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ABSTRACT

Goal IX of the Educational Quality Assessment (EQA) deals with appreciating human accomplishments. The assessment instruments concentrate on attitudes that measure the degree of value students place on areas of human accomplishment and the willingness of students to explore environments where firsthand experiences are available. The purpose of this paper is (1) to provide school districts concerned about the improvement of student attitudes as they relate to Goal IX with clues to strategies and programs that may effect change, (2) to help school districts utilize the EQA School Report as a diagnostic tool for the design and implementation of curriculum change, and (3) to provide suggested strategies and sources of literature specifically designed to focus on Goal IX. Two distinct approaches are presented. The indirect approach analyzes the condition variables that have significant correlation coefficients to Goal IX scores. The direct approach analyzes the student response patterns to the questionnaire items to determine areas or subscales that can serve as a point of focus for investigating educational research and implementing intervention strategies. The document also discusses intervention techniques and ongoing programs. An extensive bibliography and appendixes that provide a sample school report and describe available information packets are included. (Author/IRT)

EA

Guide to Strategies for Improvement

Appreciating Human Accomplishments

Pennsylvania Department of Education 1975

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PDE WORKING PAPERS

A Guide to the Analysis and Interpretation of EQA Scores and Related Intervention Techniques

GOAL IX
Appreciating Human Accomplishments

by Joseph L. Hojak
Division of Educational Quality Assessment
Bureau of Planning and Evaluation
Pennsylvania Department of Education
1975

Commonwealth of Pennsylvania
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GOAL IX

APPRECIATING HUMAN ACCOMPLISHMENTS

"Quality education should help every child to understand and appreciate as much as possible of human achievement in the natural sciences, the social sciences, the humanities and the arts."

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CONT'D

CHAPTER I

Goal Statement

"Quality education should help every child to understand and appreciate as much as possible of human achievement in the natural sciences, the social sciences, the humanities and the arts."

Goal Rationale

The tendency to exalt one's own accomplishments and ignore or underplay the accomplishments of others is quite natural at every level of human society. The dangers that result from this individualistic view have made schools recognize the need to reduce or eliminate this type of behavior.

Students should be encouraged to gain knowledge about human accomplishments. Possessing this knowledge, they will then be ready to receive, rather than avoid the stimuli that the sciences and arts provide. At the next level, they will be ready to more clearly and conciously perceive these stimuli and will begin to discriminate among art forms. In the final stage of development, they will choose to see a play, to read of a famous scientist or to contemplate the design of a building.

Insofar as possible, the school should attempt to engage students in the arts, sciences, government, ecology and literature, in order to develop interests and provide a greater degree of sophistication in their appreciation of the accomplishments of others.

Measurement

The assessment instruments concentrate on attitudes which measure the degree of value students place on areas of human accomplishments and the willingness of students to explore environments where first-hand experiences are available.

The questionnaires for grades 8 and 11 are identical and contain 48 items, 24 in each subscale. The grade 5 questionnaire has 38 items, 19 in each subscale. All the instruments are designed to measure both how much students value human achievements and the degree to which they are willing to receive stimuli in the several areas of literature, art, athletics, government, science, ecology, music, drama and dance.

The Purpose

The purpose of this paper is to: (1) provide the school districts concerned about the improvement of student attitudes as they relate to Goal IX with clues to strategies and programs that may affect change; (2) help them utilize the EQA School Report as a diagnostic tool for the design and implementation of curriculum change and; (3) provide suggested strategies and sources of literature specifically designed to focus on Goal IX.

INTRODUCTION

Schools wishing to help students appreciate human accomplishments may ponder the question, "How do we improve attitudes on such a wide variety of concepts?" Two distinct approaches will be investigated in this report: (1) an indirect approach which analyzes the condition variables that have significant correlation coefficients to Goal IX scores (CHAPTER II); and (2) a direct approach which analyzes the student response patterns to the questionnaire items--to determine areas or subscales that can serve as a point of focus for investigating educational research and implementing intervention strategies (CHAPTER III).

CHAPTER II

Part A

INDIRECT APPROACH

In dealing with the indirect approach, the primary focus is on Goal IX. The condition variables may, however, relate to a number of the goals. For example, the condition variable Parental Attitude Toward School (PARATT) reveals a significant correlation with school mean scores on all goals in grade 5, and all but Goal VII in grades 8 and 11. This suggests that schools have a tendency to score high on these goals if students feel their parents have a positive attitude toward the school. One might hypothesize then that any program which creates a more positive parental attitude toward school may also improve school scores in all the goals except Goal VII in grades 8 and 11.

At this stage in the development of intervention strategies, all the condition variables with significant correlations will be presented. Some of these variables appear to be unmodifiable, although we are not yet in a position to make such distinction. There has been no attempt here to delineate those variables that are modifiable and those that are not. Insufficient evidence makes such a division invalid at this time. Further study may eventually make this task possible.

Interpretation of statistics in the status profile should be made with care. Cause and effect cannot be automatically attached to the correlation coefficients. For example, poor parental attitude toward school does not necessarily cause low scores on Goal IX, although one can hypothesize that this may be the case.

Correlation coefficients between condition variables and goal scores indicate a relationship. The larger the correlation, the stronger the relationship. While this relationship does not explain cause and effect, it would be a disservice to the school to refrain from considering hypothesis that may help students improve goal scores. The remainder of this chapter is devoted to this premise.

PART B

SIGNIFICANT CORRELATION COEFFICIENTS BETWEEN CONDITION VARIABLES AND GOAL IX SCORES FOR GRADES 5-8-11

The condition variables with significant correlation coefficients will be listed by grade. It is imparative to reveal the relationships between these variables and Goal IX by grade in order to discuss intervention techniques in Part D that may affect this relationship in a positive manner, thus ultimately affecting schools' Goal IX scores.

Grade 5

Home Climate	.49
Parental Attitude Toward School	.48
Per Cent White	.34
Father's Occupation	.29
Mother's Education	.26

Grade 8

Parental Attitude Toward School	.43
Home Climate	.41
Mores-Girls	.30
Values	.29
Mores-Boys	.25

Grade 11

Parental Attitude Toward School	.42
Home Climate	.32
Mother's Education	.32
Values	.29

It is obvious that Home Climate and Parental Attitude toward school have a significant relationship, across all grade levels, to schools' scores on Goal IX. These variables will be discussed along with suggestions for affecting them in Part D. In addition, the variables Values, Mores-Boys-Girls will also be given consideration since, as measured, they tend to be rooted in the school. (It should also be noted that Values, Mores-Boys and Mores-Girls were not measured in grade 5).

Per Cent White, Father's Occupation and Mother's Education will not be discussed. It appears unrealistic to attempt to alter or affect these variables at this time.

PART C

INTERPRETATION ANALYSIS

Information in this section will be used to analyze the condition variables in the Status Profile of the school. To make hypotheses and adopt a plan of action, it is important to assess all the condition variables having significant correlation coefficients by grade level. For example, if Parental Attitude (a variable that has a significant correlation at all grade levels) has a low percentile ranking on the schools' Status Profile, the suggestions to be discussed in Part D should be considered.

The following is a sample analysis of the school Status Profile found in Appendix A of this report.

Illustration

Step 1--Note the ACTUAL SCHOOL %ILE for Goal IX (See the chart on page 52 of the Appendix). Note also that the Actual School Score (54.35) is at the 18th percentile.

Step 2--Identify the condition variables from this chapter (Part B) that have the highest correlation coefficients to Goal IX scores for Grade 8 schools. (They are Home Climate and Parental Attitude Toward School.)

Step 3--Obtain the mean school score for these condition variables from the student variables section on page 56 of the example report. Here, Home Climate is at the 9th percentile and Parental Attitude Toward School is at the 10th.

Step 4--If these scores are low, schools should consider implementing the intervention techniques described in the next part (D).

These steps should now be applied to the Status Profile of the local school. If the mean school scores are low on any or all of the condition variables that have a relationship to Goal IX, the suggestions in Part D should be considered.

Part D

DISCUSSION OF CONDITION VARIABLES AND THEIR RELATIONSHIP TO GOAL IX SCORES WITH SUGGESTED INTERVENTION TECHNIQUES

Parental Attitude

This variable measures what students believe their parents' attitudes are toward school. Data are based on student responses to these statements:

1. My parents enjoy hearing about school.
2. My parents feel the school is doing a good job.
3. My parents support what the school does.

Responses to these statements can be one of the following: almost always, usually, sometimes or never. Answers are weighted and a mean score is calculated for the school.

Students who believe their parents have a positive attitude toward school tend to score high on the Goal IX instrument. Thus, one might hypothesize that if parents support the school and are positive in their attitude toward school, the student: (1) may value the school experience, (2) be willing to receive stimuli in the arts and sciences and (3) seek experiences which provide first-hand information on what people in these areas are doing.

Of the correlation coefficients between goals, Goal IV (Interest in School) has a high correlation with Goal IX (Appreciating Human Accomplishments). This indicates that schools which score high in Goal IV also tend to score high in Goal IX.

This, in turn, suggests that children who live in a less positive environment may transfer their negative attitudes to all phases of their daily living. It is very difficult for the school experience to be important to a child if the parents feel the school is not doing a good job or fail to support its efforts. The student will tend to reject the stimuli provided by the school and thus lack basic knowledge in these areas. It is very difficult to appreciate something if you know very little about it.

This can also be pointed out if one reviews the Goal Rationale. In this goal student achievement is based on a cognitive ladder: knowledge is the first level, receiving stimuli is the second, perceiving and discriminating is the third, and responding to phenomenon is the fourth. The school must bear some responsibility for the first level. If, however, the parental attitude toward school and the home climate of the student are less positive and students reject stimuli, the school's job becomes more difficult.

Public Relations Strategy: Parental Attitude

The school administrator's biggest problem with parental attitude toward school is the passivity and indifference of many parents. Educators have long been aware that parents whose involvement would most help their children are those least likely to be spontaneously active in school affairs. Many parents believe school is a place where they send their children for several hours each day, but do not believe it is a place where they have an immediate personal concern. They do not identify with schools and frequently have less than pleasant memories of

their own school days. Therefore, it is imperative that the school solicit support through a planned public relations program rather than haphazardly assuming it is the parents' responsibility to find out about the school.

The importance of parental involvement is a proven fact. The results of a federal government study show that, while students made cognitive gains under Elementary and Secondary Education Act projects, these gains were often nullified at home by alienated or indifferent parents. It is obvious that parents have always affected their children's learning processes. Whether the parental influence is positive or negative, rests to a large extent, on the attitude of the schools. Thus, communications between home and school are needed and cannot be left to chance if administrators are to know parental attitudes. Often, a newsletter is the sole school public relations medium with the general public. If it's the only tool, it can be easily dismissed by the readers as propaganda.

The school's public relations program must be well-rounded to effectively gain parental attention and shatter the bonds of indifference. Several commercial programs are available to give administrators the tools they need to conduct a complete, step-by-step program (19). (Actual materials used in schools are included in many, along with sample problems and solutions.) Some suggestions are:

1. Public opinion polls--What might parents want to know? Are they satisfied with curriculum? What might parents suggest as alternatives? Do they want to get involved in the school?

Polling questionnaires are included in many public relations packages.

2. News gathering teams--What's newsworthy about the school? A team of news gatherers made up of parents, students, teachers and administrators might be organized to cover all segments of the school and the community.

3. News release--Establish a two-way hot line with local newspapers to alert the public to new programs, events and meetings. An open, honest rapport with news reporters is especially important.

4. Home study exercises--Prepared by the school district to encourage parental involvement in the school work of their children, these home study exercises are in the form of planned activities that can be conducted by parents and children at home.

5. Parent aides--A group of parents is trained to go into student homes and assist parents to help their children with homework and other school-related programs.

6. Parent advisory councils--These can be organized to help administrators make decisions affecting schools and the community.

7. Community talent bank--A list of local citizens with particular talents can be called upon to help in career guidance and as lecturers or demonstrators.

8. Public relations training--Planned courses in communications, including "In-basket" techniques (role playing), can help the administrator make effective public relations decisions.

Public relations handbooks are other sources school administrators should investigate (5). Classified as "how-to" books, they are comprised of numerous workable ideas for improving a school official's communication with many publics.

The practicality of these suggestions must be determined by the school administrator. However, in view of the relationship between parental attitude and goal scores, a school administrator cannot afford to leave public relations to chance. Additional sources on public relations programs may be found in the bibliography.

Home Climate

This is a student variable in which the students report their opinion about home climate. For example, the following statements are included in the questionnaire:

1. I don't receive much attention at home.
2. I feel understood by my parents.
3. My parents consider my feelings.

Schools in which students attain higher scores on the variable home climate tend to score high in Goal IX. Perhaps parents, who value their children as individuals, provide them recognition and maintain a positive attitude, may also influence their children's attitudes toward the accomplishments of others.

The antithesis might create a negative attitude toward the accomplishments of others: "I can't do anything right, neither can anyone else."

The findings of Coleman, Jencks and others about the educational importance of home influence suggest that schools need to remind parents of their critical role in their children's success in school. Of course the reminders must be presented carefully and in a positive way to avoid buck-passing, invalid accusations, and strained relations among school, parents and children. A positive approach might be for the school to

share student accomplishments with parents and to explain that accomplishments are possible because of the positive home climate. Another approach is to emphasize the impact of this variable when schools report the EQA results to the public.

The correlation coefficient matrix between condition variables and goals scores, found in the Manuals for Interpreting School Reports, further emphasizes the importance of home climate. This variable has a significant correlation with all but one of the goals--creativity.

Mores-Girls and Mores-Boys (Grade 8)

This student variable measures the student's perception of the best way for a girl or boy to become important and be admired by other students. The variable is weighted to award a higher score to responses related to intellectual factors rather than those involving social factors in determining a girl's or boy's popularity. For example, the response "Being bright and well informed" receives a weighting of seven, whereas "Coming from the right family" reserves a weighted score of one. Schools with students scoring high in the variable Mores-Girls and Mores-Boys tend to score higher in Goal IX.

This relationship suggests that students who feel that intellectual factors are the best way to get ahead in school are more likely to appreciate the accomplishments of others, to value the arts and sciences, and to seek experiences which provide first-hand information on what people in these areas are doing.

Values (Grades 8 and 11 only)

This student variable is related to the variable Mores-Girls and Mores-Boys in that essentially the same question is used. In the Mores question, the student is asked to respond to his or her perception of how a boy or girl becomes important and looked up to by his or her peers. In the Values variable, the student is asked to report what quality is most important to him or her as an individual, regardless of others' opinions. Students have the same choice of answers as in the Mores-Girls and Mores-Boys question. Again, a higher weight is given to intellectual pursuits than to social factors.

The same hypothesis suggested by Mores-Girls and Mores-Boys might also be applied to the Values variable. Students whose personal values lean toward intellectual factors tend to place a greater emphasis on the accomplishments of others.

Recognition Strategy: Mores-Boys, Mores-Girls, and Values

If intellectual pursuits are to be emphasized, appropriate recognition by the student is necessary to reenforce his or her striving toward this goal.

Interviews with student interns working in the Department of Education indicated that student attitudes toward intellectual pursuits are dampened considerably by the lack of recognition given to academic students. An honor roll is generally published at the end of each grade period, but this recognition is ignored--for the most part--by students. Certainly there must be other more meaningful methods of rewarding academically successful students in order to encourage others.

The following are possibilities:

1. Mastery Examinations: Students capable of passing a mastery examination in a subject could be awarded a unit of credit without having to attend class. This would not only encourage students' intellectual pursuits but would give them free time to pursue self-directed interests.

2. Exemption from Final Examinations: Students with honor status throughout the year could be exempted from final examinations. This incentive may encourage other students to strive for the same goal.

3. School Privileges: Students with honor status could be given additional school privileges including a permanent library pass, appointment to curriculum advisory councils, programmed courses for credit, study hall exemption with a conference room to do self-directed work, and released time from school for field trips and career development projects.

4. Student Tutoring: Honor students could be enlisted as potential peer tutors and be given the opportunity to conduct seminars and lectures, either on a voluntary or a paid basis. (Additional sources on peer tutoring can be found in Appendix B.)

5. Student of the Month: Names of students pursuing and accomplishing intellectual activities could be publicized in the school newspaper--especially if their projects are self-directed.

These five suggestions for recognition of students' intellectual pursuits are not intended to be a comprehensive list. It is not presumed that they will, indeed, improve student values, but they should be considered when meaningful student recognition is lacking.

Summary

The impact of attempting to modify school results on the condition variables which have significant correlation coefficients with Goal IX scores should be clearly realized. The relationship between a condition variable and goal scores is usually--but not limited to--a single goal. For example, if a school, through its public relations program, helps parents gain a more positive attitude toward school, there is a strong possibility that student scores on all goals will be increased. Consider the efficiency of this approach!

Suggestions in this section, based on EQA data and appropriate educational literature, should help school personnel focus on variables often taken for granted. Positive planned steps affecting these variables should benefit both the school and community.

CHAPTER III

Part A

DIRECT APPROACH

This approach involves the investigation of the item response data available from the Division of Educational Quality Assessment. This data, providing a school district with the per cent of student responses to each and every item on the quality assessment instruments, can be especially useful since statewide information of the same nature is available for comparison. The approach is designed to help administrators analyze specifically what is tested in an attempt to pinpoint, if possible, any school discrepancies.

Identifications of Needs

The item data and the school report can be used to identify areas of the Goal IX instruments in which school deficiencies apparently exist. These needs can be identified in two ways:

1. Positive or negative student attitudes toward specific subscales.
2. Positive or negative student attitudes toward specific subject areas.

A complete understanding of the instruments and a description of the subscales are needed to complete this analysis.

General Scale Description

The questionnaires for Goal IX contains 48 items for grades 8 and 11 and 38 for grade 5. They measure how much value students

place on human achievements in the arts and sciences and to what degree they are willing to receive stimuli that endeavors in these areas provide. Areas are: literature, art, athletics, government, science, ecology, music and drama. The scale is organized into two subscales, each having half of the items.

> Subscale 1: Valuing measures the amount of importance the student attaches to achievements in the arts and sciences and how much the student values the role played by people in these areas. (Sample item: "Most scientists don't care how their work affects people.")
>
> Subscale 2: Receiving measures willingness to learn more about achievements in the arts and sciences and to seek out experiences which provide first-hand information on what people in these areas are doing. (Sample item: "It would be fun to watch people paint at an art studio.")

Organization for Analysis

The following materials are needed to make a complete analysis:

1. Criterion information on Goal IX from the schools' Status Profile. (Example can be found on page 70 of the sample report in Appendix A.)
2. Schools' item response data and statewide responses. (These are available for Goal IX from the Division of Educational Quality Assessment, Harrisburg, Pa.)
3. Copy of the Goal IX instruments.
4. Identification of subscale and subject matter questions. (Categorization Chart)

The following charts represent the categorization of the test questions by subscale and subject. This will facilitate the use of the item response data and the test (2 and 3 above) in an analysis.

GRADE 5
CATEGORIZATION OF GOAL IX TEST QUESTIONS
BY SUBSCALE AND SUBJECT

SUBJECT	SUBSCALE	
	Valuing	Recieving
	Questions	Questions
ARTS:	16	
Art	2,28	21,32
Music	8,14	17
Drama	4	3,36
Literature	10,25	6,13
Dance		35
SCIENCE	15,18,29	11,19,33
GOV'T & RELIGION	7,23,34	9,22,30
ECOLOGY	5,12,31	1,27,37
ATHLETICS	24,38	20,26
Total Subscale Items	19	19

GRADES 8 AND 11
CATEGORIZATION OF GOAL IX TEST QUESTIONS
BY SUBSCALE AND SUBJECT

SUBJECT	SUBSCALE	
	Valuing	Receiving
	Questions	Questions
ARTS:	22	
Art	4,5,35	18,27,40
Music	2,13,20	7,21,23
Drama	9,39	8,44
Literature	16,31,45	10,11,19
Dance		43
SCIENCE	14,24,36	17,25,41
GOVERNMENT	29,34,42	28,33,38
ECOLOGY	3,12,15	6,47,48
ATHLETICS	1,30,46	26,32,37
Total Subscale Items	24	24

While criterion information in the Schools' Status Profile Report is valuable, additional materials may be obtained by contacting the Division of Educational Quality Assessment and making an appointment with a trained staff member in Harrisburg who will help interpret the item data.

Data Analysis and Interpretation

When all the materials have been assembled, they can be analyzed and interpreted in either of the two ways described on the previous pages. The following examples represent both types of analyses:

EXAMPLE #1: Positive or negative attitudes toward Valuing and Receiving--This represents an interpretation of the Criterion Reference Information found in the School Report. (Here, the school report in the Appendix will be used:)

Step 1. Carefully read the information on page 70 in Appendix A, noticing that the line of 'L's indicates that about 56 per cent of the students in this school show a positive attitude in Valuing. Of the 280 students completing the assessment, 157 display a positive attitude by answering--in a positive manner--one more than half the items in this subscale (13 out of 24 items). Conversely, 44 per cent did not show a positive attitude. This represents 123 students who apparently do not attach importance to achievements in the areas assessed.

Step 2. Analyze the information for the Receiving subscale in the same manner. Notice that the need appears to be more urgent in this area. Only 27 per cent of the students showed a positive attitude or willingness to learn more about achievements in the arts and sciences.

Conclusion: A large number of students in this school could benefit from a program in aesthetic education.

Now apply this procedure to the Status Profile of the school district. If deficiencies appear, investigate further and earmark strategies for improvement.

EXAMPLE #2: Positive or negative attitudes toward specific subject areas--This analysis must be made in Harrisburg since the school item data and the statewide response patterns to these items are available only in the Division of Educational Quality Assessment. Copies of the instruments are available for such analysis.

The analyst will have four sources of information: the instrument, the schools' item data, statewide item data and the Categorization of Goal IX Test Questions Charts on pages 21 and 22 of this chapter. The procedure follows this sequence:

Step 1: Read question number one from the instrument: "Athletics are a waste of time."

Step 2: In the school item data, obtain the per cent of student responses to this question under each of the possible answers.

AGREE	UNCERTAIN	DISAGREE
6%	8%	86%

Since this is a negatively stated question, the preferred answer is Disagree.

Step 3: Obtain the statewide student responses to this same question:

AGREE	UNCERTAIN	DISAGREE
4%	7%	89%

Step 4: As a rule of thumb, if a five per cent discrepancy below the state responses on the preferred answer occurs, the question should be circled on the Categorization of Goal IX Test Question Chart. Since only a three per cent descrepancy occurs, this question would not be circled.

Step 5: Complete the previous four steps for each question on the Goal IX instrument, circling those question numbers displaying five per cent or more discrepancy.

After completing these steps, the deficiencies existing by subscale and subject will emerge. The school can then emphasize those areas of aesthetic education that need it. Lack of a clearcut pattern may indicate a general need for valuing and receiving in all areas.

The Categorization Chart for the example school in Appendix A after completion of the five steps previously discussed appears as follows:

GRADES 8 AND 11
CATEGORIZATION OF GOAL IX TEST QUESTIONS
BY SUBSCALE AND SUBJECT

SUBJECT	SUBSCALE	
	Valuing	Receiving
	Questions	Questions
ARTS:	22	
Art	4,5,35	18,27,40
Music	2,13,20	7,21,23
Drama	9,39	8,44
Literature	16,31,45	10,11,19
Dance		43
SCIENCE	14,24,36	17,25,41
GOVERNMENT	29,34,42	28,33,38
ECOLOGY	3,12,15	6,47,48
ATHLETICS	1,30,46	26,32,37
Total Subscale Items	24	24

Conclusion

There is an equal number of discrepancies in the arts for both valuing and receiving. Further analysis shows an apparent "need" in literature and drama. It is also noted that the discrepancy in the area of athletics relates to literature: "It would be interesting to read about the lives of famous athletes." From available data, it would be valid to assume that the emphasis in aesthetic education should be placed on drama and literature. Therefore, the sample strategies in Part B of this chapter that deal with these areas of drama and literature should be studies by the school district.

Part B

INTERVENTION TECHNIQUES

This part deals with a discussion of intervention techniques for Goal IX and revolves around two propositions based on a review of literature and ongoing programs. The school district must decide, on the basis of an analysis of data (Chapter III, Part A), which of the intervention techniques will best suit the needs of the students. Where applicable, the techniques will focus on subject matter areas such as art, music, drama, etc.

It should be clearly understood that these techniques do not represent a complete review of, or the total answers to, all the programs being attempted. They are intended to provoke thought and encourage further investigation.

PROPOSITION #1

> Attitudes are relatively stable and enduring systems, even in children, but can be influenced by teachers, peers and parents.

Research indicates that attitudes can be reshaped and modified. Rump and Southgate (42*) found that attitudes toward the arts could be definitely influenced, formed and changed either positively or negatively by experts or teachers.

Teachers tend to have more impact on students than they actually realize. Often, subtle conversations on the personal likes and dislikes that a teacher possesses are internalized by students, as the following

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* Refers to numbered sources in bibliography

case illustrates. Male students were exposed to two athletic coaches during the school year. During the fall, the boys were seen as well behaved and gentlemanly in their contacts with adults and students from other schools. In the spring, some of these same students were exposed to a coach who had bigoted beliefs and used foul language. A noticeable change occured in the students' attitudes--they began to openly use the foul language and bigoted terms commonly used by the coach. Parents and other adults associating with the students began to complain to the school district. This case was eventually dealt with, but more subtle influences often tend to be overlooked because teachers are unaware of or fail to recognize them.

Many times, students--particularly elementary children--misinterpret teachers' statements or internalize teacher beliefs. Because of this, teachers should be aware of incidental influence and practice caution in making statements that may negatively influence students. This is particularly true of teachers who use the dominative pattern of teaching described by Flanders (26).

Toward the more positive side, Cook, Leeds and Collis (17) wrote..."It is assumed that the attitudes of pupils toward their teachers and school work are a reflection of their teachers' attitudes toward them and toward teaching procedures." Therefore, it is important for a teacher to make a special effort to display a positive attitude toward the student and the subject matter. While personality conflicts do occur, it is to the teacher's advantage to minimize them. Bush (12)

indicates that the pupil/teacher rapport is a powerful factor in bringing about an effective learning relationship between the two. Eames (23) said "Pupils appear to like a subject when they know that the teacher likes it, too."

In summary, teachers should:

1. Be aware of both incidental and planned influence on student attitudes.
2. Like their students and show it in a positive way. (Sources on how to go about this in-service training can be found in Appendix B under the title, "How to Increase a Teachers' Interest and Compassion Toward a Student.")
3. Demonstrate an obvious satisfaction and interest in the subjects they teach.
4. Display mastery of the subject matter and teaching procedures. (Appendix B--"Teacher-Student Interaction.")

Certainly all positive components are not found in every teacher at all times. But, if there is to be an ideal foundation for learning, then teachers should be aware of the nature of student attitudes and their part in shaping or affecting them.

It is also important to define attitudes as they relate to specific subjects. Although both affective and cognitive elements contribute to attitude, they are often so interwoven as to defy discrimination and strict delineation. However, Albert Yee (50) defines attitudes as an enduring system of three components centering on a single object: (1) beliefs about the object (the cognitive component); (2) the effect connecting with the object (the feeling component); and (3) the disposition to take action with respect to the object (the action tendency component). This largely follows the Goal IX Rationale

and, in fact, will be borne out by research in Proposition #2. The research says, in effect, that for students to form positive attitudes toward forms of aesthetic education, some cognitive information is necessary and should be followed by experiences to reenforce this knowledge.

PROPOSITION #2

> Systematic and sustained engagements in the arts and humanities will result in appreciation and utilization of aesthetic principles.

In this section the writer will present research that supports the proposition and do so, where possible, by subject matter. It should be noted that even though a concept is specifically aimed at a particular subject, it may have ramifications for all aesthetic education. Therefore, it is suggested that the reader study all subject areas in order to understand suggested principles and intervention techniques. For subjects involved in "Aesthetic Education," (Art, Music, Drama, Dance) ongoing programs and resources are compiled under a separate heading following the discussion on Drama and Dance. For Literature, Science, Government, Religion, Ecology, Intervention Techniques and Strategies, where available, are incorporated in the discussion.

Music

Children's attitudes toward specific music and musical composers were studied by Pepinsky (40), using both a pre- and post-test. The study included also a correlational comparison with other factors, such as musical aptitude, musical background and experience.

All children involved in the study increased their liking for music in general; their attitudes toward the music studied seemed to be more closely related to musical experiences than to any other factors.

Usually the secondary school is limited in the types of musical experiences it can provide. However, if the district is concerned about student attitudes toward music, it must systematically provide sustained exposure to musical experiences. General music classes too often try to cover a wide spectrum of musical knowledge without concern for the impact upon student attitudes. Research indicates that repeated listenings are necessary in order to increase the pleasure of hearing a musical composition; this is true for both classical and modern forms of music. The lack of time is often a fatal blow to students' appreciation of classical music. The research points out, it is unlikely that a student will appreciate Bach's Three Part Inventions after hearing only one small excerpt. In popular music we find this theory validated. Radio station disc jockeys are capable of turning songs into hits by repeated playings throughout the day.

Since studies have indicated that junior high school students relate more to popular music, it should be the stepping stone to more aesthetic experiences. Most general music classes follow a curriculum foundation of music history. Why shouldn't the class be initiated with a study of popular music and its relationship to all other forms of music? Certainly one can trace classical lines to such popular groups as "Chicago" and "Blood, Sweat and Tears."

While cognitive components of music are necessary, research concludes that they need not be structural in nature: A study conducted by Jesse Evans (24), reported that the understnading of the various elements of musical structure appear to have nothing or very little to do with junior high school students' affective response to the various types of music. Perhaps the cognitive components should then be the instruments and the musicians who play them. Let us explore this possibility under two areas: (a) hands-on experience and (b) personal contact with artists.

One of the more successful programs in the schools has been the "Guitar Program." In this program students are taught simple chords and are then capable of using this knowledge for their own entertainment. This hands-on experience sets the stage for appreciation of technical virtuosity and an inspirational experience. If this has been successful for guitar, exploration of other instruments should be investigated for incorporation in general music classes. One who has never tried to play a musical instrument is less likely to appreciate the time and skill necessary to achieve some degree of mastery.

A study by Butler (11), found that personal contact with artists seemed the most effective means of preparing students for a performance. The interest created in students this way is further demonstrated by the success of artist clinics sponsored by manufacturers of musical instruments. A synopsis of what research suggests is:

1. Children's attitudes toward music seem to be more closely related to actual experiences than to any other factor.

2. Repeated listenings increase the pleasure of hearing musical compositions.

3. Junior high school students relate better to popular forms of music.

4. Hands-on experiences can provide a basis for appreciation.

5. Personal contact with artists creates student interest.

Art

Many of the ideas suggested for music can be applied to art appreciation. Specifically, research indicates that repeated exposure to art can provide a basis for appreciation and the use of aesthetic principles. Child (15) states that art appreciation can occur simply through repeated exposures, even without formal instruction. However, the better the instruction, the greater the sophistication in judgments of art. Kuhn (35) found a highly significant correlation between extensive art instruction and better attitudes toward art.

Hands-on art experiences help children understand and appreciate art forms. They should be augmented by personal contact with artists in all medias.

Suggested intervention techniques are:

1. Frequent planned trips to art galleries. Geographic areas isolated from cultural centers should invest in a variety of prints and materials to be displayed in the school. Plans should also be made for at least two field trips per year to cultural centers.

2. Related arts programs should be investigated for incorporation in the curriculum.

3. Children should be exposed to hands-on experiences in all medias.

4. Local artists should be invited to provide demonstrations, clinics and lectures.

Drama and Dance

As in music and art, systematic exposure to performances and performers have the greatest impact on student attitudes toward drama and dance. A single offering a year has little impact on students.

Butler's study (11) showed that a student's evaluations of the performances--liking or not liking--were directly related to how relevant each performance was to the student's age. Stern (44) found in a study that, where drama was concerned, administrators, teachers and students agree on the necessity of studying plays before seeing the performances.

RESOURCE INFORMATION AND ONGOING PROGRAMS (Aesthetic Education)

Many of the current strategies and ongoing programs deal with aesthetic education, combining the subject areas of art, music, drama and dance. These resources may help school districts wishing to institute programs related to Goal IX. While this represents only a small sample, it may give the district entree to programs and resource people.

The Pennsylvania Aesthetic Education Program, for instance, is an ESEA Title III cooperative effort between the Bethlehem Area School District, the Fine Arts Program of the Pennsylvania Department of Education, and CEMREL, INC. Its purpose is to hold workshops and develop media packages for school districts. Through the house organ, "The Arts File," schools receive a series of activity cards for "hands-on use." These cards, over a period of time, can be used as a developing resource for teachers.

Professional staff from the Bureau of Curriculum Services, Pennsylvania Department of Education, are ready to help school districts revise their arts curriculums. A publication, The Arts Process in Basic Education, can be obtained from the bureau.

The publication, Arts Impact: Curriculum for Change, A Summary Report, prepared by the Arts IMPACT Evaluation Team, The Pennsylvania State University, summarizes projects across the country and identifies resource people.

Literature

Student attitudes toward literature may branch into other subject areas, as illustrated by reviewing the instrument items. Several statements were made this way: "It would be interesting to read about famous athletes." Similar statements are made in seeking information on student attitudes toward scientists, musicians and politicians. Therefore, student attitudes toward literature should be of utmost concern to the school district.

"Schools Influence Critical Approaches to Literature, but Students Learn Appreciation at Home," the title of an article published in the November 1973 issue of National Assessment (39), points out that a large number of teachers spend a great deal of time dealing with the critical analysis of literature and its component parts. The question is, "Does this approach turn students off to the real joys of reading and literature?" Perhaps we have abandoned "appreciation" in the schools and relegated it to chance existence in the home. Walter Loban, reporting in the English Journal, indicates that too many teachers have evaded genuine literary response by retreating to their intellectual and theoretical college studies: structure, point of view, genre, archetypes and aesthetic distance. These formal elements, though valuable in their own place, can easily become substitutes, cool cognitive refuges from the total experience.

To purge one's self of emotional involvement and limit response to analytical and intellectual interests has been the message of contemporary critics and scholars, but it has proved to be a blighting

message. Even the most intellectual university students now reject it, and it is necessary that literature teachers also reject it.

To this end, school districts might look into approaches that foster a desire to read. Hooked on Books: Program & Proof, by Daniel Fader and Elton McNeil (25), provides some theories, suggestions for obtaining results, example study guides, and a list of suggested paperbacks.

Few will argue that the first step in appreciating literature is to foster a desire to read. Students turned off on books are closed to the literary emotionality necessary for appreciation. Once the student enjoys reading literature, then the critical analysis, including structure, genre and point of view, can follow.

The examination of life through literature can result only from reading books that have a genuine impact on the individual. The teacher's major goal should be to guide the students' selection of books and to help adolescents read literature as human experience--not to dwell on a fixed number of books, a smattering of biographical data, or an overload of formal elements. Such information may support and extend a student's knowledge, but it can never supplant the reader's authentic response.

Science

A wealth of research has been completed on student "attitudes" toward science and scientists. A comprehensive review of this literature by Lewis and Dorothy Aiken in the October 1969 issue of Science Education (2) indicates that "attitude," as used in the literature on science education, has multiple meanings. Further, it is important to know

precisely which meaning a given writer is using in order to understand and evaluate his or her research. The majority of studies on "attitudes toward science" have been concerned with affect or feeling--like vs. dislike--toward science in general or toward a particular science. Other investigations have dealt with "attitude toward scientists," which refer to like vs. dislike or approval vs. disapproval of the activities engaged in by scientists and the kinds of people that scientists are. The Rationale of Goal IX is not to increase scientific achievement or to encourage more students to become scientists, but rather to develop in students a more positive attitude toward science and scientists.

H. Allen (3) found that many high school students misunderstand and are confused by the public image of scientists and science. Tuominen (49) suggests, as the result of an experiment, that students be allowed to mix and mingle with scientists. He contends that interacting directly with scientists in the laboratory helps students overcome the stereotype of the scientist as unsociable, inhuman and generally ineffectual.

W. T. Tatara (45) suggests that reading selected novels about scientists will affect student attitudes and ideas about scientists. However, he points out, reading does not have any significant effect on students' understanding of science, nor does it encourage more students to become scientists.

Several studies show that pupil attitudes toward science are affected by the attitudes of their teachers. The same premise was asserted in Proposition #1 of this chapter.

Teaching methods (modern vs. traditional) have also been suggested as affecting student attitudes. Charen (13) compared an open-ended, inductive approach with a traditional, deductive approach in the teaching of high school chemistry. He obtained attitude measures from observing 268 students through discussions with them and their teachers, and from a questionnaire. The students were more positive toward the inductive approach because it made them think and feel like real chemists; it gave them more freedom in the laboratory; and it was more challenging, interesting, enjoyable and stimulating than the traditional approach.

The most elaborately-designed study reviewed was that of L. F. Lowery (36). This study involved 335 California 5th graders, divided into experimental and control groups who were matched for IQ at each of three socioeconomic levels. The experimental group received instruction in a National Science Foundation-sponsored science unit on animal coloration. The control group was taught a comparable science unit on the topic of animals from the California textbook series. Among the results was a significant change in attitudes toward science in the experimental group, but not in the control group, at all SES levels.

M. Kendall (33), measuring attitudes toward science by observing overt student behaviors in science classes, produced evidence to indicate that a significant difference in positive attitude as measured by Vitrogan's Attitude Toward Science Scale, exists between those classes practicing and not practicing the following behaviors: (1) the student contributes to the procedure in solving a laboratory problem, (2) the student develops ways of testing his proposed conclusions,

(3) the student selects the mathematical operations to be performed on quantitative information, (4) the student writes an essay report, and (5) the student suspends final judgment on experimental outcomes until the data has been analyzed.

Several other articles describe classroom procedure which reportedly help develop attitudes. For example, Curtiss et al. (20) discusses the use of a science activity center, science interest boxes, and problems requiring inductive thinking to stimulate positive attitudes and interests among children. Bernatowicz and Kay (9) describe their use of a sealed black box with small observation holes punched in it and containing various objects to teach such scientific attitudes as the difference between theory and observation, dependence on facts rather than authority, and the ability to draw valid inferences from facts. Similarly, Hyer and Hyer (32) outline a "parlor trick" approach which involves the demonstration of some phenomenon which the class then attempts to explain by guessing or speculating and coming to a conclusion either individually or in groups.

Finally, Drummond (22) points out the need to present science in the proper cultural context in order to avoid misunderstandings and mistaken attitudes concerning science and scientists.

In summary, four general suggestions can be gleaned from the literature:

1. Expose students to personal contact and interaction with scientists by planning field trips to laboratories.
2. Provide selected reading materials that present scientists in a positive manner.

3. Emphasize the amount of teacher influence on student attitudes toward science.

4. Study and select appropriate classroom procedures and techniques.

Government

Research indicates that despite the obvious need for improvement in formal political education programs, reforms will probably have limited impact on the way young people relate to the political system. The reason is that while students learn about government and politics through the formal curricula and what instructors teach, they also learn by observing and experiencing the extent to which democratic values and processes are really adhered to in the life of the school as a social system. As many observers have noted, what students are taught and what they themselves observe usually lead to different conclusions. It seems unlikely that students will take seriously the admonition to "do as we teach, not as we do." In otherwords, the contribution that educators can make to the development of a deep respect for democratic values and predisposition to see politics as an appropriate and useful vehicle, is to make schools themselves workable models of democracy.

Willis D. Hawley, in his Theory Into Practice (29), enumerates school practices which discourage students from defining for themselves a sufficiently positive and active role in the political system. The following are Hawley's hypotheses:

1. The more emphasis the teacher places on compliance to rules and authority, the more likely a student is to develop passive and authoritarian attitudes toward politics and the political system.

2. To the extent that teachers encourage student participation in the class and ask for less difference from them, they foster the development of attitudes and skills consenant with democratic values.

3. Students in schools in which free expression is encouraged, and where controversial issues are discussed openly, are more likely to develop a strong commitment to that value and to understand its civic utility.

4. To the extent that teacher attitudes not related to achievement are major determinants of rewards for achievement, students will be cynical about the possibility of objective and fair application of law in the larger society.

5. To the extent that students are provided with opportunities for expression, and are encouraged to question and seek recourse from what they perceive as misuse or a mistaken exercise of authority (such as evaluations of their performance), they will develop a sense of trust in the political system, a belief that those in authority should be accountable for their actions, and an appreciation for the right and propriety of positive political activity to redress social and personal grievances.

6. To the extent that students are involved in the actual formulation of school and classroom policies, they will develop a predisposition to participate activitely and democratically in the political process, and the capacity to do so.

7. To the extent that principals, teachers and other staff members treat each other with respect and deal with important issues in a democratic way, students will be committed to democratic approaches to decision-making.

8. Students who attend schools which are racially integrated, and where classrooms are not segregated by "ability," are less likely to manifest racial or social class intolerance.

Hawley, though perhaps abrasive in presenting his hypotheses, presents an interesting point of view about the organizational structure of schools and their impact on student attitudes toward politics. Administrators might well take an inventory of school practices to determine whether undemocratic situations exist, and, if so, take corrective measures.

Religion (Grade 5 only)

Two of 38 questions in the Grade 5 instrument deal with religion. They are divided equally between the subscales. Due to this small sample, it is questionable whether an adequate diagnosis of attitudes can be made. However, a noticeable discrepancy might create concern in the local district. For this reason, the teacher should investigate materials from the text, Religious Literature of the West (41), as a resource to help students understand religions of the world. Further information can be obtained by contacting the PDE's Bureau of Curriculum Services.

Ecology

Positive attitudes toward the environment and environmentalists is of utmost importance today and in the future. Schools who determine their students lack a positive attitude toward the environment and environmentalists will find a wealth of resources available to them. The Report of the Pennsylvania Environmental Education Advisory Council is an excellent publication to investigate if the school wishes to institute an environmental education program. This report provides descriptions of the types of environmental education programs that can be instituted in the school. Briefly, it suggests eight types of programs that can be developed and utilized by the school district. They are:

Type 1--Interdisciplinary Courses

Type 2--Single Discipline Courses

Type 3--Environmental Units or Mini-Courses

Type 4--Environmental Community Action Emphasis

Type 5--Environmental Awareness Emphasis

Type 6--Environmental Study Areas

Type 7--Special Environmental Emphasis

Type 8--General K-12 Programs

In addition to providing program descriptions, the Report also lists, by name, the schools in Pennsylvania presently using one or more detailed information about environmental education should obtain this Report from the Senior Advisor for Environmental Education, Box 911, Harrisburg, Pennsylvania 17126.

Athletics

The attitudes of students toward athletics is the most positive of any subject area examined. Those involved in athletics appear to have done their "homework" in public relations, so no attempt will be made in this paper to deal specifically with strategies to effect better student attitudes toward athletics.

BIBLIOGRAPHY

1. Aesthetic Education: A Social and Individual Need, CEMREL, Inc., St. Louis: 1973.

2. Aiken, Lewis R., Jr. and Aiken, Dorothy R., "Recent Research on Attitudes Concerning Science," Science Education, October 1969. Vol. 53, No. 4.

3. Allen H., "Attitudes of Certain High School Seniors Toward Science and Scientific Careers," Science Manpower Project Monographs, New York: Bureau of Publications, Teacher College, Columbia University, 1959.

4. Arts Impact: Curriculum for Change, A Summary Report, U.S. Office of Education, The U.S. Department of Health, Education and Welfare. Washington, D.C.: 1973.

5. Bagin, D. and Others, School Communications: Ideas That Work. A Public Relations Handbook for School Officials. McGraw-Hill Publications, Chicago, Ill.: 1972.

6. Barlow, R. J. G., "Social Responsibility of the Science Educator," Science Education, 1961, 45: 373-376.

7. Bartlett, D. L., The effect of Repeated listenings on ability to recognize the structural elements in music and the influence of this ability on attitudinal shift. (Doctoral dissertation, Kansas State University) Washington, D.C.: United States Government Printing Office, ERIC Documents, 1969, No. ED 035-380.

8. Baumel, H. B., and J. J. Berger, "An Attempt to Measure Scientific Attitudes," Science Education, 1965, 49: 267-269.

9. Bernatowicz, A. J., and E. A. Kay, "Scientific Attitudes, Certainly, and the Black Box," Journal of General Education, 1961, 13: 25-29.

10. Bullock, Robert P., School-Community Attitude Analysis for Educational Administrators, Columbus, Ohio: College of Education, The Ohio State University.

11. Butler, Sister Loretta M., The Effect of the Experience of Performances in the Arts, with and without preparation, on the Attitudes of Sixth Grade Children. (Doctoral Dissertation, Fordham University) Ann Arbor, Michigan: University Microfilms, 1973.

12. Bush, R. N., The Teacher-Pupil Relationship. New York: Prentice-Hall, 1954.

13. Charen, G., "Laboratory Methods Build Attitudes," Science Education, 1966, 50: 54-57.

14. Child, I. L., "Observations on the Meaning of Some Measures of Aesthetic Sensitivity." Journal of Psychology, 1964, 57, 49-63.

15. Child, I. L. and Schwartz, R., "Exploring the Teaching of Art Values." Journal of Aesthetic Education, 1966, 2, 41-54.

16. Coleman, James S., et. al., Equality of Educational Opportunity. Washington, D.C.: U.S. Government Printing Office, 1966.

17. Cook, W. W., Leeds, C. H., & Callis, R., Minnesota Teacher Attitude Inventory: Manual, New York: Psychological Corporation, 1950.

18. Cossman, G. W., "The Effects of a Course in Science and Culture Designed for Secondary School Students." Unpublished Ph.D. dissertation, University of Iowa, 1967.

19. Croft Leadership Action Folio, Croft Educational Services, Inc., New London, Conn.

20. Curtiss, M. E., Woodley, and S. Irving, "4 Ways to Make Science Count," Grade Teacher, March 1968, 85: 84-85.

21. Downey, J. and Knapp, G. E., The effect of a musical listening program of familiarity and of sequence of selections. In The Effects of Music. Max Schoen (Ed.), New York: Harcourt, Brace, 1927.

22. Drummond, A. H., "Science and the Cultural Matrix," Clearing House, 1964, 39: 237-241.

23. Eames, Thomas H., "Attitudes and Opinions of Adolescents. The Adolescent Speaks," Journal of Education, 147: 1965.

24. Evans, J. G., The effects of especially designed listening experiences on junior high school students' attitudes toward music. (Doctoral dissertation, Indiana University) Ann Arbor, Michigan: University Microfilms. 1966, No. 66-1444.

25. Fader, D. N. and E. B. McNeil, Hooked on Books: Program & Proof, Berkley Publishing Corporation, New York, 1968.

26. Flanders, N. A., Teacher Influence, Pupil Attitudes, and Achievement. Washington, D.C., Government Printing Office, Document No. OE-25040, 1965.

27. Graham, Grace, The Public School in the American Community, New York: Harper & Rowe, 1963.

28. Haney, R. E., "The Development of Scientific Attitudes," Science Teacher, December 1964, 31: 33-35.

29. Hawley, Willis D., "Political Education and School Organization," Theory Into Practice, December 1971, Vol. X, No. 5: 328-335.

30. Hedley, R. L., "Student Attitude and Achievement in Science Courses in Manitoba Secondary Schools." Unpublished Ed.D. dissertation Michigan State University, 1966.

31. Higgins, M. J. and N. S. Archer, "Interaction Effect of Extrinsic Rewards and Socioeconomic Strata," Personnel and Guidance Journal, December 1968.

32. Hyer, J. E., and M. D. Hyer, "Parlor Tricks That Help to Stimulate Scientific Thinking," Grade Teacher, May-June 1965, 82: 42-43.

33. Kendall, Marvin R., Scientific Behaviors Promoting an Understanding of Science and a Positive Attitude Toward Science as Exhibited by Selected High School Physics Classes. (Doctoral Dissertation, University of Massachusetts). Ann Arbor, Michigan: University Microfilms, 1970.

34. Krugman, H. E., "Affective Response to Music as a Function of Familiarity," Journal of Abnormal and Social Psychology, 1943, 38, 388-392.

35. Kuhn, M., The effects of art instruction on the attitudes of college students toward contemporary paintings. (Doctoral dissertation, Syracuse University) Ann Arbor, Michigan: University of Microfilms, 1963. No. 63-6747.

36. Lowery, L. F., "An Experimental Investigation Into the Attitudes of Fifth Grade Students Toward Science," School Science Mathematics, 1967, 67: 569-579.

37. McCloskey, Gorden, Education and Public Understanding, New York: Harper and Rowe, 1967.

38. Mielke, W. E., "Method and Viewpoint on Collecting and Learning Common Names of Local Plants," American Biology Teacher, 1962, 24: 122-124.

39. National Assessment of Educational Progress, "Report 02-1-02, Responding to Literature" (Washington, D.C.: U.S. Government Printing Office, 1973).

40. Pepinsky, M., Sixth grade children's attitudes toward the music of Gluck, Hadyn, and Mozart, and other music. (Doctoral dissertation, Indiana University) Ann Arbor, Michigan: University Microfilms, 1959, No. 59-5318.

41. Religious Literature of the West, Bureau of Curriculum Services, Pennsylvania Department of Education, 1969.

42. Rump, E. E. and Southgate, J., "Variable Affecting Aesthetic Appreciation in Relation to Age," British Journal of Educational Psychology, 1967, 37, 58-72.

43. Stearns, Harry L., Community Relations and the Public Schools, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1955.

44. Stern, H. G., Educational Laboratory Project: Coordinator's Report (Ed.) St. Ann, Missouri: CEMREL, 1970.

45. Tatara, W. T., "Effect of Novels on Ideas About the Scientist," Journal of Educational Research, 1964, 58: 3-9.

46. The Arts Process in Basic Education, Bureau of Curriculum Services, Pennsylvania Department of Education, 1973.

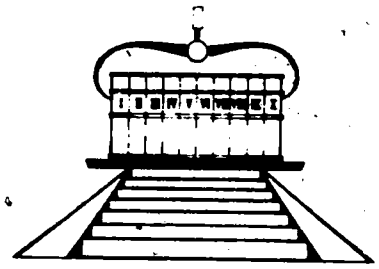
47. Torney, J. and Hess, R., New methods for measuring the development of attitudes in children. (Doctoral dissertation, University of Chicago) Washington, D.C.: United States Government Printing Office, ERIC Documents, 1965, No. Ed 011-080.

48. Tucker, W. T., Experiments in aesthetic communications. (Doctoral dissertation, University of Illinois) Ann Arbor, Michigan: University Microfilms, 1955. No. 15280.

49. Tuominen, W. O., "Contact With Scientists Changes Student Attitudes; Students Learn Scientists Are Vital Human Beings," Chicago Schools Journal, 1964, 56: 13-16.

50. Yee, Albert H., Factors Involved in Determining the Relationship Between Teachers and Pupils' Attitudes. ERIC REPORT ED 010-336: 1966.

APPENDIX A



Educational Quality Assessment

School Report: A Status Profile

Pennsylvania Department of Education 1973

<<< EQA, PHASE III--SPRING 1973: NAME = ID = DATE RUN = 08/08/73. >>>

1. STUDENT OUTPUTS:

A. GENERAL SUMMARY:

Shortened name for the goal

Number of student booklets scored for this goal

Mean raw score expected for the school

GOAL	AREA	NUMBER STUDENTS	ACTUAL SCHOOL SCORE	ACTUAL SCHOOL %ILE	EXPECTED SCORE RANGE
I	SELF ESTEEM	280	57.94	4	56.60 - 58.91
II	UNDERSTANDING OTHERS	280	58.44	45	57.85 - 59.31
III-V	BASIC SKILLS: VERBAL	286	14.90	10	15.14 - 16.14
III-M	BASIC SKILLS: MATH	286	15.45	12	15.40 - 16.47
IV	INTEREST IN SCHOOL	285	73.33	19	73.48 - 76.36
V	CITIZENSHIP	281	62.91	65	61.54 - 65.10
VI	HEALTH HABITS	285	65.55	41	64.52 - 68.18
VII	CREATIVITY	280	44.21	82	42.31 - 47.28
VIII-A	VOCATIONAL ATTITUDE	280	50.66	55	48.75 - 50.66
VIII-K	VOCATIONAL KNOWLEDGE	281	17.09	10	16.83 - 17.90
IX	APPRECIATING HUMAN ACCOMPLISHMENTS	280	54.35	18	52.38 - 55.10
X	PREPARING FOR A CHANGING WORLD	286	59.59	8	59.98 - 62.15

FOR COMPLETE INFORMATION, SEE MANUAL FOR INTERPRETING INTERMEDIATE SCHOOL REPORTS, 1973: HARRISBURG: PA. DEPARTMENT OF EDUCATION.

Mean raw score of the student booklets scored

Percentile rank in state for this school in each goal area

<<< EGA, PHASE III--SPRING 1973: NAME = ID = DATE RUN = 08/08/73 >>>

8. PERCENTILE BANDS BY GOALS:

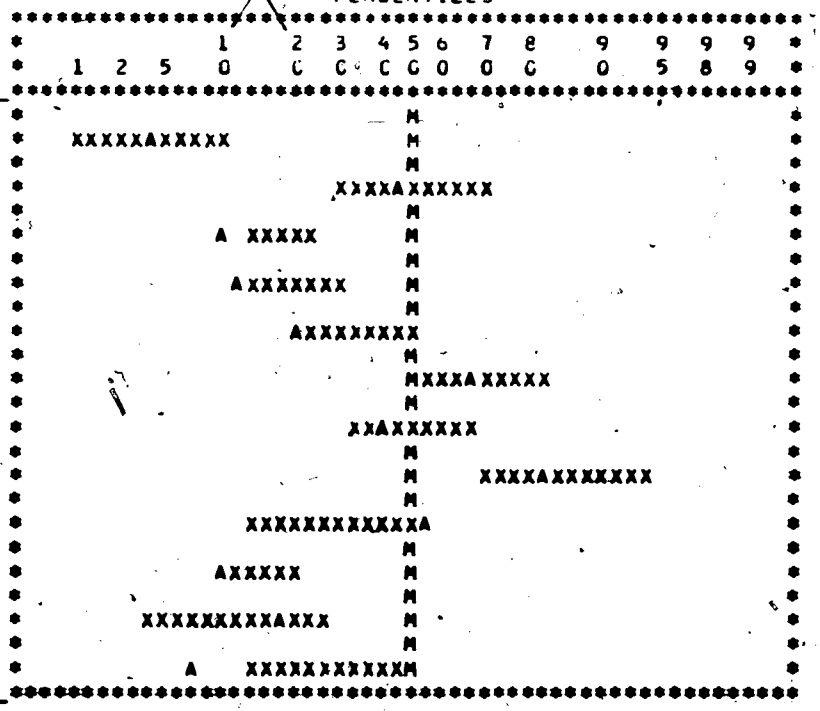
CONFIDENCE INTERVALS

Distances based on Z-scores (see Appendix C)

PERCENTILES

1 2 5 1 0 2 0 3 0 4 0 5 0 6 0 7 0 8 0 9 0 9 5 9 8 9 9

GOAL	AREA
I	SELF ESTEEM
II	UNDERSTANDING OTHERS
III-V	BASIC SKILLS: VERBAL
III-M	BASIC SKILLS: MATH
IV	INTEREST IN SCHOOL
V	CITIZENSHIP
VI	HEALTH HABITS
VII	CREATIVITY
VIII-A	VOCATIONAL ATTITUDE
VIII-K	VOCATIONAL KNOWLEDGE
IX	APPRECIATING HUMAN ACCOMPLISHMENTS
X	PREPARING FOR A CHANGING WORLD



N.B. AN 'A' IN THE TABLE DESIGNATES THE LOCATION OF THE OBSERVED, ACTUAL SCHOOL VALUE.

'M' IS USED TO REPRESENT THE MEDIAN (50TH %ILE).

THE XX ... XX BAND IS THE EXPECTATION BAND.

2. INDEPENDENT (PREDICTOR) VARIABLES:

A. FROM ADMINISTRATORS AND DEPARTMENT RECORDS:

VARIABLE NAME	ACRONYM	MEAN	SCHOOL %ILE	NUMBER REPLYING
GRADE ENROLLMENT	GRENROLL	906.CC	99	1
PERCENTAGE ATTENDANCE	PCTATTEN	94.CC	45	1
TEACHER HOLDING POWER	THOLDPOW	86.17	21	1
RESIDENCES IN SCHOOL'S COMMUNITY	HOUSING	3.65	64	1
SCHOOL LOCATION	SLOCATE	4.0C	80	1
SCHOOL INNOVATE	INNOVATE	24.00	30	1
TEACHER TO PUPIL RATIO	STAFFP	1:27.5	58	1
INSTRUCTIONAL EXPENSES PER AVERAGE DAILY MEMBERSHIP	INSEXADM	556.CC	48	1
RATIO OF SCHOOL'S ENROLLMENT TO CAPACITY	ENROLCAP	96.64	51	1
TEACHER EXPERIENCE	TEXPER	11.7C	67	46
TEACHER AGE	TAGE	36.78	57	46
TEACHER EDUCATION	TEDUC	4.26	7	46
PER CENT FEMALE TEACHERS	PCTFEM	54.35	88	1

B. FROM TEACHERS:

VARIABLE NAME	ACRONYM	MEAN	SCHOOL %ILE	NUMBER REPLYING
TEACHER LOCALE	TLOCALE	1.62	56	45
TEACHER CAREER	TCAREER	2.14	15	44
TEACHER SATISFACTION WITH RELATIONSHIPS--PARENTS	TSATPAR	2.95	52	44
TEACHER SATISFACTION WITH RELATIONSHIPS--STAFF	TSATFS	3.53	73	45
TEACHER SATISFACTION WITH RELATIONSHIPS--PRINCIPAL	TSATPRIN	2.44	7	45
TEACHER SATISFACTION WITH RELATIONSHIPS--STUDENTS	TSATST	3.00	43	45
TEACHER PERCEPTION OF SCHOOL ADMINISTRATION	PERSAD	15.29	20	45
TEACHER PERCEPTION OF DISTRICT ADMINISTRATION	PERDAD	4.67	5	45
CLASSROOM PRACTICES	CLPRACT	9.78	62	45
DISCREPANCY	DISCREP	7.8C	68	45
TEACHER PERCEPTION OF LEARNING ATMOSPHERE	PERLERAT	13.20	43	46
TEACHER/STUDENT RELATIONSHIPS	TSRELATE	18.82	27	45

****

<<< TLOCALE >>>

WHERE HAVE YOU SPENT MOST OF YOUR LIFE?

OUTSIDE THIS STATE	2%
IN THIS STATE, BUT OUTSIDE THIS TOWN, CITY OR IMMEDIATE AREA	58%
IN THIS TOWN, CITY OR IMMEDIATE AREA	40%

****

<<< TCAREER >>>

IF YOU HAD THE OPPORTUNITY NOW OR LATER, WOULD YOU LIKE TO:

TAKE A POSITION OUTSIDE EDUCATION	36%
TAKE A POSITION IN EDUCATION OTHER THAN CLASSROOM TEACHER	14%
CONTINUE AS A CLASSROOM TEACHER	50%

<<< TSATPAR; TSATFS; TSATPRIN; TSATST >>>

IN YOUR TEACHING SITUATION HOW SATISFIED ARE YOU WITH YOUR RELATIONSHIPS WITH:

Very satisfied
Somewhat satisfied
Somewhat dissatisfied
Very dissatisfied

These item replies can be compared to the state averages; see Table 9

	VS	SS	SD	VD
PARENTS AND PARENT GROUPS	16%	64%	20%	0%
FELLOW STAFF MEMBERS	58%	38%	4%	0%
THE SCHOOL PRINCIPAL	11%	40%	31%	18%
STUDENTS	27%	49%	22%	2%

<<< PERLERAT >>>

SURVEY OF SCHOOL PROBLEMS: (PER CENT = YES RESPONSES)

THE HOME ENVIRONMENT OF THE PUPILS IS NOT GOOD	87%
PUPILS ARE NOT WELL FED AND WELL CLOTHED	33%
THE DIFFERENT RACES OR ETHNIC GROUPS DON'T GET ALONG	0%
PARENTS ATTEMPT TO INTERFERE WITH THE SCHOOL	46%
THERE IS TOO MUCH COMPETITION FOR GRADES	20%
THERE IS TOO MUCH EMPHASIS ON ATHLETICS	35%
THERE ARE TOO MANY ABSENCES AMONG STUDENTS	39%
THE CLASSES ARE TOO LARGE FOR EFFECTIVE TEACHING	80%
THERE SHOULD BE A BETTER MIXTURE, THE STUDENTS ARE ALL TOO MUCH OF ONE TYPE	26%
TOO MUCH TIME HAS TO BE SPENT ON DISCIPLINE	50%
THE STUDENTS AREN'T REALLY INTERESTED IN LEARNING	65%
THERE IS A LACK OF EFFECTIVE LEADERSHIP FROM THE SCHOOL ADMINISTRATION	76%
THE PARENTS PUT TOO MUCH PRESSURE ON THE STUDENTS FOR GOOD GRADES	22%
THE TEACHERS DON'T SEEM TO BE ABLE TO WORK WELL TOGETHER	9%
TEACHERS HAVE TOO LITTLE FREEDOM IN SUCH MATTERS AS TEXTBOOK SELECTION, CURRICULUM, AND DISCIPLINE	33%
THERE IS TOO MUCH STUDENT TURNOVER	4%
THE PARENTS DON'T TAKE ENOUGH INTEREST IN THEIR CHILDREN'S SCHOOL WORK	65%
WE HAVE POOR INSTRUCTIONAL EQUIPMENT: SUPPLIES, BOOKS, LABORATORY EQUIPMENT, ETC.	7%
THERE ARE TOO MANY INTERRUPTIONS DURING CLASS PERIODS	28%
THERE IS TOO MUCH TEACHER TURNOVER	57%
THERE IS TOO MUCH TURNOVER OF ADMINISTRATORS	0%

<<< EQA, PHASE III--SPRING 1973: NAME = ID = DATE RUN = 08/09/73. >>>

C. FROM STUDENTS:

VARIABLE NAME	ACRONYM	MEAN	SCHOOL FILE	NUMBER REPLYING
FATHER'S OCCUPATION	FOCC	35.31	57	269
OCCUPATIONAL DESIRE	OCDESIRE	46.39	25	275
OCCUPATIONAL EXPECTATION	OCEXPECT	40.93	31	270
PER CENT GIRLS	PCTGIRLS	49.83	50	1
MOTHER'S EDUCATION	MEDUC	3.96	53	285
TYPE OF COMMUNITY	RESIDE	1.76	30	287
PER CENT WHITE STUDENTS	PCTWHITE	97.20	77	1
ACCESSIBILITY OF LIBRARY	LIBRARY	4.64	91	287
ACCESSIBILITY OF COUNSELOR	COUNSEL	4.49	30	287
STABILITY OF STUDENT RESIDENCES	STABLE	4.70	12	287
PARENTAL ATTITUDE TOWARD SCHOOL	PARATT	5.15	10	285
MORES--BOYS	MORESB	3.94	32	285
MORES--GIRLS	MORESG	3.39	17	282
PERSONAL VALUES	VALUES	4.71	68	283
HOME CLIMATE	HOMECLIM	12.84	9	280

****

<<< RESIDE >>>

IN WHAT TYPE OF COMMUNITY ARE YOU NOW LIVING?

IN THE OPEN COUNTRY OR IN A FARMING COMMUNITY	27%
IN A SMALL TOWN (LESS THAN 10,000 PEOPLE) THAT IS NOT A SUBURB	71%
INSIDE A MEDIUM SIZE CITY (10,000 TO 100,000 PEOPLE)	1%
INSIDE A LARGE CITY (100,000 TO 500,000 PEOPLE)	0%
IN A VERY LARGE CITY (OVER 500,000 PEOPLE)	0%
IN A SUBURB OF A MEDIUM SIZE CITY	1%
IN A SUBURB OF A LARGE CITY	0%
IN A SUBURB OF A VERY LARGE CITY	0%

****

<<< PCTWHITE >>>

WHICH OF THE FOLLOWING BEST DESCRIBES YOU?

BLACK	0%
WHITE	97%
AMERICAN INDIAN	1%
ORIENTAL	1%
PUERTO RICAN	0%
OTHER	1%

****

<<< LIBRARY >>>

HOW OFTEN ARE YOU ABLE TO USE THE SCHOOL LIBRARY?

AS OFTEN AS I NEED TO	80%
FREQUENTLY, BUT NOT AS OFTEN AS I WOULD LIKE TO	8%

ONLY TWO OR THREE DAYS A WEEK	7%
ONLY WHEN MY CLASS IS SCHEDULED FOR LIBRARY WORK	5%
THERE IS NO LIBRARY IN THIS SCHOOL	C%

****

<<< COUNSEL >>>

HOW OFTEN ARE YOU ABLE TO TALK WITH YOUR GUIDANCE COUNSELOR ABOUT A CONCERN?

WHENEVER I NEED TO	72%
OFTEN, BUT NOT AS FREQUENTLY AS I WOULD LIKE TO	14%
ONLY WHEN MAKING OUT A CLASS SCHEDULE	6%
ONLY DURING A GROUP GUIDANCE SESSION	8%
THIS SCHOOL DOES NOT HAVE A GUIDANCE COUNSELOR	C%

****

<<< STABLE >>>

HOW MANY DIFFERENT SCHOOL BUILDINGS HAVE YOU ATTENDED WITHIN THE PAST THREE YEARS BECAUSE YOUR FAMILY CHANGED RESIDENCE?

MY FAMILY HAS NOT MOVED WITHIN THE PAST THREE YEARS	8C%
2 SCHOOL BUILDINGS	13%
3 SCHOOL BUILDINGS	5%
4 SCHOOL BUILDINGS	2%
5 OR MORE SCHOOL BUILDINGS	C%

****

<<< PARATT >>>

AA = Almost always
U = Usually
S = Sometimes
N = Never

	AA	U	S	N
MY PARENTS ENJOY HEARING ABOUT SCHOOL	39%	23%	28%	9%
MY PARENTS FEEL THE SCHOOL IS DOING A GOOD JOB	22%	34%	33%	11%
MY PARENTS SUPPORT WHAT THE SCHOOL DOES	19%	31%	39%	12%

****

<<< MORESB-MORESG-VALUES >>>

MORESB/ MORESG: AMONG THE QUALITIES LISTED BELOW, WHAT IS THE SINGLE BEST WAY FOR A BOY /GIRL TO GET TO BE IMPORTANT AND LOOKED UP TO BY OTHER STUDENTS IN THIS SCHOOL?

VALUES: AMONG THE QUALITIES LISTED BELOW, WHAT DO YOU FEEL IS MOST IMPORTANT TO YOU PERSONALLY, REGARDLESS OF WHAT OTHERS MAY CHOOSE?

	MORESB	MORESG	VALUES
BEING BRIGHT AND WELL INFORMED	7%	4%	14%
DOING WELL IN SCHOOL	6%	3%	26%
BEING A LEADER IN SCHOOL ACTIVITIES	19%	10%	5%
BEING FUN TO BE WITH	35%	38%	41%
BEING AN ATHLETIC STAR OR CHEERLEADER	15%	9%	5%
BEING GOOD-LOOKING OR ATTRACTIVE	12%	32%	4%
COMING FROM THE RIGHT FAMILY	6%	5%	5%

****

GOAL PROFILES BASED ON CRITERION - REFERENCED SCORING MODEL

THIS SECTION IS DESIGNED TO OUTLINE THE CONTENT OF THE SCALES USED IN THE ASSESSMENT BATTERY AND TO SPECIFY WITHIN EACH SCALE THE STUDENT PERFORMANCE LEVELS. EACH SCALE'S GENERAL AND SPECIFIC CONTENT IS DISCUSSED. THE FOLLOWING INFORMATION IS PROVIDED FOR ALL SCALES MEASURING STUDENT ATTITUDES:

GENERAL SCALE DESCRIPTION:
A BRIEF DESCRIPTION OF THE GENERAL CONTENT MEASURED BY THE SCALE TOGETHER WITH THE RESPONSE OPTIONS AVAILABLE TO THE STUDENT. SAMPLES OF POSITIVELY AND NEGATIVELY WORDED STATEMENTS ARE GIVEN.

CRITERION FOR FAVORABLE RESPONSE TO ITEMS:
RESPONSE OPTIONS TO ITEMS ARE PREJUDGED TO REFLECT A FAVORABLE OR UNFAVORABLE ATTITUDE. THIS PARAGRAPH IDENTIFIES THOSE RESPONSES CONSIDERED TO BE FAVORABLE AND THOSE JUDGED UNFAVORABLE.

SUBSCALE DESCRIPTION:
THE SCALES USED TO MEASURE THE GOAL AREAS ARE SEPARATED INTO SUBSCALES, EACH REPRESENTING SPECIFIC CONTENT AREAS. THE DESCRIPTIONS OF THE SUBSCALES ARE GIVEN TO THE LEFT OF THE PROFILE CHART AND IDENTIFY THE PARTICULAR DIMENSION BEING MEASURED. A SAMPLE ITEM IS GIVEN FOR EACH SUBSCALE.

PROFILE:
A CRITERION-REFERENCED SCORING MODEL IS USED TO GENERATE THE INFORMATION FOUND ON THE PROFILE. THIS MODEL DICHOTOMIZES STUDENT RESPONSES INTO THOSE WHICH ARE CONSIDERED FAVORABLE AND THOSE WHICH ARE CONSIDERED UNFAVORABLE. THE NUMBER OF FAVORABLE RESPONSES IS THEN COMPARED TO A STANDARD. THE PERFORMANCE STANDARD REQUIRES THAT THE STUDENT ANSWER IN A FAVORABLE WAY MORE THAN ONE HALF THE ITEMS COMPRISING THE SUBSCALE. THE PER CENT OF STUDENTS WHO HAVE MET OR EXCEEDED THIS STANDARD IS SHOWN BY A SERIES OF L'S ON THE PROFILE CHART. THE PER CENT OF STUDENTS STATE-WIDE WHO HAVE ANSWERED MORE THAN ONE HALF OF THE ITEMS IN A FAVORABLE WAY IS REPRESENTED BY A SERIES OF S'S. THE PER CENT OF STATE VS. LOCAL STUDENTS MEETING THE STANDARD ON THE TOTAL SCALE IS ALSO PRESENTED.

GOAL I - SELF ESTEEM

GENERAL SCALE DESCRIPTION:
ITEMS ARE SELF-DESCRIPTION STATEMENTS. TEN ARE POSITIVELY WORDED ('I'M EASY TO GET ALONG WITH) AND 26 ARE NEGATIVELY WORDED (THINGS ARE ALL MIXED UP IN MY LIFE). RESPONSE OPTIONS OPEN TO THE STUDENT ARE (1) VERY MUCH LIKE ME (2) USUALLY LIKE ME (3) USUALLY UNLIKE ME (4) VERY MUCH UNLIKE ME.

CRITERION FOR FAVORABLE RESPONSE TO ITEMS:
RESPONSES (1) AND (2) ARE CONSIDERED FAVORABLE RESPONSES TO POSITIVELY WORDED ITEMS. RESPONSE OPTIONS (3) AND (4) ARE CONSIDERED FAVORABLE RESPONSES TO NEGATIVELY WORDED ITEMS.

SELF ESTEEM PROFILE

STUDENTS DISPLAYING POSITIVE ATTITUDES ON SUB AND TOTAL SCALES
(IN PER CENT)

SUBSCALE DESCRIPTIONS AND SAMPLE ITEMS	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
SELF CONFIDENCE: FEELINGS OF SUCCESS, SELF-DETERMINATION, ATTRACTIVENESS AND SELF-WORTH-'I'M PRETTY SURE OF MYSELF'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
FEELING OF CONTROL OVER ENVIRONMENT: BELIEF THAT SUCCESS IN SCHOOL AND WORK DEPEND ON EFFORT, NOT LUCK-'MY GETTING THINGS TO WORK IS MORE A MATTER OF LUCK THAN EFFORT.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
RELATIONSHIPS WITH OTHERS: PERCEIVED EASE IN MAKING AND KEEPING FRIENDS AND FEELINGS OF ACCEPTANCE BY OTHERS-'I OFTEN FEEL PICKED ON BY OTHER KIDS'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
SELF IMAGE IN SCHOOL: FEELING OF SUCCESS IN SCHOOLWORK, CLASS RECITATION AND TEACHER RELATIONSHIPS-'I ENJOY BEING CALLED ON IN CLASS.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
TOTAL SCALE:	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L

GOAL II - UNDERSTANDING OTHERS

GENERAL SCALE DESCRIPTION:

ITEMS DESCRIBE SITUATIONS WHERE DIFFERING OTHERS INTERACT WITH THE INDIVIDUAL. DIFFERENCES ARE IN TERMS OF RACIAL, RELIGIOUS AND SOCIAL BACKGROUNDS OR PHYSICAL AND MENTAL ATTRIBUTES. TWENTY-FOUR ITEMS SUGGEST AN APPROACH TOWARD THE STUDENT (E.G., A CRIPPLE WANTS YOU TO BECOME A CLOSE FRIEND). NINE ITEMS SUGGEST AN AVOIDANCE OF THE STUDENT (E.G., A GIRL WITH A BAD LIMP AVOIDS YOU BECAUSE SHE THINKS YOU MIGHT MAKE FUN OF HER). RESPONSE CHOICES ARE 'I WOULD FEEL' (1) VERY UNCOMFORTABLE, (2) UNCOMFORTABLE, (3) COMFORTABLE AND (4) VERY COMFORTABLE.

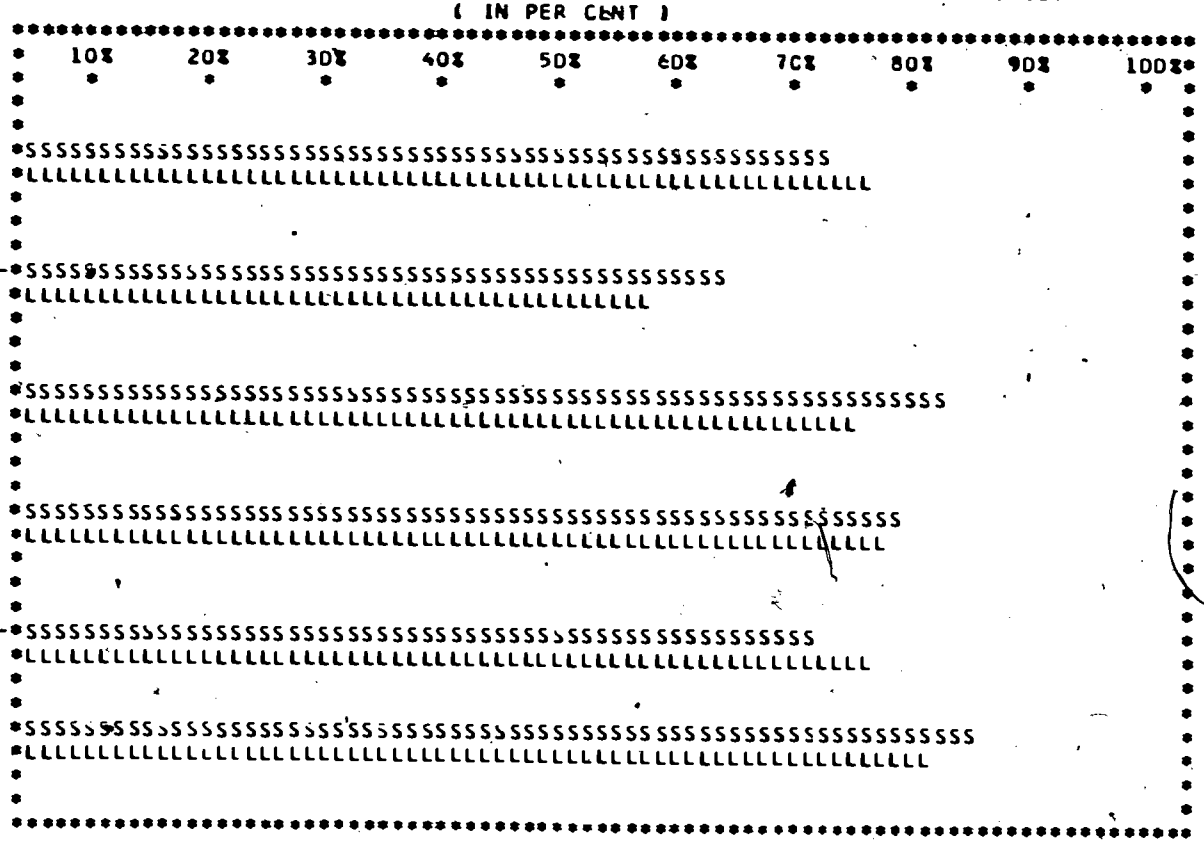
CRITERION FOR FAVORABLE RESPONSE TO ITEMS:

RESPONSE OPTIONS (1) AND (2) ARE CONSIDERED FAVORABLE TO AVOIDANCE ITEMS. OPTIONS (3) AND (4) ARE CONSIDERED FAVORABLE TO APPROACH ITEMS.

UNDERSTANDING OTHERS PROFILE

STUDENTS DISPLAYING POSITIVE ATTITUDES ON SUB AND TOTAL SCALES
(IN PER CENT)

SUBSCALE DESCRIPTIONS AND SAMPLE ITEMS



RACE: COMFORT WHEN INTERACTING WITH OTHERS OF ANOTHER RACE-'SOMEONE WHOSE SKIN COLOR IS DIFFERENT FROM YOURS WANTS TO BECOME YOUR CLOSE FRIEND.'

RELIGION: COMFORT WHEN INTERACTING WITH OTHERS OF DIFFERENT RELIGIOUS BELIEFS-'A PERSON OF A DIFFERENT RELIGION INVITES YOU TO HIS OR HER CHURCH.'

SOCIOECONOMIC STATUS: COMFORT WITH OTHERS WHO ARE RICHER OR POORER THAN SELF-'MANY PEOPLE MUCH POORER THAN YOU MOVE INTO YOUR NEIGHBORHOOD.'

INTELLIGENCE: COMFORT WITH OTHERS [illegible] HIGHER OR LOWER ABILITY LEVELS-'IT IS DECIDED THAT RETARDED STUDENTS SHOULD BE PUT INTO YOUR REGULAR CLASSES.'

HANDICAP: COMFORT WHEN INTERACTING WITH OTHERS WHO ARE PHYSICALLY HANDICAPPED-'YOU MUST SHARE A LOCKER WITH SOMEONE WHO WEARS LEG BRACES.'

TOTAL SCALE:

<<< EQA, PHASE III--SPRING 1973: NAME = ID = DATE RLN = 08/08/73. >>>

GOAL III-V - BASIC SKILLS (VERBAL)

GENERAL SCALE DESCRIPTION:

THIS IS A 15-MINUTE TIMED TEST WHICH CORRELATES HIGHLY WITH STANFORD AND IOWA VERBAL ACHIEVEMENT TESTS. THE SCALE CONTAINS 30 VERBAL ANALOGIES, EACH PRESENTED IN A MULTIPLE-FOUR-CHOICE FORMAT. SAMPLE ITEM: BEAT IS TO HEART AS ----- IS TO -----? SAMPLE ANSWER CHOICES: (A) CRY IS TO BABY, (B) DROP IS TO WATER, (C) SNAP IS TO TWIG AND (D) TICK IS TO WATCH.

SCORING FOR SCALE:

ONE POINT IS GIVEN FOR EACH CORRECT ANSWER. TOTAL SCORE IS THE NUMBER OF CORRECT ANSWERS GIVEN BY THE STUDENT.

DISTRIBUTION OF SCORES:

THE BAR GRAPH BELOW PRESENTS A CUMULATIVE FREQUENCY DISTRIBUTION FOR STATE VS. LOCAL STUDENT SCORES ON THIS SCALE. THE LEFT HAND COLUMN DESCRIBES THE LOWER LIMITS OF EACH OF FOUR SCORING CATEGORIES USED.

SCORING CATEGORIES

CATEGORY I: PER CENT SCORING 12 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 18TH PERCENTILE FOR STUDENTS IN STATE.

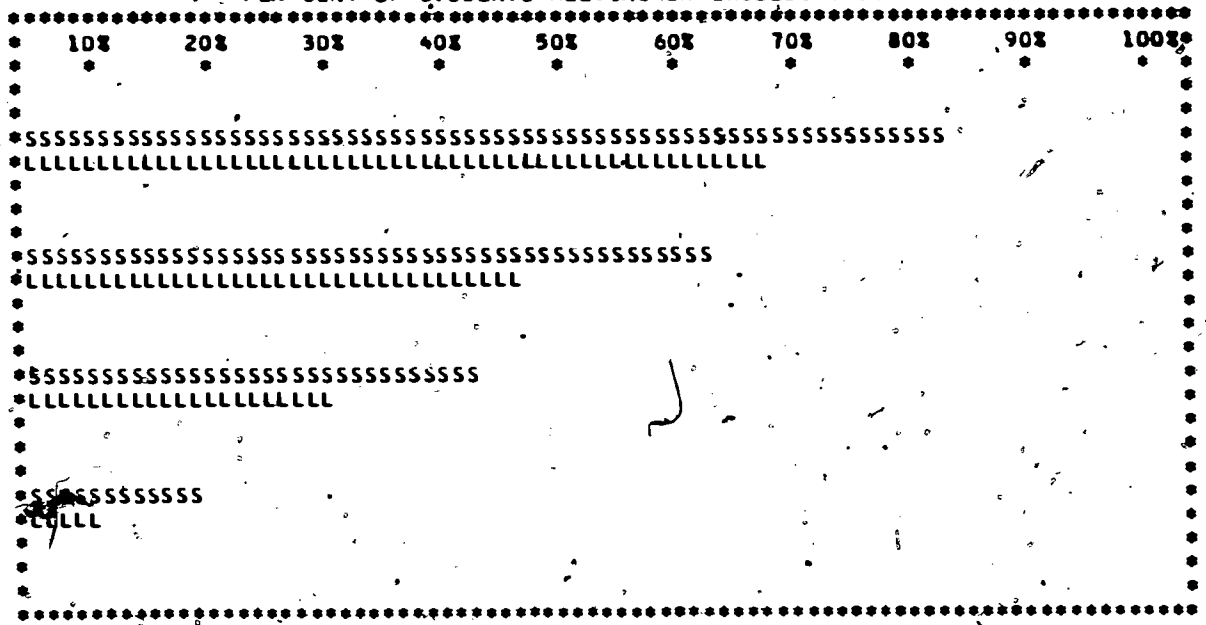
CATEGORY II: PER CENT SCORING 16 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 38TH PERCENTILE FOR STUDENTS IN STATE.

CATEGORY III: PER CENT SCORING 19 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 57TH PERCENTILE FOR STUDENTS IN STATE.

CATEGORY IV: PER CENT SCORING 23 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 81ST PERCENTILE FOR STUDENTS IN STATE.

CUMULATIVE FREQUENCY DISTRIBUTION: VERBAL

PER CENT OF STUDENTS MEETING OR EXCEEDING CUT-OFFS



<<< EVA, PHASE III--SPRING 1973: NAME = ID = DATE RUN = 06/08/73. >>>

GOAL III-M - BASIC SKILLS (MATH)

GENERAL SCALE DESCRIPTION:

THIS IS A 30-ITEM TIMED TEST WHICH CORRELATES HIGHLY WITH STANFORD AND IOWA MATH ACHIEVEMENT TESTS. ITS ABILITY TO DISCERN SPECIFIC STRENGTHS AND WEAKNESSES IN MATH-RELATED AREAS IS LIMITED. HOWEVER, IT IS CONSIDERED TO BE A GOOD MEASURE FOR THE GENERAL LEVEL OF MATH ACHIEVEMENT ON A GROUP BASIS. MODERN MATH CONCEPTS (E.G., SET NOTATION, MODULAR ARITHMETIC, ETC.) AND ADVANCED CONCEPTS (E.G., TRIGONOMETRY, LOGIC, GEOMETRIC PROOFS) ARE ALL INCLUDED. AREAS TAPPED ARE ARITHMETIC COMPUTATION, ALGEBRAIC AND GEOMETRIC CONCEPTS, AND MEASUREMENT. EACH ITEM REQUIRES STUDENTS TO MAKE A SIZE COMPARISON BETWEEN TWO QUANTITIES. SAMPLE ITEM: QUANTITY A=$3.03, QUANTITY B=VALUE OF 33 DIMES. ANSWER CHOICES: (1) A IS GREATER (2) B IS GREATER (3) A=B (4) NOT ENOUGH INFORMATION TO DECIDE.

SCORING FOR SCALE:

ONE POINT IS GIVEN FOR EACH CORRECT ANSWER. TOTAL SCORE IS THE NUMBER OF CORRECT ANSWERS GIVEN BY THE STUDENT.

DISTRIBUTION OF SCORES:

THE BAR GRAPH BELOW PRESENTS A CUMULATIVE FREQUENCY DISTRIBUTION FOR STATE VS. LOCAL STUDENT SCORES ON THIS SCALE. THE LEFT HAND COLUMN DESCRIBES THE LOWER LIMITS OF EACH OF FOUR SCORING CATEGORIES USED.

SCORING CATEGORIES

CATEGORY I: PER CENT SCORING 13 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 20TH PERCENTILE FOR STUDENTS IN STATE.

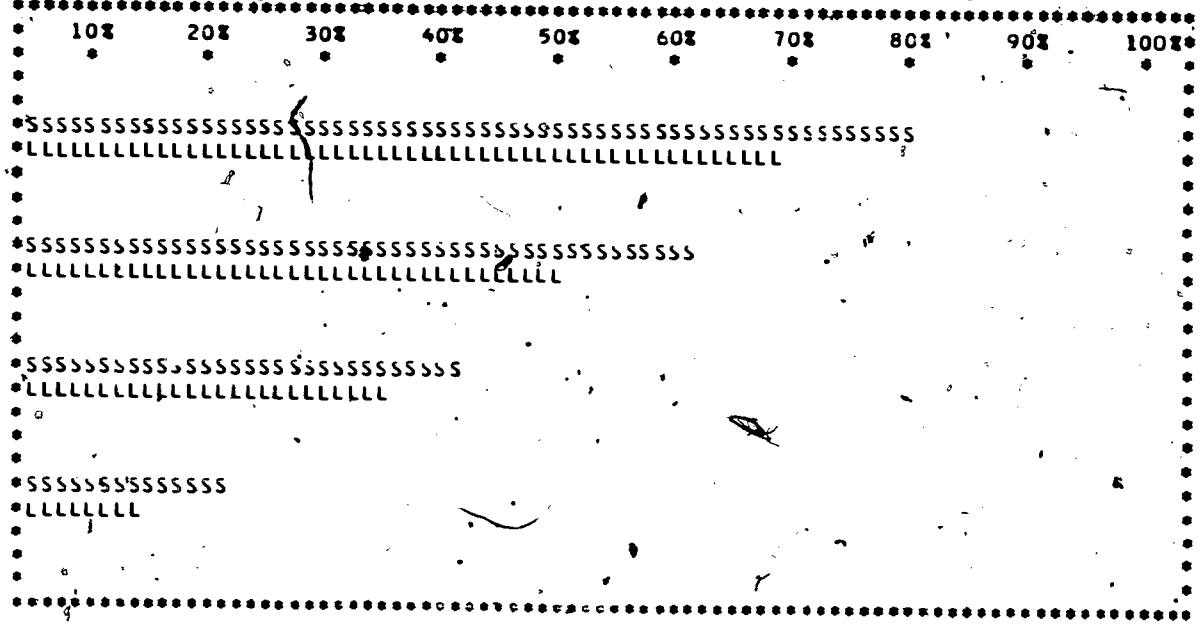
CATEGORY II: PER CENT SCORING 16 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 39TH PERCENTILE FOR STUDENTS IN STATE.

CATEGORY III: PER CENT SCORING 19 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 59TH PERCENTILE FOR STUDENTS IN STATE.

CATEGORY IV: PER CENT SCORING 22 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 79TH PERCENTILE FOR STUDENTS IN STATE.

CUMULATIVE FREQUENCY DISTRIBUTION: MATH

PER CENT OF STUDENTS MEETING OR EXCEEDING CUT-OFFS



GOAL IV - INTEREST IN SCHOOL

GENERAL SCALE DESCRIPTION:

THERE ARE 30 STATEMENTS ABOUT THE SCHOOL, TEACHERS, COURSE CONTENT, AND THE LEARNING EXPERIENCE. FIFTEEN ITEMS CAST THESE AREAS IN A FAVORABLE LIGHT (E.G., MOST OF MY SUBJECTS THIS YEAR ARE WORTHWHILE). THE REMAINING ITEMS ARE NEGATIVELY STATED (E.G., TEACHERS DON'T KNOW WHAT THEY ARE TALKING ABOUT). RESPONSE OPTIONS AVAILABLE TO THE STUDENT ARE (1) STRONGLY AGREE, (2)AGREE, (3) UNCERTAIN, (4) DISAGREE, (5) STRONGLY DISAGREE.

CRITERION FOR FAVORABLE RESPONSE TO ITEMS:

RESPONSE OPTIONS (1) AND (2) ARE CONSIDERED FAVORABLE RESPONSES TO POSITIVELY WORDED ITEMS. OPTIONS (4) AND (5) ARE CONSIDERED FAVORABLE RESPONSES TO NEGATIVELY WORDED ITEMS.

SUBSCALE DESCRIPTIONS AND SAMPLE ITEMS

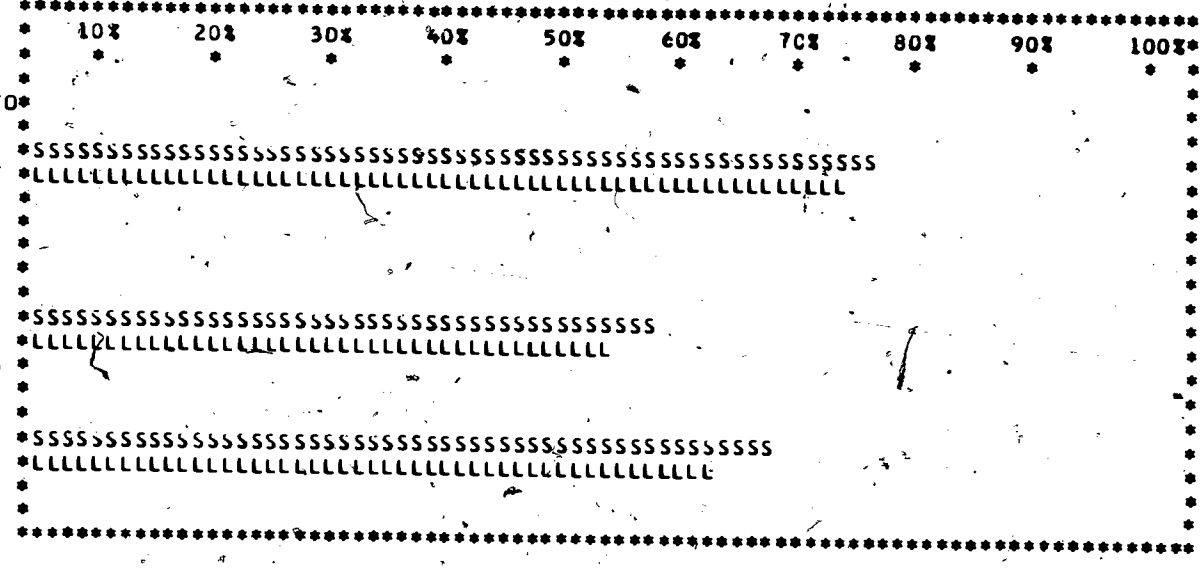
ATTITUDE TOWARD LEARNING: WILLINGNESS TO EXPEND EFFORT TO LEARN AND VALUING THE IMPORTANCE OF CONTINUED LEARNING THROUGHOUT LIFE-'IT IS VERY IMPORTANT TO ME TO LEARN AS MUCH AS I POSSIBLY CAN.'

ATTITUDE TOWARD SCHOOL: BELIEF SCHOOL ATTENDANCE IS IMPORTANT; ATTITUDE TOWARD SCHOOL SETTING, TEACHERS AND COURSE WORK -'MOST OF MY CLASSES THIS YEAR ARE BORING.'

TOTAL SCALE:

INTEREST IN SCHOOL PROFILE

STUDENTS DISPLAYING POSITIVE ATTITUDES ON SUB AND TOTAL SCALES
(IN PER CENT)



<<< EVA, PHASE III--SPRING 1973: NAME = ID = DATE RUN = 08/08/73. >>>

GOAL V - CITIZENSHIP

GENERAL SCALE DESCRIPTION:

ITEMS MEASURE WILLINGNESS TO EXHIBIT GOOD CITIZENSHIP IN MANY SOCIAL SITUATIONS UNDER A VARIETY OF MOTIVATING CONDITIONS. SOCIAL CONTEXTS ARE GIVEN BY 18 STORIES, EACH POSING A PROBLEM AND SUGGESTING AN ACTION PRE-DEFINED AS GOOD OR POOR CITIZENSHIP. EACH STORY HAS THREE ITEMS WHICH LIST POSITIVE OR NEGATIVE CONSEQUENCES RESULTING FROM THE ACTION. STUDENTS ARE ASKED TO DECIDE WHETHER TO TAKE THE ACTION FOR EACH CONSEQUENCE. SAMPLE STORY: 'MORTON IS IN TOWN WITH HIS FRIENDS. A FIRE BREAKS OUT. POLICEMEN TELL THE GROUP TO LEAVE THE AREA.' SAMPLE ITEM: IF I WERE MORTON I WOULD OBEY THE POLICE WHEN I KNEW MOST OF MY FRIENDS WERE STAYING DESPITE THE ORDER. RESPONSE CHOICES ARE (1) YES, (2) MAYBE, (3) NO.

CRITERION FOR FAVORABLE RESPONSE TO ITEMS:

RESPONSE OPTION (1) IS CONSIDERED FAVORABLE WHEN THE SUGGESTED ACTION REFLECTS GOOD CITIZENSHIP. OPTION (3) IS FAVORABLE WHEN THE SUGGESTED ACTION REFLECTS POOR CITIZENSHIP.

CITIZENSHIP PROFILE

STUDENTS DISPLAYING POSITIVE ATTITUDES ON SUB AND TOTAL SCALES
(IN PER CENT)

SUBSCALE DESCRIPTIONS AND SAMPLE ITEMS	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
WELFARE & DIGNITY OF OTHERS: CONCERN FOR FEELINGS OF OTHERS, WILLINGNESS TO PROTEST RACIAL DISCRIMINATION AND TO ACCEPT NEW PEOPLE INTO THE GROUP-' I'D MAKE FUN OF A PERSON WHEN MY FRIENDS WERE DOING IT ALSO.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
RESPECT FOR LAW & AUTHORITY: WILLINGNESS TO REPORT LAW-BREAKING, TO REFRAIN FROM DESTRUCTIVE ACTIONS AND TO OBEY AUTHORITIES DURING EMERGENCIES-' I'D THROW ROCKS DURING A PROTEST IF THERE WERE NO CHANCE OF ANYONE GETTING HURT'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
RESPONSIBILITY & INTEGRITY: WILLINGNESS TO REPORT OWN MISTAKES AND HONORING SELF-MADE COMMITMENTS TO GROUP AND INDIVIDUALS- 'AFTER ACCIDENTALLY BREAKING SCHOOL WINDOW, I'D REPORT MYSELF EVEN IF I'D HAVE TO PAY FOR THE WINDOW.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
TOTAL SCALE:	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L

GOAL VI - HEALTH HABITS

GENERAL SCALE DESCRIPTION:

ITEMS MEASURE WILLINGNESS TO DISPLAY PROPER HEALTH BEHAVIORS IN THE AREAS OF PERSONAL HYGIENE, DIET, DRUGS AND SAFETY. THE FORMAT USES 18 STORIES, EACH POSING A SITUATION WHERE A HEALTH-RELATED DECISION IS REQUIRED. THREE POSSIBLE OUTCOMES OF THE DECISION ARE GIVEN IN EACH STORY. THE STUDENT DECIDES WHETHER TO TAKE A PROPER HEALTH ACTION FOR EACH OF THE OUTCOMES. SAMPLE STORY: 'NORMA HAS A STOMACH ACHE. THE DOCTOR GIVES HER SOME PILLS. THE DOCTOR TELLS HER TO TAKE TWO PILLS EVERY FOUR HOURS.' SAMPLE ITEM: 'IF I WERE NORMA, I WOULD TAKE AN EXTRA PILL WHEN I KNEW IT WOULD MAKE ME FEEL MORE RELAXED.' RESPONSE CHOICES ARE (1) YES, (2) MAYBE, (3) NO.

CRITERION FOR FAVORABLE RESPONSE TO ITEM:

RESPONSE OPTION (1) IS CONSIDERED FAVORABLE TO ITEMS SUGGESTING A PROPER HEALTH BEHAVIOR. OPTION (3) IS FAVORABLE WHEN THE SUGGESTED ACTION IS AN IMPROPER HEALTH BEHAVIOR.

HEALTH PROFILE

STUDENTS DISPLAYING POSITIVE ATTITUDES ON SUB AND TOTAL SCALES
(IN PER CENT)

SUBSCALE DESCRIPTIONS AND SAMPLE ITEMS	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
PERSONAL HEALTH: WILLINGNESS TO FOLLOW PROPER DIET, TAKE PROPER MEDICAL PRECAUTIONS-' I'D USE A FRIEND'S CHAPSTICK KNOWING MY FRIEND HAD A SLIGHT COLD.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
SAFETY: RESTRAINT FROM UNNECESSARY RISK-TAKING AT HOME, AT SCHOOL AND AT PLAY-' I'D PLAY A GAME OF 'CHICKEN' ON A BIKE IF I MIGHT WIN THE GAME.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
DRUGS: RESTRAINT FROM IMPROPER USE OF PRESCRIPTION DRUGS, EXPERIMENTATION WITH DRUGS, AND MAINTAINING CLOSE CONTACT WITH OTHERS USING DRUGS-' I'D STAY AT A PARTY WHERE MARIJUANA WAS BEING SMOKED WHEN I KNEW NOBODY ELSE WANTED TO LEAVE.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
TOTAL SCALE:	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L

GOAL VII-A - CREATIVE ATTITUDE

GENERAL SCALE DESCRIPTION:

LISTED ARE 36 ACTIVITIES WHICH REQUIRE ORIGINALITY IN THE AREAS OF VISUAL ARTS, PERFORMING ARTS, SCIENCE, AND WRITING. SAMPLE ACTIVITIES: (DONE AN ORIGINAL SCIENTIFIC EXPERIMENT USING LIVING THINGS; WRITTEN AN ORIGINAL POEM; MODELED AN OUTFIT USING YOUR OWN STYLE). RESPONSE OPTIONS GIVE SIX WAYS TO SHOW DEGREE OF INVOLVEMENT IN EACH ACTIVITY. OPTIONS ARE (1) NO, AND HAVE NOT WANTED TO, (2) NO, BUT HAVE WANTED TO, (3) YES, BUT WITH NO RECOGNITION, (4) YES, WITH TEACHER OR ADULT RECOGNITION, (5) YES, WITH SCHOOL-WIDE RECOGNITION AND (6) YES, WITH AREA-WIDE RECOGNITION.

CRITERION FOR FAVORABLE RESPONSE TO ITEMS:

RESPONSE CHOICES (2, 3, 4, 5 & 6) SHOW A WILLINGNESS TO BECOME INVOLVED IN THESE ACTIVITIES AND ARE CONSIDERED FAVORABLE. RESPONSE CHOICE (1) SHOWS A REJECTION OF PERSONAL INVOLVEMENT AND IS CONSIDERED TO BE UNFAVORABLE.

CREATIVE ATTITUDE PROFILE

STUDENTS DISPLAYING POSITIVE ATTITUDES ON SUB AND TOTAL SCALES (IN PER CENT)

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SUBSCALE DESCRIPTIONS
 AND SAMPLE ITEMS                           10%   20%   30%   40%   50%   60%   70%   80%   90%   100%

VISUAL ARTS: WILLINGNESS TO USE OWN
   IDEAS AND DESIGN IN PAINTING, CRAFTS,  SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
   PHOTOGRAPHY AND SCULPTURE-'PAINTED     LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
   (WITHOUT NUMBER SET) IN OIL OR WATER
   COLORS.'

PERFORMING ARTS: WILLINGNESS TO PERFORM
   IN MUSIC, ACTING, SPORT OR MODELING-   SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
   'PERFORMED USING AN ORIGINAL MAGIC OR  LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
   NOVELTY ACT.'

SCIENCE: WILLINGNESS TO DO EXPERIMENTS
   IN SOCIAL & PHYSICAL SCIENCES AND TO   SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
   DESIGN OR WORK WITH MECHANICAL OR      LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
   ELECTRONIC GADGETRY-'BUILT A MODEL
   TO SHOW A SCIENTIFIC PRINCIPLE.'

WRITING: WILLINGNESS TO PRODUCE ORIGINAL
   WRITTEN PRODUCTS SUCH AS POEMS,        SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
   JOKES, SKITS, ESSAYS, AND MUSIC-       LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
   'WRITTEN AN ORIGINAL POEM (OTHER THAN
   SCHOOL ASSIGNMENT).'

TOTAL SCALE:                              SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
                                          LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
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GOAL VII-P - CREATIVE PERFORMANCE

GENERAL SCALE DESCRIPTION:
TO GENERATE 'CREATIVE OUTPUT' SCORES A DIFFERENT SCORING SCHEME IS USED ON THE CREATIVITY SCALE DISCUSSED ON THE PREVIOUS PAGE.

CRITERION FOR FAVORABLE RESPONSE TO ITEMS:
RESPONSE CHOICES 3, 4, 5 AND 6 INDICATE THAT THE STUDENT HAS ACTIVELY PARTICIPATED IN THE CREATIVE ACTIVITIES AND THEREFORE ARE CONSIDERED FAVORABLE. RESPONSE CHOICES 1 AND 2 SHOW A LACK OF PERSONAL INVOLVEMENT IN THESE ACTIVITIES AND ARE CONSIDERED TO BE UNFAVORABLE.

CREATIVE PERFORMANCE PROFILE

SUBSCALE DESCRIPTIONS	PER CENT STUDENTS REPORTING ACTIVE PARTICIPATION
	10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
VISUAL ARTS: USING OWN IDEAS AND DESIGN WHEN ACTIVELY PARTICIPATING IN CRAFTS, PHOTOGRAPHY AND SCULPTURE.	SSSSSSSSSSSSSSSSSSSS LLLLLLLLLLLLLLLLLLLLLLLLL
PERFORMING ARTS: PERFORMING (FOR AUDIENCE) SELF-DEVELOPED ROUTINE IN MUSIC, ACTING, SPORT OR MODELING.	SSSSSSSSS LLLLLLLLLLLLLL
SCIENCE: DOING EXPERIMENTS IN SOCIAL OR PHYSICAL SCIENCES AND DESIGNING MECHANICAL OR ELECTRONIC GADGETRY.	SSSSSSSSSSSSSSS LLLLLLLLLLLLLLLLLLLLL
WRITING: PRODUCING ORIGINAL WRITTEN PRODUCTS SUCH AS POEMS, JOKES, SKITS, ESSAYS AND MUSIC	SSSSSSSSSSSSSSSSSSSSSS LLLLLLLLLLLLLLLLLLLLLLL
TOTAL SCALE:	SSSSSSSSSSS LLLLLLLLLLLLLLLLL

GOAL VIII-A - VOCATIONAL ATTITUDE

GENERAL SCALE DESCRIPTION:
TWENTY-SIX ITEMS MEASURE ATTITUDE TOWARD WORK, CAREER CHOICE AND EFFORTS AT MAKING LONG RANGE EDUCATIONAL PLANS. NINE ITEMS REFLECT A POSITIVE VOCATIONAL ATTITUDE (E.G., I AM HAVING NO DIFFICULTY PREPARING MYSELF FOR WORK I WANT TO DO). SEVENTEEN ITEMS ARE WORDED TO REFLECT VOCATIONAL IMMATURITY (E.G., WHY TRY TO DECIDE UPON A JOB WHEN THE FUTURE IS SO UNCERTAIN?). RESPONSE OPTIONS ARE (1) AGREE, (2) MOSTLY AGREE, (3) MOSTLY DISAGREE AND (4) DISAGREE

CRITERION FOR FAVORABLE RESPONSE TO ITEMS:
OPTIONS (1) AND (2) ARE CONSIDERED FAVORABLE TO ITEMS SHOWING POSITIVE VOCATIONAL DEVELOPMENT. OPTIONS (3) AND (4) ARE CONSIDERED FAVORABLE TO ITEMS REFLECTING VOCATIONALLY IMMATURE ATTITUDES.

NOTE: BECAUSE RELATIVELY INDEPENDENT SUBSCALES WERE NOT EVIDENT IN FIELD-TEST RESULTS, ONLY INFORMATION BASED ON THE TOTAL SCALE IS PRESENTED BELOW.

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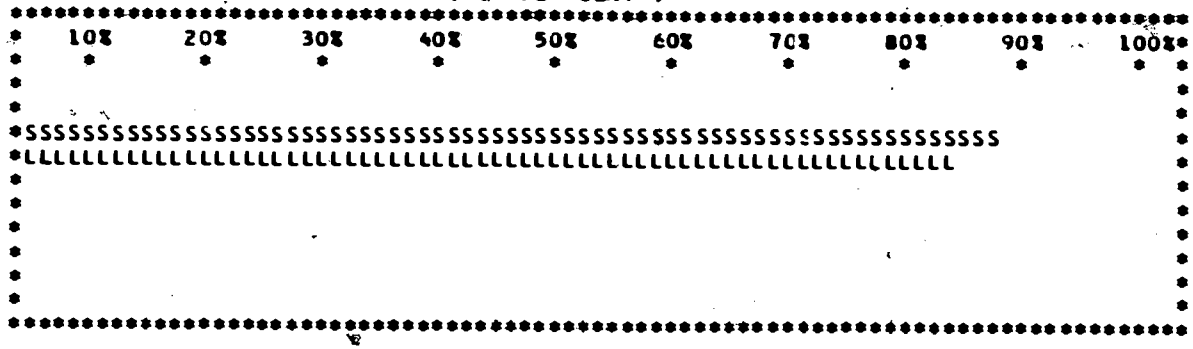
VOCATIONAL ATTITUDE PROFILE

STUDENTS DISPLAYING POSITIVE ATTITUDE
(IN PER CENT)

SUBSCALE DESCRIPTIONS

TOTAL SCALE: BELIEF THAT WORKING IS IMPORTANT AND WILLINGNESS TO BEGIN PLANNING FOR FUTURE ROLE IN THE WORLD OF WORK-'I KNOW WHAT STEPS NEED TO BE TAKEN TO GET THE KIND OF WORK I WANT.'



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GOAL VIII-K - VOCATIONAL KNOWLEDGE

GENERAL SCALE DESCRIPTION:

THIS 30-ITEM VOCATIONAL KNOWLEDGE TEST TAPS UNDERSTANDING OF SKILL, TRAINING AND EDUCATION REQUIREMENTS OF VARIOUS OCCUPATIONS. ITS MULTIPLE-CHOICE FORMAT REQUIRES STUDENTS TO SELECT THE MOST CORRECT ANSWER FROM FOUR ALTERNATIVES. SAMPLE QUESTION: WHICH ONE OF THE FOLLOWING CAN BE DONE ONLY BY A DOCTOR? ANSWERS: (A) GIVE SHOTS, (B) PRESCRIBE MEDICINE, (C) TAKE BLOOD PRESSURE AND (D) TAKE X-RAYS.

SCORING FOR SCALE:

ONE POINT IS GIVEN FOR EACH CORRECT ANSWER. TOTAL SCORE IS THE NUMBER OF CORRECT ANSWERS GIVEN BY THE STUDENT.

DISTRIBUTION OF SCORES:

THE BAR GRAPH BELOW PRESENTS A CUMULATIVE FREQUENCY DISTRIBUTION FOR STATE VS. LOCAL STUDENT SCORES ON THIS SCALE. THE LEFT HAND COLUMN DESCRIBES THE LOWER LIMITS OF EACH OF FOUR SCORING CATEGORIES USED.

SCORING CATEGORIES

CATEGORY I: PER CENT SCORING 15 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 21ST PERCENTILE FOR STUDENTS IN STATE.

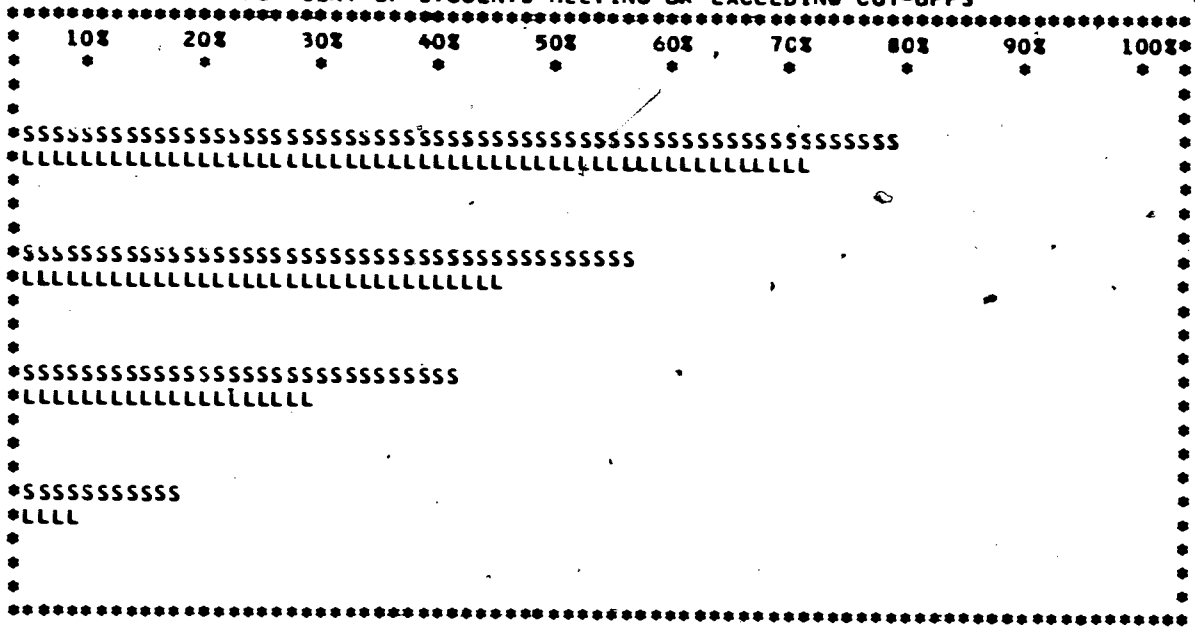
CATEGORY II: PER CENT SCORING 19 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 44TH PERCENTILE FOR STUDENTS IN STATE.

CATEGORY III: PER CENT SCORING 21 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 59TH PERCENTILE FOR STUDENTS IN STATE.

CATEGORY IV: PER CENT SCORING 24 OR ABOVE. THOSE PASSING THIS CUT-OFF ARE ABOVE THE 82ND PERCENTILE FOR STUDENTS IN STATE.

CUMULATIVE FREQUENCY DISTRIBUTION: VOC. KNOWLEDGE

PER CENT OF STUDENTS MEETING OR EXCEEDING CUT-OFFS



GOAL IX - APPRECIATING HUMAN ACCOMPLISHMENTS

GENERAL SCALE DESCRIPTION:

ITEMS MEASURE HOW MUCH VALUE STUDENTS PLACE ON HUMAN ACHIEVEMENT IN THE ARTS AND SCIENCES AND THE DEGREE TO WHICH THEY ARE WILLING TO RECEIVE STIMULI THAT THESE ENDEAVORS PROVIDE. AREAS INCLUDED ARE LITERATURE, ART, ATHLETICS, POLITICS, SCIENCE, MUSIC AND DRAMA. SAMPLE VALUING ITEM: (ARTISTS DON'T CONTRIBUTE MUCH TO OUR WORLD). SAMPLE RECEIVING ITEM: (DURING MY FREE TIME I WOULD LIKE TO ATTEND A SESSION OF CONGRESS). RESPONSE OPTIONS ARE (1) AGREE, (2) UNCERTAIN AND (3) DISAGREE.

CRITERION FOR FAVORABLE RESPONSE TO ITEMS:

RESPONSE OPTION (1) IS CONSIDERED FAVORABLE TO ALL RECEIVING ITEMS AND TO THOSE 'VALUING' ITEMS WHICH DESCRIBE ACTIVITIES IN ARTS, SCIENCES, ETC. IN A POSITIVE LIGHT. OPTION (3) IS FAVORABLE IN RESPONSE TO NEGATIVELY STATED 'VALUING' ITEMS.

APPRECIATING HUMAN ACCOMPLISHMENTS PROFILE

STUDENTS DISPLAYING POSITIVE ATTITUDES ON SUB AND TOTAL SCALES
(IN PER CENT)

SUBSCALE DESCRIPTIONS AND SAMPLE ITEMS	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
VALUING: ATTACHING IMPORTANCE TO ACHIEVEMENTS IN THE ARTS AND SCIENCES AND VALUING ROLE PLAYED BY PEOPLE IN THESE AREAS-'MOST SCIENTISTS ARE INTERESTED ONLY IN MACHINES, NOT PEOPLE.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
RECEIVING: WILLINGNESS TO LEARN MORE ABOUT ACHIEVEMENTS IN THE ARTS AND SCIENCES, AND TO SEEK OUT EXPERIENCES WHICH PROVIDE FIRST-HAND INFORMATION ON WHAT PEOPLE IN THESE AREAS ARE DOING-'IT WOULD BE FUN TO WATCH PEOPLE PAINT AT AN ART STUDIO.'	S	S	S	S	S					
	L	L	L	L	L					
TOTAL SCALE:	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L

GOAL X - PREPARING FOR A CHANGING WORLD

GENERAL SCALE DESCRIPTION:

ITEMS MEASURE EMOTIONAL AND BEHAVIORAL REACTIONS TO CHANGE. THE SCALE'S FORMAT CONTAINS SEVEN STORIES DESCRIBING UNPLEASANT CHANGE SITUATIONS IN WHICH STUDENTS' EXPECTATIONS OR NEEDS ARE NOT MET. FIVE REACTIONS PRE-DEFINED AS INDICATING POSITIVE OR NEGATIVE ADAPTATION TO CHANGE ARE GIVEN FOLLOWING EACH STORY. SAMPLE STORY: 'SOMEONE IN MY CLASS CARVED A WORD IN MY DESK. THE TEACHER SAW IT AND MADE ME STAY AFTER CLASS. I SAID I DIDN'T DO IT, BUT THE TEACHER WOULDN'T BELIEVE ME. IF THIS HAPPENED TO YOU, HOW MUCH TIME WOULD YOU SPEND?...TRYING TO UNDERSTAND TEACHER'S POINT OF VIEW, TRYING TO GET BACK AT THE PERSON WHO DID IT.' RESPONSE OPTIONS ARE (1) NO TIME, (2) VERY LITTLE TIME, (3) SOME TIME AND (4) A GREAT DEAL OF TIME.

CRITERION FOR FAVORABLE RESPONSE TO ITEMS:

RESPONSE OPTIONS (1) AND (2) ARE CONSIDERED FAVORABLE TO ITEMS SHOWING NEGATIVE ADJUSTMENT TO CHANGE. OPTIONS (3) AND (4) ARE CONSIDERED FAVORABLE TO ITEMS REFLECTING POSITIVE ADAPTATION TO CHANGE.

PREPARING FOR CHANGE PROFILE

STUDENTS DISPLAYING POSITIVE ATTITUDES ON SUB AND TOTAL SCALES
(IN PER CENT)

SUBSCALE DESCRIPTIONS AND SAMPLE ITEMS	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
USING EFFECTIVE SOLUTIONS: TENDENCY TO TRY SOLUTIONS REFLECTING POSITIVE ADJUSTMENT TO CHANGE-'IF MY PARENTS DECIDED TO MOVE, I'D READ ABOUT THE PLACE WE WERE MOVING TO.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
REFRAINING FROM INEFFECTIVE SOLUTIONS: TENDENCY TO AVOID USE OF AGGRESSIVE OR WITHDRAWING REACTIONS IN FACE OF CHANGE-'IF I COULDN'T GET EXCUSED FROM SCHOOL FOR A TRIP, I'D STAY HOME.'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
EMOTIONAL ADJUSTMENT: PERCEPTION OF LENGTH OF TIME NEEDED TO EMOTIONALLY ADJUST TO CHANGE-'IF THIS HAPPENED TO YOU, HOW MUCH TIME WOULD YOU SPEND GETTING OVER BEING UPSET?'	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L
TOTAL SCALE:	S	S	S	S	S	S	S	S	S	S
	L	L	L	L	L	L	L	L	L	L

TOTAL SCALES FOR ATTITUDE

PER CENT OF STUDENTS SHOWING POSITIVE ATTITUDE
(IN PER CENT)

	GOAL NAME	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
I	SELF-ESTEEM	S	S	S	S	S	S	S	S	S	S
		L	L	L	L	L	L	L	L	L	L
II	UNDERSTANDING OTHERS	S	S	S	S	S	S	S	S	S	S
		L	L	L	L	L	L	L	L	L	L
IV	INTEREST IN SCHOOL	S	S	S	S	S	S	S	S	S	S
		L	L	L	L	L	L	L	L	L	L
V	CITIZENSHIP	S	S	S	S	S					
		L	L	L	L	L					
VI	HEALTH HABITS	S	S	S	S	S	S				
		L	L	L	L	L	L				
VII-A	CREATIVE ATTITUDE	S	S	S	S	S	S	S	S	S	S
		L	L	L	L	L	L	L	L	L	L
VIII-A	VOCATIONAL ATTITUDE	S	S	S	S	S	S	S	S	S	S
		L	L	L	L	L	L	L	L	L	L
IX	HUMAN ACCOMPLISHMENTS	S	S	S	S	S	S				
		L	L	L	L	L	L				
X	PREPARING FOR A CHANGING WORLD	S	S	S	S	S	S	S	S	S	S
		L	L	L	L	L	L	L	L	L	L

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SUMMARY OF CRITERION REFERENCED INFORMATION

PER CENT OF STUDENTS SHOWING POSITIVE ATTITUDES ON EACH SUBSCALE AT THREE CRITERION LEVELS (35, 51, AND 70)

Per cent of students who answered favorably at least 35% of the items, etc.

GOAL	SUBTEST NAME	CRITERION LEVELS 35% STATE	35% LOCAL	51% STATE	51% LOCAL	70% STATE	70% LOCAL
I	SELF CONFIDENCE	83%	80%	61%	45%	47%	27%
	FEELING OF CONTROL OVER ENVIRONMENT	95%	95%	76%	67%	60%	45%
	RELATIONSHIPS WITH OTHERS	90%	90%	67%	63%	52%	42%
	SELF-IMAGE IN SCHOOL	78%	74%	53%	45%	40%	30%
	TOTAL SCALE	93%	94%	72%	62%	38%	22%
II	RACE	88%	91%	73%	76%	55%	58%
	RELIGION	80%	74%	64%	58%	46%	42%
	SOCIOECONOMIC STATUS	93%	89%	83%	75%	64%	52%
	INTELLIGENCE	93%	94%	79%	78%	49%	46%
	HANDICAP	86%	86%	71%	76%	51%	53%
	TOTAL SCALE	98%	99%	85%	81%	43%	38%
IV	ATTITUDE TOWARD LEARNING	88%	89%	76%	74%	48%	47%
	ATTITUDE TOWARD SCHOOL	74%	72%	58%	54%	34%	27%
	TOTAL SCALE	86%	84%	67%	63%	41%	38%
V	WELFARE AND DIGNITY OF OTHERS	60%	63%	39%	40%	17%	16%
	RESPECT FOR LAW AND AUTHORITY	51%	58%	30%	38%	13%	16%
	RESPONSIBILITY AND INTEGRITY	52%	59%	29%	34%	14%	15%
	TOTAL SCALE	58%	66%	29%	33%	11%	12%
VI	PERSONAL HEALTH	66%	67%	33%	32%	13%	11%
	SAFETY	55%	55%	38%	35%	19%	17%
	DRUGS	77%	81%	65%	69%	41%	44%
	TOTAL SCALE	74%	79%	43%	41%	16%	13%
VII-A	VISUAL ARTS	79%	83%	68%	74%	40%	45%
	PERFORMING ARTS	59%	67%	45%	54%	22%	27%
	SCIENCE	75%	79%	62%	70%	35%	42%
	WRITING	73%	68%	61%	57%	33%	36%
	TOTAL SCALE (ATTITUDE)	83%	84%	59%	63%	28%	37%
VIII-A	VOCATIONAL ATTITUDE	99%	99%	88%	84%	49%	48%
IX	VALUING	82%	80%	60%	56%	19%	18%
	RECEIVING	55%	49%	32%	27%	8%	5%
	TOTAL SCALE	75%	70%	41%	36%	11%	8%
X	USING EFFECTIVE SOLUTIONS	91%	91%	75%	72%	36%	34%
	REFRAINING FROM INEFFECTIVE SOLUTIONS	91%	88%	78%	71%	46%	36%
	EMOTIONAL ADJUSTMENT	62%	55%	47%	41%	21%	14%
	TOTAL SCALE	95%	95%	79%	69%	31%	20%

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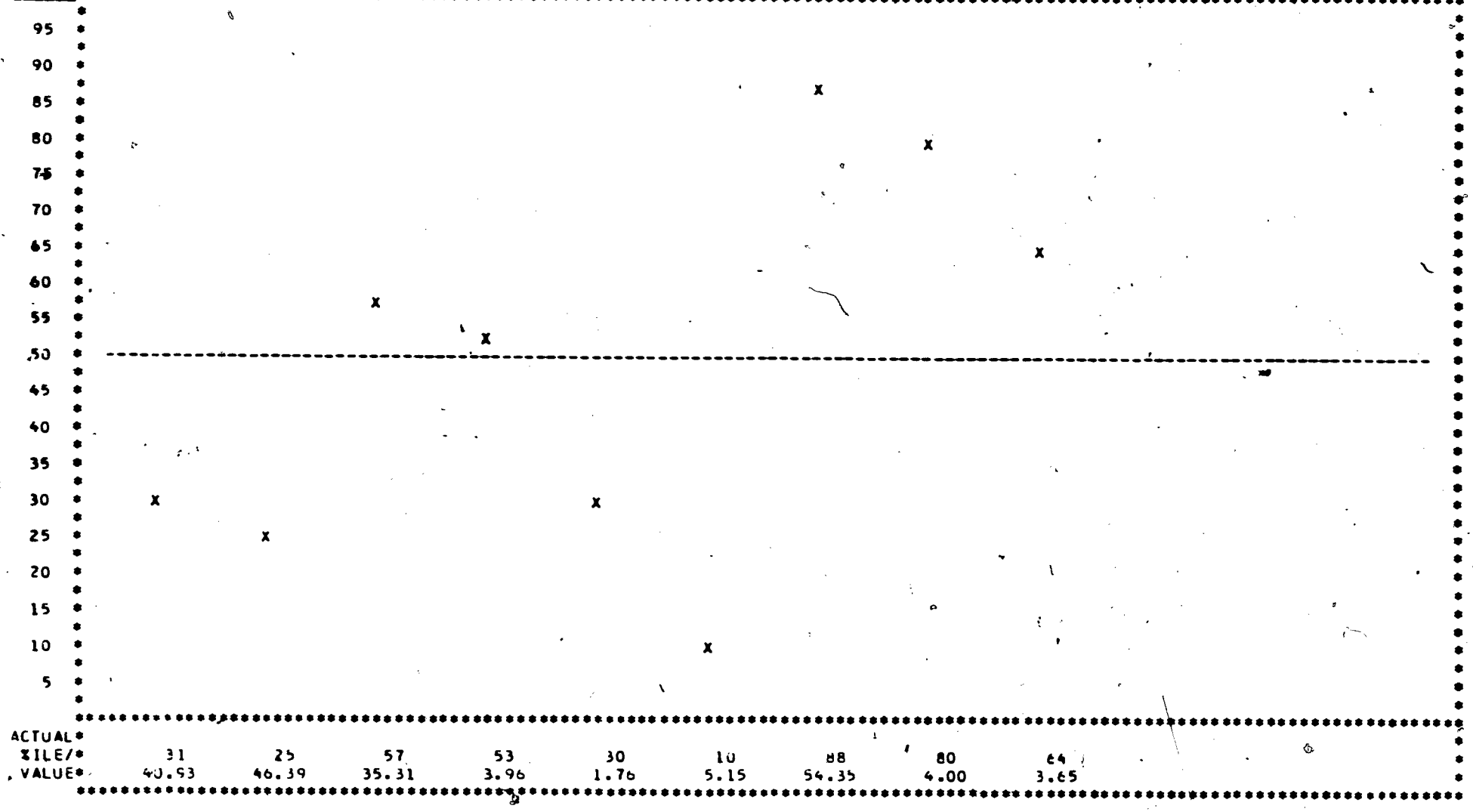
4. SES PROFILE:

SES CONDITION VARIABLES



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APPENDIX B

INFORMATION PACKETS

The following information packages relating to Goal IX are available from the Research and Information Services for Education (RISE), 198 Allendale Road, King of Prussia, Pennsylvania 19406. School districts desiring these packets should request: "EQA Information Packet on..." and the title of the packet along with the type of printout desired. Schools are cautioned that if microfiche (mf) is requested, they must have access to a microfiche reader.

The packets are designed to provide an introduction and foundation for further study.

PACKET TITLE: Peer Tutoring

Symbol indicates type of printout included

AB--abstract of article
CA--complete article
EX--excerpt
mf--microfiche (School must have a reader)

AB BRADSHAW, CHARLES I.
1971 Remedial reading instruction by student tutors in inner-city schools. San Diego, California Educational Research Association. 15 p. (ED 052 280)

AB DETERLINE, WILLIAM A.
mf 1970. Training and management of student-tutors. Palo Alto, California; General Programmed Teaching. 57 p. (ED 048 133)

AB GANTNER, ALAN, et. al.
1971 Children teach children: learning by teaching. New York; Harper & Rowe, Inc., 49 East 33rd Street, 190 p. (ED 056 157)

AB McCLELLAN, BILLIE FRANCES
1971 Student involvement in the instructional process through tutoring. Tallahassee, Florida Education Association. 40 p. (ED 055 046)

CA THELEN, HERBERT A.
1969 Tutoring by students. The School Review 77: 229-243 (September-December) (EJ 011 615)

PACKET TITLE: How to Increase a Teacher's Interest and Compassion Towards the Student

EX COTTON, MARLENE and Others
1973 Learning about feelings. New London, Connecticut; Croft Leadership Action Folio 50. Booklet B (12 p.) and Booklet C (8 p.)

CA JOYCE, BRUCE and Others
1969 Sensitivity training for teachers: an experiment. The Journal of Teacher Education xx (1): 75-83. (Spring)

CA KIMPLE, JAMES A.
1969 How South Brunswick schools developed an in-service training program. Nations' Schools 83: 85-87. (March)

CA LEVIN, MARC N.
1972 Teacher preparation for affective education. Philadelphia; American Educational Research Association. 8 p. (April)

EX ROGERS, CARL R.
1969 A college professor gives freedom within limits. IN Freedom to Learn. Columbus, Ohio, Charles E. Merrill Publishing. 358 p. (41 p.)

PACKET TITLE: Teacher-Student Interaction

AB AMIDON, EDMUNC and BARAK ROSENSHINE
1968 Interaction analysis and micro-teaching in an urban teacher education program. A Model for Skill Development in Teaching. Chicago, Illinois, Convention of the American Educational Research Association. 26 p. (ED 076 496)

CA FLANDERS, NED
1973 Basic teaching skills derived from a model of speaking and listening. Journal of Teacher Education 24: 24-37. (Spring) (EJ 074 174)

EX SIMON, ANITA and E. GIL BOYER
1970 Mirrors for behavior II, Volumes A and B: an anthology of observation instruments. Philadelphia, Pennsylvania, Research for Better Schools, Inc. (R.I.S.E. document No. 01567) 612 p.

CA WHITHALL, JOHN
1972 Research in systematic observation in the classroom and its relevance to teachers. The Journal of Teacher Education 23: 330-332. (Fall) (EJ 067 395)

CA YOUNG, DAVID and DOROTHY YOUNG
1968 The model in use (microteaching). Theory into Practice 7: 186-189. (December)