## High School Placement Test



## Interpretive Manual

for use with:
Closed HSPT • Pre-HSPT

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This Interpretive Manual serves as a guide for interpreting results of STS' High School Placement Test (HSPT®) and Pre-HSPT. This manual will help you understand and use various reports available with the test. Detailed technical information about the reliability and validity of the test and correlations with various other standardized tests are available in the annual HSPT Technical Report.

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## Overview of the HSPT and Pre-HSPT

The HSPT is a norm-referenced, standardized test designed for high schools to administer to 8th graders entering high school. It is the most comprehensive placement test available to assess 8 th graders and provides reliable data needed for admissions, placement, remediation, and scholarship decisions. The rigorous content of the HSPT reflects the demands of a high school curriculum.

The HSPT is available as the Closed version or the Open version. The information in this manual pertains to the Closed version. With the Closed HSPT, a new form is developed annually to allow for the highest level of security and is only available as a lease/score program. This allows schools to lease the testing materials at no charge; schools simply pay for scoring services and shipping charges. With the lease/score program, schools do not own the testing materials and return of all materials after testing is required.

While the majority of schools test individually, some test as part of a customized, coordinated HSPT program. A program consists of a cooperative of schools that have contracted with STS and test collectively, often under the direction of a diocesan education department. Special reporting services are usually elements of a customized program as well. Whether schools test individually or as part of a program, general interpretation of results is the same.

The Pre-HSPT is the 7th grade edition of the HSPT and is administered in high schools. Test format, administration options and requirements, and scoring services are identical to the Closed HSPT with the exception of availability of an optional test, described in the next section.

## Description of the Subtests

The HSPT / Pre-HSPT consists of five multiple-choice subtests and was designed to be taken in its entirety: Verbal Skills, Quantitative Skills, Reading, Mathematics, and Language. The Verbal Skills and Quantitative Skills subtests require the use of reasoning skills, thus categorized as Cognitive Skills subtests. The Reading, Mathematics, and Language subtests are designed to assess learned skills, thus categorized as Basic Skills subtests.

## Cognitive Skills Subtests

Verbal Skills: The Verbal Skills subtest consists of 60 items that measure the ability to understand and reason using words. The skills measured within the subtest are synonyms, antonyms, verbal analogies, verbal classifications, and logical reasoning.

Quantitative Skills: The Quantitative Skills subtest consists of 52 items that measure the ability to understand and reason using numbers. Number series, number manipulations, and both geometric and nongeometric quantitative comparison items are included. Under standardized conditions, calculators are not to be used.

## Basic Skills Subtests

Reading: The Reading subtest consists of 62 items. Among the major comprehension skills measured are the ability to remember important ideas and significant details, recognizing central thought or purpose, making logical inferences, interpreting literary elements and techniques, and understanding vocabulary in context.

Mathematics: The Mathematics subtest consists of 64 items that assess elements of a high school curriculum. Computation and problem-solving skills are evaluated, along with the student's knowledge of important concepts in areas of numbers \& numeration, measurements, geometry, algebra, and statistics. Under standardized conditions, calculators are not to be used.

Language: The Language subtest measures a student's understanding of standard English conventions. The subtest consists of 60 items evaluating skills in punctuation, capitalization, spelling, grammar, usage, and composition.

## Optional Test

At the school's option, one $40-\mathrm{item}$ test may be administered as the last test in the program.* Use of such a test is optional, and the score is not reflected in the battery Composite score. The optional tests available through STS are Science and Catholic Religion. Optional test booklets are separate from the standard HSPT test booklet and are included in your shipment for use after the basic battery has been administered.

The Science score is an achievement measure based on 40 items sampling knowledge in the areas of astronomy, biology, chemistry, earth sciences, and physics.

The Catholic Religion score is an achievement measure based on the needs of nonpublic schools for assessing curriculum in the areas of theology, ethics, and doctrine.

If desired, an optional local test can be used to supplement the HSPT. STS will score a school's local assessment and generate raw scores and local percentiles, provided the assessment is in a multiple-choice format with a maximum of four foils. An optional local test must not exceed 40 items, and a school must provide an answer key to the STS Scoring Center prior to testing.

## Test Forms

A new form of the Closed HSPT is published annually. While each test form is constructed to consist of the same general content and follow certain statistical specifications, the overall difficulty of each form may slightly differ. To account for differences in difficulty, test forms undergo an equating process so that standard scores represent the same level of achievement regardless of form, thus allowing users to compare scores of test takers who take different forms.
(For those interested in specifics, the equating procedures are based upon the Rasch latent trait model. A more detailed explanation is contained in STS' HSPT Technical Report.)

## Scoring of the Test

Students receive a score for each subtest separately as well as composite scores for the various parts.

For each subtest, the number of questions that a student answers correctly is added together to determine a raw score. Points are not subtracted for incorrect answers. (There is no penalty for guessing.) A student's raw scores are then converted into standard scores and other derived scores for each subtest.

The composite scores (Total Cognitive Skills score, Total Basic Skills score, and battery Composite score) are computed in the same way, meaning that the raw scores are added together from the subtests that comprise each composite score and are then converted to standard scores and national percentiles. Since the composite scores are scaled independently from its parts, the score is not simply the average of its parts. (See below for the subtests that comprise each composite score.)

- Total Cognitive Skills: This score indicates a student's performance on the Verbal Skills \& Quantitative Skills subtests.
- Total Basic Skills: This score indicates a student's performance on the Reading, Mathematics, \& Language subtests.
- Composite: This is the overall score and indicates a student's total performance on all five subtests. (Optional tests are not reflected in the battery Composite score.)

As previously mentioned, the battery Composite score is scaled independently from its parts meaning that a student must take all of the subtests to achieve a true battery Composite score. In the special case that a student does not take all of the subtests, an estimated Composite score will instead be reported based on the student's partial battery. If an estimated Composite score is reported for a student, it will be noted as such on the List Reports as it is important to be aware if a student's Composite score was not derived in the same manner as other students.

## National Norms

The HSPT and Pre-HSPT are normed based on 8th grade and 7th grade students, respectively, under standardized conditions. Other grade level norms are not available.

The norm base for the HSPT / Pre-HSPT is intended to be a more selective base than general population norms. The current norm base is based upon those entering high school who would subsequently graduate with a diploma; therefore, it could be called a high school graduate norm base.

STS conducts norming studies annually to assess the national percentile ranks for all test forms. As a result, these normative measures are current and ensure that students can be compared with an up-to-date representative national sample of their peers.

## Testing Accommodations

The HSPT / Pre-HSPT is a school-administered test. Schools are responsible for all details pertaining to administration including review and approval of any requests for testing accommodations. The same normative score scales are used for students who take the test under standardized conditions or under accommodated conditions.

Additional formats of the test are available for special accommodations upon a school's request. STS offers large-print materials for all test forms. Braille, audio, and dual-language (English/Spanish) are also available for a single form of the Closed HSPT.

## Student Information

Student information is collected on the answer sheet for reporting purposes. The specifications of your testing program or reporting needs will determine what information the student should complete. Students must bubble in the gridded areas of the answer sheet accordingly.

## Required Information

At a minimum, the following identification information is required to be filled out on the answer sheet by the student for standard reporting service.

- Name: The student answer sheet contains spaces for 11 characters of the last name, 8 characters of the first name, and a middle initial.
- Birth Date: This is required for the Cognitive Skills Quotient (CSQ).


## Additional Information

The following fields are also available on the answer sheet and may be used to indicate additional information should the school choose.* Please note, for any school using STS' registration system, the additional information fields described next are collected as part of the registration process, eliminating the need for the student to fill out those sections of the answer sheet on test day.

- Gender
- Ethnicity/Race: Categories are based on guidance set forth by the U.S. Department of Education.
- Elementary School: This is a 3-digit numeric code to indicate the student's current elementary/middle/ feeder school.
- High School Choices: This is a 2-digit numeric code to indicate the high schools where the student wishes their results be sent. This section only applies to schools who have contracted with STS to test cooperatively as part of a choice program. Up to three high school choices may be designated here.
- Other Codes $\mathbf{A} / \mathbf{B}$ : This section allows schools the option to identify up to two more additional codes identifying anything the school chooses. These must be a 2-digit number.
- Optional Codes or STS Registration Number: This section can be used to record up to a 10-digit numeric code such as an STS registration number, a student ID number, or other school information as necessary.
- Home Address \& Phone Number: A special four-page answer sheet or STS' registration system is required should the school wish to collect the student's mailing address or phone number for reporting purposes or special services provided by STS.

For those who wish to use the special code areas, it should be understood that certain preparations must be made prior to the test date. When developing response possibilities within a given area, care must be exercised to ensure that only one response can be selected from the list since the related column (or columns) can accept only a single coded response. (For schools testing as part of a cooperative testing program, code lists will be provided by STS to ensure consistency for reporting purposes.) Whether the special code grids are used for their designated purposes or in connection with a questionnaire, the appearance of the coded responses on the HSPT reports often eliminates the need to search for such information in other files or lists, which simplifies the use of the results.

It should also be noted that STS can produce any of the reports discussed in this manual based upon student responses in the special code grids (or the registration form). For example, separate Alphabetical List reports could be developed for each of the elementary school codes that are represented in a given code list. Similarly, lists could be produced for students who are planning to attend college, junior college, trade school, and any other category that might be included in an educational goals category. Of course, such reports are provided only upon request and increase the cost of your program. Nevertheless, a growing number of schools have discovered that the nominal cost is more than offset by such advantages as convenience, immediate availability of the data, and more effective use of personnel time.

SAMPLE CODE LISTS

| Elementary School |  |  |  |
| :---: | :---: | :---: | :---: |
| 101 Country Day |  |  |  |
| 102 Elizabeth Seton |  |  |  |
| 103 Holy Family |  |  |  |
| 104 Sacred Heart |  |  |  |
| 105 St. Rose |  |  |  |
| 999 OTHER |  |  |  |
| High School Choices |  |  |  |
| 10 | Catholic Memorial | 14 | St. Anthony's |
| 11 | Fontbonne | 15 | St. John's |
| 12 | Marian High School | 16 | Ursuline Academy |
| 13 | Notre Dame Prep |  |  |

SAMPLE SPECIAL CODING

|  | Foreign Language (Other Codes - A) |
| :---: | :---: |
|  | 30 French |
|  | 31 German |
|  | 32 Spanish |
|  | 99 Undecided |
|  | Previous Study (Other Codes - B) |
| 10 | Yes previous study |
| 20 | No previous study |



Examples: For example, if each student is to identify his or her elementary school, it is necessary to develop a list of all elementary schools represented in the group (or in the area served by the high school), so that each school may be assigned a unique 3-digit code. Experience has clearly established two basic rules for code lists. First, it is best that assigned codes never include leading zeros (e.g., 001) since these tend to be ignored by students; second, a general code (e.g., 999) should be included to be used, for example, when a student cannot find his or her elementary school among those shown on the code list.

Some schools may wish to include other codes specific to their HSPT programs. For example, if an individual school wishes to know what foreign language each incoming student hopes to study, these codes may be coded in the "OTHER CODES" column. The school might offer four foreign language courses, and they will be arbitrarily coded as sequential numbers in the 30 's. A code of " 99 " is assigned to an "Undecided or None" category. In column A under "OTHER CODES," the students will write the appropriate code to show their language preference. Students will use column B under "OTHER CODES" to show previous study of the language. A " 10 " in column B means "yes, previous study"; a " 20 " in column B means "no previous study." Students who marked " 99 " in column A (undecided or no interest) are directed to leave column B blank. Another common situation may request that more specific information be provided by the schools and/or students. Under "OPTIONAL CODES," a school system may have school identification numbers or additional special coding included in this section.

## Types of Scores on the Reports

Raw scores - the number of items a student answers correctly - by themselves, provide limited information about the relative performance of students. Since raw scores are not appropriate to use for comparing performance over time or between different forms of the test, they are not contained on the majority of STS' report types.

Instead, raw scores on the test are converted to standard scores allowing schools to compare students' test scores or make other comparisons across time. Standard scores can then be converted to other derived scores for further interpretation and evaluation of test results.

The derived normative scores available on the HSPT / Pre-HSPT are described below. (Specific reports may not contain all score types; see the report section of this manual for more details.)

## Standard Scores (SS)

Standard scores are raw scores that have been converted to a standardized scale so they can be statistically analyzed. The conversion process accounts for differences in difficulty levels between multiple forms of the test so that scores are consistent and comparable across forms.

Each subtest and composite score has its own standard score scale. Standard score scales range from 200 to 800, with a mean of 500 and standard deviation of 100 .

Standard scores represent equal units of measurement across a continuous scale and are invariant from year to year and edition to edition. Consequently, the standard score scale is an absolute, unchanging frame of reference which permits group comparisons to be made year after year with precision and confidence. If the standard score in a given subject area is higher than the previous year, growth has occurred.

## Percentile Ranks

To provide additional meaning to a student's standard score, performance is also reported in terms of a percentile rank. In simplest terms, a percentile rank compares a student's performance on the test to some reference group of students within the same grade level. The percentile rank scale ranges from a low of 1 to a high of 99 , with 50 being exactly average.

Percentile ranks do not represent actual amounts of achievement, rather, they compare the relative standing of a student with other students. It is important to know that unlike standard scores, percentile ranks are not on an equalinterval scale, meaning they do not represent equal units of measure. For example, the difference between percentile ranks 10 and 20 is not the same difference in achievement as the difference between percentile ranks 60 and 70 .

Two types of percentile ranks are provided on reports - national and local - and are further described next.

## National Percentile (NP) Rank

A national percentile rank indicates the percentage of raw scores in the representative national norm sample that are lower than the raw score attained by a given student. Simply stated, it tells the percentage of students in the national norming group who received a lower score. For example, if an individual's national percentile rank on the Math subtest is a 64 , this means the student's raw score was higher than 64 percent of those in the national norm sample.

## Local Percentile (LP) Rank

A local percentile rank provides the same basic comparison as national percentile ranks except that the comparison group is composed of local students rather than a national sample. Typically speaking, for schools that administer the test independently from other schools, the local group will consist of the students that the school sent in together for scoring. For example, if a student earns a local percentile rank of 71 on the Language subtest, this means the student's raw score was higher than 71 percent of those in your group.

For schools that test as part of a coordinated, multi-school program, the local group will vary and is determined by the testing program but commonly consists of all of the students who tested in your school system/district.*

## Grade Equivalents (GE)

While percentile ranks compare the performance of an individual student with other students at the same grade level, grade equivalents compare the performance of an individual with the average performance of students at other grade levels.

The grade equivalent scale extends across grade levels and is reported as a decimal number. The number in front of the decimal represents the grade year and the number after the decimal represents the grade month.

Unfortunately, grade equivalents lend themselves to misinterpretation. As a normative measure, grade equivalent scores are subject to several limitations and certain precautions must be observed:

1) For example, if an eighth-grade student earns a GE of 10.4 on the Math subtest, this does not mean that the student is capable of doing tenth-grade math. It simply means that the student can do eighth-grade math as well as an average high school sophomore can do eighth-grade math.
2) Grade equivalents are meaningful only within the range of skills measured by the test administered. In the case of the eighth-grade student who earns a GE of 10.4 on the Math subtest, it is clear that this individual is doing considerably better than most eighth graders. It must be remembered, however, that such a test was designed primarily to assess those math skills and concepts that should have been learned through the eighth grade. If this student were given a math test designed for use at the tenth-grade level, it is very unlikely that he or she would attain a GE of 10.4.
3) Grade equivalents should not be used as the basis for placing students at grade levels that correspond to attained GE scores.

## Cognitive Skills Quotient (CSQ)

This measure replaces the traditional IQ score, but its purpose within the school setting remains the same-to function as a predictive index of a student's future academic performance in order to assess learning potential. Like the IQ, the CSQ is based upon the student's scores on both the Verbal and Quantitative subtests as well as his or her age at the time of testing. Unlike pure intelligence tests, however, these subtests do not restrict themselves to measure only innate abilities. Instead, test items were carefully designed to provide various measures of the cognitive skills (i.e., skills related to learning) whether such skills are innate or acquired. Consequently, the CSQ is a richer, broader measure since the test items upon which it is based have a wider, more extensive scope than those ordinarily used in intelligence tests.

For convenience, the CSQ was designed statistically to be interpreted in the same manner as the traditional IQ. The scale has an operational range of $55-145$ with a mean of 100 and a standard deviation of 15 . The following guide may be used in evaluating the CSQ.

| Above 130 | Represents academic potential that is found in approximately the upper $3 \%$ <br> of the school population. |
| :--- | :--- |
| $110 \&$ Above | Represents academic potential that is found in the upper $25 \%$ of the school <br> population. |
| $100-109$ | Represents academic potential that is found in the second quarter of the <br> school population—50th to 75th percentiles. |
| $90-99$ | Represents academic potential that is found in the third quarter of the school <br> population—25th to 49th percentiles. |
| $89 \&$ Below | Represents academic potential that is found in the lower $25 \%$ of the school <br> population. |
| Below 70 | Represents academic potential that is found in approximately the lower $3 \%$ <br> of the school population. |

## Stanines

Like percentile ranks, stanines provide a comparison between the student's performance and that of other students in the same grade level. Unlike percentile ranks, though, stanines represent approximately equal units of measure meaning the difference between stanines 3 and 5 represent about the same difference in achievement as the difference between stanines 5 and 7.

Stanines are reported as whole numbers and range from a low of 1 to a high of 9 , with a mean of 5 and standard deviation of 2 . One advantage of stanine scores is their basic simplicity; the primary disadvantage is that they are a comparatively coarse measure and less precise since performance on a 298 item test is converted to a 9-point scale.

The relationship between stanines and percentile ranks is a fixed relationship and is reported in the table below along with the corresponding performance rating. Like percentile ranks, stanines may be either local or national in character, depending upon the normative group on which the scale is based (see Percentile Ranks for definition of local versus national).

| Stanine | Percentile | Rating |
| :---: | :---: | :---: |
| 9 | $96-99$ | High |
| 8 | $88-95$ | High |
| 7 | $76-87$ | Above Average |
| 6 | $60-75$ | Above Average |
| 5 | $41-59$ | Average |
| 4 | $24-40$ | Below Average |
| 3 | $12-23$ | Below Average |
| 2 | $04-11$ | Low |
| 1 | $01-03$ | Low |

## Predicted Scores

Some reports include a student's predicted, estimated ACT (pACT) and SAT (eSAT) score based on their overall performance on the HSPT. The projected ACT / SAT scores are developed based on data from STS' most recent validity studies and will only be reported for grade 8 students who take all of the subtests.

See the respective test publishers for more information regarding the range and scope of these scores.

## Using the Test Results

The national percentiles, local percentiles, grade equivalents, and standard scores offer each test user a variety of perspectives within which the performance of a student may be viewed. The choice of which score(s) to use will vary according to the experience of the test user, his or her professional preferences, and the particular task to accomplish. We offer the following comments for consideration when determining which score types to use.

Battery Composite Score: The HSPT has been in continuous use since 1958. During its long history, the various editions have been administered to several million students, and an extensive number of research projects have been conducted. These have demonstrated repeatedly that the battery Composite score is the best single measure for predicting subsequent academic performance. Consequently, we can recommend the use of this score in such applications as admission, scholarship awards, general placement, and so forth.

Subtest Scores: Individual subtest scores should be carefully evaluated when placing students in specific courses. Based upon a survey of HSPT users, it is evident that most schools utilize two or more subtest scores for this purpose. Both the Quantitative and Mathematics scores are frequently considered for placement in math courses; while the Verbal, Reading, and Language scores are considered for English courses; and so forth. In addition to subtest scores, many reported the use of other criteria as well, such as elementary school grades and teacher recommendations.

Total Cognitive Skills and Total Basic Skills Scores: The Total Cognitive Skills score focuses on a student's potential or capability, where the Total Basic Skills score reports performance on achievement levels. As such, there is value in viewing the overall achievement across subjects as well as the learning potential. A comparison of the two can also provide some insights to the individual in terms of his achievement relative to his/her capability (not meeting their potential versus meeting or exceeding it).

Cognitive Skills Quotient: The CSQ as previously defined is provided for those who wish to use an ability or 'IQ' type of scale in assessing student performance levels, since this age-based scale is set to a mean of 100 and a standard deviation of 15 similar to many IQ scales.

## General Considerations for Determining Which Normative Score to Use

Since each school is unique in its process of student evaluation, the importance of each normative score will vary from school to school. The type of score best used depends on the situation of the evaluation: comparison of applications to enrollment; differentiation of applications for scholarships; group or individual performance across time to name a few. We have included a few reminders when considering student performance with several norm types.

## National Percentiles

Since this score ranks individuals on a national scale and is probably the best understood score, it is used by many as an initial performance level measure. Keep in mind that percentiles, national and local, are not equal-interval when comparing the distance between two numbers. National percentiles can shift over time. For example, it is possible that over the course of 10 years, the nation as a whole has improved in some skill, but the average national performance will remain at 50 across all 10 years since the performance is relative to the current nation. Since percentiles are on a scale of $1-99$, they can be a good initial measure of performance, but they may not provide the discrimination needed say in the case of a scholarship where there are multiple students with the same "99th" percentile. Standard Scores can help in this type of situation.

## Standard Scores

Standard Scores provide a greater level of distinction than percentiles since they range from 200 to 800 . Each possible raw score will yield a different standard score. Since standard scores are invariant across years and forms and are equal interval, they can be a good measure both across time for absolute performance change or growth as well as measuring the amount of difference between the performance of two individuals or groups.

If your school has established a cut-off score for admission, placement into an advanced math course, and so on, you may wish to consider using a standard score cut-off rather than one of the other normative scores. Since the standard scores are an invariant measure, such a cut-off may be used year after year with the assurance that it is identifying students who have met or surpassed a consistent level of performance in a particular area. Since other national normative measures are subject to some variability, their use as a cut-off may be less precise over a period of time. Regardless of which measure is used as a cut-off, it is always desirable to conduct appropriate research studies within the school to determine its effectiveness as a selection device.

## Local Percentiles

It is essential when using local percentiles that the user understand who the individual or group is being compared to. If your school tested independently-rather than participating in a coordinated, multi-school program-your local percentiles are based solely upon the performance of your group of students. Consequently, a student's local percentile on a given subtest directly indicates how well or poorly that performance compares with others in your group, regardless of how well or poorly that performance compares with the national sample. Thus, you can easily identify the higher, average, or lower performing students relative to the group itself.

The phrase "local norms" refers to the scale that is based solely upon the performance (raw score) of a given group of students-most commonly, all those who were tested in a given school or district.* In this context, for schools that independently administer the test, the phrase "school norms" could be interchanged with local norms. This scale is established by ranking student raw scores on a given subtest from highest to lowest. Whether the group's collective performance is very high or very low with respect to the national scale, it should be apparent that some students must be at or near the top of this ranking (these would comprise the upper 5\% of the group) while others must be at or near the bottom (the lower 5\% of the group). Those in the upper 5\% achieved the highest performance within this group and, regardless of their performance in terms of the national scale, will earn local percentile ranks of 95 or above to indicate their high position in their local group. As one might expect, those in the lower $5 \%$ will earn local percentile ranks of 5 or below to signify their bottom position within the local group.

## Questionable Scores

It can be very disconcerting for all concerned when the reported test scores sharply disagree with our expectations and/or other available data. Fortunately, this is not a common problem, but it merits some attention.

Group Performance: If your Group Summary Report indicates that the students performed unexpectedly high or low on a particular subtest, the most likely explanation is that some irregularity occurred during the administration of the subtest. For example, reducing the specified time limits tends to lower performance; extending them serves to raise performance. Since the unexpected results may have been caused by an error that went unnoticed, it is often difficult for the test administrator to recognize that an irregularity occurred at all. Nevertheless, mistakes are maderecognized or not-and the only indication may be an unexpected and unexplainable shift in the group's performance on a single subtest. Other factors which typically lower group performance include departing from the test directions as given in the Directions for Administration, any disruptive or distracting activity during the testing session, poor physical conditions in the room used for testing (temperature, lighting, etc.) and so forth.

[^0]Individual Performance: Virtually all inquiries related to student performance are concerned with individuals whose test results are lower than expected. A typical example: Lisa Smith is an excellent math student, but her math scores are substantially below average. A typical reaction: the scores don't make any sense.

When the unexpected test results are confined to a single individual, it is highly unlikely that administrative irregularities are responsible. Instead, one must be alert for factors that would have an impact only upon the student involved. For those who encounter a "Lisa Smith" among their students, we offer the following suggestions:

1) Discuss the matter with Lisa at the earliest opportunity. Such a discussion may be unproductive since the testing probably occurred several weeks earlier, making recall difficult. Nevertheless, she may remember that the math subtest seemed especially difficult, or she found the directions confusing, or she may have skipped one or more items (which might have led her to mark her subsequent responses in the wrong locations). You may discover that she did not feel well that day or was extremely anxious about taking the test. Lisa may realize that you share her concern about the math scores, have reservations about their validity, and are prepared to pursue the matter further if necessary. Most students (and parents) find such an attitude supportive and reassuring.
2) Your school may contact the STS Scoring Center, request a verification of the math scores, and include any information that may have a bearing on the matter. In this age of optical mark readers (electronic scoring devices), high-speed computers, and sophisticated computer programming, it is extremely unlikely that Lisa's math responses were erroneously scored and reported. Nevertheless, it is a legitimate question which needs and deserves a definitive answer.
3) Inspect Lisa's answer sheet, particularly her math responses. (Answer sheets are generally returned with verification replies.) Excessive erasures frequently indicate uncertainty or confusion on the part of the student. Determine whether she responded to every item on the subtest or omitted a substantial number ( $25 \%$ or more). Consequently, excessive omissions usually indicate that the student found the subtest quite difficult or was overly cautious in responding, perhaps only marking those items about which he or she felt very confident. Finally, examine Lisa's responses to the math items, noting each item in the test booklet used for the testing. (If one is not available, request a copy from STS.) If possible, examine the responses with Lisa and discuss those that are incorrect. Such a session can be very enlightening for both you and the student. (Keep in mind that test booklets must always remain under the school's supervision; test booklets should not be given to parents.)

Needless to say, these suggestions require additional time and effort, but they will yield the maximum amount of information about the subtest in question. In the vast majority of instances it is possible to arrive at a definitive conclusion regarding the validity of questionable test scores.

## Understanding Your Reports

STS offers flexible reporting services in response to varying needs. The following reports are provided as standard service for schools that test individually and are described in this section of the manual: the Alphabetical List Report, Rank-Order List Report, and a Group Summary Report.* Additional types of reports are also available as extra service and are described here as well.

Information on reports will appear exactly as the student bubbles in the corresponding gridded areas on the answer sheet. Any marks entered in the columns on the answer sheet will automatically appear in appropriately designated locations on reports. Therefore, information provided on your reports depends upon the accuracy of the information completed by students on test day. Multiple responses within the same column generate a "multi-mark condition" which electronic scanning devices are programmed to disregard as ambiguities.

Schools must complete a Group Identification Form (provided in the Return Kit) and include with answer sheets sent for scoring. The grade along with the level/form marked on the Group Identification Form will determine which keys and norms are used when scoring the answer sheets.

## Alphabetical List Report and Rank-Order List Report

## Appropriate for: school personnel

## Purpose:

Student test scores are provided on two types of list reports: an Alphabetical List Report and a Rank-Order List Report. These reports provide scores for all students in the specified group in an easy-to-read list view. The two reports are identical except that the alphabetical list organizes students in alphabetical order and the rank-order list organizes students from high to low based on their composite score. (As an additional service, rank-order reports can be provided based on alternate scores as well.)

## Report Elements:

The score types reported on the list reports include standard scores, national percentiles, and local percentiles for the individual subtests and totals. Grade equivalents for the basic skills subtests and a cognitive skills quotient are also provided.
(1) The report is suitably labeled at the top of the page for convenient identification.
(2) Student Identification: The left column contains student identification information. The student's name as it was gridded on the answer sheet appears on the top line. (The answer sheet contains spaces for 11 characters of the last name, 8 characters of the first name, and a middle initial). The student's date of birth, age in years and months, gender, ethnicity/race, and optional code are reported on the following lines.
(3) Codes: The second column of the report accommodates three lines of coded information obtained from the student's answer sheet (or STS' registration). The first line identifies the 5-character code of the test center (where the student tested) and their elementary school if coded. The second line is for the test form and date while the third line is for is for high school choices/other codes. The value of these codes and their uses are discussed on page 4 of this manual.

[^1](4) Scores: The remaining columns contain the student's scores. The COGNITIVE SKILLS section presents the scores the student earned on the Verbal and Quantitative subtests as well as their Total Cognitive Skills score. The computed cognitive skills quotient (CSQ) will be reported here as well.

The BASIC SKILLS section provides the scores attained on the Reading, Mathematics, and Language subtests as well as their total basic skills score.

The OPTION column contains the scores for the optional test administered, if any. The optional test used is identified by a two-letter abbreviation beneath the scores: SC for Science or RL for Catholic Religion. Note, if an Option test was administered, raw scores are provided in lieu of standard scores.

The COMPOSITE column contains scores which indicate a student's total performance on the five subtests that comprise the battery.
(5) The legend at the bottom of the page will identify any abbreviations on the report as well as the identify the values used in ethnicity/race column.

## Sample Explanation:

These reports are illustrated on page 15 . When looking at the alphabetical list, you can see that the students' results are presented alphabetically by last name. Note that Jacob Allen is second on the alphabetical list. From the column labeled Test Center, you can see that Jacob tested at school "YY001" which is the code for Scholastic Testing Academy. Additionally, Jacob coded " 020 " as his current elementary school. A code list is required to identify what school the codes represent.

As reported on the alphabetical list, Jacob's battery Composite score was the 72nd national percentile. By looking at the rank-order report, you can see that Jacob's Composite score was ranked 11th out of the group as 10 other students had a higher composite national percentile and are reported before him.

## Considerations:

The focus of this report is based upon individual student performance. Use of one report over the other will depend on the school's objective. For instance, if you simply wish to view a particular student's results, the alphabetical list will enable you to quickly find a student's scores. Alternatively, if you wish to view the students in order of how they performed on the test, the rank-order list would be suggested.

## Grade： 08

 … | Grade： 08 |
| :--- |
| Section： 01 |
| Date：12／03／20 |

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| My Group's <br> Median National Percentile <br> (Composite Score) |  |
| :---: | :---: |
| Group Size | 42 |
| Average CSQ | 105 |
| Average pACT | 22 |
| Average eSAT | 1085 |

## Appropriate for: school personnel

Purpose:
As its name suggests, this one-page report summarizes your group's performance on individual subtests and composite scores. It is designed to give an overall perspective of the group's performance.

## Report Elements:

The top portion of the report contains score data for the whole group as well as for three different subpopulations of the group. The bottom of the report contains the frequency distribution (the number and percentage) of students that obtained national percentiles within certain intervals.
(1) The report is suitably labeled at the top of the page for convenient identification.
(2) The left section highlights group size and various score data.
(3) The table in the upper middle section contains the number tested in each area as well as group performance on each subtest and composite scores. Average performance for the group as a whole is reported in terms of standard scores in the columns labeled "Mean" and "Stan Dev" (standard deviation). The columns to the right report the median national percentiles for three subpopulations of the group: the upper half of the group (labeled "Q3"), the group as a whole (labeled "MD"), and the lower half of the group (labeled "Q1").

Note: Median national percentile data is not reported if the group size is less than 4 students.
(4) The median national percentiles for the three subpopulations just described are also illustrated by a stacked line graph. The bottom line (Q1) displays how the students in the bottom $25 \%$ of the group compares to those in the bottom $25 \%$ of the nation (the 25th national percentile). The middle line (MD) shows how the group median compares to the national average (the 50th national percentile). The upper line (Q3) displays how the students in the top $25 \%$ of your group compares to the top $25 \%$ of the nation (the 75 th national percentile).
(5) The header columns for the Frequency Distribution section identify various percentile intervals as well as the corresponding stanine and performance rating for each interval (Low, Below Average, Average, Above Average, and High).
(6) The percentage of students within the group who earned a given national percentile score is reported here for each subtest and composite scores.
(7) The number of students within the group who earned a given national percentile score is reported here for each subtest and composite scores.

8 The total percentage of students who obtained a composite national percentile considered to be low/below average (national percentile between 1-40), average (national percentile between 41-59), and above average/ high (national percentile between 60-99) is highlighted here.

## Sample Explanation:

A sample is given on page 16. In the upper left, you can see that the median Composite score for this group of 42 students is the 47 th national percentile. In the table to the right, you see that the group's average (mean) standard scores for Reading, Math, and Language were 509, 470, and 513 respectively. The standard deviation of the group's Math scores is 92 . This means that the group's range of scores is slightly less than the standard score scale standard deviation of 100 .

The next section of the table also shows that the group's median national percentile (column "MD") for Reading is 53. As illustrated in the line graph at the right, that is near the national average: the 50th national percentile which is depicted by a horizontal dashed line. The group's median national percentile for Math is 29 which is well
below the national average 50th percentile. When comparing performance across all subtests, it is noticeable that the group performed lowest in Math.

A look at the frequency distribution (the bottom portion of the report) shows that on the Reading subtest, 2 students $(5 \%)$ earned a national percentile of $82-87$, which in turn is equivalent to a national stanine of 7 . By combining selected data points, it can be determined that the Reading performance of 5 students ( $10 \%$ ) fell within the upper $12 \%$ of the national normative sample (88th-99th percentiles), which corresponds to the 8th and 9th national stanine band, the high range of the national scales. From the data points shown for the Composite score, it may be determined that the performance of 16 students ( $38 \%$ ) fell within the Low/Below Average categories, 11 students ( $26 \%$ ) fell within the Average category, and 15 students (36\%) fell within the Above Average/High categories.

Considerations:
Needless to say, the focus of this report is based upon the group rather than individuals. Hence, if one wishes to identify the students who attained a national percentile of 99 for the composite score, it would be necessary to search the list of individual student results to discover their names.

Caution must be used when interpreting group summary information when the group is based on small numbers. Summary results are less precise for small groups and can be affected by extreme individual scores. For example, a score that is extremely high or low may have a greater impact on the average scores of 10 students but will have less effect on the average of say 100 student scores.

Number Tested, Standard Score Means, and Standard Deviations: The greatest value of the standard score scale lies in its ability to function as a common denominator between various editions of the HSPT. Thus, it forms a bridge between your current group and previous groups, and allows you to make direct comparisons of their respective performance levels. The group summary standard score means also provide a comparison baseline for comparing individual performance to the group average.

When comparing two groups, each consisting of 100 or more individuals, differences as small as 4 or 5 points between standard score means are statistically significant; that is, one can conclude with reasonable confidence that the observed difference stems from a true difference in test performance rather than the occurrence of chance variations. As either the size of the groups or the magnitude of the difference increases, the same conclusion may be drawn with even greater confidence. One must also recognize, however, that a difference which is statistically significant does not always possess practical significance. While differences in the range of 5 to 40 standard score points are statistically significant for groups of 100 or more, such differences are not large enough to warrant any special concern other than noting their occurrence and the direction of the shift. In other words, the skill level of the two groups-while measurably different-is sufficiently similar to be considered equivalent for all practical purposes. Consequently, differences in this range lack practical significance.

As one might expect, observed differences in excess of 40 standard score points require more than a passing comment on your part. Values in this range are indicative of substantial differences in test performance between groups, and thus, signify major differences in their respective skill levels. When confronted by differences of this magnitude, attention should be focused upon the curriculum related to the area in which the excessive difference was observed. For example, if the standard score mean for Math of the current group were 45 to 50 points lower than that earned by an earlier group, one would be well-advised to re-evaluate the math curriculum with respect to its suitability for a group whose math skills are substantially weaker than those of previous students. A separate remedial program might also be considered for those whose individual standard scores in Math are well below the mean of the current group. Conversely, if the math performance of the current group were 45 or 50 points higher than earlier students, it might be appropriate to increase the scope, pace, or depth of the curriculum to accommodate or even challenge their higher level of math skills.

It should be noted that differences in excess of 40 points usually are not observed between groups whose testings are separated only by a year or two. Typically, year-by-year comparisons yield differences well within the 5-40 range noted earlier. However, if a given trend continues over an extended period, the accumulated differences (or the difference between the initial and current groups) can reach proportions that merit serious attention. In other words, substantial changes in performance are more likely to creep into view than burst dramatically upon the scene. Consequently, for those who wish to monitor this aspect of the HSPT, it is vital to retain the data obtained from each testing for use in subsequent analyses.

Finally, one should not lose sight of the fact that a standard score mean reflects the general performance level of the group in a given area, but it offers no insights regarding the specific skills which underlie that performance. It may be clear, for example, that the language performance of your applicants is declining, but this fact sheds no light upon which specific skills have deteriorated and thus contributed to the decline. In settings where curricular modifications or remediation programs are under consideration, information concerning the relative strengths and weaknesses of specific skills can be especially useful. Such information can be provided in the form of two different reports-the Performance Profile and the Item Analysis-which are discussed later in this manual.

The standard score standard deviation provides some indication of the range of scores attained by the particular group of students. The original standard scores were developed with a standard deviation of 100, therefore results below 100 indicate a group of students who are not quite as spread out. Comparisons across subjects can also provide insight to how the spread of scores can vary by subject area.

National Percentiles by Subgroup: The purpose of this section of the Group Summary Report is to provide an abbreviated description of your group's performance, and in doing so, to refocus attention upon their performance as compared with their peers in the current national normative sample. In the table under the heading National Percentiles and in the stacked line graph, are the selected rank positions within the group. Q3 represents the typical performance of those in the upper half of your group, $M D$ indicates the typical performance of the group as a whole, and Q1 reflects the typical performance of those in the lower half of the group. The national percentile ranks attained by your group as a whole as well as those in the upper and lower segments are listed in the table and additionally plotted in the stacked line graph.

If you wish to evaluate the typical or average performance of your group (i.e., the 50th local percentile or the median of your group), your attention would be directed to the national percentiles that appear in the column labeled "MD." Any national percentile of 50 indicates that the average performance of your group is the same as the average performance within the national sample; that is, the 50th percentile of your group corresponds to the 50th percentile for the national sample. Any national percentile greater than 50 indicates that the typical performance of your students was higher than that of the national sample; any below 50 indicates lower performance. As may be seen in the sample Group Summary Report on page 16, the average performance of that group was near the national average on every component of the HSPT except Math, in which the group's average performance was the 29th national percentile. The other test areas ranged from 47 for the Composite and Total Basic Skills to 54 for Verbal Skills and Language.

If the average performance of the upper half of your group is under consideration (i.e., the 75th local percentile, or the upper $25 \%$ of your group), you would note the national percentiles that appear in the column labeled "Q3." If, for example, the performance on the Language subtest from this segment of your group were equal to their counterparts in the national sample, you would find a national percentile of 75 in the Language column. Any value higher than 75 would indicate that the performance of this segment (the upper 25\%) was higher than that of the upper $25 \%$ of the national sample; any below 75 would signify lower performance. As may be noted, this segment of the sample group performed lower than those in the national sample by earning national percentiles below 75 on every component except Verbal Skills and Language. To be more specific, the average performance of those in the upper half of that group was equivalent to a national percentile of 85 for Verbal Skills; hence, their performance exceeded $75 \%$ of those in the local group and $85 \%$ of those in the national sample. In other words, those in the upper $25 \%$ of the illustrated group are in the upper $15 \%$ of the national sample in this subject area.

The data given for the average performance of those in the lower half of your group (the 25th local percentile) may be analyzed in a similar manner. One must remember, of course, to adjust the level of comparison to correspond to the level of the segment being evaluated. As may be noted in the sample Group Summary Report, this segment outperformed their counterparts in the national sample in every area except Reading and Math, ranging from 21 for Math to 36 for Verbal Skills.

Frequency Distributions: While the standard score standard deviation can provide some insight to the range of scores attained by the group, the frequency distribution provides a much more detailed picture of how the group performance is spread across the scale for each score type. Of particular interest might be the number and/or percentage of students in your group who did either extremely well, or the number who did poorly. Exploring the frequency distribution can help paint a better picture of the group of students who took the assessment. It is possible, for example, that two group summaries both report a median national percentile of 47, but one group may have $10 \%$ of the students in the 96-99th percentile range, where the other group may have no one in the top ranges.

The distributions may also be used to determine the number and/or percentage of students represented in the high, above average, average, below average, and low categories or in some other categorical scheme of your own devising. Such information can be useful in establishing the number or percentage of students who are likely candidates for admission or placement in your setting and the relative range of skills represented in the defined categories.

In some settings the skills of the group will range from the lowest end of the scale to the highest with the majority of scores tending toward the middle Average category. In other instances, however, the majority of scores may occur in a different category. Such is case, for example, of a high performing school whose applicants are also high performing. Their frequency distribution may show all of their students in the Above Average and High categories. While these cases may be atypical, they certainly do occur, and having a historical perspective on a school's typical applicants may prove beneficial in the group summary analysis.

Whether your group is typical or atypical, the frequency distributions can assist you in recognizing both the specific and general performance characteristics of your applicants, and in forming preliminary judgments related to admission or placement factors.

## Individual Performance Profiles

Appropriate for: school personnel and parents/guardians

Purpose:
Upon request, individual diagnostic profiles may be provided for each student within a group. Generally speaking, it offers a unique blend of information about student performance in that it not only provides the general scores attained by an individual, but also indications of his or her performance on the specific skills assessed by the test. School personnel will find the convenient size and wealth of data quite useful for a wide range of purposes. The individualized character of the report, its graphic displays, and self-contained explanations make it an ideal report for distribution to the students and parents.

## Report Elements:

The scores reported for each student include standard scores, national percentiles and stanines, and local percentiles and stanines for the individual subtests and totals. Grade equivalents for the basic skills subtests and a cognitive skills quotient are also provided.
(1) The report is suitably labeled at the top of the page for convenient identification. The student's name and coded information appears as it was gridded on the answer sheet (or from STS' registration system). The value of these codes and their uses are discussed on page 4 of this manual.
(2) Scores: This section contains the student's scores for each subtest and composite scores.
(3) Performance Ratings: The student's national percentile rankings are plotted on a graph indicating their performance rating (low, below average, average, above average, and high). The national percentile ranking earned by the individual lies near the center of a given band and its width reflects any variation in measurement that might be likely to occur. The shaded and unshaded areas of the graph depict the various levels of performance, and the national percentile rank scale is shown at the bottom for reference.
(4) Performance by Skill: This section contains the number of items related to a specific skill along with the number of items the student both attempted (\# Att) and answered correctly (\# Right). The student's performance is also reported as a performance rating and allows identification of strengths and weaknesses relative to the national sample. (The performance ratings are norm-referenced, not criterion-referenced, meaning the rating the student achieves is dependent upon how well he or she performed compared to other students in the norm group.)

## Sample Explanation:

A sample of an Individual Performance Profile for student Bo Abrams is shown on page 23. Bo's performance on each subtest and composite scores is reported in the top section. As you can see, Bo earned a national percentile of 83 on the Language subtest which corresponds to the 7th stanine and falls within the above average performance category.

To further analyze Bo's score on the Language subtest, one can look to the Specific Skills section below. As shown in the middle column, the Language subtest is divided into six major categories: Punctuation (10 items), Capitalization (2 items), Incorrect Usage ( 15 items), Correct Usage (3 items), Spelling (10 items), and Composition (20 items). Out of 10 possible Punctuation items, Bo attempted all 10 and correctly answered 9 items. The colored bar indicates that her performance was in the "HIGH" range for this skill when compared with the national sample.

Some categories are further divided into even more specific skills. For example, the 15 items pertaining to Incorrect Usage deal with Nouns/Pronouns (3 items), Verbs/Adverbs/Adjectives (6 items), and Other Parts of Speech (6 items). The number attempted, number correct, and performance ratings for these subskills are provided as well.

## Considerations:

The primary advantage of the Performance Profile lies in its ability to communicate both the general performance levels of the student as well as a more detailed picture of his or her specific skills. This approach can provide useful insights for both school personnel and the student. Depending upon the specific factors involved in an individual case, low or below-average ratings on a specific skill may be acceptable or even expected. If this is not the case, however, attention is focused upon achievement weaknesses that might otherwise escape unnoticed.

## Performance Profile (Group Summary)

Appropriate for: school personnel

## Purpose:

A Performance Profile Group Summary is developed for each group of students for whom this report is requested. Its purpose is identical to that of the Group Summary Report-to present an overall picture of the collective performance of a group of individuals by indicating the group's relative strengths and weaknesses.

## Report Elements:

In appearance, the Performance Profile Group Summary is identical to the profiles provided for the individual students. It differs, of course, in that the data reported reflects the group's performance rather than individual performance.

The scores reported on the Performance Profile Group Summary are obtained by computing averages for the group with respect to both the general test scores in the upper portion and the number of items attempted and correctly answered for the specific skills in the lower portion. (Standard scores are mean scores; national percentiles are median scores.)

## Considerations:

Local percentile and local stanine averages are not shown on the group summary since such values would invariably be 50 and 5 respectively for any of the general scores. Median national percentile data is not reported if the group size is less than 4 students.

If multiple forms of the test were administered, the group summary will be developed separately by form due to varying content outlines. If Individual Performance Profiles are ordered, the Group Summary (or summaries) are automatically provided and will be reported first, followed by all of the individual student reports.


## Appropriate for: parents/guardians

## Purpose:

Upon request, Student Score Reports may be provided for each student within a group. This is a one-page report designed to be given to a student's parent or guardian as it is easy to understand and prevents confusion by limiting the types of scores presented to parents and guardians.

## Report Elements:

The scores reported for each student include standard scores and national percentiles.
(1) The report is suitably labeled at the top of the page for convenient identification.
(2) Student Identification: The student's name, coded information, and address appears as it was gridded on the answer sheet (or from STS' registration ). The value of these codes and their uses are discussed on page 4 of this manual.
(3) Scores: The section labeled "Your Student's Scores" contains the student's scores for each subtest as well as composite scores. The student's standard scores and national percentiles are reported in numeric form above the graph. The graph itself illustrates the student's national percentiles in terms of a performance rating: high, above average, average, below average, and low.
(4) This section provides an explanation of what each subtest measures. The Total Cognitive Skills, Total Basic Skills, and Battery Composite scores are also defined.

## Sample Explanation:

A sample for student Bo Abrams is shown on page 25. As indicated in the scores section, one can see that Bo achieved a standard score of 573 on the Language subtest which corresponds to the 83 rd national percentile. The graph shows that this score is considered above average in comparison to the national sample. In looking at the student's Composite score, it can be seen that they received a 492 (the 47 th national percentile) which is average.

## Considerations:

The format of this report was designed so that it could be mailed to parents; the address section is placed so that it shows through a window envelope when folded properly. Your school must use either a long form answer sheet or STS' registration system in order for addresses to show on this report. If your school does not, the mailing address section on this report will just contain the student's name.

## Student Score Report

## HIGH SCHOOL PLACEMENT TEST <br> SCHOLASTIC ACADEMY (YY001) <br> Test Date: 12/03/20 <br> Grade: 08 Section: 01

## Scholastic Testing Service, Inc.

The STS High School Placement Test is a measure of basic skills and educational achievement. The test was given so that you, the student, and teachers could be better informed about your student's preparation for high school. This report provides information about the test and how the student performed. Now is a good time, as your student enters high school, to make the most of his or her special talents and to begin serious planning for their future education and career.

To the parents or guardian of:
Bo Abrams
9410 Main Road
Perry MO 63234

## Bo Abrams 2

Test Center: YY001
Form: 02J
Elem: 020
Optional Codes: 192699
Choices/Other:
1st: 10 2nd: 13 3rd: 09 4th: 5th:

## 3 YOUR STUDENT'S SCORES

|  | Verbal | Quant. | TCS | Read. | Math | Lang. | TBS | Composite |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Standard Scores | 488 | 446 | 469 | 532 | 420 | 573 | 506 | 492 |
| National Percentiles | 48 | 32 | 38 | 63 | 25 | 83 | 55 | 47 |



Your student's performance on each area of the test is reported at the left in terms of standard scores and percentile ranks. (Standard scores range from 200-800. Percentiles range from 1-99.)

National percentiles tell you the percentage of students in the national sample who had scores lower than yours. For example, if your student's Verbal Skills percentile is 55 , this means that $55 \%$ of students received scores lower than yours.

Your student's national percentiles are also illustrated in the graph in terms of a performance rating. The scale on the left side of the graph shows the percentile ranges that represent high, above average, average, below average, and low performance. The height of each bar shows within which range your performance falls for each area of the test.
*Subtest abbreviations are identified in What the Test Measures below.

## WHAT THE TEST MEASURES

Verbal Skills This test measures how well you perform reasoning tasks involving the use of words. Your ability in this area is related to your performance in language, reading and various areas within social studies.

Quantitative Skills This test measures your ability to do reasoning problems involving numbers and quantities. This ability is related to performance in mathematics, sciences and other areas that deal with numbers and things.

Total Cognitive Skills (TCS) This score is a total of the Verbal Skills and Quantitative Skills subtests.

Reading This test measures your ability to remember important ideas and significant details, recognize central thought or purpose, make logical inferences and understand vocabulary in context. Since good reading habits and skills are essential to learning, thinking and problem solving, this score is usually related to your overall success in school.

Mathematics This test not only measures your ability to perform arithmetic operations and apply math concepts to solve problems, but also your knowledge of important concepts and ability to reason. Your score on this test tells you how well you are prepared for high school mathematics.

Language This test measures your knowledge of capitalization, punctuation, grammar, spelling, usage and composition.

Total Basic Skills (TBS) This score is a total of the Reading, Mathematics and Language subtests.

Optional Test The option test is a 40 item test in either Science or Religion.

Battery Composite This score is a total of the Verbal, Quantitative, Reading, Language and Mathematics sections of the battery.

Looking for more information about interpreting your test scores? Go to www.ststesting.com/hspt.


## Item Analysis - Individual and Group

The test results provided on such reports as the Alphabetical List Report and the Group Summary Report allow a test user to determine achievement levels for any individual or the group as a whole. In some settings it may be sufficient simply to know, for example, that the math skills of a student are average in terms of the national normative sample or that those of the group are at essentially the same level as earlier groups. In other settings, however, where the focus of attention is upon the specific skills or objectives which underlie general performance, there is a legitimate need for test data reflecting such skills.

The Performance Profile, discussed earlier, allows a test user to gain some insight into these specific skills. However, Item Analysis reports extend this insight to its fullest by providing performance information on an item-by-item basis and relating it to a comprehensive outline of specific skills or objectives. In short, item analyses equip the test user to make a penetrating evaluation of specific performance as his or her purpose may require.

## Individual Item Analysis

Appropriate for: school personnel
Purpose:
The Individual Item Analysis provides performance information for each student on an item-by-item basis.

## Report Elements:

Item Analysis reports are available for the basic skills subtests only: Reading, Mathematics, and Language Arts. Results consist of a student's responses to each item and are presented in alphabetical order for a single subtest.
(1) The report is suitably labeled at the top of the page for convenient identification.
(2) This section outlines the specific skills or objectives measured in the subtest and an identifying objective number.
(3) The header section identifies the item numbers that correspond to each skill/objective. It should be noted that the items are not listed in sequential order, but are arranged in content clusters. The top two lines of the header contain the outline numbers for each skill/objective measured by the subtest. The lines below that contain the specific item numbers pertaining to each skill/objective and should be read vertically.
(4) The body of the report identifies each student's response to every item. A student's response is either reported as a " + " sign, indicating a correct response, or a letter, indicating an incorrect response that was made. A blank signifies that the student made no response to the test item.

## Sample Explanation:

A sample Individual Item Analysis is shown on page 26. As may be noted, the test results are presented in alphabetical order for a single subtest-Reading in this instance. At the far right is the "OBJECTIVE/SKILLS OUTLINE" which identifies the specific skills measured by the items in this subtest. The various skills and objectives are organized by category; the categories appear in all caps as the header line of each section (e.g., "COMPREHENSION"). Each skill or objective within a category carries an identifying number. The item numbers related to a given objective appear beneath the major category (e.g., 1-Details from Comprehension of Informational Text) and constitute the third, fourth, and fifth lines of information (item numbers must be read vertically). Thus, as may be seen in the sample, items 115,132 , and 136, deal with skill 1-Details within the major category of "IDEAS AND DETAILS."

Student results are reported in terms of the individual's response to each test item: a " + " indicates a correct response, a letter indicates the incorrect response that was made, and a blank signified that the student made no response to the test item. As may be seen in the sample, Owen Bressner correctly answered two of the three items related to objective 1-Details from Comprehension of Informational Text. He elected answer choice A (an incorrect answer) for item 115.

## Considerations:

When using the Individual Item Analysis, one must not lose sight of its purpose, which is essentially diagnostic. Accordingly, it directs attention to student performance on individual items related to specific skills, rather than focusing on a set of normative scores. In this context, evaluation of a student's performance must be based upon your knowledge of the subject area and the available information concerning the student, his or her educational background, and so forth. If a given objective/skill was included in a school's curriculum, perhaps even emphasized, your expectations would be vastly different than if the objective/skill is commonly excluded or treated lightly. Incorrect responses should be examined by referring to a test booklet. (If one is not available, request a copy from STS.) It is often possible to discover a pattern to the errors on an objective/skill that could provide the basis for remedial instruction.

It should be apparent that this evaluative procedure is virtually identical to that applied to criterion-referenced test results. Needless to say, it is an intensely individualized process, but for this very reason can produce the most useful and meaningful assessments of the specific strengths and weaknesses of the students.

## Group Item Analysis

## Appropriate for: school personnel

## Purpose:

A Group Item Analysis report is provided routinely when an Individual Item Analysis report is requested, but it may be ordered without the individual student data if so desired. In either case its purpose is the same-to provide an overall perspective of the collective performance of the group on a single subtest.

## Report Elements:

Item Analysis reports are available for the basic skills subtests only: Reading, Mathematics, and Language Arts.
(1) The report is suitably labeled at the top of the page for convenient identification.
(2) This section outlines the specific skills or objectives measured in the subtest and an identifying objective number.
(3) In the left column, the skills and objectives are identified by their corresponding outline number. The average percentage of students in the group who correctly answered the cluster of items pertaining to that objective is listed to the right in the "AVG-P" column.
(4) The individual item numbers pertaining to each objective is listed horizontally to the right. Each item number is shown with the percentage of students in the national sample-"NT-P"-and in your group-"GP-P"who correctly answered it. Such percentages conventionally are termed p-values.

## Sample Explanation:

A sample Group Item Analysis is shown on page 30. As may be noted, group results are presented in order of objective/skill for a single subtest-Reading in this instance. By looking at the left side of the report, it can be seen that the group generally did well on items related to objective number 1 (Details from Comprehension of Informational Text) with $71 \%$ of the group responding correctly to all of the items in this objective. As indicated to the right of that line, three items make up this objective, items 115, 132, and 136. As reported in the column labeled "NT-P," $76 \%$ of the national sample and $76 \%$ of the group -"GP-P"- answered item 115 correctly. For item 132, 83\% of the national sample and $86 \%$ of the group answered correctly.

## Considerations:

The average p-values -"AVG-P"- shown for your group, present a concise summary of the group's performance with respect to the assessed objectives/skills. Generally speaking, those in the lower range of the reported values represent weaker group performance while those in the upper range reflect stronger group performance. As you might expect, in this context terms such as "weaker" and "stronger" necessarily are relative terms whose significance will vary from one group to another.

In most settings the test user will find it necessary to turn to the individual item numbers and determine how the group's p-values compare with the national p-values. Needless to say, such a procedure gives rise to a more comprehensive view of the group's performance, which in turn allows one to develop a fuller appreciation of the average p-values. For example, in the sample it may be seen that objective 1 has an average $p$-value of 71 . This value falls in the middle range of those reported for this group. Upon examining the individual data, however, it is clear that the group excelled on one of the items in the cluster, but trailed the national normative sample on the remaining three. It would be very worthwhile to inspect the latter test items in the test booklet and determine the specific content which posed such difficulty for most of the students in this group.

As should be apparent, one approaches the Group Item Analysis Report in much the same fashion as the Individual Item Analysis Report-that is, the various data must be analyzed using your knowledge of the pertinent factors as the primary frame of reference.


Scholastic Testing Service, Inc. welcomes any suggestions for improving this testing program. Many times we find that our best suggestions come from school personnel who have administered the tests and used them in parent conferences and student counseling. If you have feedback, suggestions, or questions, please send them to:

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[^0]:    *If you have questions regarding the population that comprises your local percentile group, contact STS.

[^1]:    * For schools that test as part of a cooperative program, standard service may vary and depends on the specifications of the testing program. However, general interpretation of the reports still applies.

