

D.A.T. TEST RESULTS

The Differential Aptitude Tests include tests that assess eight important aptitudes. The information about relative strengths and weaknesses in these eight areas can give students a head start as they begin to consider different educational programs and careers. Each of the eight tests included in this battery is known to be relevant to certain types of courses and occupations. The content of these eight tests, as well as a discussion of how each test is applicable to certain courses of study and career fields, is discussed below.

Verbal Reasoning: The Verbal reasoning test measures the ability to reason with words, to understand ideas expressed in words and to see the relationship among words. The test consists of analogies, each of which has two words missing. Rather than focusing on vocabulary recognition, these analogies assess the ability to infer the relationship between the first pair of words and apply that relationship to a second pair of words, so that the last two words are related to each other in the same way as the first two words. The verbal reasoning test may be useful in helping to predict success in academic courses, as well as in many occupations, that require much written or oral communication and for jobs that involve supervisory responsibility such as business, law, education, journalism, and the sciences.

Numerical Reasoning: This test measures the ability to perform mathematical reasoning tasks, the ability to reason with numbers, to understand and work with ideas expressed in numbers. (In order to ensure that reasoning rather than computational facility is stressed, the computational level of many of the problems is well below the grade level of the students for whom the test is intended.) Numerical reasoning is important for success in such courses as mathematics, physics, chemistry, and engineering. The ability to reason with numbers is also important in many occupations, such as bookkeeping, laboratory technician, statistician, navigator, shipping clerk, carpentry, and tool-making.

Abstract Reasoning: The Abstract Reasoning test is a nonverbal measure of reasoning ability. It assesses how well students can reason with geometric patterns, figures, objects or designs. The test consists of figural series completion items. These items measure the ability to supply the next step in a geometric series in which each element changes according to a given rule. The student is required to infer the rule(s) operating and to predict which figure would be the next in the series, based upon those rules. The test score will often be important when a course in school and or an occupation requires the understanding of relationships among things rather than among words or numbers. Examples include such fields as mathematics, computer programming, drafting, laboratory work, electrical or mechanical work or repair.

VR + NA: This score is a combination of the verbal and numerical scores. It represents a general scholastic aptitude (an ability to learn from books and teachers and to master school subjects). This is an excellent predictor of success in high school settings. This score is close in meaning to the “mental ability” or the intelligence test score obtained in an IQ test. (Keep in mind that the average IQ is considered to be 100 and that would be an equivalent of a national percentile of 50). This score often show an aptitude for jobs that call for high levels of responsibility.

Mechanical Reasoning: This test measures the ability to understand basic mechanical principles and mechanical devices, like machinery, tools, and motion and simple laws of everyday physics. Each item consists of a pictorially presented mechanical situation and a simply worded question. Items represent simple principles that involve reasoning rather than special knowledge. Students who do well in mechanical reasoning usually find it easy to learn how to repair and operate complex devices. Courses in the physical sciences, technical studies, or industrial technologies are easier for those who score high on this test. The occupations that require this knowledge are carpenter, mechanic, engineer, electrician, and machine tool and dye, machine operator and many other mechanical areas.

Space Relations: the Space Relations test measures the ability to visualize three-dimensional object from a two-dimensional pattern, and to visualize how this object would look if rotated in space. It is the ability to think in three dimensions to picture mentally the shape, size, and position of objects when shown only a picture or a pattern. Each problem shows one pattern, followed by four three-dimensional figures. Students are to choose the one figure that can be made form the pattern. Course work that utilizes these skills re drafting, industrial technologies, some kinds of mathematics, and some art or design courses. Occupations in which an individual is required to imagine how an object would look if made form a given pattern include drafting, machinists, architecture, engineering, art, design, clothing design, carpentry, and dentistry.

Note: Spelling and Language Usage both measure the ability to detect errors in grammar, punctuation, spelling, and capitalization. Well-developed language skills are needed in most jobs requiring a college degree. Careers in writing and teaching require a high level of ability in these areas. The Language Usage and Spelling tests are included in the DAT because the skills they measure are important in all most all areas of school and work.