

Logical mathematical intelligence essay



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The theory of multiple intelligences was thought up by Howard Gardner through his opinion on people having not only one way of thinking.

Howard Gardner is a Professor of Education at Harvard Graduate School of Education and author of *Multiple Intelligence: New Horizons* and many other books. Gardner defines intelligence as an ability or set of abilities that allow a person to solve a problem or fashion a product that is valued in one or more cultures (Lane, 2005). It is suggested by Gardner that varying intelligences can be independent abilities, as a person can be low in one domain area but high in another (Lane, 2005). “ It obviously spoke to some sense that people had that kids weren’t all the same and that the tests we had only skimmed the surface about the differences among kids,” Gardner said (Checkley, 1997). The characteristics of logical mathematical intelligence will be discussed in this essay. Logical mathematical intelligence, related by Checkley, is defined by Gardner as the ability to understand the underlying principles of some kind of casual system, the way scientist or a logician does; or can manipulate numbers, quantities, operations, the way a mathematician does (Checkley, 1997).

The skills and abilities of an individual that has this intelligence according to Wessman is called scientific thinking (Wessman, 2013). The ability to calculate, quantify, consider propositions and hypotheses, and also carrying out complex mathematical operations are all abilities brought by this intelligence (Wessman, 2013). In Gardner’s book of multiple intelligence, Gardner describes an anecdote which illustrates two essential facts of logical-mathematical intelligence where a scientist copes with many variables at once and creates numerous hypotheses that are each evaluated

and then accepted or rejected in turn displaying a process of problem solving that is remarkably rapid (Gardner, 2006). The nature of this intelligence is fundamentally nonverbal as the solution process to a problem may be completely invisible to the problem-solver (Gardner, 2006). Gardner says that people with this intelligence will perform, for example mathematical problems, repeatedly to enhance their ability producing a way of solving problems in their minds quickly due to regular practice. Furthermore, an inclination towards accuracy in dealing with marks on a piece of paper and to achieve an excellent result through desire is a advantage of a logical-mathematical learner (Gardner, 2006).

The need and want of such a feat is a way of pushing themselves in accomplishing goals in their life. Although this desire can come to anyone having any intelligence, this perseverance is a principal to being a logical-mathematical learner. With the intelligence of logical-mathematical, logic is key part of this intelligence showing the ability to reason deductively or inductively which operate in two opposite directions (Bluedorn, 1995). It is written in the article Two Methods of Reasoning by Harvey Bluedorn, inductive reasoning starts by gathering particular observations in the form of premises, then it reasons from these particular premises to a general conclusion (Bluedorn, 1995).

People start from observation to find out some interested phenomenon, then they find out some patterns through the observation, afterward, they test those pattern by experiments and it aims to conduct a conclusion which can generalize in the real world, finally, the conclusion is the new insight (Rubin & Babbie, 2011). Deductive reasoning on the other hand, works in the

opposite direction. It implies that people select to begin from the existed theories, then narrow down and find out doubt or questions from those theories, afterward, people will conduct some hypothesis and try to test them by experiments, finally, the new theory will be conducted (Rubin & Babbie, 2011). The process is from general to specific (Trochim, 2006). Deductive and inductive logical reasoning are interactive and can be a bridge to connect theory and research together (Rubin & Babbie, 2011).

Children at a young age can show their interest as to what they prefer doing most of the time. If they try to fix things that aren't broken or just plainly take things apart their domain intelligence is surely logical-mathematical. Ferch says these type of children like to explore patterns, categories and relationships between concepts by actively manipulating their environment and experimenting with things in an orderly way (Ferch, 2013). This intelligence can be developed by playing games such as chess, solving puzzles and brain teasers, understanding how computers work and even playing strategy games on the computer itself as many game developers create games that are requires thinking rather than action adventures. People with strong logical-mathematical intelligence enjoy activities such as math, computer science, technology, chemistry, physics and design. These learners prefer logical order in instruction and often work best in structured, organized environments.

Therefore, these learners cannot be as productive in an unorganized environment which is why it is best for them to avoid these environments. They learn best with visual materials and hands on projects rather than text or verbal. These logical-mathematical talented individuals are often drawn to <https://assignbuster.com/logical-mathematical-intelligence-essay/>

careers such as computer programming or electronic, mechanical or chemical engineering. Drafting, accounting, finance and investment, architecture and other sciences may also bring interest to logical-mathematical learners.

Logical-mathematical intelligence is mainly used for problem solving and often rapidly in the mind of the individual and not on paper is frequently done not wrong as these individuals have a strong logical-mathematical intelligence helps increase productivity in any case. These individuals have the ability to analyse information and link them together to solve a problem or merely to show connection. Reasoning deductively and inductively is advantageous in many situations such as an argument or debate. With these abilities, they can learn any subject or object faster and independently rather than being guided. These learners are therefore able to survive in any mathematical logical based career they are placed in as they have the right skills. In conclusion, someone with logical-mathematical intelligence has the ability to calculate, think scientifically, reason and link information together.

Everyone has these intelligence but some stronger than others and therefore are able to think critically, reason inductive and deductively, calculate rapidly in their mind and solve problems quickly. People with this intelligence have an advantage over the mathematical and logical side of life.