WONDERLIC

General Assessment of Instructional Needs

## Administrator's Guide for ABE/ASE use

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## Section 1

> Overview of the General Assessment of Instructional Needs (GAIN)

Introduction The General Assessment of Instructional Needs (GAIN)® is designed to evaluate English and math skills as described in the six Educational Functioning Levels (EFL) defined by the National Reporting System (NRS) (see Appendix A). These six levels are used by Adult Basic Education (ABE) and Adult Secondary Education (ASE) programs when placing adult learners in appropriate instructional courses, and they are used to demonstrate skill gain upon course completion. GAIN test questions were specifically designed for this framework and can be used with confidence to gauge adult learner progress and provide individual feedback in specific areas where further training would be beneficial.

The purpose of this Administrator's Guide is to help you use the GAIN appropriately so that GAIN scores will accurately reflect your students' skills. GAIN testing guidelines and recommendations are based upon years of Wonderlic research, independently conducted research, and Wonderlic's extensive experience in providing powerful assessments to thousands of organizations and more than 130 million test takers worldwide.

The GAIN assesses skills ranging from basic literacy and numeracy to the more advanced skills that are typically taught as part of secondary education. A complete GAIN administration consists of two tests, each of which is timed for 45 minutes. The Test of English Skills contains 80 test questions and The Test of Math Skills contains 75 test questions. Both tests can be administered online or via paper-and-pencil. The GAIN must be proctored by a trained test administrator and can be administered to individuals or groups. When GAIN test results are to be used for NRS reporting purposes, Wonderlic requires test administrators to be Wonderlic-certified.

GAIN results can greatly improve your understanding of the unique needs of adults requiring basic educational training. Like all Wonderlic assessments, the GAIN has undergone rigorous psychometric analyses. The GAIN was developed in accordance with the 1999 edition of the Standards for Educational and Psychological Testing . It is designed to accurately and reliably measure adult basic skills.

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## Special Note of <br> Appreciation

A special note of appreciation goes to all those organizations and individuals who assisted in the development and field testing of the General Assessment of Instructional Needs. While we cannot list everyone, the following organizations made particularly important contributions.

Adult Basic Education Program of the Kansas City Missouri School District
Alamo Navajo School Board, Inc.
Albany Park Community Center
Atlantic Cape Community College
Augusta Technical College Adult Education
Baldwin Park Adult and Community Education
Berne Public Library
Bidwell Training Center, Inc.
Bledsoe County Adult Education Center
Blount County Adult Education Program
Brighton Center, Center for Employment Training
Broadview Learning Center
Butler Business School, Inc.
Canton Public Library
Central Nine Career Center Adult Education Program
Chester County Adult Education Center
Christopher House
Clearwater Adult Education Center
Colby Community College, Adult and Continuing Education Copiah-Lincoln Community College
Cranford County READ Program
D.A. Dorsey Educational Center

DeKalb Technical College - Covington Campus Adult Literacy Services
Del Mar College
Devils Lake Adult Learning Center
Dixie Hollins Adult Center
Eastern New Mexico University at Roswell
El Paso Public Library
The English Center
First Institute
Forbes Road Career \& Technology Center
Frankfort Adult Learning Center
Green County Adult Education Center
Greenup County Adult Education Center
The Grove Neighborhood Network Henderson County
Adult Education Center
Henry County Adult Education Center
Henry County Public Library
Henry W. Brewster Technical Center
High-Tech Institute
Hilltop Learning Center
Interactive Learning Systems
Jackson County Adult Education Program
Jewish Vocational Service
Joliet Junior College
Kilgore College Adult Education Program
Kirkwood Public Library
Labor Temps, Chicago
Lafayette Adult Resource Academy
Lake Washington Technical College
Lexington 1 Adult Education

Lincoln Adult Education Center
Lincoln County Adult Education
Lincoln Technical Institute
Lindsey Hopkins Technical Education Center
Literacy Council of Prince George's County
Literacy Council of Reading-Berks, Inc.
Literacy Volunteers of Lake County
Lucerne Valley Adult Education
Madisonville Community College
Maric College
Martinez Adult High School
Meridian Community College
Miami Lakes Educational Center
Mid-State Literacy Council
Midwest Asian American Center
New Community Corporation Workforce Development Center
New Mexico State University at Alamogordo
Norfolk Detention School
Northeast Texas Community College
North Shore I.S.D. San Antonio
Opportunities Industrialization Center of Suffolk, Inc.
Opportunity Junction
PIMA Medical Institute
Pueblo Community College
Red Bird Mission
Richmond Public Schools Adult and Continuing Education Program
Robert Morgan Educational Center
SCOLA
South Central TN Workforce Alliance
South St. Paul Adult Basic Education
Southern Careers Institute
Southwest Mississippi Community College
Stairways Behavioral Health
State of Nevada Bureau of Vocational Rehabilitation
Stewart County Adult Education/The Center for Teaching and Learning
Sullivan Public Library
The Sawyer School
Tomlinson Adult Learning Center
Tri-County OIC Adult Learning Center
Trigg County Public Library
Turtle Mountain Community College
Tuscarora Intermediate Unit
Torrance Unified School District Adult Schools
University of New Mexico at Valencia
Ventura Adult \& Continuing Education
Vincennes University /ABE and GED Centers
Virginia Community College System
Warren County Adult Education
Wharton County Jr. College

About this
Administrator's
Guide

Quick Reference Guide

This Administrator's Guide provides a brief description of the GAIN, what the individual tests measure, and how they are used for ABE/ASE purposes. It also includes information about becoming a certified GAIN Test Administrator, a Proctor's Guide section and an overview of the extensive information supporting the reliability and validity of the GAIN.

## Administering the Test

The GAIN is divided into two separate tests, the Test of English Skills and the Test of Math Skills. It was designed to be administered in a proctored environment. Proctoring helps ensure that test scores accurately reflect the skills of individuals taking the test.

Step-by-step instructions for conducting a paper-and-pencil or Web based testing session appear in the section entitled 'Proctors Guide'.

Note: Proctors administering the GAIN for NRS purposes must first complete the Wonderlic training and certification process. For information, call Wonderlic Education Solutions at (800) 323-3742.

## Timing the Test

The GAIN Test of English Skills and the GAIN Test of Math Skills are each designed to be timed for exactly 45 minutes. For Internet administrations, test timing is managed automatically by the computer and Wonderlic servers. For paper-and-pencil testing, the test administrator is responsible for monitoring the time limit. The 45-minute period begins after the practice questions are completed and when the administrator instructs the test taker to begin working on the actual questions.

## Scoring the Test

GAIN tests are scored within minutes after being submitted to Wonderlic. Online tests are submitted to Wonderlic automatically after the test has been completed. Paper-and-pencil test responses are submitted by entering the test taker's responses into an online scoring template, by faxing answer sheets to Wonderlic, or by mailing them to Wonderlic's offices. GAIN detailed score reports are then made available through the Wonderlic Online platform.

## Interpreting Test Results

GAIN scores reflect test taker English and math skills relative to the six NRS Educational Functioning Levels. The GAIN also provides subscale scores which give a more detailed look at particular skill content areas (e.g., Arithmetic). GAIN results highlight important areas for review and future study.

How the GAIN was
Developed

GAIN content was developed in accordance with the Educational Functioning Level descriptors provided by the NRS. The GAIN takes advantage of a sophisticated test development and scoring model called Item Response Theory (IRT). GAIN test questions were field tested on thousands of adults, and each test question was carefully selected to maximize the amount of information provided about the test taker. The test questions chosen for the final forms of the GAIN exhibited very strong psychometric properties, which in turn resulted in extremely strong test forms that measure skills more precisely.

GAIN development was further guided by the many years of development, validation, and the applied use of another test of English and math skills, the Wonderlic Basic Skills Test (WBST). The WBST is a more condensed basic skills test that is used by post-secondary trade and technical schools for general admissions and to qualify students for Title IV "Ability-to-Benefit" Federal financial aid. The WBST is also used by business organizations to measure the Quantitative and Verbal skills of job applicants. Some of the most successful test question types from the WBST have been adapted for use in the GAIN.

For statistical information regarding the development of the GAIN, see the GAIN Technical Manual.

Test Purpose and GAIN Forms

What the GAIN Measures

There are two equivalent forms of each GAIN test (English and math) to be used for official NRS pretesting and post-testing purposes.

The GAIN was designed to measure English and math skills. Individuals' test scores indicate their level of preparedness to work successfully in situations requiring the use of written materials and/or mathematics. These situations are common in the workplace and in everyday life. Scores can be used to place students in appropriate training programs to remediate skill deficiencies in these areas. The GAIN can be administered at the beginning and end of a training program to demonstrate student progress.

The GAIN provides quantitative insight into how easily a person can navigate the requirements of daily life and function successfully in the workforce. Higher scoring individuals possess the skills that serve as the foundation for skills in other areas. In comparison, modest scoring individuals will need to develop their fundamental skills in order to raise their effectiveness in dealing with the complexities of both work and daily life.

## The Test of English Skills

GAIN test question types within the Test of English Skills fall into a primary scale, two subscales, and eight categories. The primary scale is composed of all 80 test questions. Table 1 displays this general structure.

Table 1. Test Question Type Structure for The GAIN Test of English Skills

| Scale | Subscale | Category |
| :---: | :---: | :---: |
| English | Grammar/Usage/Style | Parts of Speech |
|  |  | Proofreading for Grammatical Errors |
|  |  | Punctuation/Capitalization |
|  |  | Sentence Structure |
|  | Reading | Information Retrieval |
|  |  | Letter and Word Recognition |
|  |  | Reading Comprehension |
|  |  | Words in Context |

Thirty-six test questions appear within the Grammar/Usage/Style subscale. As indicated in Table 1, these test questions evaluate skills dealing with Parts of Speech (e.g., prepositions, pronouns, verb forms), Proofreading for Grammatical Errors, Punctuation/Capitalization, and Sentence Structure (e.g., identifying complete sentences, working with compound sentences).

Forty-four test questions appear within the Reading subscale. These test questions evaluate skills dealing with Information Retrieval (e.g., pulling information from schedules or directions), Letter and Word Recognition, Reading Comprehension, and

Words in Context (e.g., understanding the meaning of a word based on the context within which it appears).

## The Test of Math Skills

GAIN test question types within The GAIN Test of Math Skills fall into a primary scale, three subscales, and eight categories. The primary scale is composed of all 75 test questions. Table 2 displays this general structure.

Table 2. Test Question Type Structure for The GAIN Test of Math Skills

| Scale | Subscale | Category |
| :---: | :---: | :---: |
| Math | Arithmetic | Basic Numeracy |
|  |  | Addition |
|  |  | Subtraction |
|  |  | Multiplication |
|  |  | Division |
|  | Rational Numbers, Operations, \& Charts/Graphs | Operations |
|  |  | Charts \& Graphs |
|  |  | Fractions \& Decimals |
|  | Algebra, Geometry, \&Trigonometry | Pre-Algebra/Algebra |
|  |  | Geometry \& Trigonometry |

Twenty-five test questions appear within the Arithmetic subscale. These test questions evaluate skills dealing with Basic Numeracy (e.g., counting objects and differentiating numbers from objects), and Addition, Subtraction, Multiplication, and Division involving one, two, and three digit numbers and/or currency. Test questions in the Arithmetic subscale are largely concentrated at lower NRS Educational Functioning Levels.

Twenty-four test questions appear within the Rational Numbers, Operations, \& Charts/ Graphs subscale. These test questions evaluate skills dealing with Mathematical Operations (e.g., applying rules associated with the order of operations or making comparisons using inequality/equality symbols), Charts and Graphs (e.g., retrieving and performing calculations on information presented in line or bar graphs), and Fractions and Decimals (e.g., converting percentages to fractions and vice versa). Test questions in the Rational Numbers, Operations, \& Charts/Graphs subscale are largely concentrated at NRS Educational Functioning Levels 3, 4, and 5 (Low Intermediate Basic Education, High Intermediate Basic Education, and Low Adult Secondary Education, respectively).

Twenty-six test questions appear within the Algebra, Geometry, \& Trigonometry subscale. As indicated in Table 2, these test questions evaluate skills dealing with Pre-Algebra, Algebra, Geometry, and Trigonometry. Pre-Algebra and Algebra test questions cover topics such as one- and two-variable equations and word problems that involve (for example) calculating speed and distance. Geometry and Trigonometry questions deal with topics such as working with geometric and trigonometric objects to calculate perimeters, area, or angles. Test questions in the Algebra, Geometry, \& Trigonometry subscale are largely concentrated at higher NRS Educational Functioning Levels.

## GAIN Scale and Subscale Score Ranges

GAIN scores are reported only for skill levels for which a suitable amount of measurement accuracy and precision is present. This is why, for example, the Arithmetic subscale yields scores only for the lower half of the overall score distribution, while the Algebra, Geometry, \& Trigonometry subscale yields scores only for the upper half of the distribution. Arithmetic skills fall at a lower level than Algebra skills, and therefore Arithmetic test questions cannot provide sufficient measurement precision at upper skill levels. The same logic applies to Algebra, Geometry and Trigonometry skills, with respect to lower skill levels. Table 3 presents the defined score ranges for all GAIN scales and subscales.

Table 3. GAIN Scale and Subscale Score Ranges

| Test Scale / Subscale |  | Score Range |
| :---: | :--- | :---: |
| English | English | $200-1000$ |
|  | Grammar/Usage/Style | $345-925$ |
|  | Reading | $265-900$ |
| Math | Math | $200-1000$ |
|  | Arithmetic | $250-580$ |
|  | Rational Numbers, Operations, \& Charts/Graphs | $440-870$ |
|  | Algebra, Geometry, \& Trigonometry | $490-975$ |

Examinees whose skills lie outside of the effective range of a scale or subscale are assigned either the scale minimum or maximum value, as appropriate. For the overall English and Math scales, this corresponds to a score of 200 for the scale minimum and 1,000 for the scale maximum. Subscales are treated similarly, with respect to the subscale minimums and maximums indicated in this table. This means, for example, that a test taker with little or no math skills would likely do poorly on the Algebra, Geometry, and Trigonometry subscale and would thus receive the lowest possible score on this subscale (i.e., a score of 490). Conversely, a test taker with advanced math skills would likely do very well on the Arithmetic subscale and could thus receive the maximum possible score on this subscale (i.e., a score of 580 ).

What the GAIN Does NOT Measure

How the GAIN is Administered and Scored

## Scores by NRS Educational Functioning Level

As a test of Adult Basic Education and Adult Secondary Education, it should be noted that the GAIN is not designed to evaluate test taker skills that fall outside of the range of the six NRS Educational Functioning Levels (e.g., skills that extend beyond Algebra, Geometry, \& Trigonometry). It should also be noted that GAIN scales and subscales are treated separately for scoring purposes.

The GAIN measures the language and math skills described in the six NRS Educational Functioning Levels and used in Adult Basic Education and Adult Secondary Education programs throughout the United States. Educators may directly compare an individual's performance on the GAIN to the English and math skill requirements published by the NRS.

## GAIN Scale Scores

GAIN total scale scores range from 200 to 1,000 points. The various NRS Educational Functioning Levels are associated with particular intervals falling within this range. GAIN scale and subscale scores give educators a way to measure overall progress, as well as progress within a specific content area.

The GAIN uses a broad variety of test question types to measure English and math skills. English test question types range from basic letter and word identification to more advanced grammar, sentence construction mechanics, and reading comprehension. Math test questions range from simple number recognition, addition and subtraction, to word problems, charts, graphs, Algebra, Geometry and Trigonometry. The test questions are carefully arranged based on their difficulty level and content, beginning with minimum literacy/numeracy requirements and progressively increasing throughout the test.

The GAIN measures English and math skills, but not how well a person will be motivated to employ those skills. It does not attempt to diagnose external underlying factors that might impair skill acquisition. It provides recommendations for further study, but it cannot identify disabilities, for example, that might interfere with learning. Individuals who are having difficulty with training materials may require additional assessment to identify factors (e.g., dyslexia, vision problems) that warrant special attention and need to be addressed for an individual to demonstrate progress.

Two English and two math forms of the GAIN were developed for initial release in both paper and Web administration modes. GAIN scoring occurs automatically after a test has been submitted to the Wonderlic Online platform. Online test administrations are submitted immediately upon test completion. Paper-and-pencil administrations are submitted by faxing answer sheets to Wonderlic or mailing answer sheets directly to Wonderlic. Whichever administration method is utilized, results are posted to your Wonderlic Online account within minutes of scoring. Scores on GAIN forms are designed to be psychometrically equivalent, regardless of the particular test form that was used or the administration mode that was employed.

## Section 2

## Proctor's Guide

Getting Started

About Proctor
Training and Becoming a Certified GAIN Test Administrator
(GTA)

The GAIN is comprised of two separate tests: The Test of English Skills and The Test of Math Skills. Each test has two alternate forms:

> > English - Form A and Form B
$>$ Math - Form A and Form B

A complete GAIN administration consists of one English and one math form. Each test requires approximately 5 minutes for instructions and practice questions and then 45 minutes to respond to test questions. Thus, a complete GAIN administration requires 1 hour and 40 minutes. The English test should be administered first, followed by the math test. It is permissible to allow for a break between tests.

The GAIN can be administered online or via paper-and-pencil. Regardless of the method of administration, the GAIN needs to be administered by trained proctors.

The best way to become familiar with the tests and the test administration procedures is to take the test yourself first, before testing anyone else. You need a quiet place where you will be undisturbed, a comfortable place to sit with enough work space and/ or a computer with Internet access, at least two sharp, dark pencils, scratch paper, and for paper-and-pencil test administrations, a timer for the test. This section of the GAIN Administrator's Guide reviews these and other basics to get you started right the first time.

A proctor may administer the test to individuals or groups. It is important to follow GAIN standardized testing instructions carefully in order to accurately measure test takers' English and math skills. Testing instructions are the same regardless of the number of individuals being tested.

As noted in Section One, Wonderlic requires GAIN test administrators to be trained before administering the GAIN. Additionally, Wonderlic requires test proctors to be Wonderlic-certified when GAIN test results are to be used for NRS reporting purposes. This training and/or certification helps to ensure that the GAIN is properly administered.

In order to become a certified Wonderlic GAIN Test Administrator (GTA) one must meet certain eligibility requirements:
$>$ Sponsorship by at least one school that is a current Wonderlic GAIN client
> A working email account
$>$ Achieving a passing score on the Wonderlic GAIN Test Administrator's Examination

The time and effort that a GTA candidate invests in this process reflects their professionalism, their concern for the students seeking to improve their English and math skills in Adult Basic Education programs, and their desire to help ABE and ASE programs improve their outcomes.

About the
Wonderlic
GAIN Test

## Administrator's

Examination

Renewing/ Maintaining GTA Certificates of

Registration

GAIN Test
Administrator
Duties

The GAIN Test Administrator's Examination combines instructions on how to administer the GAIN and an examination to qualify as a GAIN test administrator. By passing this exam, and registering with Wonderlic, one can become certified to administer the GAIN in accordance with U.S. Department of Education regulations that address National Reporting System (NRS) requirements. Even for the experienced test administrator, it is important to complete this process in order to understand the specific requirements for administering the GAIN.

The Examination is an "open book" test that is available as an online assessment, but it can also be administered via paper-and-pencil.

Certified GTAs must renew their Wonderlic Certificate of Registration for the GAIN every other year. Wonderlic will alert GTAs to the recertification requirements before their certification expires. Wonderlic will also provide updates covering changes to procedures that affect test administration, scoring, reporting or interpretation. It is the GTA's responsibility to alert Wonderlic regarding changes in their personal information, such as phone number, address, etc.

Certified GTAs and trained proctors help ensure that each administration of the GAIN provides the most accurate assessment of each test taker's basic English and math skills by taking steps to ensure that test takers are given the opportunity to do their best and to be assessed fairly. Certified GTAs and trained proctors personally oversee every step of the test administration, including:
> Maintaining test security, including keeping all materials and passwords secure.
$>$ Providing satisfactory conditions in the testing room.
$>$ Carefully adhering to the testing procedures including logging in and setting. up the GAIN test administration online, and/or Passing out all paper-andpencil examinations.
$>$ Passing out scratch paper before the testing period starts.
$>$ Giving the instructions for taking the test.
$>$ Logging in and setting up the GAIN test administration online, and/or
$>$ Starting, timing, and stopping the paper-and-pencil administration.
$>$ Being present at all times during the testing.
$>$ Collecting all completed test booklets and answer sheets (paper-and-pencil test administrations).
$>$ Collecting all scratch paper after the testing period is over.
$>$ Checking answer sheets for completeness of test taker identification information (paper-and-pencil test administrations).
$>$ Submitting paper-and-pencil tests properly for scoring.
Each of these functions is important and can have an impact on the accuracy of test scores obtained during a given session. Administrative errors, whether due to unfamiliarity with proper procedure or carelessness, will severely reduce test score accuracy.

Administering the
GAIN

GAIN tests must be administered following the procedures specified by Wonderlic, which state that:
$>$ The use of calculators or other instructional aids is strictly prohibited.
> The GAIN may be administered directly online or in a paper-and-pencil format in a proctored environment.
$>$ Copying, printing or emailing test questions is strictly forbidden.
Specific guidelines for paper-and-pencil test administration state that:
$>$ Tests must be administered in a proctored environment using original test booklets and answer sheets; you may not use photocopied testing materials.
> Test takers must mark answers directly onto the test answer sheet provided by Wonderlic.
> Test takers should also feel free to mark and do manual calculations in the test booklet itself.
$>$ Test booklets may not be reused; used test booklets must be shredded or incinerated.
>All completed answer sheets must be faxed or mailed to Wonderlic for scoring and either the original or a copy retained in the test taker's permanent record folder; alternatively, completed answer sheets can be used for online template scoring before being placed in the test taker's permanent record folder.

## Pretesting to Establish a Baseline

Pretesting is used to establish a baseline for skill measurement. Pretests provide information concerning a test taker's skills before any training has occurred. Pretesting is typically used to identify which particular instructional program is likely to benefit a student the most. Programs may find it helpful to designate particular test forms as initial "pretest" forms to simplify test administration procedures.

## Post-Testing to Formally Evaluate Skill Gain

Post-testing provides information concerning a test taker's skills after training has occurred. By comparing pretest and post-test scores, test users can determine how much learning has taken place. The GAIN report is designed to provide detailed information about the change in an individual's skills from one test administration to the next. Scores are given in terms of NRS Educational Functioning Levels, making it easy to report results to the state and Federal agencies that monitor the effectiveness of the training.

Wonderlic recommends post-testing a student for skills gain only after a minimum of 60 hours of training. When post-testing individuals to measure improvement in their basic skills for NRS purposes, a different test form than the one used to pretest the student must be used, or NRS requirements will not be met. The Post-test may be used as the new pretest for the next phase of instruction.

## Additional Testing

## Retesting to Address an Issue

Retesting is used to address a problem or issue that has disrupted or adversely affected the previous test administration. Retesting can occur relative to a pretest, post-test, or a progress test. Retesting must follow NRS procedural requirements, or the results will be ineligible for NRS purposes. There is no required waiting period for retesting using an alternate test form. The decision about when to retest should be focused on remedying the problem that occurred during the first testing session. While the second test form may be administered immediately following the first, a minimum of a half-hour break is recommended. The exact time between test administrations should depend on the reason for the retest.

If the testing room is subject to constant interruption (e.g., loud construction nearby), it may be advantageous to postpone testing until a more suitable location can be found. If the test taker is ill, the retesting should wait until that individual's health improves. If a problem occurs during an initial pretest, the student should be retested on an alternate form.

If a problem occurs during post-testing, a waiting period of 60 days is required to administer the same test form. If a problem occurs during a progress test, the same test form should be re-administered.

## Progress Testing to Evaluate Skills During the Interim

Progress testing is used to evaluate and monitor interim progress while the person is still in the midst of an instructional program. Administered before the minimum hours of instruction are completed, progress tests can be used to identify whether the current instructional methods are effective or need to be modified to achieve better results. Positive results on a progress test may even serve as motivation for the student to complete the program of instruction.

When administering progress tests, it is very important to ensure that the test administrator is not jeopardizing the testing sequence required for NRS reporting.

## Test administrators should NOT use the Post-test form for progress testing.

Progress testing should rely on the same test form that was used for the pretest.

Progress test results are ineligible for NRS purposes; Federal funds are not allocated on the basis of gains identified during progress testing.

Test Security As a test administrator, your primary concerns regarding test security are: (1) preventing unauthorized access to test materials, (2) knowing what you should do when you believe that a test form or its answers have been made available to one or more of the test takers.

Additionally, you should make every effort to protect the privacy of individual test
takers by maintaining the confidentiality of individual test results and securing both paper and email score reports.

To ensure test security, you must:
$>$ Prevent unauthorized access by maintaining control over passwords and testing materials, preventing individual access to printers or email during the testing session, keeping a count of all test materials while they are in your possession, and initiating a connection to the online testing site only just before a student is scheduled to take a test.
$>$ Personally collect and count all test materials (scratch paper, test booklets, and answer sheets) at the conclusion of the testing session.
$>$ When applicable, personally fax all answer sheets back to Wonderlic for scoring.
$\Rightarrow$ Be present the entire time that test takers are working on the test.
$>$ When proctoring the online version of the test, prevent test takers from accessing external help (i.e., search engines).
$>$ Never review a completed test with a test taker.
$>$ Personally return all unused testing materials to the secure location after testing.

When you believe that a test taker has had access to the test or its answers prior to the testing session, you must consider that individual's test administration as invalid. In such cases, you will need to consider whether retesting the individual is an option (see Retesting). You should also attempt to determine if other test takers have obtained the answers and report the problem to school officials and/or to Wonderlic.

To indicate that a paper-and-pencil test administration is invalid, place a checkmark in the appropriate box on the answer sheet. For online test administrations, send an email to ed.info@wonderlic.com or mark the online record for that particular test taker's test administration.

The Testing Room Testing sessions may be conducted at the school or at another location, but the location must be suitable for the testing because it may have a significant effect on the test taker(s) scores.

Under ideal testing conditions:
$>$ The testing room must be quiet, with no noise or distractions, have good lighting and comfortable seating, and must be closed off from all other activity.
$\Rightarrow$ Each test taker must have adequate work space, including room to use scratch paper for math problem computations, and must be seated at least three feet apart with an empty desk or chair between each person. This is required even if there are cubicle walls between each seat.
$>$ Test takers cannot be allowed to have an opportunity to copy from each
other or discuss test items.
$>$ Test takers must have the opportunity to use each 45-minute timed period to concentrate completely on the test questions without any interruptions.
$\rightarrow$ The test administrator must have a place to sit and observe the test takers without distracting them and must be present at all times during the testing session.
$>$ Test takers must not be allowed to use any outside materials, programs or devices that would give them an advantage (e.g., dictionaries, calculators, digital watches or other electronic devices). No cell phones or MP3 players may be allowed at any time during the testing process, as miniaturized cameras or other scanning devices could allow the theft of test questions or answers.

A separate testing room may not always be available. The proctor must make certain that wherever the testing is conducted, the test takers will be able to devote their complete attention to the test content.

## Conducting the

Testing Session

## Standardized Testing

The GAIN is a "standardized test." This is a very important term and you should understand its meaning and implications for your work as a test administrator.

Standardized tests are tests that are administered and scored in exactly the same way every time. Each person who is tested must take the test under the same conditions: they must receive the same instructions, and they must have the same amount of time to work on the test questions. Each person's test must be administered and then scored by Wonderlic following the same procedures and rules as every other person's test, whether they take the test online or use a paper-and-pencil format.

To measure adult literacy as defined by the NRS EFLs, all test takers must have an equal opportunity to demonstrate their skills no matter where the test is administered. Therefore, the scores on the test must be evaluated the same way at all locations. Wonderlic has very carefully developed a list of procedures and rules for administering the GAIN and submitting it for scoring, whether administered via the Internet or on paper-and-pencil forms. GAIN administration procedures were established based on thousands of test administrations. When the procedures are followed accurately, test scores are psychometrically equivalent across forms, regardless of administration mode, and schools do not have to restrict themselves to one administration mode.

It is very likely that there will be times when you think that a particular situation justifies a modification of the Wonderlic procedures or rules. Although you may wish to give additional instructions, a few extra minutes, or help to clarify the meaning of a particular item for a test taker - this is not appropriate. There is only one correct set of test administration and scoring procedures that was used to develop scoring methods and NRS levels for the GAIN.

## Proper Testing Atmosphere

Testing research shows that test takers do their best when the test administrator is firm, but fair. You must set a tone of authority immediately. A critical duty of the test administrator is to ensure that the tests are administered properly. You will want to be courteous to test takers to help them reduce their natural test anxiety, but you cannot allow any test taker to be disruptive. You can prevent this by immediately asking all test takers to be seated and to be quiet. The proctor should avoid casual conversation that might minimize the importance of the test in the mind of the test taker.

Do not distribute any test materials or allow test takers to use the computers until:
>Everyone understands that this is a testing session to measure English and math skills for placement or for measuring skills improvement. Anyone who is in the testing room by mistake must leave before continuing.
>All test takers have turned off and put away all electronic devices and cell phones. Test takers must also put away all other materials before the testing process may begin.
-All test takers have placed any personal belongings underneath their chairs. Nothing should be on the desk or tabletop, except pens or pencils. Use of any type of calculator is prohibited.
>All test takers are seated approximately three feet apart (one empty seat or desk between each person) and are quiet. Test takers should not sit directly across from one another.
> Test takers are sitting close enough to you to be observed.
Once everyone is quiet, there should be no talking among test takers and you should discuss no subject other than the testing. This is a very important part of helping test takers focus their attention on the test. Individuals who refuse to cooperate should be asked to leave immediately. This is only fair to those who are serious about doing their best on the GAIN to demonstrate their true English and math skills. If a test taker needs to leave during the testing for any reason, no return is permitted until the session is over. If that individual still wishes to be tested, you must retest that individual according to the rules that are presented in the "Retesting" section of this guide.

The proctor should be present as long as individuals have access to testing materials. The proctor's presence in the testing room will help to maintain a quiet atmosphere, keep test takers focused on the test, and discourage cheating. When the proctor believes that a test taker has had access to test questions or answers prior to the test administration, results from the test administration should be considered to be invalid and should be reported to Wonderlic.

Do not allow any interruptions. Once the timed testing period begins, late test takers may not join the testing session. It would be helpful for you to have a large sign with bold print that says, "QUIET - TESTING SESSION IN PROGRESS - DO NOT DISTURB."

If a testing session is interrupted (i.e., the fire alarm goes off), that testing session must be recorded in the testing sequence, but it may not be restarted or continued. You must mark the test as Invalid and retest the test taker according to the retesting rules.

## Monitoring the Timed Test Period

When all preparation and preliminary steps have been completed, and there are no further questions from test takers, you are ready to start the timed portion of the test, making sure to follow the appropriate script below.

To ensure that proper procedures are being followed, the test administrator must remain in the testing room during the timed period and prevent any interruptions. The test administrator may work on some simple paperwork or other quiet task, frequently looking up to observe the test takers (but, don't read a book or partake in any similar activity that may prevent you from giving the testing session adequate attention).

Once the timed testing period begins, there can be no conversation or communication of any kind. Any help to a test taker during this period will invalidate the test score. If a test taker attempts to ask a question, interrupt him or her immediately by saying, "No questions can be asked at this time." If there is any attempt by one test taker to communicate with another, immediately stop it by saying, "There can be no talking or gesturing. If there is any further talking, you will both have to leave and your tests will not count."

Note: There should be no distractions during the two 45-minute timed testing periods. It is not a good idea to walk around the room during the timed test periods. Particularly, do not make any attempt to look at a test taker's test form or computer screen while he or she is working on the test. Also, DO NOT announce a " 5 -Minute Warning" as time runs out, or encourage test takers to guess. These actions will distract the test takers and may lower scores.

Although the testing time for all forms of the GAIN Test of English Skills and Test of Math Skills is 45 minutes each, test takers with high or very low skill levels may finish the test well before the time limit. In this case, you have two options:
>Require all test takers to remain in the testing room for the full 45 minutes, or
>Before you begin the second test, tell test takers that those who finish early may turn in their testing materials and leave, if they do so quietly and do not disturb those who remain.

## Test Order

It is best to administer the English test before the math test. Test takers typically exhibit less fatigue during the testing session when the subtests are administered in this order.

## Appropriate Test Forms

The NRS requires that the adult learner take one form of the test to serve as a baseline pretest and a different form of the test after training is complete to measure skills gain. Rather than tracking each individual separately, many organizations choose specific forms for the two purposes. Make sure that you know what form your organization prefers for your purposes.

GAIN can be administered either online or via paper-and-pencil. Before the testing begins, make certain that you have all necessary materials for the testing mode(s) you will utilize.

## Online Computer GAIN Test Administration

Wonderlic Online is the primary means of administering the GAIN. Before administering the GAIN online, you must be familiar with the proper procedures for the standardized administration of the GAIN via the Internet. This section includes the instructions and script for computer administrations.

Before the testing begins, make certain that you have all necessary materials. Online test administrations require:
$>$ Computer - Be sure that the computer meets all technical requirements (see page 30) and that it is online before the testing session begins.
$>$ Pencils - At least two dark pencils for each test taker (No. 2 pencils are recommended.)
>Scratch Paper
After test takers have read the test instructions and completed the practice problems, be sure to take time to answer any questions they may have before asking them to begin the timed test. This is important because you cannot answer questions once the test begins.

Note: Online test administrations are timed automatically. For a complete list of software requirements for online testing or for assistance with any technical difficulties, please contact Wonderlic Client Services toll-free at (866) 726-7301.

## Script for Online GAIN Administration

1. When the computer test-takers are settled in front of their computers, say: "Please turn off and put away all pagers, cell phones, digital watches or other personal electronic devices as well as any other personal items. The test must be completed without using calculators, dictionaries, or outside help of any kind."
2. When everything has been put away, distribute two dark pencils and some scratch paper to each test taker.

For PIN users (optional)
If students have been pre-registered in Wonderlic Online, and PIN codes for this
test administration have been generated, please hand the PIN instruction sheets to students now.

IMPORTANT NOTE: Test takers who are not literate or have not used computers may need your help to complete the following steps. You may instruct them in how to use the computer to provide responses. You can (and should) help these individuals so that they can access the testing site and so that their name and their requested personal information is entered into the computer. However, you should not help them respond to questions during the timed portion of the test administration.
3. The computers should already be on the Wonderlic Online Welcome screen.

For PIN users (optional)
If you have not set up the computer for the test taker with a PIN code in advance, say: "Please go to the Web address printed on your PIN Instructions sheet. That is: http://www.wonderliconline.com/pinlogin.htm. Then enter your PIN code into the appropriate box and click the submit button one time to get to the Wonderlic Online Welcome page. If anyone needs any help, please let me know, and I will help you."
4. When all test takers are at the welcome screen say:
"You are now ready to begin. Remember to read and follow the directions on each screen. Click the <Next> button on the lower right-hand side of your screen to move forward. Complete the personal information section, read the instructions, and answer the practice questions. When you finish the practice questions, please wait for further instructions before starting the test."
5. When everyone has completed the practice questions say:
"Are there any questions? After the test begins, I will not be able to answer any questions."
6. When all questions have been answered say:
"When the Test of English Skills is complete, you will be asked to continue on to the Test of Math Skills. Please read the instructions, complete the practice questions and complete the math test as well. Click <Begin Test> to start the test now."
7. After both tests have been administered the testing session is complete. For security reasons, it is important to collect all scratch paper before test takers are allowed to leave the testing area.

## Paper-and-Pencil GAIN Test Administration

The GAIN may also be administered via paper-and-pencil with pre-printed test forms obtained from Wonderlic. Before administering the GAIN in a paper-and-pencil format, you must be familiar with the proper procedures for the standardized administration of the GAIN via paper-and-pencil. This section includes the instructions and script for paper-and-pencil administrations.

Paper-and-pencil administrations require:
> Tests - An adequate supply of test booklets and answer sheets for the test forms you intend to administer (e.g., English - Form A, Math - Form A) (Note: No Photocopied Test Booklets are allowed.)
>Pencils - At least two dark pencils for each test taker (No. 2 pencils are recommended).
>Timer - A timer with a bell or signal that can be set for exactly 45 minutes is the best solution for timing the test.

When going over the practice problems, take time to answer any questions that test takers may have before asking them to begin the timed test. This is important because you cannot answer questions once the test begins.

It is important to stress that only answers marked in the "Answer Section" on the answer sheet will count toward their score. If a test taker needs to change any answer, the previous answer must be completely erased.

Note: After the testing session, please make sure that all answers are filled in darkly and completely before faxing an answer sheet in to Wonderlic for scoring.

## Script for Paper-and-Pencil Administration

1. Preset the timer for 45 minutes, but do not start it at this time. Give each test taker the English test packet and two dark pencils.
2. When ready to start the session say:
"Begin by locating the answer sheet. Please fill in the requested information on the first page of the answer sheet, including your name, how many years of education you have had, etc. If you need any help with this please let me know."

Test takers who are not literate may need your help to complete the answer sheet. You may instruct them in how to use an answer sheet. You can (and should) help these individuals so that their name and their requested personal information will appear on the answer sheet. However, you should not help them respond to questions during the timed portion of the test administration.

For PIN users (optional)
"If you have been given a separate sheet with a number labeled "PIN" on it, enter that number in the area on the answer sheet labeled "PIN." When you are finished with this, please put your pencil down and look up."

Note: If you would like test takers to fill in the appropriate User and Job/Program Codes, provide them with this information now.
3. When test takers finish filling out the first page of the answer sheet say:
a. For English Section:
"Please print your name and the date in the spaces provided on the front of
the test booklet. Next, turn to the second page of the answer sheet. The second page has the word 'English' in the upper right corner. On the left side of this answer sheet, please mark the Test Form and Test Date. Next, find the area labeled 'Practice Questions.' Then read the instructions in your test booklet and complete the practice questions by marking your answers in the Practice Questions area on your answer sheet. When you finish the practice questions, put your pencil down and wait for further instructions."
b. For Math Section: (Wait until administering the English section, if you are administering both sections.)
"Please turn to the third page of your answer sheet, which has the word 'Math' in the upper right hand corner. Next, find the area labeled 'Practice Questions.' Then read the instructions in your test booklet and complete the practice questions by marking your answers in the Practice Questions area on your answer sheet. When you finish the practice questions, put your pencil down and wait for further instructions."
4. When everyone appears to have completed the practice questions say: Now, are there any questions about how to take the test? After the test begins, I will not be able to answer any questions."
5. When there are no additional questions, say:
"Please turn the page and begin working on the test questions NOW. You have exactly 45 minutes."

Group testing only:
"If you finish early, then please sit quietly at your desk until the 45 minutes are over."
6. Start the timer. (Note: It is NOT acceptable to disturb test takers with announcements such as a " 5 -Minute Warning" towards the end of the testing period.)
7. When the 45 minutes are up, say:
"Time is up. Please put your pencil(s) down and stop working. Turn over your answer sheet to the Math(English) page. Pass in your English(Math) test booklets to me now. Thank you."

If any test taker continues working, go to that test taker first and collect their test form. If you are administering the second part of the GAIN at this time, you may collect the first test booklets and immediately distribute the next test booklet. If no other test is to be administered, collect all test materials. As you do, look over the answer sheets for any problems you may need to resolve before the test takers leave. Make certain that you have collected and accounted for all the test forms before anyone leaves the testing room.
8. Once all of the test booklets for the first test have been collected and counted, return to Step 3b and repeat the process for the Math test.
9. You may wish to allow test takers that finish the second test before the 45 -minute timed test period is complete to leave the testing room when they are done. If so, before starting the timed section of the second test (i.e., The Test of Math Skills) say: "If you finish before the timed test period is over and have reviewed your answers, you may return your materials to me and leave, if you do so quietly and do not disturb those who remain."
10. When the test booklets, scratch paper and answer sheets for the second test have been collected and counted, the testing session is complete.

Please keep in mind that there should be no interruptions of any kind during the testing session. Anyone who wishes to enter the room must wait until all tests have been collected.

Important note for paper-and-pencil tests:
Paper-and-pencil test answer sheets are ideally completed with pencil, but test takers may also use pen or marker. However, if test takers do not use a pencil, they may not be able to erase answers that they want to change. If your test takers are using pen or marker to fill in the answer sheet you must include the following information in your instructions:
"If you are using something other than a pencil to fill in the squares, and you want to change any of your answers, mark the correct answer and draw an X over the original answer."

You may need to demonstrate this on an actual answer sheet or blackboard.
Then, before mailing or faxing the answer sheets to Wonderlic for scoring, review the answer sheets for boxes that are marked with an X because the test taker changed their original answer. Whenever you find one, you must white out the $X^{\prime} d$ boxes before you submit them to Wonderlic.

Frequently Asked
Questions and
Appropriate
Proctor
Responses

Q: "Why do I have to take this test? I don't do well on tests."
A: "This test helps us to measure your English and math skills so we can make better placement decisions. It is required to participate in this program. Everyone is required to go through the same set of procedures."

Q: "Why can't I just circle the answers in the test booklet instead of filling in the squares on the answer sheet?"
A: "Only answers recorded in the correct location on the answer sheet during the testing period will count toward your score."

Q: "How do I take the test if I do not know how to use a computer?"
A: "The computer skills required for this test are very basic. If you can work through the practice questions at the beginning of the test you have all the computer skills that are required to take this test."

Q: "May I ask a question?" (during the testing period)
A: "There can be no questions or communication of any kind during the test. I'm sorry."

Q: "After the testing is done, can I see which test questions I got right or wrong?" A: "For security reasons, results on individual GAIN questions cannot be shared with test takers." Note: Such a practice would invalidate results from future GAIN administrations and jeopardize the entire testing program. Therefore, discussing test questions with test takers is strictly prohibited.

Proctor's Tips Do
$>$ Log-in and bring the computer to the Wonderlic Online Welcome screen before test takers arrive.
$>$ Make sure test takers are ready before the start of the exam.
$>$ Remind test takers to turn off all electronic devices, including computers and cell phones.
$>$ Ask test takers to complete requested information.
>Review instructions and ask participants to complete the practice questions.
$>$ For paper-and-pencil tests, start the timer exactly when the instruction to begin is given.
>Ask paper-and-pencil test takers to lay down their pencils and stop working after exactly 45 minutes.
$>$ Collect all test-related materials and scratch paper before test takers leave.

## Don't

>Make casual conversation or minimize the importance of the test.
$>$ Forget to turn off your own cell phone, iPod or other electronic devices.
>Let paper-and-pencil test takers open test booklets before they are instructed to do so.
>Engage in conversation, talk on the telephone, or otherwise distract participants during testing.
>Allow participants to continue working after the 45-minute period is over.
>Make announcements regarding time remaining during the timed testing period.
>Discuss test questions with test takers after the testing session has ended.

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Testing
Individuals with
Special Needs
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Identifying
Reasonable
Accommodations

Reasonable accommodation has long been recognized as an essential component of the testing process. Additionally, it is legally mandated under the Americans with Disabilities Act (ADA). While the ADA does not define reasonable accommodation, it provides a list of examples of what might constitute a reasonable accommodation. With respect to testing, the ADA requires that tests be given to people with impaired sensory or manual skills in a format and manner that minimizes the impact of any impaired skill on test results, unless the test is designed to measure that particular skill.

A reasonable accommodation should allow the test score to reflect the test taker's skills rather than reflect the test taker's impairment and should allow the test taker with a disability (or disabilities) to demonstrate his or her skills and abilities more accurately than if no accommodations were allowed. Additionally, a major focus of the ADA is that reasonable accommodation is not effectively addressed by a general policy; rather accommodations are best addressed only on a case-by-case basis.

As a starting point, the test administrator should provide test takers with a description of the GAIN and how it will be administered.

If a test taker requests reasonable accommodation in the testing process based on the information provided, the test administrator may require that the test taker document the fact that she or he has a disability as defined by the ADA and therefore is entitled to reasonable accommodation. The test administrator may also require current documentation concerning the functional limitations that are caused by the disability. Under the ADA, impairment is only a disability if it reaches the level of substantially limiting a major life activity.

Once it has been determined that the test taker has a disability that is covered by the ADA, the test administrator should initiate discussions with the test taker and/or Wonderlic to help identify an appropriate reasonable accommodation. Wonderlic's psychologists are available to assist test administrators with the reasonable accommodation process.

Some specific examples of reasonable accommodations with respect to the GAIN are:
$>$ Providing extra time to complete the GAIN.
$>$ Providing rest breaks for test takers.
$\Rightarrow$ Assuring that the test site is accessible to a person with a mobility issue.

Please refer to the Wonderlic Accommodations Policy for more detailed information about reasonable accommodations with respect to the GAIN.

Scoring the Test The GAIN is scored using an Item Response Theory (IRT) based scoring routine. Each test question is weighted based on its properties, such as the overall difficulty of the question. This allows for a much more precise estimate of an individual's ability than can be obtained with a traditional test.

All GAIN scoring is completed by Wonderlic. Regardless of how test answers are submitted for scoring, logging into your private Wonderlic Online account allows access to results from GAIN administrations.
$>$ You can search a listing of individuals tested at your school and generate and print Individual Score Reports.
> Your private Wonderlic Online account also allows you to track each individual's progress and status.

Wonderlic Education Solutions will provide you with specific training on the use of the Wonderlic Online system, including a user name and password that will allow you to access score information from any location with Internet access, upon your successful completion of the certification process.

## Online Testing

Scoring for Wonderlic tests administered online is automatic. Tests that are taken online are scored almost immediately upon completion and reported in Wonderlic Online. This is one of the important benefits of online test administration.

## Paper-and-Pencil Testing

There are three ways for test administrators to submit the paper-and-pencil GAIN for scoring.

## Faxing GAIN Answer Sheets

Fax scoring was designed to increase the accuracy of paper-and-pencil test scoring and provides data to be reported on your Wonderlic Online account. Administrators can fax answer sheets to (630) 365-9840 for automated scoring. Make sure that all answer sheets contain the User, Job/Program, and Proctor codes that have been provided to you.

## Template Scoring GAIN Answer Sheets

Administrators can enter individual responses into an online data entry template and submit these responses for computerized, automated scoring. Template scoring produces fast, accurate results in Wonderlic Online. Template scoring is available under the "Enter Results" button in your Wonderlic Online account.

## Mailing in GAIN Answer Sheets

Organizations that do not have the ability to fax in their answer sheets or use online Template Scoring may mail original answer sheets directly to Wonderlic where they will be scanned, scored and reported in Wonderlic Online. Administrators can mail
or otherwise deliver (e.g. courier service such as UPS or FedEx) the original answer sheets to Wonderlic, 1795 N. Butterfield Rd, Ste. 200, Libertyville, IL 60048. Postage paid business reply envelopes can be obtained by calling Wonderlic at (800) 323-3742. It is advisable to retain a copy of the answer sheet in the test taker's permanent folder whenever mailing in the original answer sheet.

Please note: In order to ensure compliance and test security, it is recommended that only certified test administrators template score, fax or mail completed answer sheets to Wonderlic.

## Section 3

## GAIN Reports

Online Test Wonderlic Online - our private client platform on the Internet - is the primary means of Administration
and Report Retrieval administering the GAIN, but logging in to your private Wonderlic Online account allows access to results from both online and paper-and-pencil GAIN administrations.

## System Requirements

It is essential that your computer and Internet connection meet the requirements below.

## Required:

Internet Explorer versions 5.5 or higher Cookies, pop-ups and Java script must be enabled Adobe Reader versions 8 or higher

Recommended:
A high-speed Internet connection is highly recommended for timed online test administrations. It is also recommended that the computers have a hard-wired Internet connection as opposed to a wireless connection.

## Accessing Test Results

Test results are always available on your Wonderlic Online account. This simple, intuitive interface allows for immediate access from any Internet connection and permanent record keeping of all test administrations. Wonderlic staff will set up your account and provide your Username and Password during your Wonderlic Online training session. Test reports may also be printed and put into each student's file.

Interpreting
Results - GAIN
Reports

GAIN Cutoff Scores for NRS Reporting, Skill

Evaluation, and Training

Placement

The GAIN provides score reports that convey important information regarding current levels of basic skills proficiency and suggestions for instruction.

The following score ranges are used for decision making pertaining to Educational Functioning Levels. With respect to these score ranges, the column labeled 'Assigned Educational Functioning Level' indicates the level that would be assigned for NRS purposes. The column labeled 'Demonstrated Competence' indicates the level of competence achieved, and the column labeled 'Training Placement' indicates the recommended level for training purposes.

| Score <br> Range |  | Assigned Educational <br> Functioning Level | Demonstrated Competence | Training Placement |
| :---: | :---: | :---: | :---: | :---: |
| English | 200-297 | 1 - Beginning ABE Literacy | -- | 1 |
|  | 298-406 | 1 - Beginning ABE Literacy | 1 | 2 |
|  | $407-525$ | 2 - Beginning Basic Education | 2 | 3 |
|  | 526-661 | 3 - Low Intermediate Basic Education | 3 | 4 |
|  | 662-746 | 4 - High Intermediate Basic Education | 4 | 5 |
|  | 747 - 870 | 5 - Low Adult Secondary Education | 5 | 6 |
|  | 871-1,000 | 6 - High Adult Secondary Education | 6 | 6+ |


|  | Score <br> Range | Assigned Educational Functioning Level | Demonstrated Competence | Training Placement |
| :---: | :---: | :---: | :---: | :---: |
| Math | 200-227 | 1 - Beginning ABE Literacy | -- | 1 |
|  | 228-314 | 1 - Beginning ABE Literacy | 1 | 2 |
|  | $315-522$ | 2 - Beginning Basic Education | 2 | 3 |
|  | 523-669 | 3 - Low Intermediate Basic Education | 3 | 4 |
|  | 670-775 | 4 - High Intermediate Basic Education | 4 | 5 |
|  | 776-854 | 5 - Low Adult Secondary Education | 5 | 6 |
|  | 855-1,000 | 6 - High Adult Secondary Education | 6 | 6+ |

The first table indicates, for example, that an individual with an English score of 455 would be assigned to Educational Functioning Level 2. This individual has demonstrated competency with the English skills associated with Beginning Basic Education (Level 2), and is ready for training at the Low Intermediate Basic Education level (Level 3).

Similarly, the second table indicates that a test taker with a Math score of 535 would be assigned to Educational Functioning Level 3. This individual has demonstrated skills at the Low Intermediate Basic Education level (i.e., Level 3), and would receive the greatest benefit by receiving training at the High Intermediate Basic Education level (Level 4).

Individual Report The GAIN Individual Report contains five sections (six if warning messages are present):

The first section presents information concerning the test taker's identity and the details associated with the test administration (e.g., name, ID\#, program, date, test form(s) and test administrator).

The second section, "Educational Functioning Level", displays the test taker's NRS Educational Functioning Level (EFL) for both English and math skills in two large boxes. The colored arrows in the upper portion of the boxes provide a graphical representation of the EFL assignment(s) for the current test administration. These are the levels to be used for official NRS reporting purposes. Grayed-out arrows indicate the EFL assignment(s) from the previous administration (if applicable). In the area below the arrows, the large numbers reported in the "step" graph are based on the current test administration. In the step immediately following the one with the large number, shading indicates the test taker's performance relative to demonstrating the skills necessary to achieve the next Educational EFL.

The third section, "Scale Scores", represents GAIN total scale and subscale scores from the current administration with colored arrows on a sliding graph. If applicable, a grayedout arrow will indicate the score from the previous administration. Subscales generally measure only a part of the range measured by the total score. For example, "Arithmetic" covers skills on the lower end while "Algebra" measures skills on the upper end. Therefore, it is possible for a higher ability test taker to achieve the maximum Arithmetic subscale score, but only reach the midrange of the Algebra subscale score, whereas a lower ability test taker may not score well on either subscale. It should be noted that the English Total and Math Total scores do NOT represent the average of the respective subscale scores; the scoring algorithms operating behind the GAIN are considerably more sophisticated.

The fourth section, "Current Performance", appears on the top of the second page. This section shows how well the test taker performed on specific skill areas for the current administration. It indicates the number of test questions answered correctly, the total number of questions, and the percent correct within each specific skill.

The fifth section, "Instructional Needs", is designed to help instructors plan training for that test taker. The "Topics for Review" cover specific English and math topics where errors were made in levels for which the test taker has already demonstrated competence. The "Topics for Study" identify the skills the test taker needs to learn in order to master the next NRS skill level. The information provided in this section is directly related to questions that were answered incorrectly during the GAIN administration.

A sixth section, "Warnings", is reserved to display warning messages if any issues have been detected with respect to the test administration (e.g., dropped Internet connection). Examples of specific warnings and how to interpret them will be covered in greater detail during a separate Wonderlic Online User Training session. Note that if warnings are present, they will be listed on a third page, and they will also be indicated in the Educational Functioning Level section.

Sample GAIN
Individual Report
(page 1)

## Smith, William P

ID: 123456789 FACILITY NAME: Lakes Community College

TEST ADMINISTRATOR: Dee Williams

## EDUCATIONAL FUNCTIONING LEVEL



SCALE SCORES



## INSTRUCTIONAL NEEDS

## English Topics for Review

- Information Retrieval: Identify parts of complete mailing address with phone number
- Verb Forms: Choose correct form of regular verb (simple present tense)


## English Topics for Study

- Proofreading: Find error (regular/irregular verbs, present/ simple past tenses, negative contraction)
- Sentence Structure: Identify a complete sentence
- Words in Context: Determine from context the meaning of a relatively sophisticated word
- Reading Comprehension: Distinguish between facts and opinions in simple prose

Math Topics for Review

- Subtraction: 2 digit - 2 digit, with borrowing
- Subtraction: 3 digit - 3 digit
- Currency: Compute remaining amount after purchase
- Multiplication: 1 digit x 1 digit


## Math Topics for Study

- Equalities: Multiple operations involving Addition in parentheses and Division
- Inequalities: Use Multiplication and Division, apply correct inequality symbol
- Fractions: Describe sectors in pie chart as fraction
- Word Problem: Multiplication (2 digit $\times 1$ digit)


## Section 4

## Summary of Technical Information

Overview

Developing the GAIN

Test Question Development

The technical information provided in this Administrator's Guide is designed for general use. A technical manual is available for professionals in test development, educational psychology, industrial/organizational psychology, and related fields. This technical manual discusses the extensive and rigorous development of the GAIN, and it presents supporting evidence for the strong reliability and validity of the measure.

The manual provides, for example, the Scale and Subscale Information Curves, Scale and Subscale Standard Error Distributions, Scale and Subscale Characteristics Curves, Norm Tables, and additional psychometric information that is of particular interest to the aforementioned professional groups. The following provides a brief summary of selected findings that are reported in greater detail in the GAIN Technical Manual.

The GAIN incorporates a number of advances in the field of psychometrics which can only be implemented through computerized scoring of the test. While classical test theory generally calculates an individual's score by summing the number of correct responses based upon a scoring key, Item Response Theory (IRT), the theory of test construction that guided the development of the GAIN, uses test question characteristics and an individual's pattern of responses to test questions to provide a more accurate estimate of skill levels. IRT models help create scoring algorithms that factor in the likelihood of guessing, fine tune scores based on test question difficulty levels, and estimate the error present at each skill level.

The actual construction of tests was guided by the National Reporting System (NRS) Educational Functioning Levels for Adult Basic Education and Adult Secondary Education, as well as knowledge gained from existing Wonderlic Basic Skills Test question types.

More than 1,500 new test questions were written to measure the various English and math skills defined in each of the six NRS Educational Functioning Levels. Test question writers considered numerous goals such as the following:
$\Rightarrow$ GAIN test questions across forms need to be as parallel as possible in terms of content and difficulty to promote the psychometric equivalence of the test.
$>$ GAIN test questions should treat protected groups fairly.
$>$ Each GAIN test question must conform to professional and technical standards for sound test development.
$>$ All GAIN test questions should be geared for adults in the working world rather than children in school.
$>$ New GAIN test question types need to be developed for Level 1 literacy that requires minimal skills to understand the question being asked.
$>$ GAIN test question types need to be suitable for both Web-based testing and paper-and-pencil testing with fax-back scoring.
$>$ GAIN test questions need to be appropriate given the time constraints of the test (e.g., keep test questions concise and of similar length).

English test questions were reviewed by a panel of 19 qualified Subject Matter Experts (SMEs), the majority of whom possessed Masters degrees or Doctorates in English education or a related field. All had experience teaching English in Adult Basic Education, Adult Secondary Education, or English as a Second Language classes. Some SMEs were experts in curriculum development and ABE program management, while others were experts in the use of the NRS levels in Adult Education environments. Math test questions were reviewed by a panel of 24 experts with similar qualifications in the area of math. All test questions were reviewed for their content and difficulty with respect to the six NRS Educational Functioning Levels. Test questions used in the final GAIN forms were determined to be appropriate for measuring the skills identified by the NRS level descriptors.

Fairness and
Sensitivity

Field Testing of the GAIN

Construct Validity The Standards for Educational and Psychological Testing state that validity is "the degree to which all the accumulated evidence supports the intended interpretation of test scores for the proposed purpose" (AERA, APA, NCME, 1999, p11).

Construct validity evidence for the GAIN was obtained through two separate studies. The first examined the relationship between GAIN scores and scores on another measure of English and Math skills, the Test of Adult Basic Education (TABE) (CTB/ McGraw-Hill, 1994). The second examined the relationship between GAIN scores and teacher evaluations of students' English and math competency levels.

## The GAIN and the Test of Adult Basic Education (TABE)

A study featuring data from 199 usable cases was conducted to understand the relationship between GAIN English and Math scores, and corresponding scales from the TABE.

Findings from this study revealed a strong correspondence between GAIN and TABE scale scores. GAIN English scores significantly correlated with TABE Language ( $r=$ $.78, \mathrm{p}<.001, \mathrm{~N}=84$ ) and Reading ( $\mathrm{r}=.81, \mathrm{p}<.001, \mathrm{~N}=101$ ) scale scores. Significant correlations were also found between GAIN Math scores and TABE Total Math scale scores ( $r=.77, p<.001, N=96$ ). The magnitude of these relationships is remarkable given the fact that the TABE data was gathered after the fact from student files and that no statistical controls were possible with respect to time differences between the dates of the TABE and the GAIN test administrations. The above reported correlations also do not employ any corrections for unreliability or range restriction. Correcting for these factors would have yielded correlations that were higher in magnitude. This finding provides strong evidence of convergent validity between the GAIN and the TABE.

## The GAIN and Teacher Evaluations of Student Competence

The GAIN Teacher Evaluation Study was designed to collect construct validity evidence concerning the relationship between GAIN scores and teacher evaluations of student English and math performance. Teachers were given a list of their students who had been tested with the GAIN and asked to indicate which NRS Educational Functioning Level best described their students' performance at the time when the GAIN was administered. Teachers responded with appropriate evaluation data for 267 cases. These teacher ratings were correlated with GAIN English and math scores for the first test form completed by the student during the Final Form Evaluation stage of test development. Reliance on the first test form is based on the fact that this condition would most closely match how the test would be implemented in practice.

Results from this study indicated that GAIN scores and teacher evaluations of student performance were significantly related. The correlation between GAIN English scores and teacher ratings was .65 ( $\mathrm{p}<.01$, two-tailed, $\mathrm{N}=117$ ), while the correlation between GAIN Math scores and teacher ratings was 64 ( $\mathrm{p}<.01$, two-tailed, $\mathrm{N}=150$ ). These results indicate that higher GAIN English and Math scores were associated with higher teacher ratings of student performance. Results support the construct validity of the GAIN.

Reliability Tests are designed to provide accurate and reliable measurements of individual characteristics. The Standards for Educational and Psychological Testing ("Standards") state that reliability "refers to the consistency of such measurements when [a] testing procedure is repeated on a population of individuals or groups." (AERA, APA, NCME, 1999, p25). Reliability is thus concerned with the stability of scores that are used to describe individual characteristics. Closely associated with the concept of reliability is the concept of measurement error. Measurement error brings instability in varying degrees to test scores, depending upon the nature and severity
of the error. Sources of error can arise within individual test takers themselves (e.g., fatigue, illness), from conditions in the testing environment (e.g., noise, distractions), and from characteristics of the test itself (e.g., differences among test questions, form differences). The Standards note that "there is no single, preferred approach to quantification of reliability. No single index adequately conveys all of the relevant facts." (AERA, APA, NCME, 1999, p31). The following describes the reliability of the GAIN under various conditions and using a variety of indices.

## Internal Consistency Reliability

Cronbach alpha coefficients were computed to determine the internal consistency reliability of GAIN scales and subscales. This analysis relied on data collected during the Final Form Evaluation stage of test development. All scales and subscales displayed reasonable reliability levels. The English total scores displayed internal consistency reliabilities of .96 and .97 for the two GAIN English forms ( $N=784$ ), while the Math total scores displayed internal consistency reliabilities of .94 for both GAIN Math forms ( $\mathrm{N}=783$ ). Subscale reliabilities were reduced relative to the total scale reliabilities, but were still large in magnitude (. 93 and above for the English forms, 82 and above for the Math forms).

## Parallel Forms Reliability

Parallel forms reliability coefficients were calculated on a subset of the Final Form Evaluation field test sample. This subset was based exclusively on test takers from the overall sample who completed both parallel forms of a given test (English or Math) within a three-day period. Within this subset, over $95 \%$ of test takers had completed both parallel forms on the same day. The parallel forms reliability coefficients for the English and Math overall scores were .93 and .91 , respectively, with sample sizes equal to 770 and 777 .

Taken as a whole, research findings indicate that the GAIN possesses strong reliability levels and low susceptibility to measurement error. The reliability levels achieved for GAIN English and Math overall scores fell within the "high" range discussed by Sticht (1990) in his review of measures of adult basic education and English as a Second Language.

## APPENDIX A

Educational Functioning Level Descriptors - Adult Basic Education and Adult Secondary Education

| Literacy Level | B |
| :---: | :---: |
| LEVEL |  |
|  |  |
| Beginning |  |
| ABE |  |
| Literacy |  |
| (grade level 0-1.9) |  |

Basic Reading and Writing
Individual has no or minimal reading and writing skills. May have little or no comprehension of how print corresponds to spoken language and may have difficulty using a writing instrument. At the upper range of this level, individual can recognize, read, and write letters and numbers but has a limited understanding of connected prose and may need frequent re-reading. Can write a limited number of basic sight words and familiar words and phrases; may also be able to write simple sentences or phrases, including very simple messages. Can write basic personal information. Narrative writing is disorganized and unclear, inconsistently uses simple punctuation (e.g., periods, commas, question marks), and contains frequent errors in spelling.
Individual can read simple material on familiar subjects and comprehend simple and compound sentences in single or linked paragraphs containing a familiar vocabulary; can write simple notes and messages on familiar situations but lacks clarity and focus. Sentence structure lacks variety, but individual shows some control of basic grammar (e.g., present and past tense) and consistent use of punctuation (e.g., periods, capitalization).
Education
(grade level 2-3.9)
$\square$


Low
Intermediate
Basic
Education
(grade level 4-5.9)
Individual can read text on familiar subjects that have a

## LEVEL

 3 simple and clear underlying structure (e.g., clear main idea, chronological order); can use context to determine meaning; can interpret actions required in specific written directions; can write simple paragraphs with a main idea and supporting details on familiar topics (e.g., daily activities, personal issues) by recombining learned vocabulary and structures; and can self and peer edit for spelling and punctuation errors.- 

LEVEL
Individual is able to read simple descriptions and narratives on familiar subjects or from which new vocabulary can be


High
Intermediate
Basic
Education
(grade level 6-8.9)

LEVEL
Individual can comprehend expository writing and identify spelling, punctuation, and grammatical errors; can comprehend a variety of materials such as periodicals and nontechnical journals on common topics; can comprehend library reference materials and compose multiparagraph essays; can listen to oral instructions and write an accurate synthesis of them; and can identify the main idea in reading selections and use a variety of context issues to determine meaning. Writing is organized and cohesive with few mechanical errors; can write using a complex sentence structure; and can write personal notes and letters that accurately reflect thoughts.
Individual can comprehend, explain, and analyze information from a variety of literacy works, including primary source materials and professional journals, and can use context cues and higher order processes to interpret meaning of written material. Writing is cohesive with clearly expressed ideas supported by relevant detail, and individual can use varied and complex sentence structures with few mechanical errors.

## Numeracy Skills

Individual has little or no recognition of numbers or simple counting skills or may have only minimal skills, such as the ability to add or subtract single digit numbers.

Functional and Workplace Skills
Individual has little or no ability to read basic signs or maps and can provide limited personal information on simple forms. The individual can handle routine entry level jobs that require little or no basic written communication or computational skills and no knowledge of computers or other technology.

Individual can count, add, and subtract three digit numbers, can perform multiplication through 12, can identify simple fractions, and perform other simple arithmetic operations.

Individual can perform with high accuracy all four basic math operations using whole numbers up to three digits and can identify and use all basic mathematical symbols.

Individual can perform all four basic math operations with whole numbers and fractions; can determine correct math operations for solving narrative math problems and can convert fractions to decimals and decimals to fractions; and can perform basic operations on fractions.

Individual can perform all basic math functions with whole numbers, decimals, and fractions; can interpret and solve simple algebraic equations, tables, and graphs and can develop own tables and graphs; and can use math in business transactions.

Individual can make mathematical estimates of time and space and can apply principles of geometry to measure angles, lines, and surfaces and can also apply trigonometric functions.

Individual is able to read simple directions, signs, and maps, fill out simple forms requiring basic personal information, write phone messages, and make simple changes. There is minimal knowledge of and experience with using computers and related technology. The individual can handle basic entry level jobs that require minimal literacy skills; can recognize very short, explicit, pictorial texts (e.g., understands logos related to worker safety before using a piece of machinery); and can read want ads and complete simple job applications.
Individual is able to handle basic reading, writing, and computational tasks related to life roles, such as completing medical forms, order forms, or job applications; and can read simple charts, graphs, labels, and payroll stubs and simple authentic material if familiar with the topic. The individual can use simple computer programs and perform a sequence of routine tasks programs and perform a sequence of routine tasks
given direction using technology (e.g., fax machine, computer operation). The individual can qualify for computer operation). The individual can qualify for
entry level jobs that require following basic written instructions and diagrams with assistance, such as oral clarification; can write a short report or message to fellow workers; and can read simple dials and scales and take routine measurements.
Individual is able to handle basic life skills tasks such as graphs, charts, and labels and can follow multistep diagrams; can read authentic materials on familiar topics, such as simple employee handbooks and payroll stubs; can complete forms such as a job application and reconcile a bank statement. Can handle jobs that involve following simple written instructions and diagrams; can read procedural texts, where the information is supported by diagrams, to remedy a problem, such as ported by diagrams, to remedy a problem, such as
locating a problem with a machine or carrying out locating a problem with a machine or carrying out learn or work with most basic computer software, such as using a word processor to produce own texts, and can follow simple instructions for using technology.
Individual is able or can learn to follow simple multistep directions and read common legal forms and manuals; can integrate information from texts, charts, and graphs; can create and use tables and graphs; can complete forms and applications and complete resumes; can perform jobs that require interpreting information from various sources and writing or explaining tasks to other workers; is proficient using computers and can use most common computer applications; can understand the impact of using different technologies; and can interpret the appropriate use of new software and technology.
Individual is able to read technical information and complex manuals; can comprehend some college level books and apprenticeship manuals; can function in most job situations involving higher order thinking; can read text and explain a procedure about a complex and unfamiliar work procedure, such as operating a complex piece of machinery; can evaluate new work situations and processes; and can work productively and collaboratively in groups and serve as facilitator and reporter of group work. The individual is able to use common software and learn new software applications; can define the purpose of new technology and software and select appropriate technology; can adapt use of software or technology to new situations; and can instruct others, in written or oral form, on and can instruct others, in writt
software and technology use.


[^0]:    ${ }^{1}$ American Educational Research Association, American Psychological Association, \& National Council on Measurement in Education. (1999). Standards for Educational and Psychological Testing. Washington, DC: American Educational Research Association.

