Welcome to ITA - Information Technology Associates

DOT Dictionary of Occupational Titles
www.occupationalinfo.org

AdChoices ▷ â–º GED Classes â–º GED Online â–º GED Prep â–º Strength

www.theodora.com

Dictionary Of Occupational Titles
Appendix C: Components of the Definition Trailer

RECEIVED
By Chris Tighe at 11:56 am, Sep 29, 2014

APPENDIX C

COMPONENTS OF THE DEFINITION TRAILER

www.geographic.org

I. DATE OF LAST UPDATE (DLU)

II. SPECIFIC VOCATIONAL PREPARATION (SVP)

III. GENERAL EDUCATIONAL DEVELOPMENT (GED)

IV. PHYSICAL DEMANDS - STRENGTH RATING (Strength)

V. GUIDE FOR OCCUPATIONAL EXPLORATION (GOE)

The following descriptions of the components of the Definition Trailer are in inverse order to their placement in
the trailer.

www.geographic.org

I. DATE OF LAST UPDATE (DLU)

Listed as the final element in the trailer following the definition, the Date of Last Update indicates the last year
in which material was gathered for that occupation. A DLU of ``77'' would indicate that the occupation has not
been studied by an analyst since publication of the fourth edition DOT in 1977.

II. SPECIFIC VOCATIONAL PREPARATION (SVP)

Specific Vocational Preparation is defined as the amount of lapsed time required by a typical worker to learn the
techniques, acquire the information, and develop the facility needed for average performance in a specific
job-worker situation.

www.occupationalinfo.org

This training may be acquired in a school, work, military, institutional, or vocational environment. It does not include the orientation time required of a fully qualified worker to become accustomed to the special conditions of any new job. Specific vocational training includes: vocational education, apprenticeship training, in-plant training, on-the-job training, and essential experience in other jobs.

Specific vocational training includes training given in any of the following circumstances:

a. Vocational education (high school; commercial or shop training; technical school; art school; and that part of college training which is organized around a specific vocational objective);

b. Apprenticeship training (for apprenticeable jobs only);

c. In-plant training (organized classroom study provided by an employer);

d. On-the-job training (serving as learner or trainee on the job under the instruction of a qualified worker);

e. Essential experience in other jobs (serving in less responsible jobs which lead to the higher grade job or serving in other jobs which qualify).

The following is an explanation of the various levels of specific vocational preparation:

Level	Time
1	Short demonstration only
2	Anything beyond short demonstration up to and including 1 month
3	Over 1 month up to and including 3 months
4	Over 3 months up to and including 6 months
5	Over 6 months up to and including 1 year
6	Over 1 year up to and including 2 years
7	Over 2 years up to and including 4 years
8	Over 4 years up to and including 10 years
9	Over 10 years

Note: The levels of this scale are mutually exclusive and do not overlap.

III. GENERAL EDUCATIONAL DEVELOPMENT (GED)

General Educational Development embraces those aspects of education (formal and informal) which are required of the worker for satisfactory job performance. This is education of a general nature which does not have a recognized, fairly specific occupational objective. Ordinarily, such education is obtained in elementary school, high school, or college. However, it may be obtained from experience and self-study.

The GED Scale is composed of three divisions: Reasoning Development, Mathematical Development, and Language Development. The description of the various levels of language

and mathematical development are based on the curricula taught in schools throughout the United States. An analysis of mathematics courses in school curricula reveals distinct levels of progression in the primary and secondary grades and in college. These levels of progression facilitated the selection and assignment of six levels of GED for the mathematical development scale.

However, though language courses follow a similar pattern of progression in primary and secondary school, particularly in learning and applying the principles of grammar, this pattern changes at the college level. The diversity of language courses offered at the college level precludes the establishment of distinct levels of language progression for these four years. Consequently, language development is limited to five defined levels of GED inasmuch as levels 5 and 6 share a common definition, even though they are distinct levels.

Scale of General Education Development (GED)

06 LEVEL REASONING DEVELOPMENT

Apply principles of logical or scientific thinking to a wide range of intellectual and practical problems. Deal with nonverbal symbolism (formulas, scientific equations, graphs, musical notes, etc.) in its most difficult phases. Deal with a variety of abstract and concrete variables. Apprehend the most abstruse classes of concepts.

06 MATHEMATICAL DEVELOPMENT

Advanced calculus:

Work with limits, continuity, real number systems, mean value theorems, and implicit functions theorems.

Modern Algebra:

Apply fundamental concepts of theories of groups, rings, and fields. Work with differential equations, linear algebra, infinite series, advanced operations methods, and functions of real and complex variables.

Statistics:

Work with mathematical statistics, mathematical probability and applications, experimental design, statistical inference, and econometrics.

06 LANGUAGE DEVELOPMENT

Same as Level 5.

05 LEVEL REASONING DEVELOPMENT

Apply principles of logical or scientific thinking to define problems, collect data, establish facts, and draw valid conclusions. Interpret an extensive variety of technical instructions in mathematical or diagrammatic form. Deal with several abstract and concrete variables. 05 MATHEMATICAL DEVELOPMENT

Algebra:

Work with exponents and logarithms, linear equations, quadratic equations, mathematical induction and binomial theorem, and permutations.

Calculus:

Apply concepts of analytic geometry, differentiations, and integration of algebraic functions with applications.

Statistics:

Apply mathematical operations to frequency distributions, reliability and validity of tests, normal curve, analysis of variance, correlation techniques, chi-square application and sampling theory, and factor analysis.

05 LANGUAGE DEVELOPMENT

Reading:

Read literature, book and play reviews, scientific and technical journals, abstracts, financial reports, and legal documents.

Writing:

Write novels, plays, editorials, journals, speeches, manuals, critiques, poetry, and songs.

Speaking:

Coversant in the theory, principles, and methods of effective and persuasive speaking, voice and diction, phonetics, and discussion and debate.

04 LEVEL REASONING DEVELOPMENT

Apply principles of rational systems to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Interpret a variety of instructions furnished in written, oral, diagrammatic, or schedule form. (Examples of rational systems include: bookkeeping, internal combustion engines, electric wiring systems, house building, farm management, and navigation.)

04 MATHEMATICAL DEVELOPMENT

Algebra:

Deal with system of real numbers; linear, quadratic, rational, exponential, logarithmic, angle and circular functions, and inverse functions; related algebraic solution of equations and inequalities; limits and continuity; and probability and statistical inference.

Geometry:

Deductive axiomatic geometry, plane and solid, and rectangular coordinates.

Shop Math:

Practical application of fractions, percentages, ratio and proportion, measurement, logarithms, slide rule, practical algebra, geometric construction, and essentials of trigonometry.

04 LANGUAGE DEVELOPMENT

Reading:

Read novels, poems, newspapers, periodicals, journals, manuals, dictionaries, thesauruses, and encyclopedias.

Writing:

Prepare business letters, expositions, summaries, and reports, using prescribed format and conforming to all rules of punctuation, grammar, diction, and style.

Speaking:

Participate in panel discussions, dramatizations, and debates. Speak extemporaneously on a variety of subjects.

03 LEVEL REASONING DEVELOPMENT

Apply commonsense understanding to carry out instructions furnished in written, oral, or diagrammatic form. Deal with problems involving several concrete variables in or from standardized situations.

03 MATHEMATICAL DEVELOPMENT

Compute discount, interest, profit and loss; commission, markup, and selling price; ratio and proportion; and percentage. Calculate surfaces, volumes, weights, and measures.

Algebra:

Calculate variables and formulas; monomials and polynomials; ratio and proportion variables; and square roots and radicals.

Geometry:

Calculate plane and solid figures; circumference, area, and volume. Understand kinds of angles and properties of pairs of angles.

03 LANGUAGE DEVELOPMENT

Reading:

Read a variety of novels, magazines, atlases, and encyclopedias. Read safety rules, instructions in the use and maintenance of shop tools and equipment, and methods and procedures in mechanical drawing and layout work.

Writing:

Write reports and essays with proper format, punctuation, spelling, and grammar, using all parts of speech.

Speaking:

Speak before an audience with poise, voice control, and confidence, using correct English and well-modulated voice.

02 LEVEL REASONING DEVELOPMENT

Apply commonsense understanding to carry out detailed but uninvolved written or oral instructions. Deal with problems involving a few concrete variables in or from standardized situations.

02 MATHEMATICAL DEVELOPMENT

Add, subtract, multiply, and divide all units of measure. Perform the four operations with like common and decimal fractions. Compute ratio, rate, and percent. Draw and interpret bar graphs. Perform arithmetic operations involving all American monetary units.

02 LANGUAGE DEVELOPMENT

Reading:

Passive vocabulary of 5,000-6,000 words. Read at rate of 190-215 words per minute. Read adventure stories and comic books, looking up unfamiliar words in dictionary for meaning, spelling, and pronunciation. Read instructions for assembling model cars and airplanes.

Writing:

Write compound and complex sentences, using cursive style, proper end punctuation, and employing adjectives and adverbs.

Speaking:

Speak clearly and distinctly with appropiate pauses and emphasis, correct pronunciation, variations in word order, using present, perfect, and future tenses.

01 LEVEL REASONING DEVELOPMENT

Apply commonsense understanding to carry out simple one- or two-step instructions. Deal with standardized situations with occasional or no variables in or from these situations encountered on the job.

01 MATHEMATICAL DEVELOPMENT

Add and subtract two digit numbers.

Multiply and divide 10's and 100's by 2, 3, 4, 5.

Perform the four basic arithmetic operations with coins as part of a dollar. Perform operations with units such as cup, pint, and quart; inch, foot, and yard; and ounce and pound.

01 LANGUAGE DEVELOPMENT

Reading:

Recognize meaning of 2,500 (two- or three-syllable) words. Read at rate of 95-120 words per minute.

Compare similarities and differences between words and between series of numbers.

Writing:

Print simple sentences containing subject, verb, and object, and series of numbers, names, and addresses.

Speaking:

Speak simple sentences, using normal word order, and present and past tenses.

IV. PHYSICAL DEMANDS - STRENGTH RATING (Strength)

The Physical Demands Strength Rating reflects the estimated overall strength requirement of the job, expressed in terms of the letter corresponding to the particular strength rating. It represents the strength requirements which are considered to be important for average, successful work performance.

The strength rating is expressed by one of five terms: Sedentary, Light, Medium, Heavy, and Very Heavy. In order to determine the overall rating, an evaluation is made of the worker's involvement in the following activities:

a. Standing, Walking, Sitting

Standing - Remaining on one's feet in an upright position at a work station with-out moving about.

Walking - Moving about on foot.

Sitting - Remaining in a seated position.

b. Lifting, Carrying, Pushing, Pulling

Lifting - Raising or lowering an object from one level to another (includes upward pulling).

Carrying - Transporting an object, usually holding it in the hands or arms, or on the shoulder.

Pushing - Exerting force upon an object so that the object moves away from the force (includes slapping, striking, kicking, and treadle actions).

Pulling - Exerting force upon an object so that the object moves toward the force (includes jerking).

Lifting, pushing, and pulling are evaluated in terms of both intensity and duration. Consideration is given to the weight handled, position of the worker's body, and the aid given by helpers or mechanical equipment. Carrying most often is evaluated in terms of duration, weight carried, and distance carried.

Estimating the Strength factor rating for an occupation requires the exercise of care on the part of occupational analysts in evaluating the force and physical effort a worker must exert. For instance, if the worker is in a crouching position, it may be much more difficult to push an object than if pushed at waist height. Also, if the worker is required to lift and carry continuously or push and pull objects over long distances, the worker may exert as much physical effort as is required to similarly move objects twice as heavy, but less frequently and/or over shorter distances.

c. Controls

Controls entail the use of one or both arms or hands (hand/arm) and/or one or both feet or legs (foot/leg) to move controls on machinery or equipment. Controls include but are not limited to buttons, knobs, pedals, levers, and cranks.

Following are descriptions of the five terms in which the Strength Factor is expressed:

S-Sedentary Work - Exerting up to 10 pounds of force occasionally (Occasionally: activity or condition exists up to 1/3 of the time) and/or a negligible amount of force frequently (Frequently: activity or condition exists from 1/3 to 2/3 of the time) to lift, carry, push, pull, or otherwise move objects, including the human body. Sedentary work involves sitting most of the time, but may involve walking or standing for brief periods of time. Jobs are sedentary if walking and standing are required only occasionally and all other sedentary criteria are met.

L-Light Work - Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or a negligible amount of force constantly (Constantly: activity or condition exists 2/3 or more of the time) to move objects. Physical demand requirements are in excess of those for Sedentary Work. Even though the weight lifted may be only a negligible amount, a job should be rated Light Work: (1) when it requires walking or standing to a significant degree; or (2) when it requires sitting most of the time but entails pushing and/or pulling of arm or leg controls; and/or (3) when the job requires working at a production rate pace entailing the constant pushing and/or pulling of materials even though the weight of those materials is negligible. NOTE: The constant stress and strain of maintaining a production rate pace, especially in an industrial setting, can be and is physically demanding of a worker even though the amount of force exerted is negligible.

M-Medium Work - Exerting 20 to 50 pounds of force occasionally, and/or 10 to 25 pounds of force frequently, and/or greater than negligible up to 10 pounds of force constantly to move objects. Physical Demand requirements are in excess of those for Light Work.

H-Heavy Work - Exerting 50 to 100 pounds of force occasionally, and/or 25 to 50 pounds of force frequently, and/or 10 to 20 pounds of force constantly to move objects. Physical Demand requirements are in excess of those for Medium Work.

V-Very Heavy Work - Exerting in excess of 100 pounds of force occasionally, and/or in excess of 50 pounds of force frequently, and/or in excess of 20 pounds of force constantly to move objects. Physical Demand requirements are in excess of those for Heavy Work.

V. GUIDE FOR OCCUPATIONAL EXPLORATION (GOE)

Many youths and other jobseekers are unprepared for an effective job search because of a lack of knowledge about the kinds of jobs to look for. They have difficulty relating their interest, skills, and potentials to appropriate occupations. To be effective, vocational counselors must have sufficient information to match an individual's interest, temperaments, potential ability and other personal traits to specific career fields and work requirements.

The Guide for Occupational Exploration was designed by the US Employment Service to provide career counselors and other DOT users with additional information about the interests, aptitudes, entry level preparation and other traits required for successful performance in various occupations. The GOE is also useful in self-assessment and counselor-assisted settings to help people understand themselves realistically in regard to their ability to meet job requirements. Descriptive information provided for each work group assists the individual in evaluating his or her own interests and relating them to pertinent fields of work.

The GOE code assigned to a definition provides a link between the occupation defined and the GOE arrangement of occupations with similar interests, aptitudes, adaptability requirements, and other descriptors.

The GOE coding structure classifies jobs at three levels of consideration. The first level divides occupations according to twelve interest areas corresponding to interest factors identified through research conducted by the former Division of Testing in the US Employment Service. The interest factors, identified by a two-digit code, are defined in terms of broad interest requirements of occupations as well as vocational interests of individuals. The twelve interest areas are defined as follows:

01 Artistic 05 Mechanical 09 Accommodating

02 Scientific 06 Industrial 10 Humanitarian

03 Plants-Animals 07 Business Detail 11 Leading-Influencing

04 Protective 08 Selling 12 Physical Performing

The interest areas are then subdivided into work groups (the second set of two digits within the six-digit GOE code). Each work group contains occupations requiring similar worker traits and capabilities in related work settings. The GOE contains descriptive information for each work group and identifies each occupation in the group with a four-digit code and title. In many interest areas, occupations that require the most education, training, and experience are in the first group, while those requiring less formal education or experience are listed in the last group.

Work groups are then subdivided into subgroups (the third two-digit set in the GOE code) of occupations with even more homogeneous interests, aptitudes, and adaptability requirements. Each subgroup is identified by its unique six-digit code and title. Individual occupations are listed alphabetically within subgroups. Some subgroups contain occupations from more than

one industry, listed within alphabetized industries.

- Dictionary of Occupational Titles (DOT) Index
- Standard Industrial Classifications (SIC) Index
- Occupational Information Network (ONET) Index
- US Census Statistical Tables
- China Statistical Tables
- World Facts
- Quick Maps (for your web site)
- Flags of All Countries (for your web site)
- Digraphs - Internet Country Codes
- Airport Codes
- Seaport Codes
- About Climate (+ Glossary)
- Immigration Superhighway
- ITA Main Page

. Feedback

Please Add this page to your FAVORITES

URL address of this page: **http://www.occupationalinfo.org/contents.html**

| | Español | Children | Lawyers | E-mail

"Immigration Superhighway", "Immigration Central", "Immigration Assistant", "Immigration Expert", "Immigration Expert Pro" and "Immigration USA" are trademarks of Information Technology Associates.

© 1995 - 2003 Photius Coutsoukis and Information Technology Associates (All Rights Reserved).
Revised 05-Jun-03

6799322CTR030418