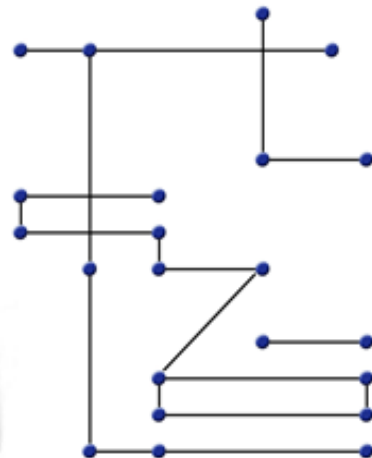
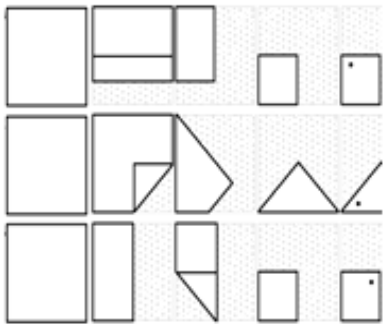
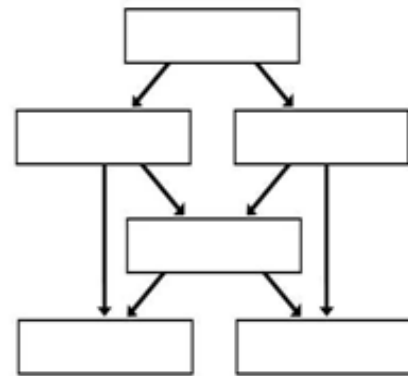
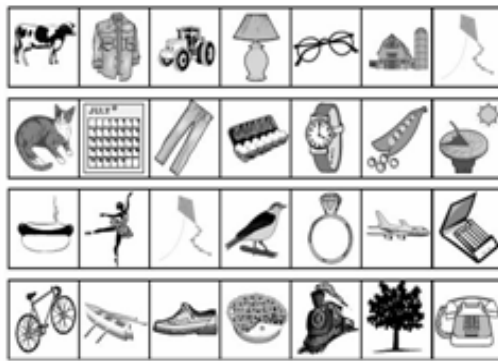
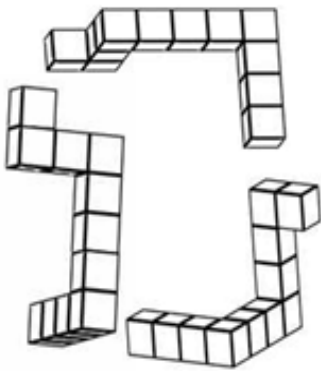


Performance



The True Test of Natural Abilities



THE HIGHLANDS COMPANY

PUBLISHER OF THE HIGHLANDS ABILITY BATTERY™

A REVIEW OF PERSONAL ASSESSMENTS

By Lazar Emanuel

In any inquiry into assessments of human attributes, it's essential to compare like with like. There are at this date at least seven distinctive types of assessments. Each type is different in focus and execution from the others and each has a distinctive purpose. The seven types are:

- Natural Abilities
- Personal Style
- Interests
- Skills
- Values
- 360 multi-rating
- Emotional Intelligence

Since the middle of the last century, researchers have been at work designing a test or tests that would show everyone the way to his or her most productive and satisfying work. Their research has led them in many different directions. As a result, we now have an impressive list of what are generally called assessments or self-assessments. The various assessments are designed to capture and measure the elements that make for our individual differences.

In this paper, we will confine ourselves to the first two types of assessments on our list – assessments of Natural Abilities and assessments of Personal Style. The reason we pick these two is that they rely on two very different approaches and report two very different results. Assessments of Natural Abilities require PERFORMANCE of virtual worksamples that test abilities and report the level of the test-taker's performance in that ability. Assessments of Personal Style require a choice of pre-formatted responses to prescribed questions designed by the publisher and report how those responses fit into a series of pre-determined personality profiles.

It's important not to confuse the two. They are very different.

PART I – NATURAL ABILITIES – ASSESSMENT THROUGH PERFORMANCE

That Natural Abilities can be measured by asking people to perform specific mental and physical tasks or functions is now an accepted fact. It's also true that virtually the same performance can now be duplicated and measured ONLINE by the skillful construction of functional virtual worksamples.

We know, for example, that the manipulation of building blocks in space is one of the tests for ability in engineering or architecture. If we can create a timed worksample which recognizes and measures the relative ability of online test-takers to see and move building blocks in space, we will have created a reliable virtual measure of spatial orientation. The Highlands Ability Battery has done exactly that.

When immigrants from Europe arrived at Ellis Island almost a century ago, America was a very different place. Many new immigrants went to work in factories making dresses, or shirts, or fur coats. As many as 150 women would work together in one large room. In New York City, one entire area became known as "The Garment District." The City supplied 90% of the country's clothing.

What was the measure then of a "good dressmaker" or a "good cutter"? In a market without any restraints or controls and without unions – a "free" market – the measure was composed of two factors – quality and speed. Quality was in the eye of the beholder – usually the owner of the factory or his foreman, or a fashion designer. Speed was determined in a very simple way – the more shirts or dresses you could make in a day, or the more pieces of fur you could cut, the more you got paid. Thus were created the terms "piece work" and "pay by the piece".

How natural, then, that quality and speed should become the measures of good performance. And how natural that workers recognized for the quality and speed of their work should be rewarded with extra pay and with the appreciation of their employers.

The concept of "piece work" was not confined to the garment trades. Because it constitutes performance-related pay, it was first introduced in the Middle Ages when people came together to form settlements and communities. When manufacturing was introduced, many of the parts for machines were made at home and assembled in small factories.

In the US, performance-pay is used for farm workers and for people who work at home, such as writers, editors, proof-readers, translators, customer service reps and telemarketers.

In the middle of the last century, the leadership at General Electric decided that if employees could be matched to jobs and positions that best suited their natural abilities and were trained or retrained to work at those jobs, it would benefit both the company and its employees. In 1922, GE asked Johnson O'Connor, a company psychometrician, to develop an in-house program called the "human engineering project." This led O'Connor into a study of inborn aptitudes and to the development of aptitude tests that he called "worksamples." Using empirical research, O'Connor developed data for specific human abilities to which he gave such labels as "Graphoria," "Ideaphoria," and "Structural Visualization". He became one of the first researchers to offer proof that some aptitudes are in fact innate. For example, he showed that a person with talent for retaining numbers can adjust much more quickly and easily to mathematical formulas and principles than those whose aptitudes in this area are limited.

Performance assessments like the Highlands Ability Battery, a successor to O'Connor's research, test a broad range of natural human abilities by requiring test-takers to perform a series of mental and physical functions. These tests recognize that some people have the natural ability to repair an intricate piece of machinery, or to solve an abstract problem, and that some find those tasks more difficult. They establish that every individual is born with a pattern of abilities unique to him or her, that those abilities are essentially hard-wired, and that they can be measured successfully when the individual is sufficiently mature to manifest or express them – usually, after the age of fifteen.

THE HIGHLANDS ABILITY BATTERY

The Highlands Ability Battery measures such basic human aptitudes as visual speed and accuracy; ability to work with numbers and designs; inductive reasoning; analytical reasoning; idea flow; verbal aptitude; structural visualization; musical aptitude; and several applications of memory. It is different from the other performance assessments in that it also measures the test-taker's vocabulary level. Although we cannot call the level of a person's vocabulary a natural ability, we have come to recognize it as the best single predictor of occupational success in many areas, e.g., law and business. In some instances, the lack of a suitable vocabulary can make a job impossible.

The Highlands Ability Battery began as a series of worksamples requiring completion by pencil on paper. In 1999, the Highlands Company developed a computerized CD version of the Battery. The CD Battery consists of nineteen worksamples and replicates the critical tasks on the original paper and pencil test. The CD enables each client to complete the test on his own PC and to obtain a bar chart and report displaying and analyzing his or her scores. At the same time, the report is transmitted to a Highlands Affiliate, who interprets

the results in the feedback conference which follows. Since its introduction in 2001, many thousands of individuals have completed the Highlands CD Battery and received their feedback.

On June 1, 2004, the Company introduced the Online Highlands Ability Battery. It is the only Performance-based assessment of natural abilities on the Internet. All the worksamples on the Battery require performance. The Battery can be completed on any computer – PC or Mac – with access to the Internet. It takes three hours to complete and leads to a 30-40 page report and a two-hour feedback conference.

None of the other performance-based assessments is offered on the Web. They are offered in paper only. Great care has been taken to make the Highlands Battery available under ideal circumstances. All the test-taker needs to register is an individual code number. Once he has that, he is able to complete the Battery in one sitting. But he is not required to finish in one sitting. Instead, he may finish one or two worksamples and come back whenever he wishes for the others.

When the Battery is completed, the Company arranges a two-hour feedback conference with one of its 200+ certified Affiliates. All Affiliates have received intensive training in the interpretation of each of the eighteen worksamples of the Battery.

OTHER ASSESSMENTS OF NATURAL ABILITIES

Several other publishers have utilized the research of Johnson O'Connor and others to design and offer assessments based on the performance of worksamples. The essential difference between Highlands and the others is that Highlands is the only publisher offering a Web-based version of ability worksamples. The others continue to rely on performance with paper-and-pencil. The other critical differences between Highlands and the others are that Highlands offers three worksamples measuring music abilities and a worksample measuring vocabulary.

The other publishers of assessments offering performance-based measures of natural abilities are:

Johnson O'Connor Research Foundation. The Foundation continues to utilize worksamples designed by Johnson O'Connor. These are performed with paper and pencil. The Foundation functions as a non-profit research organization, with testing centers in eleven American cities. Clients are required to take the assessment at one of the Foundation's testing centers. The assessment is conducted over two sessions, each about three-and-a-half hours long. A follow-

up evaluation conference takes one to one-and-a-half hours. The Conference is conducted by an employee of the Foundation. As of June 1, 2010, the cost of assessment and conference was raised to \$750 in New York and \$675 in all other centers.

The Rockport Institute. The battery of ability-measuring worksamples offered by Rockport consists of a series of tests, each modeled on the research of O'Connor and others, and each constituting a distinct worksample. The tests are printed and performed on paper. Instructions for each worksample are conveyed on a CD which is shipped with the worksamples. The worksamples are timed, and the CD instructions tell you when to start and when to stop. Because the battery is completed privately and there is no proctor or monitor with a stop watch, timing can be unreliable. The battery of tests costs \$540, which includes a report and feedback consultation. The battery does not include a test of the client's vocabulary level or an assessment of the client's musical aptitudes.

Ball Aptitude Battery. The Ball Aptitude Battery, which consists of a series of aptitude worksamples, is offered to the public through Career Vision, a division of the Ball Foundation. As used by Ball, "aptitudes" is another name for natural abilities. The Foundation offers the Battery under three different packages. Although one of the FAQs on the Foundation's website is: "How much does an Advantage Package cost," the question is never answered directly. Instead, the Foundation offers three different packages, one of which – the Gold Package – offers an assessment of twenty worksamples and a three-hour interactive conference. The cost associated with each package is not displayed on the publisher's website, but it apparently varies, and, including a live in-office consultation, ranges from \$470 to \$550.

AIMS (Aptitude Inventory Measurement Service) is a non-profit testing and scientific research facility located in Dallas, Texas, where the tests are held. The service uses the information from its tests for research, and to enable clients to use the information in making college and career decisions. The worksamples range from measuring how easily a person works with small tools (one of the essential abilities of a surgeon) to how quickly a person can draw conclusions from bits of information (an essential ability for an investigator or lawyer). The tests use earphones, computers and paper-and-pencil. They are divided into two 4-hour test periods and one 3-hour review and consultation. The cost per individual is \$775.

PART II – ASSESSMENTS OF PERSONAL STYLE

Personal style assessments do not claim to measure abilities. They do not require performance of worksamples. They are essentially self-report instruments in which the test-taker determines the answers by choosing among several possibilities. They ask a number of questions, each anticipating one or several fixed responses. They depend on the relation between question and response to determine how the test-taker manifests such elements of his or her personality as these:

- Do you prefer to be with others, or to be alone?
- At a party, do you interact with strangers, or with a few friends?
- Are you more comfortable making value judgments, or critical judgments?
- Do you get along better with imaginative people, or with realistic people?
- Does following a schedule appeal to you, or make you uncomfortable?

Some Personal Style assessments also ask the test-taker to select which of two words “appeal” to him more or “describe” him better. The answers are distributed through a data base that ostensibly enables the publisher to separate people into various personality types.

Many observers have questioned the value of Personal Style assessments in the workplace.

Over the last 25 years, a number of researchers have investigated the validity of personality measures for personnel selection purposes. The overall conclusion is that the validity of personality as a predictor of job performance is fairly low and probably not much better than the unstructured interview. In general, personality inventories are only modest predictors of diverse measures of job performance across all job families (e.g., managerial, sales, clerical/administrative). *Nowack, K. (1997). Personality Inventories: The Next Generation. Performance in Practice, American Society of Training and Development, Winter 1996/97*

The publishers of assessments measuring personal style include:

Myers-Briggs Type Indicator (MBTI). This is the most widely used of all the personality type measures or “indicators” as they are called by CPP, the publisher of MBTI.

The MBTI instrument searches for client preferences in the question-and-answer format and “does not measure trait, ability, or character.” The MBTI tool is different from many other [psychological instruments](#) and also different from other personality tests. (Source: MBTI Basics, www.myersbriggs.org.)

The assessment is based on the Jungian theory that everyone falls into one of four Personality Types, within the following limits:

Extroversion (E) or Introversion (I);
Sensing (S) or Intuition (N);
Thinking (T) or Feeling (F);
and Judging (J) or Perceiving (P).

The types are then combined in the following 'type table':

[ISTJ](#) [ISFJ](#) [INFJ](#) [INTJ](#) [ISTP](#) [ISFP](#) [INFP](#) [INTP](#)
[ESTP](#) [ESFP](#) [ENFP](#) [ENTP](#) [ESTJ](#) [ESFJ](#) [ENFJ](#) [ENTJ](#)

Each four-letter type is then defined and described. One example (ENTJ):

[ENTJs] Frank, decisive, assume leadership readily. Quickly see illogical and inefficient procedures and policies, develop and implement comprehensive systems to solve organizational problems. Enjoy long-term planning and goal setting. Usually well informed and well-read; enjoy expanding their knowledge and passing it on to others. Forceful in presenting their ideas.

According to the publisher, all sixteen types are different but equal. "The goal of knowing about personality type is to understand and appreciate differences between people. As all types are equal there is no best type." Clients receive a 3-page description of their best-fit type and learn about their type preferences.

Interpretation of a client's results is supplied by certified practitioners who are specially trained and must hold a Master's degree or higher in psychology, counseling, organizational development or a related field. Several Highlands Affiliates have been trained and certified as MBTI practitioners. Some of them combine the client's results in MBTI with his results on the Ability Battery in the feedback conference. Because the fees of each practitioner vary, we cannot estimate the total cost of the assessment + feedback. The assessment itself can be purchased by a practitioner for \$50-60.

Keirsey KTS-II Career Temperament Report. The Report is available at www.keirsey.com. The assessment consists of 71 questions, each requiring the client to select one of two possible answers. A typical question is:

- “Is it your way to
- pick and choose at some length
 - make up your mind quickly”

Each answer is designed to display one or another of the following “Temperaments”:

E = Expressive; I = Attentive; S = Observant; N = Introspective
T = Tough-Minded; F = Friendly; P = Probing; J = Scheduled

The Temperaments are then assembled into groups of four letters each. ESFP becomes the mark of people labeled as Artisans. The other labels are Guardians, Rationals, and Idealists. The publishers make the following claim:

“Temperament theory describes distinct patterns of approaching the world. Unless you are blocked or deflected from doing so, you develop a unique personality that expresses that temperament.”

Although there are references in the Report to the need for interpretation by a qualified counselor, an individual is able to purchase and complete the Sorter, and receive a report, at a cost of \$19.95.

16 Personality Factor Questionnaire. Released in 1993, the Questionnaire is now in its fifth edition. It is apparently available both at www.pearson.com and at www.ipat.com. It contains 185 multiple-choice items which are written at a fifth-grade reading level. The items ask simple questions about daily behavior, interests, and opinions. A particular characteristic of the Questionnaire is that instead of asking the test-taker to describe his own personality traits (as most other personality-type tests do) it asks him to identify a broad range of his own regular behavior by asking questions about his daily activities, functions and responses.

The publisher’s claim is that, in contrast to its Factor Questionnaire, other popular tests elicit such responses as, “I am a warm and friendly person; I am not a worrier; I am an even tempered person.” That type of simple, self-rating response – they point out – tends to reflect the test-taker’s image of himself, and depending on the individual’s view of himself, his level of self-awareness, and his defensiveness about revealing traits that are deemed undesirable.

Instead, most 16PF questions tend to ask about actual behavior:

- When I find myself in a boring situation, I usually "tune out" and daydream about other things. True/False.
- When a bit of tact and convincing is needed to get people moving, I'm usually the one who does it. True/False.

The test provides scores on 16 primary personality scales and 5 global personality scales. One end of each scale has a definition suggesting the opposite of the other end. Administration of the test takes about 35–50 minutes for the paper-and-pencil version and about 30 minutes for the computer version. The test is un-timed, and thus it is generally self-administrable and can be used in either an individual or a group setting. The 16PF test was designed for adults at least age 16 and older. It is available to consultants with qualified training and experience.

DiSC is a product of Inscape Publishing, which distributes the assessment through various sources. We were able to purchase the assessment from a distributor named respectinc.com. The assessment consists of twenty-eight questions, each having four possible answers. Instructions are to select the one answer which **MOST** describes you and then the one which **LEAST** describes you. A typical example of a four-set group of possible choices reads as follows:

	Most	Least
enthusiastic		
daring		
diplomatic		
satisfied		

Each of the four possible answers is represented by a symbol. A tally box asks you to subtract the total of symbols recorded as **LEAST** from the total recorded as **MOST**. The results are converted into graphs which determine your Profile Pattern. The Pattern analyzes your personality under the four rubrics: Dominance, Influence, Steadiness, and Conscientiousness. Each of these is then analyzed in four columns, as follows: (1) This person's tendencies include. ...; (2) This person desires an environment that includes. ...; (3) This person needs others who. ...; and (4) To be more effective, this person needs. ...

We purchased the assessment online and completed it online. Our results were not available immediately when we finished, but were sent to us by mail. The price was \$28.34, including shipping of \$10.84.

The Career Key. This self-report assessment was designed by Lawrence K. Jones, professor emeritus in the School of Education at North Carolina State University, and is available at www.careerkey.org. It is designed to measure the six personality types identified by Dr. John Holland. The assessment measures five areas of personal style:

- Which jobs interest you?
- What do you like to do?
- What are your abilities?
- How do you see yourself?
- What do you value?

Each area contains a series of questions, most of which require the test-taker to answer in the *true – mostly true – false* format. The resulting test scores are designed to measure “how similar you are to six basic types of people”:

Realistic – Investigative – Artistic – Social – Enterprising – Conventional.

When you click on any one of the six basic types, you see a list of jobs consistent with that type.

The Birkman Method. This is one of oldest of the tests measuring personality types. The publisher, Birkman International Inc., with offices in Houston Texas, states that the test measures “productive behaviors, stress behaviors, underlying needs, motivations and organizational orientation,” and that it “can help you maximize human potential and achieve results that are superior and sustainable.”

The test is available only to clients who pay in advance for the test, a 40-50 page report, and a one-on-one 60-90 minute conference with a trained consultant. The cost of the three ingredients is \$475. The publisher’s website does not display a sample of the test or of the report. Counselors interested in being trained as Birkman consultants are asked if they use the following assessments: 16PF, Caliper, Hogan or DiSC. We review all four of these assessments.

The Caliper Profile. The Profile, a product of the Caliper Company in Princeton, NJ, is an employment-oriented assessment of personality types. The same test is given to all employees, regardless of the positions they will have or the functions they will perform within the company. The questions are of the “forced-choice” format. According to the publisher, test-takers are continually “forced to make tough choices among both positive and negative attributes, making it extremely difficult to provide answers that do not reflect their true characteristics.”

The publisher makes the assessment available to employers who wish to determine how an employment candidate's "natural traits will play out on the job." It claims that the results will show whether the candidate is a good problem-solver, whether he will be a good coach, and whether he will be able to follow through and deliver on commitments.

The test is available online or in paper. It is not timed, but it takes about 90 minutes to complete. At the end of the test, a Company consultant calls and offers an in-depth analysis of the results. The consultation is followed by a review and report of the results. The cost of the Profile, consultation and report is not displayed on the Company's website.

The Hogan Assessments are described on the publisher's website, www.hoganassessments.com as follows: a personality assessment is a practical exercise that uses psychometric procedures to:

- (a) predict significant life outcomes (occupational performance); and
- (b) provide people with feedback to assist their personal and professional development.

(Author's comment: Note that the assessment *predicts* occupational performance, whereas the Highlands Ability Battery *measures* performance.)

The publisher offers its services to employers, not to individual test-takers. All the assessments are based on theories developed by Drs. Robert and Joyce Hogan. The assessments predict job performance by assessing "normal personality, derailment characteristics, core values, and cognitive reasoning ability." Hogan offers four assessments, including HPI and HDS. HPI is described as a "measure of normal personality used to predict job performance," and takes about 20 minutes to complete. HPI is based on the "Big-Five" Factors of Personality which underlie most modern theories of human psychology. The components of the Big-Five are:

Openness; Conscientiousness; Extraversion; Agreeableness; Neuroticism.

HPI is offered at the fourth grade reading level and with instantaneous scoring and reporting. The report notes strengths and shortcomings; suggests how to manage an individual's career; pinpoints factors relevant for success in a work environment; and summarizes recommendations for job fit and hiring.

kuder is a multi-faceted publisher of several assessments, all based on one or another variation of the question-and-answer format. Its assessments are designed to be age- and purpose-sensitive. The three basic assessments are of interests, skills and work values. They are divided according to the audience they are intended to reach. The kuder Galaxy of assessments is intended for students at the elementary school level. The kuder Navigator was designed for students in middle school and high school. It helps students to learn about themselves, build an education plan, and prepare for life after high school.

In kuder Journey, users select from several different user types – postsecondary student, first-time job-seeker, career changer, veteran or active member of the military, adult with a disability, or retired person — to get a custom menu of options specific to their education and career needs.

Navigator and Journey both assess interests, skills and values. We completed Navigator. The first assessment was entitled Work Values Inventory. It consisted of 72 questions in groups of 9, all headed by the question: **How important is a job where I...** The question was followed by 5 choices, each indicating a level of importance from “not important at all” to “crucial.”

The second assessment was of interests suggesting a preference for one of several careers. Here, the student was instructed to pick from three tasks in the order he would prefer to do them. The third assessment is of skills, and instructs the student: **Please indicate your current skill level for each of the following tasks.** ... The student is given 5 choices which explore his own assessment of his relative skill for each task. We found that we were unable to answer most of the questions because we had never done the task involved and had no knowledge what our skill level was. The kuder assessments are available for purchase by individuals without feedback by a consultant. The cost is \$30-35.

Campbell – Pearson. An assessment of personality, interests and skills published by Pearson, a leading publisher of assessments. I completed the assessment, which has 320 questions and takes 50-60 minutes. The assessment can be taken online. It does not require feedback or interpretation, but I think they both are necessary. You can't register without calling a phone number that doesn't work very well. The report I received is fairly thorough. It is divided into several scales: orientation scales; basic interest and skill scales; and occupational scales. The orientation scales are divided into Influencing, Organizing, Helping, Creating, Analyzing, and Adventuring. The scores show both an interest factor and a skills factor for each orientation. My scores in Analyzing were relatively high and indicated that I should pursue my interest in Mathematics and Science. My occupational scales showed that I should pursue a career in law, financial planning, or business, or as a media executive.

I hope that my review of five assessments in the abilities-performance category and ten in the Personal Styles category has been helpful. I do believe it has confirmed the essential differences between the two categories.

Educators and HR personnel tend to paint all assessments with the same brush. I think it's important to spend the time to understand how each test is constructed and what it measures.