17 STRONGLY AGREE = 5, STRONGLY DISAGREE = 1 |
| | 37 | " 18 |
| | 38-48 | POSTTEST STUDENT'S (SECOND STUDENT'S) LAST NAME |
| | 49-56 | " " " " FIRST NAME |
| | | SCORES FOR POSTTEST STUDENT (SECOND STUDENT) IN COLUMNS 57 - 74 |
| | 57 | Item 1 STRONGLY AGREE = 5, STRONGLY DISAGREE = 1 |
| | 58 | " 2 reverse |
| | 59 | " 3 |
| | 60 | " 4 |

Figure 6. (Page 2 of 3.)

FILE ID / / CARD FILE LAYOUT LOCATION:

COMMENTS DECISION-MAKING QUESTIONNAIRE, ESAA BASIC SUMMER ENRICHMENT PROGRAM

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FORMAT FOR KEYPUNCHER

| Field | Columns | Description |
|---|---|---|
| | 61 | Item 5 |
| | 62 | " 6 |
| | 63 | " 7 |
| | 64 | " 8 |
| | 65 | " 9 |
| | 66 | " 10 |
| | 67 | " 11 |
| | 68 | " 12 reverse |
| | 69 | " 13 |
| | 70 | " 14 |
| | 71 | " 15 |
| | 72 | " 16 |
| | 73 | " 17 |
| | 74 | " 18 |

Figure 6. (Page 3 of 3.)

Because of limited funding resources, pre- to posttest gains could not be examined on the individual items in the decision-making instruments. Instead, total scores were calculated on both instruments, in order to obtain overall measures of decision-making skills, as conceptualized by the Project staff. Analyses were calculated on the total scores.

The Decision-Making Sample has some items that are rated on a three-point scale, and others (yes/no items) that are rated on a two-point scale. The different size scales reflect the differential weights that the items were designed to carry in determining the total score.

For both instruments, frequency distributions were calculated to show the number and percentage of student pairs making positive pre- to posttest gains. T-tests were calculated to determine the statistical significance of the differences between pre- and posttest scores. SPSS computer libraries were used to analyze the responses to the Decision-Making Questionnaires, and the analyses of the Decision Samples were hand caluclated.

## Results

Objective: At the conclusion of the Summer Enrichment Program, sixty percent of the students will show positive gains in decision-making skills.

The objective was not met for either of the two instruments designed to measure decision-making skills. On the Decision-Making Questionnaire, 52.3 percent of the posttest students showed higher scores than their matched pretest counterparts. On the Decision-Making Sample, 43.3 percent of the posttest students showed higher scores than the matched pretest students.

T-tests showed that the differences between pre- and posttest scores on both instruments were not significant at the .05 level of probability. For the Decision-Making Questionnaire, the mean pretest score was 66.94, and the mean posttest score was 68.07. The t-ratio was 1.16 (n = 111). For the Decision-Making Sample, the mean pretest score was 3.6, and the mean posttest score was 4.2. The t-ratio was 1.40 (n = 30).(See Figure 7.)

t-TEST BETWEEN PRE- AND POSTTEST

DECISION-MAKING SAMPLES

(1) $\overline{D} = .6$

$(ED)^2/N = 324/30 = 10.8$

$ED^2 = 170$

$$t = \frac{.6}{\sqrt{\frac{170 - 10.8}{30\ (29)}}} = \frac{.6}{\sqrt{\frac{159.2}{870}}} = \frac{.6}{\sqrt{.183}}$$

$= .6/\ .428 = 1.403$ ns

($\alpha$ .05, 29 = 1.699)

Figure 7. DECISION-MAKING SAMPLE t-TEST.

Read the following paragraph and darken the space beside the answer you think is best.

Sue is an eighth-grader who loves animals and hopes to become a veterinarian (animal doctor). She joined the 4-H Club this year to be with other teenagers who like what she likes. The club has been fun, and Sue has learned a lot there about animals. For a project, Sue decided to raise a calf. When people in the neighborhood complained to the police, Sue was told that she could not keep a calf in the city because it was against the law.

1. What is Sue's goal?

( ) a. To raise a calf.
( ) b. To be president of the 4-H Club.
( ) c. To be a veterinarian.
( ) d. To have friends who like animals.

2. What is Sue's problem?

( ) a. Her neighbors are angry.
( ) b. Her calf can't be kept in the city.
( ) c. Her parents don't like her animal.
( ) d. It's hard for girls to become veterinarians.

3. Which of the following actions might help Sue reach her goal? Mark every answer which would help.

( ) a. Quit the 4-H Club.
( ) b. Try to find a place outside the city where she could keep and raise her calf.
( ) c. Keep the calf and raise it in the city.
( ) d. Ask her family to move to the country so that she could raise her calf.

4. If Sue chooses to ask her family to move to the country, what would MOST LIKELY be the FIRST problem she will face?

( ) a. The family might have to live in a smaller house.
( ) b. The calf might not win any prizes in the livestock show.
( ) c. Sue's family might not want to move to the country.
( ) d. Riding the bus a longer distance to school might make Sue tired at night.

NAME:_____ GRADE:_____

SEX: ____MALE ____FEMALE DATE:_____

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5. If Sue chooses to keep the calf in the city, which of the following is MOST LIKELY to result?

( ) a. Sue's parents will get angry.

( ) b. The neighbors will complain again.

( ) c. Nothing.

( ) d. Sue will have to quit the 4-H Club.

6. If Sue chooses to try to find a place in the country where she can keep the calf, which of the following will she be showing is important to her? Mark every answer that is important to Sue.

( ) a. Staying within the law.

( ) b. Making her 4-H Club sponsor proud of her.

( ) c. Spending time in the country.

( ) d. Completing her 4-H Club project.

7. List 3 sources of help that Sue could use in making this decision.

a. _____

b. _____

c. _____

8. Sometimes young people have a hard time making decisions because they don't know how to think about problems. Write a letter to Sue (at least a paragraph long) and help her decide what to do about her problem with the calf. Don't make the decision for her, but remind her of the things she should think about before she makes her decision.



If you need more room, write on the back.

# SUMMER SCHOOL EVALUATION
## Writing Sample Scoring Form

Student's Name _____

FORM

I. Words and Sentences

| | | | | |
|---|---|---|---|---|
| A. | Number of words (omit a, an, the) | | _____ | IA |
| | 1. Number of misspelled words | _____ | | |
| | 2. % of words spelled correctly | | %_____ | IA2 |
| B. | Number of thought units | _____ | | |
| | 1. Number of initial capitals | _____ | %_____ | IB1 |
| | 2. Number of end marks | _____ | %_____ | IB2 |
| | 3. Number of correct end marks | _____ | %_____ | IB3 |

II. Usage

Use these elements as guides to identifying levels of usage:
1. Subject-verb agreement
2. Verb tense/sequence indicators
3. Pronoun case
4. Pronoun agreement
5. Appropriate form of modifiers
6. Appropriate placement of modifiers
7. Use of negatives
8. Idiomatic use of language

| | | | |
|---|---|---|---|
| A. | Generally standard usage (1 or 2 errors) | 8 | II |
| B. | Some lapses in usage (3 or 4 errors) | 4 | II |
| C. | Frequent lapses in usage (5 or more errors) | 0 | II |

III. Paragraphs

| | | | | |
|---|---|---|---|---|
| A. | Paragraph format | | | |
| | 1. Indented first sentence | yes 1 | no 0 | IIA1 |
| | 2. Placement of sentences in continuous flow | yes 1 | no 0 | IIA2 |
| B. | Paragraph development | | | |
| | 1. Paragraph has definite topic sentence or a sentence that indicates the subject of what is to follow. | yes 4 | no 0 | IIB1 |
| | 2. Number of sentences within the paragraph that could be considered an expansion of the first sentence. | 2 or + 4 | 1 2 | 0 0 IIB2 |
| | 3. Number of words or phrases that serve as transition from one idea to another. | 2 or + 4 | 1 2 | 0 0 IIB3 |
| | 4. Paragraph has a concluding sentence that has a sense of finality or "wrapping up". | yes 4 | no 0 | IIB4 |

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**CONTENT**

Does the student focus on the task presented by the stimulus?
We are defining "focus on task" as follows:

A. Directs writing to the audience that is specfied in the stimulus.
To a great extent 4 To some extent 2 Not at all 0 A

B. Gives information, details or ideas called for in the stimulus.
To a great extent 4 To some extent 2 Not at all 0 B

C. Writes within the format called for in the stimulus (e.g., letter, story, first person narrative, steps in a process, etc.)
To a great extent 4 To some extent 2 Not at all 0 C

Scoring Manual

I. Words and sentences

A. Number of words (omit a, an, the, and I)
1. Number of misspelled words
a. Count the word every time it is misspelled.
b. When apostrophes are wrongly included or omitted, count this a spelling error.
c. When there is a doubt about whether the error is in spelling or handwriting, check context to see if questionable letter is formed correctly elsewhere. If so, it is a spelling error.
d. If a word is wrongly capitalized, do not count this a spelling error.
e. If a word is wrongly separated (e.g., foot ball) or wrongly joined (e.g., alot), count this as one error.
2. Percent of words spelled correctly
This will be surprisingly high, but remember that even a score of 91% may be several standard deviations below the norm.

B. Number of thought units
A "thought-unit" is a measure designed to show the percentage of actual sentence indicators (i.e., initial capitals and end marks) in relation to the potential number of sentence indicators.

A thought-unit requires the scorer to "translate" non-sentence writing into possible sentences that are grammatically acceptable if not always stylistically preferable. Some such measure is needed for very basic writers to determine if they are making progress in their ability to indicate sentences.

Thought-units are based on the assumption that students do, indeed, think in sentences but lack the knowledge, desire, or both to use the conventions of written language to indicate these sentences. The scorer's task is to take the inchoate writing of basic writers and translate it into what would be acceptable sentences if the conventions were employed. It will always be a somewhat arbitrary unit since two readers might occasionally differ as to which ideas might best be coordinated or embedded. In dealing with such a difficult kind of writing, however, it is probably better to have some tool for measuring progress than none at all.

Consider a thought-unit as what would be a grammatically acceptable sentence if all the conventions had been observed. Sometimes a student will coordinate two ideas, and even though he might write them as two fragments joined by and or but, count this as a legitimate thought-unit because if he had written his ideas in two independent clauses joined by a comma and a coordinate conjunction, the sentence would have been grammatically accpetable. The same is true if the student subordinates one idea to another. If they could be written as a grammatically acceptable sentence, call this one thought unit.

Sometimes students join unrelated ideas into one long sentence. Divide the string of ideas into possible thought units. Don't be overly concerned by the fact that someone else might divide the text differently. There is no way for us to know what the writer "really" meant. We know the conventions of sentence writing, and he doesn't; therefore, the scorer's translation is about the best we can do.

Here is an example of translating the paragraph of a very basic writer.

> I hate school Because it sory and Boring Snobby teachers and Stupid work long hours and a waste of time you don't hardly learn nothing

> I hate school because it [is] sorry and boring. [There are] snobby teachers and [who give us] stupid work. [We go] long hours and [which are] a waste of time. You hardly ever learn anything.

There are four grammatically acceptable thought units here. Wherever ideas may be legitimately coordinated or subordinated, do so in your translation.

1. Number of initial capitals
   a. Disregard all other capitals.
   b. Sometimes students do not know the cursive form of the capital and will write the lower case form larger. Count this a capital letter.
2. Number of end marks
3. Number of correct end marks

There is a necessary distinction between D[2] and E[3] because students sometimes use an end mark, but an incorrect one. The use of any kind of end mark does show progress in the student's ability to indicate sentences. The use of the appropriate end mark shows progress to another level.

II. Usage

For the sake of consistency, usage is defined as eight common elements. If there is a question about the meaning of any of the standard terms included as "usage," please consult any level of Warriner's English Grammar and Composition (Harcourt, Brace, Jovanovich).

III. Paragraphs

A. Paragraph format
   1. Indented first sentence (self-explanatory)

2. Placement of sentences in continuous flow.
   The above item refers to the physical appearance of the sentences on the page. Some students have no concept of the way a paragraph looks, so they write each sentence beginning at the left margin.

B. Paragraph development
   1. Paragraph has definite topic sentence or a sentence that indicates the subject of what is to follow.
      The topic sentence need not be formally stated.
   2. Number of sentences within the paragraph that could be considered an expansion of the first sentence.
      "Sentences" may be thought units. If the thought units are related to the main idea or topic sentence in some recognizable way, count them as expansion or support.
   3. Number of words or phrases that serve as transition from one idea to another.
      "Transition" here refers to such common words and phrases as first, on the other hand, so, also, another, etc. Transition should be counted between actual sentences or thought groups. Do not consider and a transitional device since it is quite often used by basic writers as an all-purpose connector when they do not know how to begin and end sentences.
   4. Paragraph has a concluding sentence that has a sense of finality or "wrapping up."
      Many students write conclusions very naturally. Many, however, will simply stop writing or try to conclude by writing "The End." If a sentence or thought-unit suggests a summing up, an emphatic point, or some kind of closure, consider it a concluding sentence.

Content

Does the student focus on the task presented by the stimulus?

"Content" is usually evaluated quite subjectively as "interesting," "logical," or "well-developed." It is difficult to determine whether or not we have taught a child to be more interesting or more logical, but we can be more objective in evaluating how well he has learned to respond to the writing task.

A. Directs writing to the audience that is specified in the stimulus.

If the writing stimulus does not state or imply any audience other than the teacher or evaluator, this category is not applicable. If an audience is stated or strongly implied, the student's writing should reflect some attempt to address the interest, the ability level, and the content of the audience. Ideas, vocabulary, sentence structure, and even nouns of direct address will give clues to audience awareness.

B. Gives information, details, or ideas called for in the stimulus.

If the topic of the stimulus relates to why the student likes school, the reader would expect to find reasons or examples. If the stimulus called for a description of "a place I'd like to be right now," the reader would expect to find some specific details about how things look or how the writer reacts to certain scenes, objects, or people.

C. Writes within the format called for in the stimulus (e.g., letter, story, first person narrative, steps in a process, etc.)

If a letter is called for, the entire letter format need not be used. Give the student credit if there is some evidence that the writing is a letter, even though it be just a salutation, closing, or direct address to the specified audience.

If the stimulus calls for no special format other than the standard paragraph form, is the paragraph developed according to a type of development such as reasons/examples, comparison/contrast, cause/effect?

This is an imperfect instrument for evaluating growth in writing skills. One of its values, however, may lie in the attempt to make explicit those areas that are unquestionably subjective. Another value may lie in the attempt to stipulate the meaning of terms so that scorers may have some consistent limitations to their subjective evaluations.

It is an attempt to evaluate writing progress at the most basic level with scores that may have some implications for the kinds of instruction needed at this level.

# DECISION MAKING QUESTIONNAIRE



NAME:_____ GRADE:_____

SEX: Male _____ Female _____ DATE:_____

READ EACH STATEMENT. THEN CHECK HOW MUCH YOU AGREE OR DISAGREE WITH THE STATEMENT.

| | STRONGLY AGREE | AGREE | NOT SURE | DISAGREE | STRONGLY DISAGREE |
|---|---|---|---|---|---|
| 1. I make decisions (both big and little) each day. | | | | | |
| 2. There isn't much that I can do about my problems. | | | | | |
| 3. I always have chances to choose different ways to act. | | | | | |
| 4. I know where to get help for my problems. | | | | | |
| 5. I know the reasons for my decisions. | | | | | |
| 6. I can name some of my goals. | | | | | |
| 7. I can name some of my priorities (things that are important to me). | | | | | |
| 8. I can see how my goals and priorities help me make decisions. | | | | | |
| 9. When I have a problem, I can usually see two or three ways to handle it. | | | | | |

| | STRONGLY AGREE | AGREE | NOT SURE | DISAGREE | STRONGLY DISAGREE |
|---|---|---|---|---|---|
| 10. I can imagine what might happen (both good and bad) when I make a decision. | | | | | |
| 11. It's helpful for me to take my time when I make a decision. | | | | | |
| 12. I often put off making hard decisions. | | | | | |
| 13. I would rather make my own decisions than let someone else make them for me. | | | | | |
| 14. I am good at making decisions. | | | | | |
| 15. Decisions that are right for me may be wrong for someone else. | | | | | |
| 16. It's helpful for me to consider all my alternatives when I decide. | | | | | |
| 17. I can understand why different people make different decisions. | | | | | |
| 18. When I decide, I can live with the consequences. | | | | | |

## Writing Sample Scoring Form: Decision Making Abilities

Name_____ Grade_____

1. Number of alternative courses of action mentioned.
   0_____ 1_____ 2_____

2. Number of sources of help mentioned.
   0_____ 1_____ 2_____

3. Total number of reasons mentioned for all alternative courses of action. 0_____ 1_____ 2_____

4. Total number of consequences that are predicted for all proposed alternatives.
   0_____ 1_____ 2_____

5. Mentions one or more of Sally's goals.
   no_____ yes_____

6. Associates proposed alternatives with underlying values.
   no_____ yes_____

7. Proportion of alternatives and consequences endorsed by the student that are likely to move Sally toward her goal of becoming a veterinarian.
   none of them_____ some of them_____ all of them_____

8. Discourages Sally from choosing alternatives and consequences that are likely to move her away from her goal of becoming a veterinarian.
   no_____ yes_____