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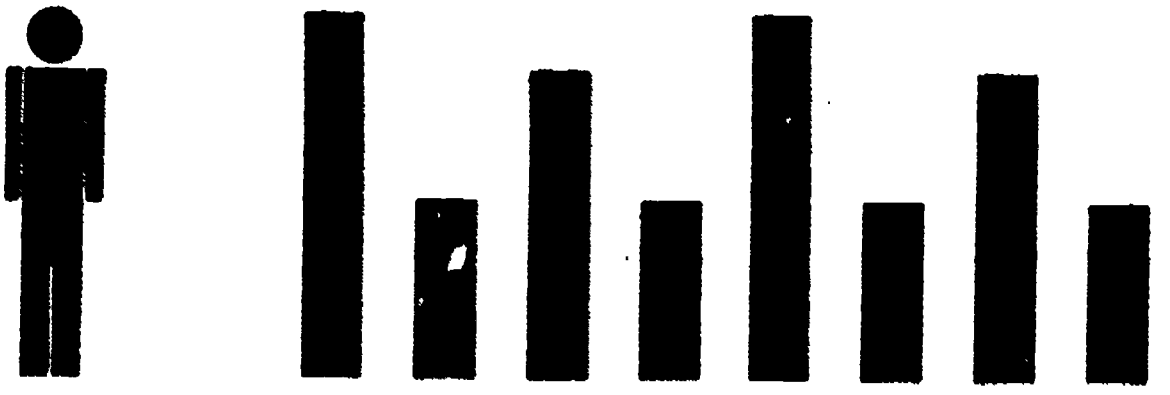
ABSTRACT

The relationship between the Instructional Process, Instructional Objectives, and Assessment Tasks, identified at the School City of Gary, Indiana, necessitate an effective testing program. Four characteristics perceived crucial to a sound program were: (1) The program should be continuous, (2) The testing program should be comprehensive, (3) Testing should be jointly planned, and (4) The testing program should be integrated into the total educational system. Stressing the nuts and bolts of testing, this manual discusses minor testing details ranging from directions to students to an administration check list. The format of computer printouts, available scoring services, basic data reports, student test profiles, as well as a rationale for interpreting and evaluating test results are presented. The current testing program, with special attention given to the Iowa Tests of Basic Skills and the Stanford Test of Academic Skills, is described. Appendices on the content analyses of tests utilized, the practice exercises for test utilized, and factors affecting the success of a measurement and evaluation program are included. (BJG)

THE CITYWIDE STANDARDIZED TESTING PROGRAM FOR MIDDLE AND HIGH SCHOOLS

(A TESTING MANUAL)



RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION

SCHOOL CITY OF GARY, INDIANA

JULIUS A. STRATTON, SUPERVISOR RESEARCH AND TESTING

SEPTEMBER, 1974

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THE CITYWIDE STANDARDIZED TESTING PROGRAM FOR MIDDLE AND HIGH SCHOOLS

(A TESTING MANUAL)

September 25, 1974

P R E F A C E

The new testing manual is written primarily for the instructional staff of the School City of Gary, Indiana.

The major goals of this book are to help such persons (a) acquire an understanding of the policies and procedures for the citywide testing programs for the middle and high schools, (b) reinforce their understanding of basic measurement concepts, and (c) broaden their understanding of purposes which can be served by the annual testing programs for District I.

This new edition has been made as functional as possible. Simple and direct expositions have been used in an attempt to make the information "easy" to read. The organization and emphasis remain the same as in the first edition.

The new testing instruments, new testing programs, and new computer entry information and computer listings further emphasizes the need for this third, and final, edition.

Julius Stratton, Supervisor
Research and Testing

Approved: Nicholas McDonald
Nicholas McDonald
Director of Secondary Education

ACKNOWLEDGMENT

Many persons have worked as a team to make the Student Test Analysis operation useful as an instructional activity for the School City of Gary.

1. The Data Processing Department is the "right hand" of the Research Department. The key staff members are responsible for the computer operations and utilization of the Research Department's entry data for educational measurements, evaluation and statistical analyses.
2. The teachers and administrators were most cooperative during all phases of the program's development.
3. The support of the Superintendent of Schools, Assistant Superintendent of Educational Services, and the Director of Secondary Education was indicative of the priority given to this program.
4. Many persons associated with other agencies made major contributions to the School City of Gary's efforts to introduce the new program. We are grateful for their expertise

College Entrance Examination Board

Educational Testing Service

Harcourt Brace Jovanovich, Inc.

Houghton Mifflin Company

The School City of Gary is able to provide this instructional program because of these persons, who were willing to support our efforts to continue to provide quality education for the children in our educational enterprise.

THE COVER

The diagram on the cover of this book is an attempt to further describe the rationale of "norm-referenced" testing. It is an adaptation of the symbol used for the Journal of Educational Measurement which is the official publication of the National Council of Measurement in Education, Inc.

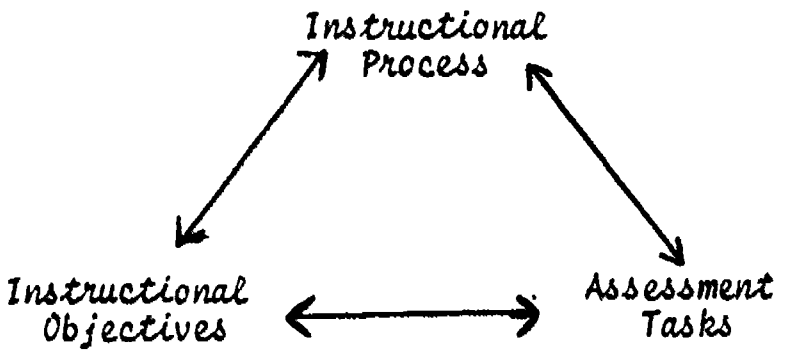
TABLE OF CONTENTS

PART ONE - RATIONALE OF THE CITYWIDE TESTING PROGRAM

A PROGRAM FOR INSTRUCTION

The testing program has been clea[illegible]y related to instruction so that the results may be used more extensively for curriculum development and assessment, as well as serving the counseling program.

The rationale for this program, shown schematically in the following figure, brings out the reciprocal relations between the Instructional Process, Instructional Objectives, and Assessment Tasks.



1. Clear statements of instructional objectives for mathematics, vocabulary, reading comprehension, language, and work study skills have been listed for the secondary and middle schools.
2. These objectives become a performance standard, for which various instructional strategies are developed.

3. The criterion of success becomes the degree to which the student's performance corresponds to these previously set performance standards.
4. These frame of references are not viewed as mandatory guide-lines for any class. Special evaluation techniques can be provided for innovative instructional activities. Citywide Assessment of our instructional efforts, however will require the use of standardized instruments.
5. Test results in the form of an item analysis will be reported in terms of specific instructional objectives. Basic skills deficits will be indentified. Specific learning experiences can then be planned to correct deficiencies. The probable learning rate for each pupil will also be identified.

A PROGRAM FOR STUDENTS

A policy statement on assessment procedures and the rights of children is now in the discussion stage. Recommendations will be made in a summary report.

A PROGRAM FOR DECISION-MAKING

We have been able to verify that there are at least four types of decisions related to the total teaching-learning process, that can be improved through the use of test scores:

1. Selection Decisions - Test scores are used to provide a systematic approach to diagnosis.
2. Classification Decisions - Test scores are used to provide for flexible homogenous groups for instructional purposes
3. Evaluation of Treatments - Test scores are used as one of the criteria in determining pupil progress based on individual or program evaluations.
4. Verification of scientific Hypotheses - These decisions are based on the findings of well structured research with test scores as dependent variables, and vigorous experimental controls.

SELECTION OF TESTS FOR PROGRAMS

The number of published tests of all kinds is very large. Care must therefore be taken in choosing among them. A file of specimen tests and test catalogues are available for perusal according to the Department's policies and procedures for this service. The Seventh Mental Measurement Yearbooks are available for staff use.

GENERAL TESTING PRINCIPLES

We have agreed on the following characteristics of a sound middle and high school testing program:

1. The program should be continuous. Occasional testing may serve immediate needs, but fully effective use of tests is possible only when they are part of a continuing program that permits measurements of growth and progress, and evaluation of changes from year to year.

2. The testing program should be comprehensive. Spot testing in one subject or another, or periodic use of a mental ability test, is of value; but results of all tests are enhanced when they are part of a comprehensive evaluation program and when they may be studied in relation to other test data.

3. Testing should be jointly planned. Because test data are of concern to teachers, guidance counselors, curriculum specialists, and principals, decisions relative to selection of tests, scheduling of tests, reporting of results, and other aspects of the program should be made jointly by all of them. Only in this way can there come about common understanding to the purposes of testing.

4. The testing program should be integrated into the total educational program. Standardized testing should not be thought of as extrinsic to or independent of the school's total program, but as an essential part of it, intimately related to instructional goals and to guidance and counseling activities.

PART TWO - PREPARATION FOR TESTING

THE TEST BULLETIN

The Test Bulletin will be forwarded to the principal, testing chairman, and other persons involved with the testing program as scheduled. Each copy will list the name of the test given, the nature of the test, date of the test, and timing of the test.

THE TEST MATERIALS

The following materials will be provided by the school's testing chairman:

1. Sufficient tests to accommodate your largest class. If you have more than one class, you are to use the same books for all classes.
2. Sufficient answer sheets to accommodate each of your students.
3. A Test Administration Check List for eacn class.
4. A Test Analysis Class List or alpha listing of the total group of testees for your building.
5. Instructions for handling answer sheets before tests are administered.
6. A Manual for Administration for each teacher involved with the administration of the test.
7. A "Do Not Distrub" Sign for each teacher involved with the administration of the test.
8. Regular No. 2 black lead pencils with erasers for each testee.
9. Sufficient scratch paper to accommodate each student if required.
10. A stop watch or watch with a second hand.
11. An extra copy of the test booklet for demonstration purposes.

TEST INFORMATION FOR STUDENTS

(To the Teacher: This sheet should be read several days before tests begin and then posted on the bulletin board for student examination.)

I would like to tell you about the special tests which you will take within the next few days. Every year, students in the middle schools take these tests. The tests are designed to find out how well you read, do mathematic problems, and what your general ability for school work is. None of these tests will be used to grade or mark you. There is no passing or failing mark for these tests. The purpose for giving the test is to find out about your ability and your needs so that your teacher will know the best way to help each of you learn. Therefore, you should try to do your very best on these tests.

Each test contains a large number of questions calling for very brief answers. For each question you will need to pick out the right answer from several suggested ones. Do not become discouraged if you find a large number of questions. It is practically impossible for even the most advanced students to obtain a perfect score.

When you come to questions where you are not sure of the answer, you should mark the answer you think is most likely to be right. However, if you have absolutely no idea what the answer is, you should probably leave it blank and go on to the next question.

The tests you will take use special answer sheets so that they may be scored by means of an electric machine. Those of you who have never used special answer sheets will be given a practice test to acquaint you with the way in which the answer sheets should be marked. The important thing to remember is to use only the No. 2 pencil which will be furnished for you and to make heavy black marks. Try not to make stray pencil marks on your paper as this makes the test harder to score properly.

POINTS TO KEEP IN MIND WHEN TAKING THE TEST

1. Listen carefully to all instructions given by your teacher.

2. You are not expected to answer all the questions, but answer as many as you can.

3. Work as rapidly as you can, spending no time "puzzling" over difficult questions.

4. Guess only if you can do so intelligently. Don't guess if you know absolutely nothing about the questions.

5. Use only the No. 2 pencil given to you. Make your marks heavy and black on the special answer sheet.

6. Be sure to erase completely any answers you wish to change.

The exhibit below is an example of the pre-printed answer sheets that will be prepared for each child. Name, School Number, Grade, Sex, Teacher, Date of Birth, Test Date, and Student Number.

IN AN ATTEMPT TO INSURE THAT THE SCORING PROCEDURE IS NOT DELAYED, PLEASE HAVE EACH CHILD SHADE AGAIN THE APPROPRIATE SPACES IN THE BOX FOR STUDENT IDENTIFICATION. USE NO. 2, REGULAR LEAD PENCILS. DO NOT ALLOW THE STUDENT TO USE INK OR BALL POINT PENS.

IOWA TESTS OF BASIC SKILLS - GRADE 3 — TEST A: ARITHMETIC SKILLS — SCHOOL CITY OF GARY

NAME (LAST) BARRON (FIRST) DENISE | SCH 03 | GRD 09 | SEX 0 | STUDENT NO 34 94 80 | TEACHER | DATE OF BIRTH 09 20 55 | TEST DATE 01 (MO) 72 (YR)

TEST A-1: ARITHMETIC CONCEPTS

The Test Administration Check List

1. It is most important that the Test Administration Check List, found on page 7 is completed.
2. Place the completed check list (both sides should be properly filled in) with your package of completed answer sheets.
3. All answer sheets, test booklets, manuals and "Do Not Disturb" signs should be returned to the testing chairman of your school.
4. The Administration Check list and Test Analysis Class List should be placed with your answer sheets. Any <u>completely</u> <u>unwritten</u> answer sheets should be placed in a separate category.

6.a

RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

TEST ADMINISTRATION CHECK LIST-- CITYWIDE TESTING PROGRAM
(Middle & High Schools)

THIS FORM SHOULD BE FILLED IN IMMEDIATELY AFTER THE TESTS HAVE BEEN ADMINISTERED, AND SHOULD BE RETURNED WITH THE TESTS

School_____ Teacher_____

Test_____ Grade_____ Date_____

Every effort will be made to provide prompt and accurate service. The quality of our service depends in part upon the condition of the answer sheets when they arrive at the scoring center. If they have been properly marked and identified, they can be more rapidly and accurately processed. This check-list has been prepared to assist the test administrator in preparing the answer sheets for the best possible service.

PLEASE ENTER A CHECK MARK ON EACH LINE TO INDICATE OPERATION COMPLETED

1. IDENTIFICATION FOR ANSWER SHEETS THAT ARE NOT PRE-PRINTED

_____ Pupil's name printed legibly and in the same manner on each answer sheet
_____ School name or number
_____ Grade
_____ Sex
_____ Student Number
_____ Name of teacher or examiner
_____ Correct birthdate (month, day, and year)
_____ Date of test (month and year)

2. AN EDIT OF MARKED ANSWER SHEETS

_____ Responses are made with regular No. 2 lead pencils only.
_____ Responses are HEAVY AND BLACK.
_____ Stray marks, crosses, dots, smudges, and partial erasures have been completely removed.
_____ Multiple responses have been erased where item calls for a single response.

3. ARRANGEMENT OF ANSWER SHEETS FOR RETURN TO RESEARCH DEPARTMENT

_____ Pre-printed answer sheets should be placed together in one category for return to Research Department.
_____ Place all answer sheets that are not pre-printed in a separate category.
_____ Inspect answer sheets to be sure that they are not creased, folded, or clipped together. Such sheets should be placed in a separate category.
_____ Provide testing chairman with the TEST ANALYSIS CLASS LIST with listed transfers, withdrawals, and new enrollees for your class. See page 9 and 10 of the 1974 Testing Handbook.

(over)

LIST NAMES OF ABSENTEES AND TEST MISSED
(Use extra sheets for additional listings required)

STUDENT NUMBER	STUDENT NAME	TESTS MISSED

Describe briefly any interruptions or irregularities which occurred and which you feel might have an adverse affect upon the test scores. If no irregularities occurred, state "none".

Class Irregularity: _____

Pupil Irregularity: _____

THE TEST ANALYSIS CLASS LIST

Edit the TEST ANALYSIS CLASS LIST by:

a. Drawing a line through the names, not the student number, of students who are not enrolled in your school.

b. Adding the names of students to be tested who are not listed. Please also list the student's ID number and birthdates. See sample on page 10.

SCORING SERVICES AVAILABLE

Arrangements for scoring services for IBM 1230 answer sheets should be made well in advance of the required needs. Requests for such services, other than the announced citywide testing programs, should be a listed statement carrying the approval of both the school and district administrator.

The availability of the Datronics Test Scoring Machine in the Research Department will allow all schools to generate immediate feedback, with self-service, for teacher-made or standardized tests. A telephone call to the Research Department for use of the machine on a reserved time basis is required.

SCHOOL 30 TEST ANALYSIS CLASS LIST DATE 12-06-71

TEACHER/CLASS NUMBER 067 TEACHER NAME LABROI SECTION 067

STUDENTS

NUMBER	NAME		GRADE	SEX	BIRTH DATE
512700	AHLDERS	MELANIES	06	G	01-12-60
513760	BAGGETT	RACHEL K	06	G	03-08-60
514005	BALLARD	JAMES	06	B	01-17-60
514790	BENFORD	LORI M	06	G	08-19-60
516786	BUTTS	CARLA	06	G	05-15-60
516740	CALLAWAY	COLLEENM	06	G	05-20-60
517675	CHERRIER	LISA M	06	G	04-27-60
519970	DAY	JEFFREYL	06	B	10-29-59
~~520683~~	~~DORITY~~	~~RANDALLL~~	~~05~~	~~B~~	~~08-13-60~~
520810	DREYFUS	JOSHUA B	06	B	02-03-60
535759	MORRIS	STEPHENM	06	B	01-05-60
1-18-72 ~~536100~~	~~MURPHY~~	~~GREGORYA~~	~~06~~	~~B~~	~~06-20-60~~
536630	NOEL	GERALD	06	B	09-29-59
536790	OCONNOR	BRENDANE	06	B	08-27-60
537240	PAJOR	RICHARDA	06	B	12-08-59
540690	ROMAN JR	FRANK V	06	B	08-07-60
540910	ROTTENBERG	SCOTT M	06	B	06-25-60
541430	SANDINE	JULIE A	06	G	10-05-60
1-9-71 ~~541580~~	~~SAYLOR~~	~~SUSAN D~~	~~06~~	~~G~~	~~08-03-60~~
542260	SHNEIDER	BENJAMIL	06	B	10-15-60
543290	SPACEK	LYNNE M	06	G	02-24-60
543330	SPEARS	DARRELLB	06	B	11-11-59
545290	TOBACK	LARRY S	06	B	03-08-60
548370	TOMALA	ROBERT M	06	B	04-30-60
Fr Q. 65	514005	BALLARD,	JAMES	06	B	01-17-60
	534345	McMASTER,	COLLEEN	06	B	07-15-60

THE STUDENT TEST ANALYSIS (STA) LISTING

The following data will be provided for all computer processed testing programs in the format found on page 12.

The computer will list the test results according to:

1. Instruction Area or School
2. Class and/or Section
3. Grade or Level
4. Test Giver
5. Test Date
6. Student Number
7. Converted Scores (Stanines, grade equivalents, standard scores, and/or percentiles).

Each teacher involved can receive a class analysis listing. Each student will receive a student profile. Interpretation data will be returned with the test results. The exhibit on the next page further describes the listing of test results.

THE BASIC DATA REPORTS

Citywide and individual school reports are given to each school. Citywide and all school reports are given to the Superintendent and the Director of Secondary Education.

The basic data for the citywide testing program wil include:

1. individual self-interpreting student profiles.
2. A cumulative test record report for each student's cumulative folder with all test scores listed.
3. Individual school reports with grade equivalent, stanine, percentile, and standard test scores for each child in an alpha listing.
4. An individual summary report for each school with interpretation data, school averages, stanine and grade equivalent frequency distributions, and an item analysis of the basic skills deficits.
5. A citywide summary report with interpretation data, citywide averages, stanine, and grade equivalent frequency distributions, and an item analysis of the basic skills deficits.

CLASS ANALYSIS

10-18-73

INSTRUCTION AREA - *Pulaski Middle School* LEVEL - *14* Form - *5*

TEST GIVER - *J. Doe* TEACHER *063* SECT. *08* TEST DATE *09-14-73*

STUDENT NUMBER	STUDENT NAME		SUB-TEST NUMBER 02	03	05	06
416374	*Ehrlichman John*	Percentile	47	11	1	2
		Stanine	5	3	1	1
		Grade Eq.	8.0	5.5	4.5	4.2
421750	*Jones Johnny*	Percentile	28	42	NS	NS
		Stanine	4	5	NS	NS
		Grade Eq.	6.9	7.6	NS	NS
423789	*Rivera Juan*	Percentile	41	30	44	7
		Stanine	5	4	5	2
		Grade Eq.	7.7	6.9	7.8	5.0
428502	*Roszkowski Mary*	Percentile	43	42	27	3
		Stanine	5	5	4	1
		Grade Eq.	7.8	7.6	6.9	4.4
478896	*Smith Patricia*	Percentile	6	7	3	2
		Stanine	2	2	1	1
		Grade Eq.	4.7	5.1	5.1	4.2

Test Score Legends

Sub-Test Code	
02	.Vocabulary
03	.Reading Comprehension
05	.Mathematic Concepts
06	.Mathematic Problem Solving
NS	.No Score

STUDENT TEST PROFILES

Our test scores are also used to enhance each student counselee's general self-understanding. Several reports are made available for our student's quest for information about him or herself relative to other people with whom he associates. One such report is the Student Test Profiles.

A sample of the Student Test Profiles is found on page 14. This self-interpreting Student Test Profile will provide an opportunity for feedback to both pupils and parents. Counselors and teachers can also help interpret the scores.

A. The following description of the black and white Student Test Profile is provided in an attempt to further help in interpreting the scores within the limits of their accuracy:

1. The top line of the form is self-explanatory. Each box is interpreted with a printed label of information.

2. The names of each test are listed with a graph to indicate the test results as a percentile rank.

   PERCENTILES - Percentiles are ranked scores from 1 to 100. If one of the percentile scores is 20, the achievement on the test is higher than that of, or equal to that of, 20 percent of those students in the national standardization sample. This percentile also indicates a score lower than 80 percent of the students in the national standardization sample. Percentile ranks are commonly used in high school.

   STANINES - Stanines divide scores into nine groups. Stanines 4, 5, and 6 are considered Average; 1-3, Below Average; 7-9 Above Average. Stanines should be used when comparisons are made between subject areas or pupils.

SCHOOL CITY OF GARY

DOE JOHNNY L | 08 | 234567 | 45 | LORGE-THORNDIKE | 1/73

STUDENT NAME | GRADE | STUDENT NUMBER | SCHOOL | TESTING PROGRAM | DATE TESTED

TEST	TEST RESULTS
VERBAL IQ	77
NON-VERBAL IQ	89

PERCENTILES

STANINES

1	2	3	4	5	6	7	8	9
BELOW AVERAGE			AVERAGE				ABOVE AVERAGE	

INDIVIDUAL TEST PROFILE
MIDDLE AND HIGH SCHOOL

SCHOOL CITY OF GARY

DOE JOHNNY L | 08 | 234567 | 45 | IOWA TESTS BASIC SK. | 1/73

STUDENT NAME | GRADE | STUDENT NUMBER | SCHOOL | TESTING PROGRAM | DATE TESTED

TEST	TEST RESULTS
VOCABULARY SKILLS	07
READ. COMPREHENSION	12
MATH. CONCEPTS	09
MATH. PROB. SOLVING	18

PERCENTILES

STANINES

1	2	3	4	5	6	7	8	9
BELOW AVERAGE			AVERAGE				ABOVE AVERAGE	

INDIVIDUAL TEST PROFILE
MIDDLE AND HIGH SCHOOL

The relationship between stanines and percentile rank is shown below:

Stanine	1	2	3	4	5	6	7	8	9
Percentile Rank	0-3	4-10	11-22	23-39	40-49	60-76	77-88	89-95	96+

The percentile points which appear in the norms tables for aptitude tests should be read as representing zones of ability rather than as precise points.

THE INDIVIDUAL CUMULATIVE TEST RECORD FORM

The Individual Cumulative Test Record Form is prepared for each child involved in the testing program. This report is generated primarily for the staff's use in counseling and placement of their students.

The cumulative test report is filed in the student's cumulative folder and becomes a part of his permanent school records.

A sample of this report is found on the next page.

SCHOOL CITY OF GARY, INDIANA

HIGH SCHOOL INDIVIDUAL CUMULATIVE TEST RECORD

STUDENT NAME	STUDENT NO.	SEX	DATE OF BIRTH	DATE OF RECORD	SCHOOL
BRADELY STEVE	469013	B	02-09-57	07-01-78	48

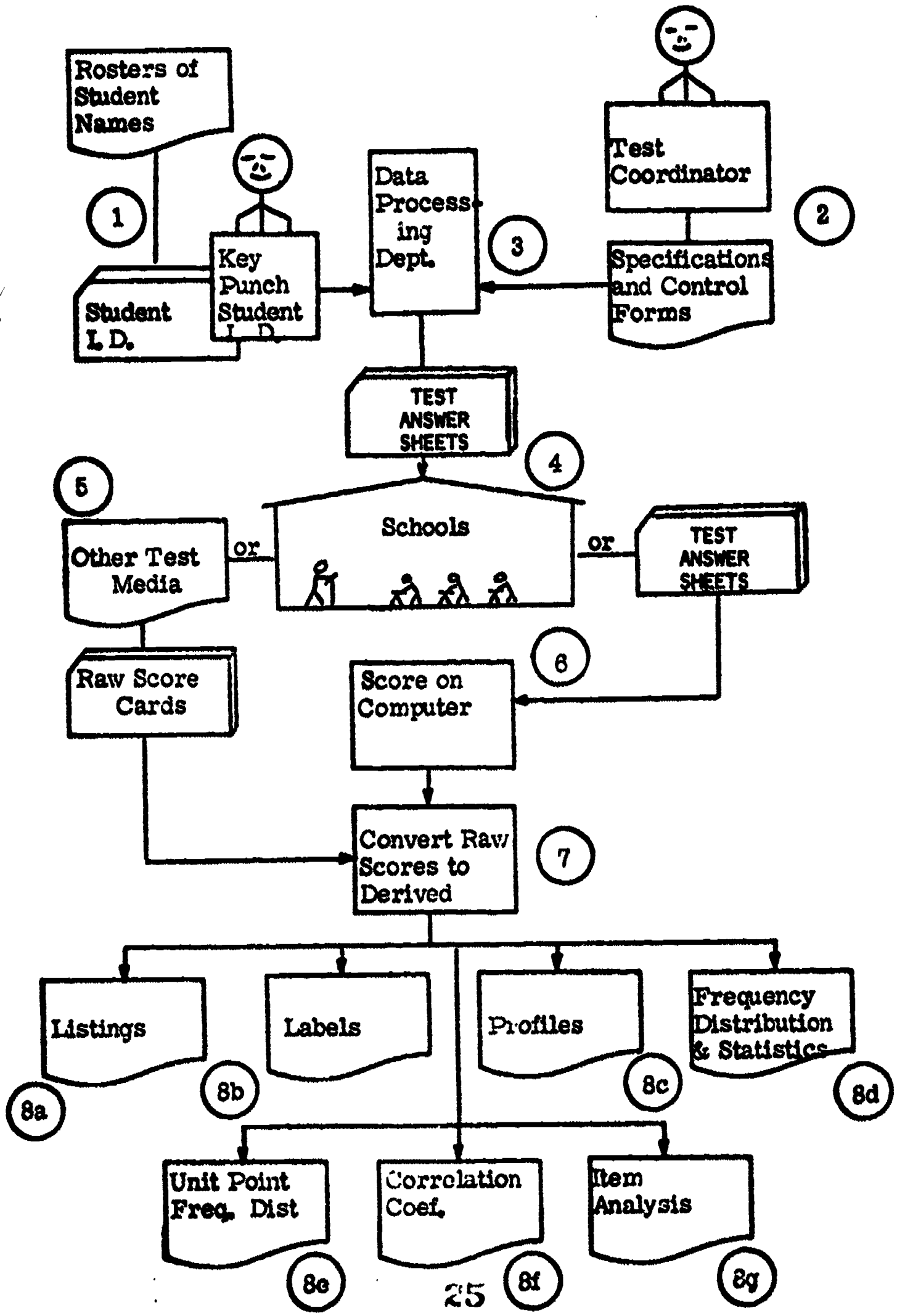
GRADE	TEST	FORM	TEST DATE	NAT'L. NORM	GRADE EQUIV.	STA-9	NAT'L. P.R.	I.Q.	STD SCO.
	STANFORD - TASK I	A	05-03-74						
09	ENGLISH BASIC SKIL					3	16		156
09	MATHEMATICS BASIC					1	1		115
09	READING BASIC SKIL					2	8		148
	STANFORD - TASK II	A	05-03-78						
12	ENGLISH BASIC SKIL					4	24		188
12	MATHEMATICS BASIC					3	14		173
12	READING BASIC SKIL					4	32		197

LEGEND

NAT'L. NORM - National Norm
GRADE EQUIV.- Grade Equivalent
STA-9 - Stanine
NAT'L. P.R. - National Percentile Rank
I.Q. - Intelligence Quotient
STD. SCO. - Standard Score

EXHIBIT I

A SIMPLIFIED FLOW OF TEST SCORING PROCEDURES



RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION

SCHOOL CITY OF GARY, INDIANA

THERE'S A MISSING LINK...

EVERY EFFORT WILL BE MADE TO PROVIDE PROMPT AND ACCURATE SERVICE. THE SPEED OF OUR SERVICE DEPENDS IN PART UPON THE CONDITION OF THE ANSWER SHEETS WHEN THEY ARRIVE AT THE SCORING CENTER. IF SHEETS ARE MARKED AND IDENTIFIED, ACCURATELY, THEY CAN BE MORE RAPIDLY PROCESSED.

COMPUTER OPERATIONS FOR THIS INSTRUCTIONAL ACTIVITY MUST INVOLVE ALL SCHOOLS AS A UNIT. PLEASE MAKE A SPECIAL EFFORT TO CONDUCT THIS PHASE OF THE INSTRUCTIONAL PROGRAM AS SCHEDULED SO THAT WE CAN MOVE CLOSER TO OUR GOAL CF A STANDARDIZED CITYWIDE OPERATION WITH PROMPT RELATED SUPPORTIVE SERVICES.

PART THREE - INTERPRETATION OF TEST RESULTS

DERIVED SCORES

1. PERCENTILE RANK

Percentiles are ranked scores from 1 to 100. If one of the percentile scores is 20, the achievement on the test is higher than that of, or equal to that of, 20 percent of those students in the national standardization sample. This percentile also indicates a score lower than 80 percent of the students in the national standardization sample. Percentile ranks are commonly used in high school.

2. STANINES

Stanines divide scores into nime groups. Stanines 4, 5, and 6 are considered 'Average; 1-3. Below Average; 7-9 Above Average. Stanines should be used when comparisons are made between subject areas or pupils.

These scores discourage the staff's attempts to interpret minor differences in test results. With reasonable reliabilities, stanine differences of two or more points are likely to be statistically, and educationally, significant for individual scores.

Example: If student A has a stanine of 7 in mathematics and a stanine of 4 in reading, it is likely that his mathematics performance is truly superior to his present reading performance.

Stanine differences of one or more points are likely to be statistically significant for group scores.

Example: If school A has an average stanine of 6 in mathematics and an average score of 5 in reading, it is likely that the scores in mathematics are higher than the reading scores.

3. GRADE EQUIVALENTS

Grade equivalents relate scores to grade levels. If the grade equivalent score is 4.3, the achievement on that test is similar to that of pupils who have completed 3 months of the fourth grade. The grade equivalent score is most frequently used in the grades below high school.

Use the grade equivalent score with caution at the high school level. Although grade equivalents are easy to understand, they should be interpreted with caution. This is particularly true at the upper levels since grade equivalents are generally considered less reliable at the higher grade levels.

Among other things, they assume a regular pattern of growth throughout the school year, a condition which may seldom, if ever, be met. Futhermore, in the area of reading, rather wide deviations should be considered quite normal. Despite their limitations, however, grade equivalents have the advantage of simplicity and direct meaning and represent a convenient way of rendering scores on several tests "comparable."

SUPPLEMENTARY GLOSSARY

1. APTITUDE

A combination of abilities and other characteristics, whether native or acquired, known or believed to be indicative of an individual's ability to learn in some particular area. Thus, "musical aptitude" would refer broadly to that combination of physical and mental characteristics, motivational factors, and conceivably other characteristics, which is conducive to acquiring proficiency in the musical field. Some exclude motivational factors, including interests, from the concept of "aptitude," but the more comprehensive use seems preferable. The layman may think of "aptitude" as referring only to some inborn capacity. The term is no longer so restricted in its psychological or measurement usage.

2. ARITHMETIC MEAN

The sum of a set of scores divided by the number of scores. Commonly called average & mean. The mean is the only measure of central tendency that is based on the aggregate of total of the score values. This average, unlike the median or mode, will be sensitive to any change in performance level of any individual pupil.

3. BASIC ABILITY

Proable learning rate. The Combination of native and acquired abilities needed for school work. Likelihood of success in mastering academic work as estimated from measures of the necessary abilities.

4. BASIC SKILLS

The Iowa Tests of Basic Skills and The Stanford Test of Academic Ability cannot be considered as achievement batteries in the usual sense of measuring the knowledge in the common content areas of the secondary school curriculum such as social studies, geography, science, and health.

The basic skills, as defined by the authors of *Iowa Tests of Basic Skills* are:

1. Vocabulary: knowing the meaning of words
2. Reading Comprehension: understanding what you read
3. Mathematics: understanding the number system, mathematical terms, operations, and problem solving

The basic skills, as defined by the authors of the *Stanford Test of Academic Skills* are:

1. Reading Comprehension and Vocabulary

2. English: (a) Learning Skills (b) Usage Conventions (c) Spelling (d) Sentence Sensitivity (e) Paragraph Arrangement

3. Mathematics: Concepts and Problem Solving

5. INTELLIGENCE QUOTIENT

The following table shows the classification of IQ's offered by Terman and Merrill for *The Stanford-Binet Test* indicating the percent of persons in a normal population who fall in each classification. This table is roughly applicable to tests yielding IQ's having standard deviations of about 16 points (not all do). It is important to bear in mind that any such table is arbitrary, for there are no inflexible lines of demarcation between "feebleminded" and "borderline," etc.

CLASSIFICATION		PERCENT OF ALL PERSONS
Near genius or genius	140 and above	1
Very superior	130 - 139	2.5
Superior	120 - 129	8
Above average	110 - 119	16
Normal or average	90 - 109	45
Below average	80 - 89	16
Dull or borderline	70 - 79	8
Feeble-minded: moron	60 - 69	2.5
imbecile, idiot	59 and below	1

A CRUDE I.Q CONVERSATION TABLE

Presented below is a table which we will use to interpret stanines in terms of I.Q. point intervals and percentile bands.

Stanines	I.Q. Point Intervals	General Interpretation	Approximate Percentile Band
9	Above 126	Very Fast	96-100
8	120-126	Fast	89-95
7	112-119	Learner	77-88
6	104-111		60-76
5	97-103	Average	40-59
4	89-96		23-39
3	81-88	Slow	11-22
2	73-80	Learner	4-10
1	72 and below	Very Slow Learner	0-3

TEST INTERPRETATION CAUTIONS

Test scores are estimates of student's performance. True performance may be a little higher or a little lower than the scores indicate. At least three factors should be considered when interpretations of test scores are made.

1. All measurement contains errors. No measurement, whether it is a measure of an individual's intelligence, his reading ability, his height, or his weight, is absolutely accurate. For this reason one should never think of a test score as a point on a scale but rather as a score falling within a range of scores.
2. No intelligence test will measure the innate ability of an individual. The I.Q. score obtained by an individual does not represent an unchanging, permanent trait of the individual. We will think of the score as evidence of the child's Probable Learning Rate.
3. We will not uncritically accept scores obtained from the Verbal Battery of the *Lorge-Thorndike Tests* for individuals who are poor readers or who do not speak Englih. For poor reader, one could use the Nonverbal Battery to obtain an estimate of abstract reasoning ability that is not affected by ability to read. For individuals who speak Spanish, directions in Spanish are available for the Nonverbal Battery of the earlier Separate-Level Edition of the *Lorge-Thorndike Tests.*

PART FOUR - THE CURRENT TESTING PROGRAM

Several checkpoints where a student's achievement can be reviewed and necessary corrective actions instituted have been mandated by the Superintendent of Schools:

THE FALL TESTING PROGRAM

Three typical uses of the results of both the *Iowa Tests of Basic Skills*, and the *Stanford Test of Academic Skills* in the Fall Testing Program are:

1. To identify those students who are weak in basic skills so that remedial instruction can be provided for them.
2. To determine if students have adequate basic skills to enter certain curricula or courses.
3. To aid in placing students in the appropriate section of a multi-level course.

The typical school curriculum is so organized that the curricular content necessary to produce literacy has been covered by the end of sixth grade. Emphasis beyond that point is on increased mastery of basic skills and on the study of new and broader areas of knowledge. Thus, it is quite natural for schools to choose the eighth grade as a point of special concern for determining how well a student has developed basic academic skills and to continue this special concern in subsequent years until the student can demonstrate that he has mastered these skills.

THE SPRING TESTING PROGRAM

Several administrators and supervisors have requested posttest data that will help in evaluating the school's efforts. The citywide testing program reflects such recommendations.

THE SURVEY OF HIGH SCHOOL GRADUATES

The citywide graduating senior class represents one of the major products of our educational enterprise. A twelfth grade assessment of basic reading and mathematics skills, and a follow-up study of our graduates, provides base-line data for documenting a summary report of those that we have prepared for work and/or further study.

Instructions for the Annual Survey of High School Graduates:

1. *The follow-up procedures involve the use of an alpha listing, on labels, of the graduating senior class for your high school.*
2. *An appropriate follow-up code is to be written in the upper right hand spsce of the label and returned to the Research Department before October 14.*
3. *The Follow-up Legend to be used is listed below:*

WF ------ *Student is Working Full Time*

WP ------ *Student is Working Part Time*

C ------ *Student is in College*

H ------ *Student is a Housewife*

A ------ *Student is in Apprenticeship Program*

TV ------ *Student is in Technical or Vocational Training*

M ------ *Student is in Military Service*

U ------ *Student is Unemployed*

S ------ *Something not Listed Above*

4. *Leave the code space blank to indicate that you were unable to contact the student.*

RESEARCH DEPARTMENT · DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

SCHEDULE OF MEASUREMENT SERVICES FOR 1974-75

Middle Schools

Bailly
Beckman
Edison
Froebel
Advancement School
Project Core/Intermediate
Kennedy-King
Pulaski
Tolleston

High Schools

Emerson
Mann
Roosevelt
Martin Luther King Academy
Career Center: Tech. Voc. H.S.
Project Core/High School
Wallace
West Side
Wirt

G R A D E 8

sts of Basic Skills — Sept. 30 - Oct. 4, 1974

The Vocabulary, Reading Comprehension, and Mathematics (Mathematics Concepts and Mathematics Problem Solving) subtests of the *Iowa Tests of Basic Skills* will be administered to all eighth graders.

May 12 - 16, 1975

The Vocabulary, Reading Comprehension, Language Arts, and Mathematics subtests of the *Iowa Tests of Basic Skills* will be administered.

Tests of Basic Abilities — Sept. 30 - Oct. 4, 1974

The Lorge-Thorndike Intelligence Tests (Verbal and Nonverbal Tests) will be administered to all eighth graders.

G R A D E 6

Tests of Basic Skills — Oct. 7 - 11, 1974

The Vocabulary, Reading Comprehension, and Mathematics (Mathematic Concepts and Mathematics Problem Solving) subtests of the *Iowa Tests of Basic Skills* will be administered to all sixth graders.

May 19 - 23, 1975

The Vocabulary, Reading Comprehension, Language Arts, and Mathematics subtests of the *Iowa Tests of Basic Skills* will be administered.

G R A D E 7

Tests of Basic Skills — Oct. 14 - 18, 1974

The Vocabulary, Reading Comprehension and Mathematics (Mathematics Concepts and Mathematics Problem Solving) subtests of the *Iowa Tests of Basic Skills* will be administered to all seventh graders.

May 26 - 30, 1975

The Vocabulary, Reading Comprehension. Language Arts, and Mathematics subtests of the *Iowa Tests of Basic Skills* will be administered.

(O V E R S I D E)

Middle Schools

Bailly
Beckman
Edison
Froebel
Kennedy-King
Pulaski
Tolleston
Advancement School
Project Core/Intermediate

High Schools

Emerson
Mann
Roosevelt
Wallace
West Side
Wirt
Martin Luther King Academy
Career Center: Tech. Voc. H..

G R A D E 9

Tests of Basic Skills — Oct. 7 - 11, 1974

The Vocabulary, Reading Comprehension, English and Mathematics subtests of *The Stanford Test of Academic Skills (TASK I)* will be administered to all ninth graders.

G R A D E 12

Tests of Basic Skills — May 5 - 9, 1975

The Vocabulary, Reading Comprehension, English and Mathematics subtests of *The Stanford Test of Academic Skills (TASK II)* will be administered to all twelfth graders.

Annual Senior Survey — May 5 - 9, 1975

Data for the twelfth grade data bank will be collected. Mr. Stratton will compile data required for School City, state, and federal reports.

Julius Stratton, Supervisor
Research and Testing

THE TESTS OF ACADEMIC SKILLS

Stanford Test of Academic Skills (TASK '73) is the new measurement instrument used as one factor for assessing the schools system's curriculum elements. We believe that measures of the basic skills are far more valuable for use in the improvement and individualization of instruction than are measures of achievement in specific subjects.

The Stanford Test of Academic Skills (TASK '73), Levels I and II, will be used for ninth and twelfth grade students. The test surveys the reading comprehension, mathematics, and English basic skills from grade 9 through the first year of college. The following three subtests are involved in the assessment at the ninth and twelfth grade levels:

NINTH AND TWELFTH GRADE TESTS OF BASIC SKILLS

Subtest Legend	Subtest Involved	Working Time (minutes)	Admin. Time
05	Test 1R: Reading Part A - Comprehension Part B - Vocabulary	 30 min. 10 min.	50
02	Test 2E: English Part A - Learning Skills Part B - Usage Conventions Part C - Spelling Part D - Sentence Sensitivity Part E - Paragraph Arrangement	40 min.	50
03	Test 3M: Mathematics	40 min.	50

Scores are reported in terms of the stanine, grade equivalent, percentile rank, and/or standard score.

THE IOWA TESTS OF BASIC SKILLS, FORM 5

The Iowa Tests of Basic Skills are concerned only with generalized intellectual skills. The major reason for this is, according to authors of the test, that measures of the basic intellectual skills are far more valuable for use in the improvement and individualization of instruction than are measures of achievement in specific subjects.

The skills measured by the tests are classed into five major areas: vocabulary, reading, language, work-study, and mathematics. The present city-wide testing program, however, involves only the vocabulary, reading comprehension, language, and mathematics basic skills. Scores are reported in terms of stanines, grade-equivalents and/or percentile ranks. Descriptions of the tests utilized at the sixth, seventh and eighth grades in the middle schools are as follows:

SIXTH, SEVENTH AND EIGHTH GRADE TEST OF BASIC SKILLS

Subtest Legend	Subtests Involved	Working Time (minutes)	Admin. Time
02	Test V: Vocabulary	17 min.	85
03	Test R: Reading Comprehension	55 min.	
	Test M: Mathematics Skills		65
05	M-1: Mathematics Concepts	30 min.	
06	M-2: Mathematics Problem Solving	30 min.	
	Test L: Language Skills		80
08	L-1: Spelling	12 min.	
09	L-2: Capitalization	15 min.	
10	L-3: Punctuation	20 min.	
11	L-4: Usage	20 min.	

THE LORGE-THORNDIKE INTELLIGENCE TESTS

The Lorge Thorndike Intelligence Tests are a series of tests designed to measure a student's probable learning rate. They consist of five Verbal subtests and three Nonverbal subtests which sample different kinds of mental processes as listed in the table below.

Intelligence, or abstract reasoning, is defined by the authors of this test as the "ability to work with ideas and relationships among ideas." Most abstract ideas with which children and adults deal are experienced in verbal symbols, so much so that verbal symbols are the appropriate medium for testing abstract reasoning. However, the very young, the poorly educated, or the poor reader may be inadequately appraised by the use of printed words for their individual abilities. A set of nonverbal tests is used in an attempt to offset this disadvantage.

EIGHTH GRADE TESTS OF ABILITY

Subtest Legend	Subtest Involved	Working Time (minutes)	Admin. Time
02	Verbal IQ Tests		40
	1. Vocabulary	7 min.	
	2. Sentence Completion	7 min.	
	3. Mathematics Reasoning	7 min.	
	4. Verbal Classification	7 min.	
	5. Verbal Analogies	7 min.	
03	Nonverbal IQ Tests		40
	1. Pictorial Classification	9 min.	
	2. Number Series	9 min.	
	3. Pictorial Analogies	9 min.	

THE DIFFERENTIAL APTITUDE TEST

There is a recognition in our citywide program of measurement and evaluation for greater emphasis on Career Education. The testing programs is related to the levels of emphasis in our Career Education Program.

Career Awareness . . . . . Grades K-5

Career Exploration . . . . . Grades 6-8

Decision Making . . . . . Grades 9-10

Career Preparation. . . . . Grades 11-12

Tests of vocational aptitudes and interests are usually given in the ninth or tenth grades although some schools give such tests later in the high school program.

Information collected includes the subtest of the *Differential Aptitude Test.*

1. Abstract Reasoning (AR)

   A non-verbal, non-numerical measure of reasoning power. Ability to see relationships among things--objects, patterns, diagrams, or designs--rather than among words and numbers. Useful in shop, drafting, and laboratory work--also in mathematics, in electrical or mechanical trouble-shooting, in computer programming, etc.

2. Clerical Speed and Accuracy (CSA)

   Quickness and accuracy in perceiving and marking simple letter and number combinations. Important in paper work in school, and in offices, laboratories, stores, warehouses, or wherever records are made or filed or checked. Sometimes a low CSA for a generally able person may indicate great emphasis on correctness rather than genuine lack of ability to work rapidly.

3. Mechanical Reasoning (MR)

   Comprehension of mechanical principles and devices, and of the laws of everyday physics. Courses in the physical sciences, technical studies, or manual training shop are easier for those who score high in MR, as are mechanical repair work and a wide variety of factory and engineering jobs.

4. Space Relations (SR)

Ability to visualize, to imagine the shape and surface of a finished object before it is built, just by looking at the drawings that would be used to guide workmen in building it. This ability makes some kinds of mathematics easier--solid geometry for example.

5. Verbal Reasoning (VR)

Ability to reason with words, to understand and use concepts expressed in words. Important in academic courses; also in jobs requiring much written or oral communication and jobs involving high levels of authority and responsibility.

6. Numerical Ability (NA)

Ability to reason with numbers, to deal intelligently with quantitative materials and ideas. Generally important in school work--but especially for such fields as mathematics, chemistry, physics, and engineering. Useful in such jobs as bookkeeper, engineer, laboratory technician, statistician, shipping clerk, carpenter, navigator, etc.

7. Verbal plus Numerical (VR+NA)

General scholastic aptitude--ability to learn from books and lectures, to master school subjects. Indicative also of potential for jobs of more than ordinary responsibility. This score is the equivalent in meaning of "mental ability" scores on most traditional group tests of "intelligence."

PERFORMANCE EVALUATION

Paper-and pencil test instruments are incapable of assessing all of the educational objectives in our secondary schools. The evaluation of goals related to "pupil performance" will be based on the procedures displayed by the student or the products yielded by the procedure.

Instruments for evaluating procedures will include ranking, rating scales, check lists, and anecdotal records. Instruments for evaluating products will include ranking, rating, and product scales.

Performance evaluation tends to be unreliable in most cases. We will, however, use such strategies when required.

APPENDIX A

THE CONTENT ANALYSES OF TEST UTILIZED

INTERPRETATIONS OF THE DATA COMPILED FOR THIS REPORT SHOULD TAKE INTO CONSIDERATION THE FOLLOWING FACTORS: (1) THE AMOUNT OF LOCAL EMPHASIS GIVEN TO ITEMS EMPHASIZED IN THE TEST, (2) THE PLACEMENT OF THE TEST EMPHASIZED SKILL IN OUR LOCAL CURRICULUM, AND (3) THE DISTRIBUTION OF THE BASIC ABILITY OF THE PUPILS INVOLVED.

INSTRUCTIONAL FOLLOW-UP SHOULD NOT BE CENTERED UPON TEACHING PUPILS TO ANSWER A PARTICULAR TEST ITEM OR GROUP OF ITEMS, BUT RATHER UPON THE DEVELOPMENT OF THE SKILLS WHICH THE ITEMS MEASURE. IT IS VERY EASY TO TEACH PUPILS TO ANSWER A PARTICULAR ITEM CORRECTLY, BUT NOTHING OF LASTING EDUCATIONAL BENEFIT WILL RESULT. IF THE USE OF THE TEST IS TO PRODUCE GENUINE IMPROVEMENT, THE SKILL MUST BE DEVELOPED THROUGH THE USE OF COMPLETELY INDEPENDENT INSTRUCTIONAL MATERIALS.

THE CONTENT ANALYSIS OF THE TEST SHOULD NOT BE CONSIDERED EXCLUSIVE. IT IS POSSIBLE TO SAMPLE ADDITIONAL INSTRUCTIONAL OBJECTIVES AS A PART OF OUR ANNUAL CITYWIDE STANDARDIZED TESTING PROGRAM. ARRANGEMENTS FOR SUCH A SERVICE SHOULD BE MADE WELL IN ADVANCE OF THE PUBLISHED CITYWIDE SCHEDULE OF MEASUREMENT ACTIVITIES.

Julius Stratton, Supervisor
Research and Testing

8-16-74

THE IOWA TEST OF BASIC SKILLS

SKILLS CLASSIFICATION FOR TEST R
READING COMPREHENSION

D (Details)--To Recognize and Understand Stated or Implied Factual Details and Relationships

D-1 To recognize and understand important facts and details

1_____ 5_____ 6_____ 7_____ 8_____ 11_____

13_____ 18_____ 19_____ 23_____ 25_____ 28_____

29_____ 35_____ 38_____ 39_____ 41_____ 4[illegible]_____

46_____ 48_____ 52_____ 53_____ 54_____ 61_____

62_____ 63_____ 70_____ 71_____ 77_____ 78_____

82_____ 84_____ 94_____ 95_____ 100_____ 104_____

110_____ 114_____ 124_____ 144_____ 150_____ 152_____

158_____ 159_____ 176_____ 178_____

D-2 To recognize and understand implied facts and relationships

2_____ 3_____ 4_____ 10_____ 12_____ 15_____

16_____ 21_____ 26_____ 30_____ 31_____ 32_____

34_____ 36_____ 37_____ 40_____ 45_____ 47_____

49_____ 51_____ 60_____ 64_____ 69_____ 72_____

83_____ 87_____ 98_____ 102_____ 105_____ 111_____

113_____ 117_____ 133_____ 134_____ 137_____ 138_____

139_____ 143_____ 146_____ 147_____ 148_____ 151_____

161_____ 162_____

D-3 To deduce the meaning of words or phrases from context

14_____ 20_____ 58_____ 59_____ 66_____ 80_____

85_____ 88_____ 92_____ 93_____ 103_____

112_____ 115_____

D-3 (Cont'd)

123_____ 125_____ 131_____ 140_____ 145_____

153_____ 154_____ 160_____ 169_____

P (Purpose)--To Develop Skill in Discerning the Purpose or Main Idea of a Paragraph or Selection

P-1 To detect the main purpose of a paragraph or selection

42_____ 43_____ 65_____ 97_____ 116_____ 119_____

126_____ 127_____ 165_____ 170_____

P-2 To recognize the main idea or topic of a paragraph or selection

9_____ 17_____ 24_____ 55_____ 56_____

74_____ 75_____ 91_____ 99_____ 118_____

129_____ 136_____ 149_____ 166_____ 174_____

O (Organization)--To develop ability to organize ideas

O-1 To recognize common elements or parallel topics in incidents or paragraphs

68_____ 81_____ 101_____ 106_____ 122_____

128_____ 155_____ 163_____ 175_____

O-2 To recognize proper time sequence

67_____ 73_____ 79_____ 86_____ 96_____

141_____ 142_____ 156_____ 172_____

SKILLS CLASSIFICATION FOR T ,T R (Cont'd)

E (Evaluation)--To Develop Skill in Evaluating What Is Read

E-1 To develop generalizations from a selection

22_____ 27_____ 33_____ 50_____ 76_____

120_____ 164_____ 167_____ 171_____ 173_____

177_____

E-2 To recognize the writer's viewpoint, attitude, or intention

89_____ 107_____ 109_____ 121_____ 135_____

157_____ 168_____

E-3 To recognize the mood or tome of a selection

130_____

E-4 To recognize outstanding qualities of styles or structure

57_____ 90_____ 108_____ 132_____

SKILLS CLASSIFICATION FOR TEST M-1
MATHEMATICS CONCEPTS

C Currency

C-1 Reading and writing amounts

4

C-2 Relative values of coins

18

D Decimals

D-1 Reading and writing

73

D-2 Relative values

82 96

D-3 Rounding

87

D-4 Fraction, decimal, percent equivalents

100 124

D-5 Fundamental operations: ways to perform

103

SKILLS CLASSIFICATION FOR TEST M-1 (Cont'd)

D-6 Fundamental operations: estimating results

90

E Equations, Inequalities, and Number Sentences

E-1 25 35 38 58 68 78

84 88 92 99 121

123 135

F Fractions

F-1 Part of a whole and partitioning of a set

14 21 42

F-2 Relative values

64 101

F-3 Equivalence

33 45 53 85 110

F-4 Terms

61 105

F-5 Fundamental operations: ways to perform

66 70 79 93

F-6 Fundamental operations: estimating results

57

SKILLS CLASSIFICATION FOR TEST M-1 (Cont'd)

G Geomentry

G-1 Points, lines, and planes

34_____ 72_____ 130_____

G-2 Recognizing kinds and parts of geometric figures

11_____ 30_____ 48_____ 83_____ 112_____

128_____

G-3 Angles and triangles

94_____ 104_____ 109_____ 118_____ 132_____

G-4 Dimensions, perimeters, and areas of polygons

69_____ 81_____ 125_____

G-5 Parts and areas of circles

60_____ 117_____ 134_____

G-6 Surface area and volume of solids

120_____ 136_____

M Measurement

M-1 Quantity

8_____

SKILLS CLASSIFICATION FOR TEST M-1 (Cont'd)

M-2 Time

17

M-3 Temperture

54

M-4 Weight

32

M-5 Length

62

M-6 Area and volume

44 76

M-7 Liquid and dry capacity

19 98

M-8 Precision of measurement

131

N Numeration and Number System

N-1 Counting

2

SKILLS CLASSIFICATION FOR TEST M-1 (Cont'd)

N-2 Ordinals

3_____

N-3 Place value and expanded notation

6_____ 12_____ 13_____ 28_____ 37_____

43_____ 52_____ 102_____ 122_____

N-4 Numeration systems other than base ten

51_____ 133_____

N-5 Properties of numeration and number systems

26_____ 39_____ 50_____ 59_____ 63_____

65_____ 67_____ 80_____ 91_____ 106_____

107_____ 111_____ 114_____ 116_____

N-6 Special subtests of the real numbers

20_____ 77_____ 95_____

P Per Cents: Meaning and Use

108_____ 126_____

R Ratio and Proportion

47_____ 74_____ 113_____

SKILLS CLASSIFICATION FOR TEST M-1 (Cont'd)

S Sets

7_____ 40_____ 86_____ 119_____ 129_____

W Whole Numbers

W-1 Reading and writing

16_____ 97_____

W-2 Relative values

1_____ 10_____

W-3 Rounding

71_____ 115_____

W-4 Partition and measurement: average

89_____ 127_____

W-5 Fundamental operations: terms

23_____ 24_____ 31_____ 56_____ 75_____

W-6 Fundamental operations: number facts

5_____ 9_____ 15_____ 27_____ 36_____

41_____ 46_____ 49_____ 55_____

SKILLS CLASSIFICATION FOR TEST M-1 (Cont'd)

W-7 Fundamental operations: ways to perform

22

W-8 Fundamental operations: estimating results

29

SKILLS CLASSIFICATION FOR TEST M-2
MATHEMATICS PROBLEM SOLVING

The major skills categories for Test M-2 are similar to those for M-1 (Mathematics Concepts)

C--Currency (Money)

D--Decimals

F--Fractions

G--Geometry

M--Measurements

P--Per Cents

R--Ratio and Proportion

W--Whole Numbers

Each item has been placed in only one skills category, despite the fact that in many items two or more of these concepts may be represented. In such instances, the assignment was somewhat arbitrary, but, in general, items were placed in the category representing either the crucial or the most advanced concept required in the solution of the problem.

The small letters following the capital letter indicate the process or sequence of processes involved in the solution of the problem as follows:

a--addition

s--subtraction

m--multiplication

d--division

C

C-a

6_____ 9_____ 63_____

C-am

31_____

SKILLS CLASSIFICATION FOR TEST M-2 (Cont'd)

C-as

27_____ 28_____ 67_____

C-d

30_____ 33_____ 66_____

C-ds

69_____

C-m

7_____ 20_____ 26_____ 64_____

C-ma

10_____ 29_____ 43_____ 86_____

C-mas

82_____

C-ms

65_____

C-s

5_____ 8_____ 18_____ 52_____

C-sd

85_____

SKILLS CLASSIFICATION FOR TEST M-2 (Cont'd)

D-as

89

D-m

93

D-s

62 75 84

F-a

55

F-as

54

F-d

73 81

F-dm

76 77 78

F-m

42 56 61 68 87

F-ma

50

F-s

37 57 58

SKILLS CLASSIFICATION FOR TEST M-2 (Cont'd)

M-a

32_____

M-mdm

94_____

M-s

83_____

P-ad

79_____

P-d

90_____ 96_____

P-m

71_____

P-ms

70_____

R

46_____ 59_____

R-dm

95_____

SKILLS CLASSIFICATION FOR TEST M-2 (Cont'd)

W-a

2_____ 4_____ 11_____ 13_____ 16_____ 19_____

22_____ 35_____ 47_____

W-ad

80_____

W-am

24_____

W-d

25_____ 40_____ 45_____ 49_____ 53_____

74_____ 88_____ 92_____

W-dm

72_____

W-m

17_____ 34_____ 36_____ 91_____

W-ma

41_____

W-mas

48_____

W-s

1_____ 3_____ 12_____ 14_____ 15_____ 21_____

23_____ 38_____ 39_____ 44_____ 51_____ 60_____

TEST L-1 SPELLING
Skills Classification

D-Double letter

6_____ 14_____ 27_____ 38_____ 45_____ 52_____

61_____ 78_____ 82_____ 90_____ 100_____ 108_____

E-Final e; e before suffix

2_____ 23_____ 30_____ 37_____ 43_____ 55_____

F-f, ft, ph, v substitutions

44_____

I-Interchanged letters

31_____ 36_____ 40_____ 53_____ 63_____ 75_____

81_____ 86_____ 99_____

K-c, ck, k substitutions

5_____ 16_____

L-l, el, le substitutions

1_____ 20_____ 47_____ 67_____

M-Miscellaneous and multiple errors

97_____ 104_____ 113_____

N-No mistakes

3_____ 12_____ 21_____ 26_____ 35_____ 41_____

51_____ 59_____ 69_____ 77_____ 83_____ 87_____

93_____ 103_____ 111_____

O-Omitted letters

13_____ 60_____ 65_____ 71_____ 72_____ 80_____

88_____ 106_____ 110_____ 114_____

P-Plural forms

48_____ 66_____

R-r, er, or substitutions

8_____ 19_____ 73_____ 94_____

S-s, sc, sh, c, ch, t, z substitutions

7_____ 18_____ 28_____ 32_____ 33_____ 56_____

79_____ 96_____

T-t, ed substitutions

84_____

V-Vowel substitutions

4_____

W-w, u, ou, ue substitutions

9_____ 24_____

Y-y, ey, i substitutions

15_____ 49_____ 62_____ 68_____ 74_____ 92_____

109_____

Vi - 22_____ 39_____ 42_____ 76_____ 98_____ 105_____
107_____

Vo - 10_____ 85_____

Vu - 11_____ 64_____

Vie - 17_____

Vou - 25_____ 91_____ 101_____

Voe - 50_____

Ve - 29_____ 46_____ 70_____ 102_____

Vea - 34_____

Va - 54_____ 57_____ 58_____ 89_____ 95_____ 112_____

The item classification system employed is based upon error types. For each item, the type of error is indicated for the one word in four which is misspelled (if any). Of course, pupils may in fact commit a double error in overlooking a misspelled word and in marking as wrong a word which is correctly spelled.

TEST L-2 CAPITALIZATION
Skills Classification

1. The pronoun I

3_____ 14_____ 78_____

2. Names of persons or animals and initials of persons

6_____ 9_____ 11_____ 20_____

3. Words indicating family relationship, when used specifically an without a possessive pronoun

47_____ 61_____ 94_____

4. Titles of respect, honor, or rank

17_____ 37_____

5. First word of a sentence

2_____ 10_____ 24_____ 30_____ 62_____

68_____ 81_____

6. First word in a quotation

79_____ 90_____ 99_____

7. In writing letters, the first word and the word which stands in place of the person's name in the saluation

29_____ 72_____

8. In writing letters, the first word of the complimentary close

31_____

9. Certain abbreviations

57_____

10. Days of the week

1_____ 16_____ 19_____

---

11. Names of months

5_____

---

12. Names of holidays and religious days

7_____ 23_____

---

13. Titles of books, music, magazines, etc.

27_____ 41_____ 58_____

---

14. Names of cities and states

8_____ 18_____ 25_____ 33_____

---

15. Names of countries and continents

22_____ 39_____ 64_____

---

16. Nouns which designate definite geographic portions of the country

80_____

---

17. Names of streets, avenues, etc.

32_____ 43_____ 50_____ 65_____ 70_____

---

18. Names of rivers, oceans, canals, mountains, etc.

15_____ 42_____ 49_____

---

19. Names of buildings, schools, parks, etc.

38_____ 52_____ 59_____ 92_____

20. Names of racial, political, or religious bodies

46_____ 75_____

21 Proper adjectives

28_____ 89_____

22. Names of specific organizations

34_____ 45_____ 55_____ 67_____ 71_____ 84_____

87_____ 101_____

23. Names of important historical periods or events

54_____ 97_____

24. Specific brand names

44_____ 88_____

25. Names of bodies in the solar system (except sun, moon, stars, earth)

76_____

26. All expressions used for the Deity and Bible

86_____

27. Over-capitalization

36_____ 48_____ 53_____ 56_____ 63_____ 69_____

73_____ 74_____ 82_____ 85_____ 91_____ 93_____

96_____ 98_____ 100_____ 102_____

28. No mistakes

4_____ 12_____ 21_____ 26_____ 35_____ 40_____

51_____ 60_____ 66_____ 77_____ 83_____ 95_____

TEST L-3 PUNCTUATION
Skills Classification

1. Use of period
   a) At end of complete declarative sentence

      1_____ 7_____ 11_____ 18_____ 21_____ 32_____

      53_____ 61_____ 101_____

   b) With abbreviations

      3_____ 5_____ 10_____ 15_____ 26_____ 36_____

      43_____ 70_____ 71_____

   c) With initials standing for name

      9_____ 17_____ 28_____

---

2. Use of question mark

      2_____ 8_____ 19_____ 35_____ 42_____ 49_____

      63_____

3. Use of comma
   a) To separate words in series

      23_____ 30_____ 39_____ 54_____ 59_____

   b) To separate names of city and state

      37_____ 45_____ 55_____ 69_____

   c) To separate date of month and year

      6_____ 16_____

   d) At end of complimentary close of letter

      31_____ 73_____

   e) At end of salutation in friendly letter

      29_____ 31_____ 73_____

   f) To set off introductory or parenthetical adverbs

      98_____

g) To set off 'yes' and 'no'

94

h) To set off words in apposition

93 95 102

i) In a compound sentence, to set off independent clauses joined by such conjunctions as 'and' and 'but' if a change of subject takes place

76 81

j) In direct discourse, to separate quotation from rest of sentence

52 74 92 96

k) In direct address, to set off name of person addressed

87

l) To set off dependent clauses and phrases preceding the main clause

97

m) To set off non-restrictive phrases of clauses

103 106

4. Use of apostrophe

a) In contractions

13 22 33 64 89

b) In forming the possessive of nouns

44 58 84

c) In specific words

38

5. Use of double quotation marks

a) Before and after a direct quotation

47 71

b) With titles

65_____

c) Position with reference to other punctuation

80_____

---

6. Use of colon
   a) After salutation of a business letter

   72_____

   b) Preceding an enumeration of items

   86_____

   c) To seperate numbers indicating clock time

   14_____

---

7. Use of semicolon to separate co-ordinate clauses not joined by a conjunction

   79_____

---

8. Use of exclamation mark

   67_____

OV--Over-punctuation

Ov-1 Use of comma to mark a trivial pause

24_____ 48_____ 56_____ 90_____

Ov-2 Use of comma to set off restrictive clauses or phrases

62_____

Ov-3 Use of comma between a word and the modifier immediately preceeding it

40_____ 46_____

Ov-4 Use of apostrophe in plurals of nouns

50_____ 77_____

Ov-5 Use of apostrophe in possessive pronouns

81_____

Ov-6 Use of apostrophe in words ending in s

95_____

Ov-7 Use of quotation marks with indirect quotations and unquoted matter

66_____

Ov-8 Use of period after unabbreviated words

25_____

N--No mistakes

4_____	12_____	20_____	27_____	34_____
41_____	51_____	57_____	60_____	68_____
75_____	82_____	93_____	99_____	

TEST L-4 USAGE
Skills Classification

1. Use of pronouns
   a) Case forms

      9___ _____ 19_____ __ 39_____ 50_____ 58_____ 71_____

   b) Agreement with antecedent

      80___ ____

   c) Order of first person pronouns in compound constructions

      2___ _____ 14_____

   d) Miscellaneous forms commonly confused

      41___ _ ____ 73___ ___ __

---

2. Use of verbs

   a) The past tense

      1___ ___ 4__ ___ ___ 7_____11_____ 12_____ 16_____

      22_____ 23__ ___ __ 34_____ 40_____ 59_____ 75_____

      86_____ ___

   b) The past participle

      21_____ __ ___ ___ __ 43_____ 46_____ 54_____ 56_____

      64___ _____ 65_____ __ 70_____ 76_____ 82_____

   c) Agreement of subject and verb

      5 _____ 17___ _____ __ 26_____ 49_____ 55_____ 66_____

      __ ___ _____

   d) Miscellaneous forms incorrectly used

      6_____ 15___ _ __ 29_____ 33_____ 47_____61_____

      69_____ __ 77_____

---

3. Use of adjectives and adverbs

   a) Forms commonly confused

      53_____83_____

b) Articles

72_____

c) Comparative and superlative forms

25_____ 37_____ 62_____

d) Miscellaneous modifying forms

36_____ 51_____

---

4. Avoidance of double negative

18_____ 32_____ 38_____ 44_____ 60_____

---

5. Avoidance of redundancies

8_____ 27_____ 48_____ 68_____

---

6. Homonyms commonly confused

79_____

7. Miscellaneous word forms

28_____ 81_____

N--No mistakes

3_____ 10_____ 13_____ 20_____ 24_____ 30_____

35_____ 42_____ 45_____ 52_____ 57_____ 63_____

67_____ 74_____ 78_____ 84_____

TEST W-1 MAP READING
Skills Classification

1. Ability to orient map and determine direction
   a) To determine direction from orientation

      17_____

   b) To determine direction from parallels or meridians

      51_____ 85_____ 89_____

   c) To determine direction of river flow or slope of land

      20_____ 24_____ 57_____ 59_____

2. Ability to locate and/or describe places on maps and globes
   a) Through the use of standard map symbols

      14_____ 15_____ 16_____ 21_____ 33_____

   b) Through the use of a key

      3_____ 7_____ 8_____ 25_____ 28_____ 39_____

      40_____ 44_____ 80_____

   c) Through the use of distance and/or direction

      10_____ 19_____ 43_____ 83_____

   d) Through the use of latitude or longitude

      48_____ 50_____ 56_____ 87_____

3. Ability to determine distances
   a) Determining distance on a road map

      6_____ 47_____

   b) Determining distance by using a scale of miles

      27_____ 34_____ 60_____

   c) Determining distance on a globe

      58_____

   d) Comparing distances

      2_____ 11_____ 26_____ 38_____ 45_____ 81_____

      82_____

4. Ability to determine or trace routes of travel

1_____ 4_____ 9_____ 13_____ 42_____ 46_____

79_____ 84_____ 88_____

5. Ability to understand seasonal variations, sun patterns, and time differences

49_____ 53_____ 54_____ 55_____ 86_____

6. Ability to read and compare facts from one or more pattern maps

31_____ 36_____ 37_____ 61_____ 62_____ 63_____

65_____ 67_____ 68_____ 71_____ 72_____ 73_____

74_____ 77_____ 78_____

7. Ability to visualize landscape features

5_____ 22_____ 30_____ 76_____

8. Ability to infer man's activities or way of living
   a) From outline maps

12_____ 18_____ 23_____ 41_____ 52_____

b) From pattern maps

29_____ 32_____ 35_____ 64_____ 66_____ 69_____

70_____ 75_____

TEST W-2 READING GRAPHS AND TABLES
Skills Classification

A list of the abilities most important to effective reading of graphs and tables is given below.

1. To comprehend from the title, the topic on which a graph or table gives information

   4_____ 18_____

2. To recognize from subtitles and row or column headings what is shown by each part of a graph or table

   34_____ 57_____ 63_____ 70_____

3. To read amounts
   a) by using the scale (or scales) on bar, line, and picture graphs

   1_____ 9_____ 11_____ 24_____ 33_____ 37_____

   42_____ 47_____ 69_____

   b) by interpreting the sectors of a circle on circle graphs

   13_____

   c) by locating a cell in a table

   5_____ 7_____ 17_____

   d) by using special symbols and a key

   25_____ 27_____ 62_____ 66_____ 67_____

4. To compare two or more values read from a graph or table
   a) by determining rank

   2_____ 14_____ 16_____ 23_____ 35_____ 38_____

   41_____ 49_____ 61_____ 64_____

   b) by determining differences between amounts

   3_____ 12_____ 15_____ 22_____ 26_____ 28_____

   30_____ 32_____ 40_____ 45_____ 56_____ 71_____

   c) by determining how many times greater one amount is than another

   10_____ 21_____ 39_____ 50_____ 54_____ 59_____

5. To determine relative rates or trends

   20_____ 29_____ 31_____ 51_____ 58_____ 73_____

6. To determine underlying relationships through correct interpretation of a graph

6_____ 8_____ 19_____ 36_____ 44_____ 46_____

52_____ 55_____ 60_____ 65_____ 68_____

7. To grasp the outstanding facts protrayed by a graph or table

43_____ 48_____ 53_____ 72_____ 74_____

Graphs and tables are tools for disseminating knowledge and require the use of specific skills and abilities. Anyone who is planning a remedial program must recognize the component parts of the ability to interpret graphs and plan so that there is direct teaching of them.

Excellent suggestions for the interpretation of material presented in graphic form are given in Chapter XI of the Thirty-Third Yearbook of the National Council for the Social Studies. The My Weekly Reader Series, Table and Graph Skills, for Grades 3-6 is very useful in systematically developing these skills.

TEST W-3 KNOWLEDGE AND USE OF REFERENCE MATERIALS
Skills Classification

A--Skill in Alphabetizing

15_____ 16_____ 17_____ 18_____ 19_____ 20_____

21_____ 22_____ 23_____ 24_____ 25_____ 26_____

67_____ 68_____ 69_____ 70_____ 71_____ 72_____

73_____ 74_____ 75_____ 76_____ 77_____ 78_____

79_____ 80_____ 81_____ 82_____ 130_____ 131_____

132_____ 133_____ 134_____ 135_____ 136_____ 137_____

138_____ 139_____ 140_____ 141_____

B--Using the Table of Contents

37_____ 38_____ 39_____ 40_____ 41_____ 42_____

C--Using the Dictionary

D-1 Spelling

54_____

D-2 Pronunciation

52_____ 55_____ 59_____ 109_____ 116_____

D-3 Syllabification

51_____ 108_____

D-4 Plural forms

111_____

D-5 Parts of speech

57_____ 113_____

D-6 Meaning

53_____ 56_____ 58_____ 60_____ 110_____ 112_____

114_____ 115_____ 117_____

D--Use of Encyclopedia

61_____ 62_____ 63_____ 64_____ 65_____ 66_____

102_____ 103_____ 104_____ 105_____ 106_____ 107_____

TEST W-3 KNOWLEDGE AND USE OF REFERENCE MATERIALS (Cont'd)

G--Using Dictionary Guide Words

93_____ 94_____ 95_____ 96_____ 97_____

I--Using the Index

27_____ 28_____ 29_____ 30_____ 31_____ 32_____

33_____ 34_____ 35_____ 36_____ 83_____ 84_____

85_____ 86_____ 87_____ 88_____ 89_____ 90_____

91_____ 92_____

K--Using Key Words

98_____ 99_____ 100_____ 101_____

R--Using General Reference Materials

R-1 Use of calendar

9_____

R-2 Use of maps and globes

8_____ 48_____ 126_____

R-3 Use of textbooks

7_____ 46_____

R-4 Use of dictionary

10_____ 47_____

R-5 Use of atlases

43_____

R-6 Use of encyclopedias

50_____

R-7 Use of special references such as Who's Who in America, The World Almanac, etc.

49_____ 119_____ 120_____ 122_____ 124_____ 128_____

R-8 Use of current magazines

11_____ 44_____ 118_____

TEST W-3 KNOWLEDGE AND USE OF REFERENCE MATERIALS (Cont'd)

R-9 Use of the parts of a book: index, table of contents, etc.

12_____ 121_____ 125_____ 129_____

R-10 Book selection

13_____ 14_____ 45_____ 123_____ 127_____

W--Using a Word List

1_____ 2_____ 3_____ 4_____ 5_____ 6_____

THE TEST OF ACADEMIC SKILLS

RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

CONTENT ANALYSIS OF STANFORD TEST OF ACADEMIC SKILLS (TASK): LEVEL I AND LEVEL II

The two levels of *STANFORD TEST OF ACADEMIC SKILLS (TASK)* measure the basic skills of Reading, English, and Mathematics at the high school and junior college level. This test is designed to aid the administrator and the counselor in identifying those students whose scholastic performance might be hindered by inadequate preparation in the basic skills. It also provides the teacher and other school personnel with extremely useful information concerning the level of performance of groups of students on items measuring the specific instructional objectives for the tests.

READING - 78 Items

The Reading test consists of passages with a great variety of content, each of which is accompanied by a series of questions. The test is designed to sample what are considered to be the *main* instructional objectives of reading. The seven Item Groupings for this test are:

1. *Global Meaning:* The student can determine the general topic, the main idea, the author's intent, attitude or style, or the best title for an entire selection. This category relates to the passage as a whole not merely one of its parts. Level I has 6 items. Level II has 5 items.

2. *Meaning of Explicit Detail:* The student can identify explicit detail from reading a passage, or conversely, the student identifies a situation in which a specific detail is not mentioned in the passage. Level I has 18 items. Level II has 10 items.

3. *Meaning of Implicit Detail:* The student can identify details essentially contained in the passage but not specifically expressed that is, he can transfer information from one form of expression to another. Level I has 11 items. Level II has 12 items.

4. *Meaning from Context:* The student can apply contextual clues to correctly identify word meanings or phrases which appear in the passage. Level I has 1 item. Level II has 3 items.

5. *Inference and Logical Analysis:* The student makes inferences or judgments or draws conclusions from portions of the passage. He must occasionally relate what he reads to his own previously acquired knowledge. Level I has 6 items. Level II has 12 items.

6. *Meaning from Context in a Modified Cloze Technique Situation:* The student can complete (bring to closure) the missing portions of several sentences in the paragraph by supplying meaningful words or phrases which he determines from the general context of the selection or by inference. Level I has 9 items. Level II has 9 items.

7. *Word Meaning:* The student can match a stimulus word with one of five other words which has some relationship to it. Level I has 27 items. Level II has 27 items.

ENGLISH - (69 Items)

The groupings of instructional objectives for this test are:

1. *Learning Skills:* The student demonstrates an understanding of fundamental skills needed to work with the English language. He shows his ability to use a dictionary by demonstrating knowledge of symbols for the vowel sounds, locating stress or accent in a word, correctly alphabetizing a word, and using prefixes and suffixes in word formation. He also demonstrates a knowledge of the best reference sources for a given type of information. He further demonstrates an understanding of the nature and structure of language by recognizing the proper time and place for using formal, standard, colloquial, and slang expressions and correctly identifying structural parts of language and their functions such as parts of speech, morphemes, expressions of possession, and the central idea in a sentence. Level I has 15 items. Level II has 15 items.

2. *Usage Conventions:* The student demonstrates a knowledge of commonly used conventions of grammar, punctuation, and capitalization by recognizing errors in the context of continuous discourse. Level I has 21 items. Level II has 21 items.

3. *Spelling:* The student distinguishes between correctly and incorrectly spelled words when the misspelled words involve reversal of letters and errors in phonetics and word-building rules. Level I has 15 items. Level II has 15 items.

4. *Sentence Sensitivity:* The student demonstrates a knowledge of effective sentence structure by choosing from among four compound or complex sentences the one that expresses the idea best or most clearly. Level I has 6 items. Level II has 6 items.

5. *Paragraph Arrangement:* The student demonstrates competence in organizing the sentences in a paragraph for logical and effective communication re-ordering the four sentences of a jumbled paragraph into their proper sequence. Level I has 12 items. Level II has 12 items.

MATHEMATICS - (48 Items)

The groupings of instructional objectives for this test are:

1. *Numbers, Symbols, and Sets:* The student works with numbers, symbols, and sets. Level I has 7 items. Level II has 5 items.

2. *Number Properties and Operations:* The student demonstrates knowledge of number properties and operations involving whole numbers, common fractions, decimal fractions, integers, and exponents. Level I has 22 items. Level II has 19 items.

3. *Mathematical Sentences:* The student solves mathematical sentences. Level I has 3 items. Level II has 4 items.

4. *Geometry and Measurement:* The student displays a facility with geometric concepts and shows a working knowledge of measurement. Level I has 2 items. Level II has 5 items.

5. *Ratio and Percent:* The student demonstrates knowledge of ratios and percents. Level I has 5 items. Level II has 4 items.

6. *Graphs, Probability, and Statistics:* The student interprets graphs, and exhibits an ability to deal with principles of probability and statistics. Level I has 5 items. Level II has 8 items.

7. *Mathematical Reasoning:* The student demonstrates an ability to think logically. Level I has 4 items. Level II has 3 items.

RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

INTERPRETATION DATA FOR THE STANFORD TEST OF ACADEMIC SKILLS: TASK (Level I - Grades 9 and 10)

I. Specific Use of Test Results

Three typical uses of the results of *Stanford Test of Academic Skills* in junior and senior high schools are:

1. To identify those students who are weak in basic skills so that remedial instruction can be provided for them.

2. To determine if students have adequate basic skills to enter certain curricula or courses.

3. To aid in placing students in the appropriate section of a multi-level course.

The typical school curriculum is so organized that the curricular content necessary to produce literacy has been covered by the end of sixth grade. Emphasis beyond that point is on increased mastery of academic skills and on the study of new and broader areas of knowledge. Thus, it is quite natural for schools to choose the eighth grade as a point of special concern for determining how well a student has developed basic academic skills and to continue this special concern in subsequent years until the student can demonstrate that he has mastered these skills.

Once a student has achieved a reasonably high level of mastery of the basic academic skills measured, there is little further increase in mastery in succeeding high school years. Conversely, it is apparent that until the student reaches this reasonably high level of mastery, he will continue to show important increases each year.

II. Interpreting Test Scores

a. The Grade Equivalent

Grade equivalents are not provided for the *TASK* tests or, in fact, for most tests at the high school level. Grade equivalents are traditionally developed for measuring achievement at the elementary levels and yield continuous scales of growth. Grade norm lines flatten out at the secondary level, reflecting only small gains in raw scores from grade to grade in the basic skills, which are taught primarily at the lower levels.

Beginning with the fall of 1974, special grade equivalents have been listed for our staff's use. Although grade equivalents are easy to understand, they should be interpreted with caution. This is particularly true at the upper levels, since grade equivalents are generally considered less reliable at the higher grade levels.

Among other things, they assume a regular pattern of growth throughout the school year, a condition which may seldom if ever be met. Futhermore, in the area of reading, rather wide deviations should be considered quite normal. Despite their limitations, however, grade equivalents have the advantage of simplicity and direct meaning and represent a convenient way of interpreting these test results.

USE THE GRADE EQUIVALENT WITH CAUTION ! !

b. The Scaled Score

Scaled scores convert the various raw score results obtained from all levels of TASK to a single, common scale. They help to resolve some of the difficulties encountered in percentile ranks and stanines and the movement from one test level to a higher test level. When using scaled scores a difference of 5 points between two students' scores represents a 5 point difference wherever it occures on the scale. Within a single subtest area, scaled scores are directly comparable from grade to grade, battery to battery, and form to form. This comparability enables the teacher to use scaled scores as a measure of academic growth over a period of time. The TASK scaled score is not, however, exactly comparable form one subtest area to another. A scaled score on English, for example, cannot be directly compared to a scaled score on Mathematics.

c. The Percentile Ranks

Percentile ranks indicate the relative standing of a student in comparison with students of the same grade status in the norm group who took the test at a comparable time. The norm group may be national, representing the performance of a sample of students throughout the United States or may be local, that is, consisting only of those students in your school who took the test. In either case, if a student obtains a percentile rank of 70, for example, it means that he equaled or exceeded 70% of a special norm group on the test and that 30% of the group scored higher than he did. Possible percentile ranks range from a low of 1 to a high of 99, with 50 indicating average (median) performance. Percentile ranks listed are based on the national normative group.

Percentile ranks are best used to determine a student's relative standing in each subject area. They are fairly easy to understand and to explain to parents and students.

d. The Stanines

A stanine is a value on a nine-point scale of normalized standard scores. Scores are expressed along a scale ranging from a low of 1 to a high of 9, with the value 5 representing the average performance for the norm group. Each stanine is a single digit and therefore may be easier to work with than percentile ranks. The difference between a stanine of 8 and one of 6 is approximately equal to the difference between a stanine of 6 and one of 4.

The stanine yields approximately the same information as a percentile rank does, in that it indicates the relative standing of a student compared to a norm group.

Stanines 4, 5, and 6 are considered "average" scores. Stanines 1, 2, and 3 are "below average" scores. Stanines 7, 8, and 9 are "above average" scores.

III. Each item in *TASK* is designed to measure a specific instructional objective which can be stated in behavioral terms. Attached to this page is the detailed report of how the students in your school correctly responded to each item of the test administered. These data can be used to provide the teacher with information for organizing their plans for enrichment or modification of instruction to meet the demonstrated specific needs of students and groups of students within a single class or a school. The measures of central tendency (the mean and median) are given new meaning when used with the results of the item analysis of the test.

IV. TEST SCORE LEGEND

Subtest 02 - English Skills
Subtest 03 - Mathematics Skills
Subtest 05 - Reading Comprehension Skills
NS - No Score

Julius Stratton, Supervisor
Research and Testing

CONTENT ANALYSIS

Stanford Test of Academic Skills (TASK)

(Level I, Form A: Grades 9 and 10)

READING

1. Global Meaning 15_____ 21_____ 27_____ 34_____ 39_____ 40_____

2. Meaning of Explicit Detail 1_____ 2_____ 3_____ 4_____ 5_____

   6_____ 7_____ 11_____ 12_____ 16_____ 22_____ 23_____

   26_____ 29_____ 30_____ 31_____ 33_____ 36_____

3. Meaning of Implicit Detail 8_____ 9_____ 14_____ 18_____ 20_____

   24_____ 25_____ 32_____ 35_____ 38_____ 41_____

4. Meaning from Context 13_____

5. Inference and Logical Analysis 10_____ 17_____ 19_____ 28_____

   37_____ 42_____

6. Meaning from Context in a Modified Cloze Technique Situation 43_____

   44_____ 45_____ 46_____ 47_____ 48_____ 49_____

   50_____ 51_____

7. Word Meaning 52_____ 53_____ 54_____ 55_____ 56_____

   57_____ 58_____ 59_____ 60_____ 61_____ 62_____

   63_____ 64_____ 65_____ 66_____ 67_____ 68_____

   69_____ 70_____ 71_____ 72_____ 73_____ 74_____

   75_____ 76_____ 77_____ 78_____

ENGLISH

1. Learning Skills 1_____ 2_____ 3_____ 4_____ 5_____

   6_____ 7_____ 8_____ 9_____ 10_____ 11_____

   12_____ 13_____ 14_____ 15_____

2. Usage Conventions 16_____ 17_____ 18_____ 19_____ 20_____

21_____ 22_____ 23_____ 24_____ 25_____ 26_____ 27_____

28_____ 29_____ 30_____ 31_____ 32_____ 33_____ 34_____

35_____ 36_____

3. Spelling 37_____ 38_____ 39_____ 40_____ 41_____

42_____ 43_____ 44_____ 45_____ 46_____ 47_____

48_____ 49_____ 50_____ 51_____

4. Sentence Sensitivity 52_____ 53_____ 54_____ 55_____

56_____ 57_____

5. Paragraph Arrangment 58_____ 59_____ 60_____ 61_____

62_____ 63_____ 64_____ 65_____ 66_____ 67_____

68_____ 69_____

MATHEMATICS

1. Numbers, Symbols and Sets 3_____ 9_____ 13_____ 22_____

29_____ 32_____ 47_____

2. Number Properties and Operations:

a. Whole Numbers 1_____ 2_____ 4_____ 5_____ 24_____

34_____ 37_____ 45_____

b. Common and Decimal Fractions 6_____ 7_____ 8_____ 10_____

12_____ 15_____ 23_____ 30_____ 33_____ 35_____

44_____

c. Integers and Exponents 14_____ 25_____ 42_____

3. Mathematical Sentences 28_____ 31_____ 48_____

4. Geometry and Measurement 11_____ 46_____

5. Ratio and Percent 16_____ 17_____ 36_____ 38_____

41_____

6. Graphs, Probability, and Statistics 18_____ 19_____ 20_____

21 _____ 27_____

7. Mathematical Reasoning 26_____ 39_____ 40_____ 43_____

RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

INTERPRETATION DATA FOR THE STANFORD TEST OF ACADEMIC SKILLS: TASK
(Level II - Grades 11 and 12)

I. Specific Use of Test Results

Three typical uses of the results of *Stanford Test of Academic Skills* in junior and senior high schools are:

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a. The Grade Equivalent

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Among other things, they assume a regular pattern of growth throughout the school year, a condition which may seldom if ever be met. Futhermore, in the area of reading, rather wide deviations should be considered quite normal. Despite their limitations, however, grade equivalents have the advantage of simplicity and direct meaning and represent a convenient way of interpreting these test results.

USE THE GRADE EQUIVALENT WITH CAUTION ! !

b. The Scaled Score

Scaled scores convert the various raw score results obtained from all levels of *TASK* to a single, common scale. They help to resolve some of the difficulties encountered in percentile ranks and stanines and the movement from one test level to a higher test level. When using scaled scores a difference of 5 points between two students' scores represents a 5 point difference wherever it occures on the scale. Within a single subtest area, scaled scores are directly comparable from grade to grade, battery to battery, and form to form. This comparability enables the teacher to use scaled scores as a measure of academic growth over a period of time. The *TASK* scaled score is not, however, exactly comparable from one subtest area to another. A scaled score on English, for example, cannot be directly compared to a scaled score on Mathematics.

c. The Percentile Ranks

Percentile ranks indicate the relative standing of a student in comparison with students of the same grade status in the norm group who took the test at a comparable time. The norm group may be national, representing the performance of a sample of students throughout the United States or may be local, that is, consisting only of those students in your school who took the test. In either case, if a student obtains a percentile rank of 70, for example, it means that he equaled or exceeded 70% of a special norm group on the test and that 30% of the group scored higher than he did. Possible percentile ranks range from a low of 1 to a high of 99, with 50 indicating average (median) performance. Percentile ranks listed are based on the national normative group.

Percentile ranks are best used to determine a student's relative standing in each subject area. They are fairly easy to understand and to explain to parents and students.

d. The Stanines

A stanine is a value of a nine-point scale of normalized standard cores. Scores are expressed along a scale ranging from a low of 1 to a high of 9, with the value 5 representing the average performance for the norm group. Each stanine is a single digit and therefore may be easier to work with than percentile ranks. The difference between a stanine of 8 and one of 6 is approximately equal to the difference between a stanine of 6 and one of 4.

The stanine yields approximately the same information as a percentile renk does, in that it indicates the relative standing of a student compared to a norm group.

Stanines 4, 5, and 6 are considered "average" scores. Stanines 1, 2, and 3 are "below average" scores. Stanines 7, 8, and 9 are "above average" scores.

III. Each item in TASK is designed to measure a specific instructional objective which can be stated in behavioral terms. Attached to this page is the detailed report of how the students in your school correctly responded to each item of the test administered. These data can be used to provide the teacher with information for organizing their plans for enrichment or modification of instruction to meet the demonstrated specific needs of students and groups of students within a single class or a school. The measures of central tendency (the mean and median) are given new meaning when used with the results of the item analysis of the test.

IV. TEST SCORE LEGEND

Subtest 02 - English Skills
Subtest 03 - Mathematics Skills
Subtest 05 - Reading Comprehension Skills
NS - No Score

Julius Stratton, Supervisor
Research and Testing

CONTENT ANALYSIS

Stanford Test of Academic Skills (TASK)

(Level II, Form A - Grades 11 - 12)

READING

1. Global Meaning 12 _____ 19 _____ 33 _____ 34 _____ 42 _____

2. Meaning of Explicit Detail 1 _____ 3 _____ 4 _____ 11 _____
   15 _____ 21 _____ 22 _____ 23 _____ 30 _____ 38 _____

3. Meaning of Implied Detail 6 _____ 10 _____ 16 _____ 17 _____
   24 _____ 25 _____ 26 _____ 29 _____ 31 _____ 39 _____
   41 _____

4. Meaning from Context 13 _____ 18 _____ 28 _____

5. Inference and Logical Analysis 2 _____ 5 _____ 7 _____ 8 _____
   14 _____ 20 _____ 27 _____ 32 _____ 35 _____ 36 _____
   37 _____ 40 _____

6. Meaning from Context in Modified Cloze Technique Situation 43 _____
   44 _____ 45 _____ 46 _____ 47 _____ 48 _____ 49 _____
   50 _____ 51 _____

7. Word Meaning 52 _____ 53 _____ 54 _____ 55 _____ 56 _____
   57 _____ 58 _____ 59 _____ 60 _____ 61 _____ 62 _____
   63 _____ 64 _____ 65 _____ 66 _____ 67 _____ 68 _____
   69 _____ 70 _____ 71 _____ 72 _____ 73 _____ 74 _____
   75 _____ 76 _____ 77 _____ 78 _____

ENGLISH

1. Learning Skills 1 _____ 2 _____ 3 _____ 4 _____ 5 _____
   6 _____ 7 _____ 8 _____ 9 _____ 10 _____ 11 _____
   12 _____ 13 _____ 14 _____ 15 _____

2. Usage Conventions 16_____ 17_____ 18_____ 19_____ 20_____

21_____ 22_____ 23_____ 24_____ 25_____ 26_____

27_____ 28_____ 29_____ 30_____ 31_____ 32_____

33_____ 34_____ 35_____ 36_____

3. Spelling 37_____ 38_____ 39_____ 40_____ 41_____

42_____ 43_____ 44_____ 45_____ 46_____ 47_____

48_____ 49_____ 50_____ 51_____

4. Sentence Sensitivity 52_____ 53_____ 54_____ 55_____

56_____ 57_____

5. Paragraph Arrangement 58_____ 59_____ 60_____ 61_____

62_____ 63_____ 64_____ 65_____ 66_____ 67_____

68_____ 69_____

MATHEMATICS

1. Numbers, Symbols, and Sets 18_____ 32_____ 34_____ 43_____

47_____

2. Number Properties and Operations:

a. Whole Numbers 1_____ 2_____ 6_____ 9_____ 21_____

22_____ 25_____

b. Common and Decimal Fractions 3_____ 4_____ 11_____ 13_____

14_____ 17_____ 20_____ 30_____ 39_____ 42_____

c. Integers and Exponents 15_____ 16_____

3. Mathematical Sentences 7_____ 8_____ 19_____ 26_____

4. Geometry and Measurement 27_____ 29_____ 31_____ 40_____

44_____

5. Ratio and Percents 10_____ 24_____ 28_____ 33_____

6. Graphs, Probability and Statistics 12_____ 23_____ 36_____

   37_____ 38_____ 41_____ 45_____ 46_____

7. Mathematical Reasoning 5_____ 35_____ 48_____

APPENDIX B

THE PRACTICE EXERCISES FOR TEST UTILIZED

Specialist in the field of psychometry are of the opinion that there are many school children who are not test-wise and who are not generally motivated to succeed in academic work in general and testing activities in particular. There is a large body of knowledge to suggest that practice exercises can off-set this negative factor of the testing program. Special practice exercise have been prepared for both the middle and high school testing programs. The instructional materials listed in this Appendix is avaliable for those who wish to make the testee an "interested partner" in our annual program of measurement activities.

The staff is encouraged to use the test format as a guide for their teacher-made assessment programs. If students are familiar with this format then it is very likely that they will have a better opportunity to demonstrate their proficiency with the basic skills during the schedule testing program.

RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

PRACTICE EXERCISES FOR *THE IOWA TESTS OF BASIC SKILLS*

Practice Exercises should be given to students in preparation for *THE IOWA TESTS OF BASIC SKILLS*. Since the answer sheets from the regular testing program will be scored by machine, it is important that proper attention be given to the Practice Exercises. Use the sample answer sheet provided and teach the children how to fill in between the parallel lines with a regular pencil. Please stress the necessity for marking answers correctly and avoiding stray marks. Check each pupil's paper to make sure directions are followed correctly.

Try to have the practice testing situation as similar to the real process as possible. There should be no interruptions during testing time. The validity of future test results may depend upon proper utilization of these Practice Exercises.

THE PRACTICE EXERCISE BOOKLET ARE TO BE RETAINED IN EACH SCHOOL AND MADE AVAILABLE FOR ANNUAL USE.

TEACHER'S INSTRUCTIONS FOR USING THE PRACTICE EXERCISES

Check to see that all pupil's have No. 2 pencils.

Distribute the practice books and practice answer sheets.

From this point on certain parts of these instructions are printed in capital letters and preceded by "SAY". These parts are to be read to the pupils.

SAY: LOOK AT THE PART OF YOUR ANSWER SHEET THAT HAS NAME, SCHOOL, DATE, ETC. PRINTED ON IT. CAREFULLY FILL IN YOUR OWN NAME, GRADE, SEX, TEACHER, DATE OF BIRTH, AND TODAY'S DATE. USE 468013 AS YOUR STUDENT NUMBER.

Prepare a chalkboard model of the part of the answer form which has Name, School No., Grade, Sex, Student Number (use 468013), Teacher, Date of Birth, and Test Date. This information will be pre-printed for each of your pupils on each answer sheet in the regular testing program and the student number will also be recorded in the appropriate spaces in the box for student identification.

(Give pupils time to record these data. Check to see that information is properly entered.)

Read aloud the Instructions to Pupils, on Page 1, while the pupils read them silently. Then read the Sample 1 Exercise, indicating the correct answer and showing pupils how the answer appears on the answer sheet when correctly marked as illustrated.

Answer any questions relating to Sample 1.

SAY: YOU HAVE SEEN HOW AND WHERE TO MARK. WE ARE NOW GOING TO READ PRACTICE 1. YOU WILL MARK YOUR ANSWERS ON THE SEPARATE ANSWER SHEET. YOU ARE NOT TO PUT ANY MARKS ON THE PRACTICE EXERCISE BOOKLET.

Continue this procedure for Test 2 - Test 7.

Walk around the room and check to be sure that the children understand your directions. After sufficient time

SAY: STOP. THIS COMPLETES THE PRACTICE TEST. NOW LOOK AT THE ANSWER MARKS YOU HAVE MADE. ARE ALL OF YOUR MARKS HEAVY, BLACK LINES? IF NOT, GO OVER THE LIGHT ONES AND BLACKEN THEM WELL. IF YOU CHANGED ANY ANSWERS, DID YOU ERASE THE WRONG ONES COMPLETELY? MAKE YOUR WORK CLEAN AND NEAT.

When pupils have completed this inspection, read the correct responses. Then collect the Sample Answer Sheet. Inspect the Sample Answer Sheet. If any pupils have not marked properly, additional help should be given to such pupils.

Julius Stratton, Supervisor
Research and Testing

1-8-74

RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

PRACTICE EXERCISES FOR SECONDARY SCHOOLS' TESTING PROGRAM: GRADES 6-8

TO THE PUPIL:

You are now aware that reading, mathematics, correct English, and spelling are important. Certain other skills such as the use of maps, charts and the dictionary are just as important. These skills are called "basic skills."

You and all students in middle and high schools will take written tests in an attempt to determine how well you have mastered the basic skills. The test results will also show how your skills compare with those of thousands of other students who have taken these same tests.

Students in the ninth or tenth grades will use *The Iowa Tests of Basic Skills - Form 5.*

Students in the ninth or tenth grades will use *The Stanford Test of Academic Skills Level I.*

Students in the eleventh or twelfth grades will use *The Stanford Test of Academic Skills Level II.*

Practice exercises have been prepared so that you will have some idea of what is involved in taking the test that has been scheduled for you.

1. Make sure you understand the *"DIRECTIONS"* in each part before you attempt to answer test questions. Your teacher will go over sample questions with you and will answer any questions you may have about what you are to do.

2. Read each question. Choose the answer you think right and on the practice answer sheet fill in with a soft lead pencil the space which has the same number or letter as the answer you have chosen.

3. Be sure the space you mark is in the row numbered the same as the question you are answering.

4. Erase completely any answers which you wish to change. Do <u>NOT</u> cross them out.

5. Do not fold or crease your answer sheet. Try not to make any stray marks on your answer sheet.

6. At the end of the practice exercises look at the answer marks that you have made. Are all of your marks heavy lines? If not go over the light ones and blacken them well. If you changed any answers did you erase the wrong ones completely? Make your work clean and neat.

7. Be sure to return this practice booklet and your answer sheet to your teacher.

Julius Stratton, Supervisor
Research and Testing

1-8-74

TEST 1

DIRECTIONS

This is a test on capitalization. It will show whether you know which words in a sentence should be capitalized.

The exercises in the test are like the sample shown below. Some of the exercises contain mistakes in capitalization. Some do not have any mistakes at all.

You are to look for mistakes in the test exercises. When you find a mistake, fill in the answer space on the answer sheet that has the same number as the line containing the mistake. If there is no mistake in an exercise, fill in the fourth answer space.

The sample exercise below shows what you are to do.

SAMPLE EXERCISE 1

1. 1) Sam and Joe
   2) ran to the
   3) candy store.
   4) (No mistakes)

ANSWER

	1	2	3	4
1.				■

PRACTICE EXERCISES 1

2. 1) mary and sue
   2) ate the candy
   3) and cake
   4) (No mistakes)

3. 1) I live
   2) in gary
   3) Indiana
   4) (No mistakes)

4. 1) My name
   2) is James
   3) Arthur jones
   4) (No mistakes)

TEST 2

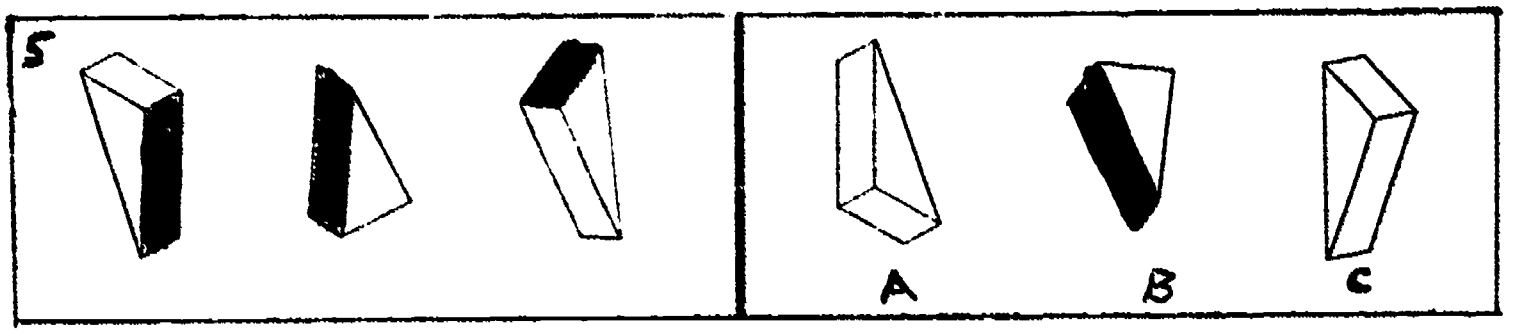
DIRECTIONS

The first three figures in each row are alike in some way. Find the picture to the right of the solid line that is most like them and mark its letter.

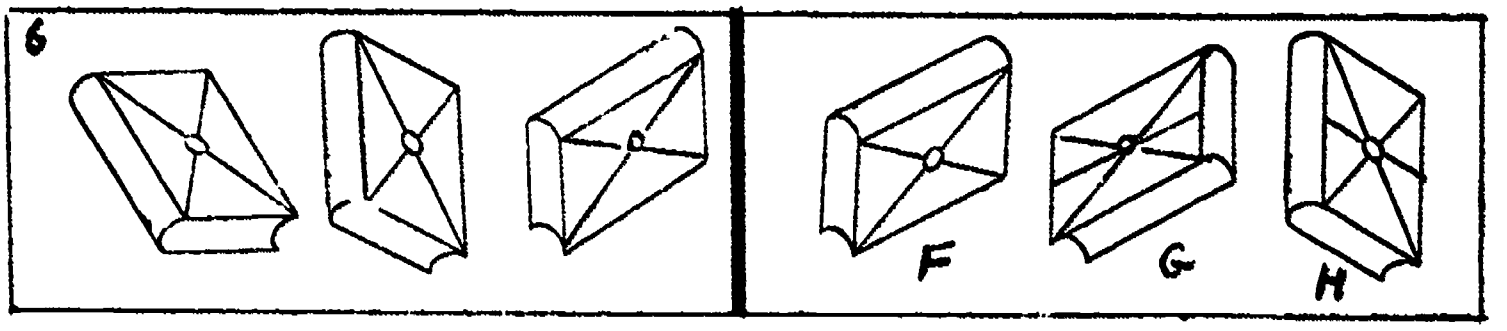
The sample exercise shows you what to do.

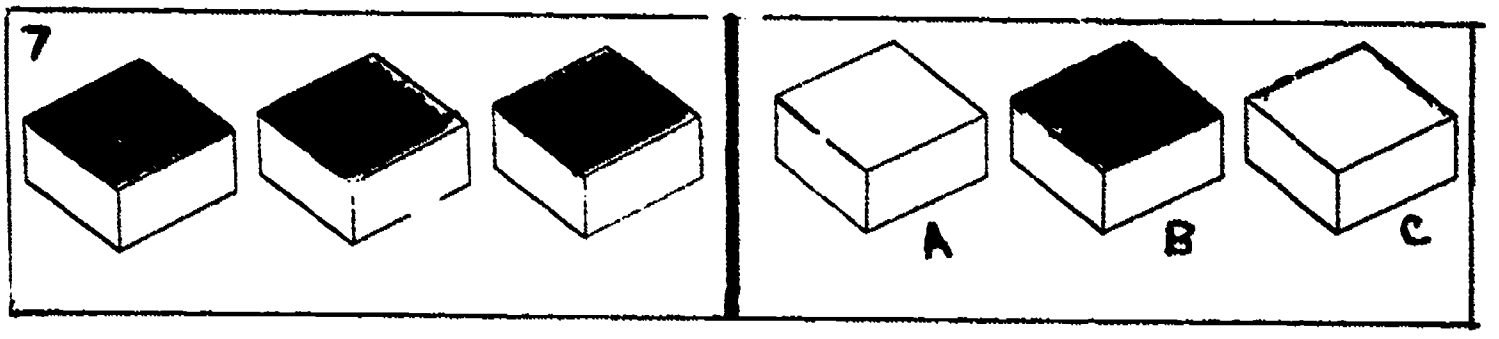
SAMPLE EXERCISE 2

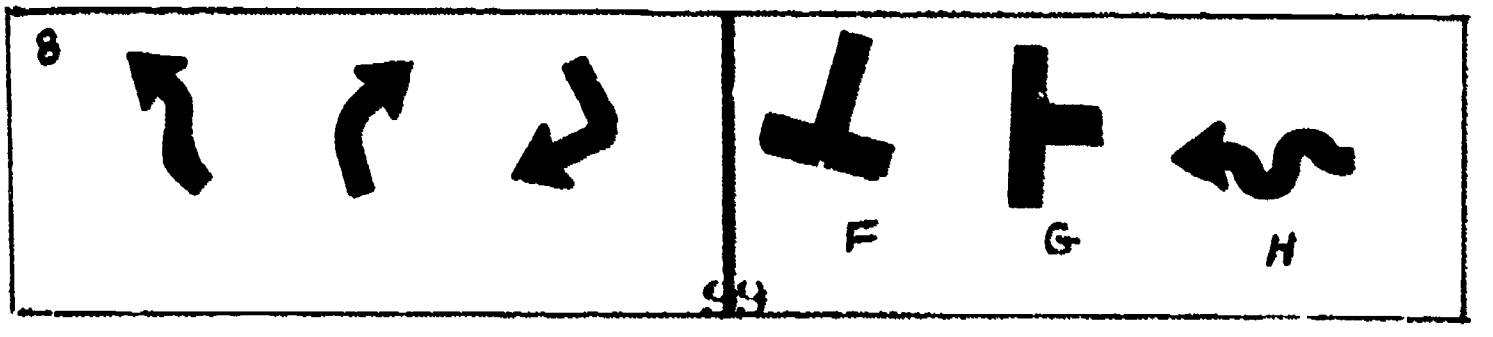
ANSWER 5 ::: B ::: C ::: D :::



PRACTICE EXERCISES 2







TEST 3

DIRECTIONS

The exercises in this spelling test are like the sample shown below. Some of the exercises contain a mistake in spelling. Some do not have any mistakes at all.

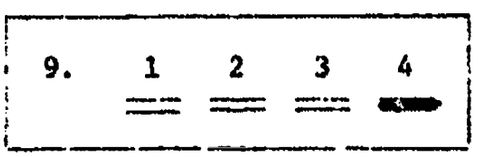
You are to look for mistakes in spelling. When you find a mistake, fill in the answer space on the answer sheet that has the same number as the word which is wrong. If there is no mistake in an exercise, fill in the fourth answer space.

The sample exercise below shows what you are to do.

SAMPLE EXERCISE 3

9. 1) cry
   2) play
   3) ice
   4) (No mistakes)

ANSWER



PRACTICE EXERCISES 3

10. 1) color
    2) redd
    3) blue
    4) (No mistakes)

11. 1) dog
    2) man
    3) ball
    4) (No mistakes)

12. 1) bird
    2) antee
    3) fly
    4) (No mistakes)

TEST 4

DIRECTIONS

In each exercise, you are to decide which one of the four answers has most nearly the same meaning as the word in LARGE TYPE above them. Then, on the answer sheet, find the row of answer spaces numbered the same as the exercise you are working on. You are to fill in the answer space on the answer sheet that has the same number as the answer you picked. The sample exercise has already been marked correctly.

SAMPLE EXERCISE 4

13. PUSH the cart.

1) shove
2) grow
3) track
4) paint

ANSWER

13.	1	2	3	4

PRACTICE EXERCISES 4

14. We will ALLOW

1) sing
2) permit
3) grow
4) mud

15. Do not HARM

1) green
2) play
3) point
4) hurt

16. It will EXPAND

1) run
2) swell
3) all
4) total

TEST 5

DIRECTIONS

This is a test on punctuation. It will show how well you can use periods, commas, question marks, apostrophes, etc.

The exercises in the test are like the sample shown below. Many of the exercises contain mistakes in punctuation. Some do not have any mistakes at all.

You are to look for mistakes in the test exercises. When you find a mistake, fill in the answer space on the answer sheet that has the same number as the line containing the mistake. If there is no mistake in an exercise, fill in the fourth answer space.

The sample exercise below shows what you are to do.

SAMPLE EXERCISE 5

17. 1) Sam has
    2) a red
    3) bike
    4) (No mistakes)

ANSWER

	1	2	3	4
17.			■	

PRACTICE EXERCISES 5

18. 1) When are
    2) we going
    3) home.
    4) (No mistakes)

19. 1) There are
    2) six students
    3) in the class.
    4) (No mistakes)

20. 1) Mary has
    2) red blue
    3) and green ink.
    4) (No mistakes)

TEST 6

DIRECTIONS

This is a test of how well you understand the number system and the terms and operations used in mathematics.

Four answers are given for each exercise, but only one of these answers is right. You are to choose the one answer that you think is better than the others. Then, on the answer sheet, find the row of answer spaces numbered the same as the exercise. Fill in the answer space for the best answer.

The sample exercise shows you what to do.

SAMPLE EXERCISE 6

21. What should replace the ☐ in 21 ☐ 5 = 26?

1) + 3) ÷

2) − 4) ×

ANSWER

21.	1	2	3	4
	═	═	═	═

PRACTICE EXERCISES 6

22. What are the missing numerals in the diagram below?

2		4	5		7

1) 3, 6 3) 5, 8

2) 6, 1 4) 9, 1

23. What is another name for 3 tens and 4 ones?

1) 12 2) 34

2) 23 4) 45

24. How would you write two dollars and ten cents?

1) $1.05 3) $2.10¢

2) $210 4) $2.10

TEST 7

DIRECTIONS

This is a test of your skill in solving mathematics problems.

After each exercise are three possible answers and a t given" - meaning that the correct answer is not given.

Work each exercise and compare your answer with the three possible answers. If the correct answer is given, fill in the answer space on the answer sheet that has the same number as the right answer. If the correct answer is not given, fill in the fourth answer space.

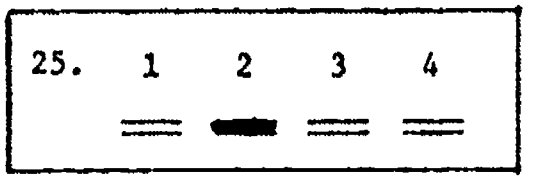
The sample exercise shows you what to do.

SAMPLE EXERCISE 25

25. Mary has 5 boys and 3 girls in her yard. How many children are in the yard?

1) 14 3) 35

2) 8 4) (Not given)



PRACTICE EXERCISES 7

26. Sam had 3 birds. He opened the cage and one flew away. How many did he have left?

1) 3 3) 2

2) none 4) (Not given)

27. Joe has $5.0[illegible]. He wants to buy a pair of pants for $13.00. How much more money does he need?

1) $6.00 3) $4.00

2) $8.00 4) (Not given)

RESEARCH DEPARTMENT:. DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

SAMPLE ANSWER SHEET FOR IOWA TESTS OF BASIC SKILLS

ME LAST	FIRST	SCH	GRD	SEX	STUDENT NO.	TEACHER	DATE OF BIRTH	TEST DATE MO	YR

USE NO. 2 PENCIL

BE SURE TO MAKE YOUR MARKS HEAVY AND BLACK

ERASE COMPLETELY ANY ANSWERS YOU WISH TO CHANGE

TEST 1

1 2 3 **4**
2 1 2 3 4
3 1 2 3 4
4 1 2 3 4

TEST 2

5 A B **C** D E
6 F G H J K
7 A B C D E
8 F G H J K

TEST 3

9 1 2 3 **4**
10 1 2 3 4
11 1 2 3 4
12 1 2 3 4

TEST 4

13 **1** 2 3 4
14 1 2 3 4
15 1 2 3 4
16 1 2 3 4

TEST 5

17 1 2 **3** 4
18 1 2 3 4
19 1 2 3 4
20 1 2 3 4

TEST 6

21 **1** 2 3 4
22 1 2 3 4
23 1 2 3 4
24 1 2 3 4

TEST 7

25 1 **2** 3 4
26 1 2 3 4
27 1 2 3 4

RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

PRACTICE EXERCISES FOR *THE STANFORD TEST OF ACADEMIC SKILLS* (TASK)

Practice Exercises should be given to students in preparation for *The Stanford Test of Academic Skills*. These Practice Exercises will take about 50 minutes to administer and review. Since the answer sheets from the regular testing program will be scored by machine, it is important that proper attention be given to the Practice Exercises. Use the sample answer sheet provided and teach the children how to fill in between the parallel lines with a regular lead pencil. Please stress the necessity for marking answers correctly and avoiding stray marks. Check each pupil's paper to make sure directions are followed correctly.

Try to have the practice testing situation as similar to the real process as possible. There should be no interruptions during testing time. The validity of future test results may depend upon proper utilization of these Practice Exercises.

THE PRACTICE EXERCISE BOOKLETS ARE TO BE RETAINED IN EACH SCHOOL AND MADE AVAILABLE FOR ANNUAL USE.

TEACHER'S INSTRUCTIONS FOR USING THE PRACTICE EXERCISES

Check to see that all pupils have No. 2 regular lead pencils.

Distribute the practice books and practice answer sheets.

From this point on certain parts of these instructions are printed in capital letters and preceded by "SAY". These parts are to be read to the pupils.

SAY: LOOK AT THE PART OF YOUR ANSWER SHEET THAT HAS NAME, SCHOOL, DATE, ETC. PRINTED ON IT. CAREFULLY FILL IN YOUR OWN NAME, GRADE, SEX, TEACHER, DATE OF BIRTH, AND TODAY'S DATE. USE 468013 AS YOUR STUDENT NUMBER.

Prepare a chalkboard model of the part of the answer form which has Name, School No., Grade, Sex, Student Number (use 468013), Teacher, Date of Birth, and Test Date. This information will be pre-printed for each of your pupils on each answer sheet in the regular testing program and the student number will also be recorded in the appropriate spaces in the box for student identification.

(Give pupils time to record these data. Check to see that information is properly entered.)

Read aloud the Instructions to Pupils, on Page 1, while the pupils read them silently. Then read the Sample 1 Exercise, indicating the correct answer and showing pupils how the answer appears on the answer sheet when correctly marked as illustrated.

Answer any questions relating to Sample 1.

SAY: YOU HAVE SEEN HOW AND WHERE TO MARK. WE ARE NOW GOING TO READ PRACTICE 1. YOU WILL MARK YOUR ANSWERS ON THE SEPARATE ANSWER SHEET. YOU ARE NOT TO PUT ANY MARKS ON THE PRACTICE EXERCISE BOOKLET.

Continue this procedure for Test 2 - Test 7.

Walk around the room and check to be sure that the children understand your directions. After sufficient time

SAY: STOP. THIS COMPLETES THE PRACTICE TEST. NOW LOOK AT THE ANSWER MARKS YOU HAVE MADE. ARE ALL OF YOUR MARKS HEAVY, BLACK LINES? IF NOT, GO OVER THE LIGHT ONES AND BLACKEN THEM WELL. IF YOU CHANGED ANY ANSWERS, DID YOU ERASE THE WRONG ONES COMPLETELY? MAKE YOUR WORK CLEAN AND NEAT.

When pupils have completed this inspection, read the correct responses. Then collect the Sample Answer Sheet. Inspect the Sample Answer Sheet. If any pupils have not marked properly, additional help should be given to such pupils.

1-8-74

Julius Stratton, Supervisor
Research and Testing

RESEARCH DEPARTMENT: DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

PRACTICE EXERCISES FOR SECONDARY SCHOOLS' TESTING PROGRAM

TO THE PUPIL:

You are now aware that reading, mathematics, correct English, and spelling are important. Certain other skills such as the use of maps, charts and the dictionary are just as important. These skills are called "basic skills."

You and all students in middle and high schools will take written tests in an attempt to determine how well you have mastered the basic skills. The test results will also show how your skills compare with those of thousands of other students who have taken these same tests.

Students in the sixth and eighth grades will use *The Iowa Tests of Basic Skills - Form 5.*

Students in the ninth or tenth grades will use *The Stanford Test of Academic Skills - Level I.*

Students in the eleventh or twelfth grades will use *The Stanford Test of Academic Skills - Level II.*

Practice exercises have been prepared so that you will have some idea of what is involved in taking the test that has been scheduled for you.

1. Make sure you understand the *"Steps to Follow"* in each part before you attempt to answer test questions. Your teacher will go over sample questions with you and will answer any questions you may have about what you are to do.

2. Read each question. Choose the answer you think right and on the practice answer sheet fill in with a soft lead pencil the space which has the same number or letter as the answer you have chosen.

3. Be sure the space you mark is in the row numbered the same as the question you are answering.

4. Erase completely any answers which you wish to change. Do <u>NOT</u> cross them out.

5. Do not fold or crease your answer sheet. Try not to make any stray marks on your answer sheet.

6. At the end of the practice exercises look at the answer marks that you have made. Are all of your marks heavy lines? If not go over the light ones and blacken them well. If you changed any answers did you erase the wrong ones completely? Make your work clean and neat.

7. Be sure to return this practice booklet and your answer sheet to your teacher.

1-8-74

Julius Stratton, Supervisor
Research and Testing

TEST 1

STEPS TO FOLLOW

I. Read each passage.
II. Read the questions that follow.
III. Choose the best answer for each question.
IV. Find Test 1 on your answer sheet and fill in the space which has the same letter as the answer you have chosen.
V. Look at the sample and see how it has been marked on your answer sheet.

SAMPLE 1

Jason High School won the game. They have now won six games.

1. Who won the game?

   A. Bean High School
   B. Crowe High School
   C. Jason High School
   D. Thompson High School

2. How many games have they now won?

   E. one
   F. eight
   G. five
   H. six

PRACTICE 1

3. Which word is a noun?

   A. running
   B. came
   C. cat
   D. hurry

4. You can find the sound of /ā/ in -

   E. brake
   F. frank
   G. car
   H. lamp

TEST 2

STEPS TO FOLLOW

I. Read each selection.
II. Determine if there is an error in each underlined group of words. Some underlined groups have no error, but there is never more than one error in any underlined part.
III. Find Test 2 on your answer sheet and mark the space that corresponds to the type of error you have found.
IV. Look at the sample and see how it has been marked on your answer sheet.

MARK:

G - for GRAMMAR ERROR
P - for PUNCTUATION ERROR
C - for CAPITALIZATION ERROR
NE - for NO ERROR

SAMPLE 2

jean smith (5) is my friend. She has (6) five sisters.

PRACTICE 2

I likes (7) to play in the snow (8). John do not (9) like to play in the snow.

TEST 3

STEPS TO FOLLOW

In Questions 10 13 choose the best answer for each numbered blank from the possible answers which follow it. Look at the sample and see how it has been marked on your answer sheet.

SAMPLE 3

I live in the city of _____. My city is in the state of _____.
10 11

10. A. Hampton
B. Savin
C. Cary
D. Georgia

11. E. Indiana
F. Iowa
G. Illinois
H. Virginia

PRACTICE 3

Christmas is celebrated in the month of _____. This is the _____ month of the year.
12 13

12. A. January
B. March
C. June
D. December

13. E. first
F. fifth
G. third
H. last

TEST 4

STEPS TO FOLLOW

I. Read each group of four sentences.
II. Decide how to arrange each group into a well-organized paragraph by putting the sentences in order from first to last.
III. Find Test 4 on your answer sheet and mark the answer to each question as indicated below.
IV. Look at the sample and see how it has been marked on your answer sheet.

SAMPLE 4 (Items 14-17)

A. First we played games.
B. I had a birthday party yesterday.
C. We ate cake and ice cream after games.
D. Dancing was the third activity.

In the paragraph, which sentence should be:

14. First 15. Second 16. Third 17. Fourth

PRACTICE 4 (Items 18-21)

E. Mary felt in her pocket.
F. Mary gave it to the cat.
G. The cat ate the cookie.
H. She found a small cookie.

In the paragraph, which sentence should be:

18. First 19. Second 20. Third 21. Fourth

TEST 5

STEPS TO FOLLOW

I. Look at each item and count the number of words spelled correctly.
II. Find Test 5 on your answer sheet and mark the space that corresponds to the number of correct words in each item.
III. Look at the sample and see how it has been marked on your answer sheet.

MARK:

A - if only one word is correct
B - if only two words are correct
C - if only three words are correct
D - if four words are correct
E - if none is correct

SAMPLE 5

22. runn tan grass card

PRACTICE 5

23. seveen six fiveteen one

24. see hear call ill

TEST 6

STEPS TO FOLLOW

I. Look at each group of numbered words with the box of five words beside them. Every numbered word has some relationship to one of the five lettered words in the box.

II. Choose from the group of five in the box the one word which is most closely related to, or expresses the most common use for, each of the numbered words.

III. Find Test 6 on your answer sheet and mark the space which has the same letter as the word you have chosen.

IV. Look at the sample and see how it has been marked on your answer sheet.

SAMPLE 6

A.	FLOWER
B.	BIRD
C.	SPORT
D.	CLOTHES
E.	COLOR

25. red
26. skirt
27. tulip

PRACTICE 6

28. table
29. roach
30. green
31. cat
32. Chicago
33. dog
34. yellow

A.	FURNITURE
B.	CITY
C.	COLOR
D.	ANIMAL
E.	INSECT

TEST 7

STEPS TO FOLLOW

I. Read each statement or question and work any exercises necessary.
II. Look at the possible answers and decide which answer is best.
III. Find Test 7 on your answer sheet and, if your answer is here, mark the space that has the same letter as the answer you have chosen.
IV. If your answer is Not Here, mark the space that has the same letters as the letter beside NH.

SAMPLE 7

35. 5000 x 21

A. 61
B. 406
C. 1000
D. 3000
E. NH

PRACTICE 7

36. The number 50.167 rounded to the nearest tenth is _____.

A. 50.3
B. 50.1
C. 50.0
D. 50.2
E. NH

37. If 5 + ☐ = 11, then -

A. 4 x ☐ = 24
B. ☐ - 7 = 11
C. ☐ + ☐ = 0
D. 35 ÷ ☐ = 7
E. NH

38. Five percent of 30 =

A. 46.1
B. 50
C. 300
D. 1.5
E. NH

RESEARCH DEPARTMENT; DIVISION OF INSTRUCTION
SCHOOL CITY OF GARY, INDIANA

SAMPLE ANSWER SHEET FOR STANFORD TEST OF ACADEMIC SKILLS

(ME LAST) (FIRST)	SCH	GRD	SEX	STUDENT NO	TEACHER	DATE OF BIRTH	TEST DATE MO / YR

USE NO. 2 PENCIL

BE SURE TO MAKE YOUR MARKS HEAVY AND BLACK

ERASE COMPLETELY ANY ANSWERS YOU WISH TO CHANGE

TEST 1

1	A	B	**C**	D
2	E	F	G	**H**
3	A	B	C	D
4	E	F	G	H

TEST 2

5	G	P	**C**	NE
6	G	P	C	**NE**
7	G	P	C	NE
8	G	P	C	NE
9	G	P	C	NE

TEST 3

10	A	B	**C**	D
11	**E**	F	G	H
12	A	B	C	D
13	E	F	G	H

TEST 4

14	1ST	A	**B**	C	D	18	1ST	F	F	G	H
15	2ND	**A**	B	C	D	19	2ND	F	F	G	H
16	3RD	A	B	**C**	D	20	3RD	F	F	G	H
17	4TH	A	B	C	**D**	21	4TH	F	F	C	H

TEST 5

22	A	B	**C**	D	E
23	A	B	C	D	E
24	A	B	C	D	E

TEST 6

25	A	B	C	D	**E**	31	A	B	C	D	E
26	A	B	C	**D**	E	32	A	B	C	D	E
27	**A**	B	C	[illegible]	E	33	A	B	C	D	E
28	A	B	C	D	E	34	A	B	C	D	E
29	A	B	C	D	E						
30	A	B	C	D	E						

TEST 7

35	A	B	C	D	**E**
36	A	B	C	D	E
37	A	B	C	D	E
38	A	B	[illegible]	D	E

APPENDIX C

A LIST OF FACTORS AFFECTING THE SUCCESS OF A MEASUREMENT AND EVALUATION PROGRAM

1. Purposes of the Program

   Clearly defined
   Understood by parties involved

2. Choice of Tests

   Valid
   Reliable
   Appropriate difficulty level
   Adequate norms
   Easy to administer and score
   Economical
   Best available for purpose

3. Utilization of test results

   Definite plans for use of results
   Provision for giving teachers all necessary help in using scores
   Provision for systematic follow-up use of results

4. Affiliated Research

   Full advantage taken of results
   Provision for special studies, analyses, etc.

5. Administration and scoring

   Administrators well trained
   All necessary information provided
   Scoring services available

6. System of records

   Necessary for purpose
   Convenient form for use

An audio-visual report presented during the joint meeting of High School and Middle School Principals on Wednesday, May 2, 1973, at 9:30 a.m., in Conference Room A, of the School Service Center.

Julius Stratton, Supervisor
Research and Testing

SCHOOL CITY OF GARY
Gary, Indiana

March 5, 1974

Procedures for Action on Requests for Research in the Schools

Proposals to conduct research in the schools are received frequently. In reviewing these proposals, the following questions should be considered:

1. Does the design indicate clearly the purpose of the study and what is requested of the schools?

2. Does the proposed study offer potential for discovery of information that has value for the schools?

3. Is the time required for students and teachers or the costs to the School City excessive in relation to the anticipated value of the research?

4. Does the study design or devices to be used suggest any inappropriate invasion of privacy or other misuse of students or staff?

5. Is there a possibility that the study may lead implicitly to misrepresentation or misinterpretation of student characteristics?

When a request to conduct research in the schools is received by a staff member or group, the following procedures are to be observed:

1. The individual or group responsible for the area that the proposed study involves may deny the request or refer it, with or without recommendation, to the appropriate District Administrator for consideration by the District Administrators, Directors, and Assistant Superintendent.

2. The Assistant Superintendent and District Administrators, may deny the request or recommend its approval to the Superintendent.

3. The Superintendent will deny or approve the request.

4. All persons included in the review process will receive notice or the final action.

HJB:ih

BIBLIOGRAPHY

1. American Personnel and Guidance Association. APGA Ethical Standards, Section C- Testing. Washington: The Association, 1966.

2. American Psychological Association. Ethical Principles in the Conduct of Research with Human Participants. Washington: The Association.

3. Anastasi, Anne. Psychological Testing (3rd ed.). New York: Macmillan, 1971.

4. Bloom, Benjamin S., ed. Taxonomy of Educational Objectives: Handbook I, Cognitive Domain. New York: McKay, 1956.

5. Buros, Oscark., ed. The Seventh Mental Measurement Yearbooks. Highland Park, N.J.: Gryphon Press, 1972.

6. Cronbach, Lee J. Essentials of Psychological Testing (3rd ed.) New York Harper & Row, 1970.

7. Della-Piana, G.M. Reading Diagnosis and Prescription: An Introduction. New York: Holt, Rinehart and Winston, 1968.

8. Ebel, R.L. "The Relation of Testing Programs to Educational Goals," Chap 2. in W.C. Findley (ed.), The Impact and Improvement of School Testing Programs, Part II. Chicago: The University of Chicago Press, 1963.

9. French, J.W., and W.B. Michael (Cochairmen). Standards for Educational and Psychological Tests and Manuals. Washington, D.C.: American Psychological Association, 1966.

10. Krathwohl, D.R., B.S. Bloom, and B.B. Masia. A Taxonomy of Educational Objectives: Handbook II, The Affective Domain. New York: McKay, 1964.

11. Levy, Leah. (ed,) Testing and Tracking: Bias in the Classroom. Cambridge: Harvard Center for Law and Education, 1973.

12. Mendals, Glen E. and Flanders, James P. "Teachers Expectations and Pupil Performance." American Educational Research Journal: Vol. 10, No. 3 , Summer 1973.

13. Mercer, Jane R. "A Policy Statement on Assessment Procedures and the Rights of Children." Harvard Educational Review: Vol. 44, February 1974.

14. Ratner, Gershon M. "Remedying Failure to Teach Basic Skills." Inequality in Education: No. 17, June 1974.

15. Simon, G.B. "Comments on 'Implication for Criterion-Referenced Measurement,' Journal of Educational Measurement: Vol. 6, 1969.

(OVERSIDE)

16. Stratton, Julius A. "The Scattergram: An Index of Academic Potential and Production." The School Counselor: Vol. 8, December 1960.

17. _____. A Coordinated Standardization Program for the Cognitive Abilities Test, Iowa Tests of Basic Skills, and Tests of Academic Progress. The School City of Gary, Indiana, September 1970. (Mimeographed)

18. _____. Revised Edition of Testing Manual for Middle and High Schools. The School City of Cary, Indiana, January 1974. ERIC: ED 081 854

19. Thorndike, Robert L. and Elizabeth Hagan. Measurement and Evaluation in Psychology and Education (3rd ed.). New York: Wiley, 1969.

20. Walberg, Herbert J. "Currriculum Evaluation: Problems and Guidelines." The Teachers College Record: Vol. 71, No. 4, May 1970.

21. Weckstein, Paul. "Legal Challenges to Educational Testing Practices." Inequality in Education: No. 15, November 1973.

22. Worsfold Victor L. "A Philosophical Justification of Children's Rights." Harvard Educational Review: Vol. 44, Fall 1974.