DOWNLOAD PDF INTELLIGENCE NOTES IN PSYCHOLOGY

Chapter 1 : Intelligence - Psychology Class Notes

Psychology Class Notes > Intelligence In , as the United States mobilized its vast resources for the war against Germany, Professor Lewis Terman of Stanford University traveled east to meet with a group of prominent psychologists.

Posted on November 17, by John Parankimalil One of the most important single variables, which affect schooling, is intelligence. Intelligence is the ability to acquire and apply knowledge. According to Alfred Binet intelligence is the ability for judgement or common sense. It is not merely book learning, a narrow academic skill, or test-taking smartness. An engineer designing a bridge, a manager motivating his staff, a professor teaching a class, a violin player in a symphony, an author writing a story, an African Bushman finding water in the desert? Nature and Characteristics of Intelligence and its Development: Intelligence is not acquired after sustained labour. It is a gift from nature. Intelligence is not memory. An intelligent person may have poor memory. Intelligence is not a skill which a worker acquires after planned practice. Intelligence is not a guarantee of a good behaviour of the individual. To understand the nature of intelligence we need to know the classification intelligence as given by E. Concrete Intelligence â€" It is the ability of an individual to comprehend actual situations and to react to them adequately. The concrete intelligence is evident from various activities of daily life. This type of intelligence is applicable when the individual is handling concrete objects or medicines. Engineers, mechanics and architects have this type of intelligence. Abstract Intelligence â€" It is the ability to respond to words, numbers and symbols. Abstract intelligence is required in the ordinary academic subjects in the school. This is acquired after an intensive study of books and literature. Good teachers, lawyers, doctors, philosophers etc. Social Intelligence â€" It means the ability of an individual to react to social situations of daily life. Adequate adjustment in social situations is the index of social intelligence. Persons having this type of intelligence know the art of winning friends and influencing them. Leaders, ministers, members of diplomatic sources and social workers have it. Therefore, intelligence is an inborn ability of an individual, the distribution of intelligence is not equal among all human beings. There is wide individual difference that exists among individuals with regard to intelligence. The main features of Intelligence are the following: Intelligence is an innate natural endowment of the child. It helps the child in maximum learning in minimum period of time. The child is able to foresee the future and plan accordingly. The child is able to take advantage of his previous experiences. The child faces the future with compliance. He develops a sense of discrimination between right or wrong. The developmental period of intelligence is from birth to adolescence. There is a minor difference in the development of intelligence between boys and girls. There are individual differences with regard to the intelligence between boys and girls. Intelligence is mostly determined by heredity but a suitable environment necessary to improve it. It is generally agreed upon by almost all psychologists that intelligence increases up to adolescence and declines in old age. According to Pinter, the development of intelligence takes place at a rapid space up to the age of 14 years, and then it stops at any stage in between the ages of 14 â€" 22 years. In the opinion of Terman, students and adults reach the limit of their intelligence growth at the age of 16 years. According to Binet, this limit is reached at the age of 15 years. According to Ottis, intelligence grows up to the age of 18 years. The researchers of Thorndike reveal that the power to learn in a person develops up to the age of 22 years and this power continues to work up to the age of 45 years. According to some psychologists, the intelligence of dull children grows only up to the age of 14 years and those of normal ones up to the age of 16 years. In the case of children of genius category, it continues to grow up to the age of twenty years. However, the definite age till when intelligence grows has not been determined. This problem remains even today as it was earlier. It can be rightly said that intelligence is the ability to adjust, to think, to understand, to reason and to act in the best possible manner. We can also conclude that during early childhood, there is a period of relatively rapid growth of intelligence followed by a slower late during adolescence.

Chapter 2 : SparkNotes: Intelligence: Theories of Intelligence

Notes on Factor Theories and Cognitive Theories of Intelligence! Characteristics of people with regard to their intellectual activities and abilities indicate that the intelligence cannot be a single function or capacity.

Controversy exists over whether children can be said to differ in a unitary abstract ability called intelligence or whether each child might better be described as possessing a set of specific cognitive abilities. Some children are especially proficient with verbal problems and less proficientâ€¦ Theories of intelligence Theories of intelligence, as is the case with most scientific theories, have evolved through a succession of models. Four of the most influential paradigms have been psychological measurement , also known as psychometrics; cognitive psychology , which concerns itself with the processes by which the mind functions; cognitivism and contextualism, a combined approach that studies the interaction between the environment and mental processes; and biological science , which considers the neural bases of intelligence. What follows is a discussion of developments within these four areas. Psychometric theories Psychometric theories have generally sought to understand the structure of intelligence: What form does it take, and what are its parts, if any? Such theories have generally been based on and established by data obtained from tests of mental abilities, including analogies e. Psychometric theories are based on a model that portrays intelligence as a composite of abilities measured by mental tests. This model can be quantified. For example, performance on a number-series test might represent a weighted composite of number, reasoning, and memory abilities for a complex series. Mathematical models allow for weakness in one area to be offset by strong ability in another area of test performance. In this way, superior ability in reasoning can compensate for a deficiency in number ability. One of the earliest of the psychometric theories came from the British psychologist Charles E. Spearman â€” , who published his first major article on intelligence in He noticed what may seem obvious nowâ€”that people who did well on one mental-ability test tended to do well on others, while people who performed poorly on one of them also tended to perform poorly on others. To identify the underlying sources of these performance differences, Spearman devised factor analysis , a statistical technique that examines patterns of individual differences in test scores. He concluded that just two kinds of factors underlie all individual differences in test scores. In other words, regardless of the task, if it requires intelligence, it requires g. The second factor is specifically related to each particular test. For example, when someone takes a test of arithmetical reasoning, his performance on the test requires a general factor that is common to all tests g and a specific factor that is related to whatever mental operations are required for mathematical reasoning as distinct from other kinds of thinking. But what, exactly, is g? After all, giving something a name is not the same as understanding what it is. Although the debate between Spearman and Thurstone has remained unresolved, other psychologistsâ€”such as Canadian Philip E. Vernon and American Raymond B. Cattell â€”have suggested that both were right in some respects. Vernon and Cattell viewed intellectual abilities as hierarchical, with g, or general ability, located at the top of the hierarchy. But below g are levels of gradually narrowing abilities, ending with the specific abilities identified by Spearman. Cattell, for example, suggested in Abilities: Crystallized abilities, which are thought to derive from fluid abilities, include vocabulary, general information, and knowledge about specific fields. The American psychologist John L. The American psychologist Joy Paul Guilford proposed a structure-of-intellect theory, which in its earlier versions postulated abilities. In The Nature of Human Intelligence , Guilford argued that abilities can be divided into five kinds of operation, four kinds of content, and six kinds of product. These facets can be variously combined to form separate abilities. Guilford later increased the number of abilities proposed by his theory to Eventually it became apparent that there were serious problems with the basic approach to psychometric theory. A movement that had started by postulating one important ability had come, in one of its major manifestations , to recognize Moreover, the psychometricians as practitioners of factor analysis were called lacked a scientific means of resolving their differences. Any method that could support so many theories seemed somewhat suspect. Most important, however, the psychometric theories failed to say anything substantive about the processes underlying intelligence. The solution to these problems, as proposed by cognitive psychologists, was

to study directly the mental processes underlying intelligence and, perhaps, to relate them to the facets of intelligence posited by psychometricians. The American psychologist John B. In the first stratum, Carroll identified narrow abilities roughly 50 in number that included the seven primary abilities identified by Thurstone. According to Carroll, the middle stratum encompassed broad abilities approximately 10 such as learning, retrieval ability, speediness, visual perception, fluid intelligence, and the production of ideas. The third stratum consisted solely of the general factor, g, as identified by Spearman. It might seem self-evident that the factor at the top would be the general factor, but it is not, since there is no guarantee that there is any general factor at all. Both traditional and modern psychometric theories face certain problems. First, it has not been proved that a truly general ability encompassing all mental abilities actually exists. In The General Factor of Intelligence: How General Is It? Second, psychometric theories cannot precisely characterize all that goes on in the mind. Third, it is not clear whether the tests on which psychometric theories are based are equally appropriate in all cultures. Greenfield concluded that a single test may measure different abilities in different cultures. Her findings emphasized the importance of taking issues of cultural generality into account when creating abilities tests. In an address to the American Psychological Association in , the American researcher Lee Cronbach, a leader in the testing field, decried the lack of common ground between psychologists who studied individual differences and those who studied commonalities in human behaviour. Fair assessments of performance require an understanding of the processes underlying intelligence; otherwise, there is a risk of arriving at conclusions that are misleading, if not simply wrong, when evaluating overall test scores or other assessments of performance. Suppose, for example, that a student performs poorly on the verbal analogies questions in a psychometric test. One possible conclusion is that the student does not reason well. An equally plausible interpretation, however, is that the student does not understand the words or is unable to read them in the first place. By using cognitive analysis, the test interpreter is able to determine the degree to which the poor score stems from low reasoning ability and the degree to which it results from not understanding the words. Underlying most cognitive approaches to intelligence is the assumption that intelligence comprises mental representations such as propositions or images of information and processes that can operate on such representations. A more-intelligent person is assumed to represent information more clearly and to operate faster on these representations. Researchers have sought to measure the speed of various types of thinking. Through mathematical modeling, they divide the overall time required to perform a task into the constituent times needed to execute each mental process. Usually, they assume that these processes are executed serially one after another and, hence, that the processing times are additive. But some investigators allow for parallel processing, in which more than one process is executed at the same time. Regardless of the type of model used, the fundamental unit of analysis is the sameâ€”that of a mental process acting upon a mental representation. A number of cognitive theories of intelligence have been developed. Among them is that of the American psychologists Earl B. Hunt, Nancy Frost, and Clifford E. Lunneborg, who in showed one way in which psychometrics and cognitive modeling could be combined. Instead of starting with conventional psychometric tests, they began with tasks that experimental psychologists were using in their laboratories to study the basic phenomena of cognition, such as perception, learning, and memory. They showed that individual differences in these tasks, which had never before been taken seriously, were in fact related although rather weakly to patterns of individual differences in psychometric intelligence test scores. Their results suggested that the basic cognitive processes are the building blocks of intelligence. The following example illustrates the kind of task Hunt and his colleagues studied in their research: The psychologists hypothesized that a critical ability underlying intelligence is the rapid retrieval of lexical information, such as letter names, from memory. Hence, they were interested in the time needed to react to the question about letter names. By subtracting the reaction time to the question about physical match from the reaction time to the question about name match, they were able to isolate and set aside the time required for sheer speed of reading letters and pushing buttons on a computer. They found that the score differences seemed to predict psychometric test scores, especially those on tests of verbal ability such as reading comprehension. Hunt, Frost, and Lunneborg concluded that verbally facile people are those who are able to absorb and then retrieve from memory large amounts of verbal information in short amounts of time. The time factor was the

significant development in this research. A few years later, Sternberg suggested an alternative approach that could resolve the weak relation between cognitive tasks and psychometric test scores. He argued that Hunt and his colleagues had tested for tasks that were limited to low-level cognitive processes. Although such processes may be involved in intelligence, Sternberg claimed that they were peripheral rather than central. He recommended that psychologists study the tasks found on intelligence tests and then identify the mental processes and strategies people use to perform those tasks. Sternberg began his study with the analogies cited earlier: By applying mathematical modeling techniques to reaction-time data, Sternberg isolated the components of information processing. He determined whether each experimental subject did, indeed, use these processes, how the processes were combined, how long each process took, and how susceptible each process was to error. Sternberg later showed that the same cognitive processes are involved in a wide variety of intellectual tasks. He subsequently concluded that these and other related processes underlie scores on intelligence tests. A different approach was taken in the work of the British psychologist Ian Deary, among others. He argued that inspection time is a particularly useful means of measuring intelligence. It is thought that individual differences in intelligence may derive in part from differences in the rate of intake and processing of simple stimulus information. In the inspection-time task, a person looks at two vertical lines of unequal length and is asked to identify which of the two is longer. Inspection time is the length of time of stimulus presentation each individual needs in order to discriminate which of the two lines is the longest. Some research suggests that more-intelligent individuals are able to discriminate the lengths of the lines in shorter inspection times. Other cognitive psychologists have studied human intelligence by constructing computer models of human cognition. Called the General Problem Solver , it could find solutions to a wide range of fairly structured problems, such as logical proofs and mathematical word problems. Most of the problems studied by Newell and Simon were fairly well structured, in that it was possible to identify a discrete set of steps that would lead from the beginning to the end of a problem. Other investigators have been concerned with other kinds of problems, such as how a text is comprehended or how people are reminded of things they already know when reading a text.

Chapter 3 : Psychology Class Notes

Also supporting the multiple intelligence theory is the existance of emotional intelligence - the ability to manage, express, understand, and perceive emotions. People with high emotional intelligence do better in social situations and thus are more successful in careers, marriages, and parenting.

Terman was an expert on intelligence testing, for he had pioneered the application of a French Intelligence test developed by Alfred Binet in the U. Terman, a devoted member of the Stanford University faculty, called his test the Stanford- Binet, and it was widely used in clinical settings. But why was Terman meeting with other psychologists? Army could give to the thousands of new recruits coming into the army. The test would help them decide who had the intellectual potential to be an officer, who did not. Terman carried in his briefcase the rough materials his student Arthur Otis had designed for a questionnaire measure of intelligence. In several weeks the group of psychologists had designed the Army Alpha Examination, based on the Otis scales. The test was given to 1,, men, and it seemed to work. Some were sent off to the trenches, and others were selected to lead them there. And psychologists, delighted with their success, began to spread their testing into civilian settings: School systems and colleges snatched up the tests for use in pupil classification, guidance, and admissions Within 30 months of the first publication of the group test some four million children had been tested, and the IQ test was on its way to acceptance. Historical Development1 Alfred Binet Charged by the Minister of Public Instruction in Paris to develop a method of detecting "defective" children who could then be given special instructionsAlthough he toyed with the idea of developing a physiological measure, he ended up with a test he called "aptitude for academic achievement"this test was designed to be relevant in academic settings Simple procedures used identified behaviors for each age important - this test was age specific - also known as the "age-standard method". This indicates that the 6 year old is relatively farther behind his or her age peers. STERN then got rid of the decimal point so. This would mean that a person has the same mental age and chronological age. This was not good if you wanted to test military troops - So, Otis instead created an oral intelligence test goes back to introduction. This test still utilized the intelligence quotient developed by Stern - but mental age slows dramatically after childhood. So, someone could go from gifted as a young person, to mentally challenged as an older adult without actually getting "less intelligent". Now she would be classified as mentally retarded, yet she may be successful doctor. Those who perform exactly the same as their age peers would receive the score of Forms of Intelligence 1 Basic approach: Yet he was able to become a successful cognitive psychologist and a leader in the field of intelligence. This was a major influence in his belief that intelligence was much more than those abilities measured by traditional intelligence tests. He and colleagues wanted to know what the "lay person" though intelligence was so they interviewed many people. Most people indicated that intelligent people have good verbal skills, problem-solving skills, and social judgment. Thus, he developed the Triarchic theory which is comprised of the following: This is similar to traditional intelligence tests. Sternberg recognized that situations may call for one type or a combination of all three, and that each can be improved through training. Many experts have gone on record as opposing IQ tests as invalid, easily altered by special coaching, and monopolizing the testing industry.

Chapter 4 : Theories of Intelligence: Notes on Theories of Intelligence

- Lecture Definition: Intelligence is the ability to learn from experience, solve problems, and adapt to new situations. - An Intelligence test assesses people's mental abilities and compares them with other, using.

Characteristics of people with regard to their intellectual activities and abilities indicate that the intelligence cannot be a single function or capacity. There must be various components for intelligence. Psychologists have attempted to analyze these components, which has resulted in the development of different theories. These theories have been grouped into two categoriesâ€"viz. On the basis of factor analysis psychologists have developed their own theories. Some of the important theories are: Thurston rejected the General theory of intelligence and instead presented his own theory. This theory states that the human intelligence includes 7 primary mental abilities. Though these abilities appear to be different, they are related to each other. Thurston has developed a test called Primary Mental Abilities test to assess these factors. This as a very popular theory. According to Spearman intelligence is the ability to think constructively. Spearman proposes that intelligence consists of two abilities, viz. General factor or ability works in conjunction with special ability. In all intellectual activities of the human being along with general ability, there will also be a special ability which is related to such action. Proposed by EL Thorndike. According to Thorndike, intelligence is not a single factor like general intelligence rather it is a combination of multiple factors. Thorndike states, each factor is an independent element and hence it is not possible to combine all these elements. JP Guilford developed a model of intelligence in which he explained that every intellectual activity can be described in terms of three different basic dimensions, viz. He has proposed his tri-dimensional theory of intelligence represented by cubical model. This may be understood by studying this example: A child is asked to determine the day of the week on a particular date with the help of a calendar. The task involves operations like convergent thinking, memory and cognition. In carrying out these operations, he has to make use of the contents. In this particular case, he will make use of semantics, i. By carrying out mental operations with the help of the contents he will finally arrive at the products. Cognitive Theories of Intelligence: These theories are otherwise called process-oriented theories. They focus on intellectual processes; the patterns of thinking and reasoning in people, used to solve problems. These theories consider intelligence as a process which helps to deal with problems and to find out the answers. They are called cognitive theories because of their focus on fundamental cognitive processes. The important theories are: Cattell and Horn have proposed this theory in which they have distinguished two types of intelligence. This is an innate, biologically or genetically determined capacity and not influenced by education or training. This capacity helps the person in learning and problem solving. This is the ability which is useful in understanding and adjusting to strange situations. It is a learned or acquired capacity. It is influenced by environmental factors like education, training, culture, knowledge and learned skills. This ability can be observed in the behaviour of a person while dealing within culture, traditions in society, his knowledge in worldly affairs, through the skills in handling machinery, tools, etc. Generally it continues throughout life. Though both types of intelligence are independent, they are interrelated. Information Processing Theory of Intelligence: This theory was proposed by American Psychologist Robert Sternberg He distinguished between information processing components and meta-components. Components are the steps to solve a problem and the meta-components are the basics of knowledge that one has to know to solve the problem. The information processing is like a process of solving a problem by an individual in which he proceeds to solve a problem which he comes across, gathers the necessary information and makes use of this information for completing that task. Information processing includes the following steps: Identifying the relevant information encoding ii. Drawing the necessary inferences inferring iii. Establishing relationship between past and present experiences mapping iv. Applying the inferred relationship application v. Justifying the correct solution justification vi. Provide the correct solution response. Arther Jensen proposed this theory. Jensen splits intelligence into two types of abilities- associative abilities and cognitive abilities. Associative ability is the capacity to learn, identify, discriminate, remember and reproduce the learnt information and experiences. On the other hand, cognitive or conceptual ability is concerned with higher order thinking,

reasoning, analysing and problem solving. According to Jenson associative abilities are related to biological maturation and the cognitive are dependent on education and culture, leading to more individual differences.

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Chapter 5 : Theories of Intelligence : CTET Notes - TET Success Key

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Spatial picture smart What other scientists thought were just soft-skills, such as interpersonal skills, Gardener realized were types of intelligence. Not knowing math you may not calculate the rate at which the universe is expanding, but you are likely to have the skills to find the right person who will. Naturalist Intelligence Naturalist intelligence designates the human ability to discriminate among living things plants, animals as well as sensitivity to other features of the natural world clouds, rock configurations. This ability was clearly of value in our evolutionary past as hunters, gatherers, and farmers; it continues to be central in such roles as botanist or chef. It is also speculated that much of our consumer society exploits the naturalist intelligences, which can be mobilized in the discrimination among cars, sneakers, kinds of makeup, and the like. Musical Intelligence Musical intelligence is the capacity to discern pitch, rhythm, timbre, and tone. This intelligence enables us to recognize, create, reproduce, and reflect on music, as demonstrated by composers, conductors, musicians, vocalist, and sensitive listeners. Interestingly, there is often an affective connection between music and the emotions; and mathematical and musical intelligences may share common thinking processes. Young adults with this kind of intelligence are usually singing or drumming to themselves. They are usually quite aware of sounds others may miss. Logical-Mathematical Intelligence Logical-mathematical intelligence is the ability to calculate, quantify, consider propositions and hypotheses, and carry out complete mathematical operations. It enables us to perceive relationships and connections and to use abstract, symbolic thought; sequential reasoning skills; and inductive and deductive thinking patterns. Logical intelligence is usually well developed in mathematicians, scientists, and detectives. Young adults with lots of logical intelligence are interested in patterns, categories, and relationships. They are drawn to arithmetic problems, strategy games and experiments. Existential Intelligence Sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why we die, and how did we get here. Interpersonal Intelligence Interpersonal intelligence is the ability to understand and interact effectively with others. It involves effective verbal and nonverbal communication, the ability to note distinctions among others, sensitivity to the moods and temperaments of others, and the ability to entertain multiple perspectives. Teachers, social workers, actors, and politicians all exhibit interpersonal intelligence. Bodily-Kinesthetic Intelligence Bodily kinesthetic intelligence is the capacity to manipulate objects and use a variety of physical skills. This intelligence also involves a sense of timing and the perfection of skills through mindâ€”body union. Athletes, dancers, surgeons, and crafts people exhibit well-developed bodily kinesthetic intelligence. Linguistic Intelligence Linguistic intelligence is the ability to think in words and to use language to express and appreciate complex meanings. Linguistic intelligence allows us to understand the order and meaning of words and to apply meta-linguistic skills to reflect on our use of language. Linguistic intelligence is the most widely shared human competence and is evident in poets, novelists, journalists, and effective public speakers. Young adults with this kind of intelligence enjoy writing, reading, telling stories or doing crossword puzzles. Intra-personal intelligence involves not only an appreciation of the self, but also of the human condition. It is evident in psychologist, spiritual leaders, and philosophers. These young adults may be shy. They are very aware of their own feelings and are self-motivated. Spatial Intelligence Spatial intelligence is the ability to think in three dimensions. Core capacities include mental imagery, spatial reasoning, image manipulation, graphic and artistic skills, and an active imagination. Sailors, pilots, sculptors, painters, and architects all exhibit spatial intelligence. Young adults with this kind of intelligence may be fascinated with mazes or jigsaw puzzles, or spend free time drawing or daydreaming. What do you think? Challenging a millenia-old notion that intelligence is a single kind of human capacity does not necessarily win one friends among the intelligent. This book questions what we consider a good education, what we consider talent, and how much control one has to acquire them. Multiple Intelligences in the Classroom , 3rd ed. Association for Supervision and Curriculum Development,

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Chapter 6 : Chapter 8: Thinking and Intelligence | Psychological Science, Canadian 3e: W. W. Norton Stud

Grant Clay. Period 3. 10/19/08 AP Psychology Outline. Chapter 9: Intelligence & Psychological Testing Red - Definition. Blue - Important Points. Green - Important People & Contributions.

Chapter 7 : Intelligence test | psychology | blog.quintoapp.com

Intelligence And Aptitude - CBSE Notes for Class 12 Psychology. CBSE Notes CBSE Notes Psychology NCERT Solutions Psychology â€¢ Individual differences refer to distinctiveness and variations among people's characteristics and behaviour patterns.

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A typical dictionary definition of intelligence is "the capacity to acquire and apply knowledge." Intelligence includes the ability to benefit from past experience, act purposefully, solve problems, and adapt to new situations. Intelligence can also be defined as "the ability that intelligence.

Chapter 9 : Meaning, Nature and Characteristics of Intelligence | John Parankimalil

Human intelligence: Human intelligence, mental quality that consists of the abilities to learn from experience, adapt to new situations, understand and handle abstract concepts, and use knowledge to manipulate one's environment.