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vc waterfall  ST10091991

INRS ICE 2

1. A hypothesis is basically an educated guess in a nutshell which proposes an explanation to a phenomenon for example do AI have cognitive thinking when interacting with humans based off a chat encounter?
2. The independent variable as there will be other variables that are dependant on set variable thus the outcome will change of the dependant variables.
3. The dependant variable is” the visible effect of acne”.
4. A researcher conducts an experiment to see if the hours of sunlight per day exposure to chickens increase the number of eggs laid by chickens.
5. The following hypothesis aims to find out if a person’s behaviour affecting health differ from those who exercise versus those who don’t where the independent variable is exercising regularly to those who don’t, and the dependent variable is behaviour affecting health. The hypothesis is to see the relationship of a person’s behaviour health to a person who exercises and to a person who does not exercise.
6. How does listening to music affect the academical performance of people that listen to music while studying and those that do not listen to music when studying?
7. **Theory** - A well-supported explanation for a broad range of events is called a theory in science. It has endured extensive testing and is backed by a strong body of evidence. A scientific theory, in contrast to the ordinary usage of the word "theory," which frequently connotes conjecture or guessing, is a thorough explanation that incorporates and clarifies a substantial body of information. In science, theories represent the ultimate level of understanding and are always being tested, improved, and broadened in response to new data.   
   **Law** -A recurrent pattern or relationship seen in nature is described by a scientific law. It is a succinct statement that encapsulates several findings regarding a certain issue. Scientific laws, in contrast to theories, do not explain why the patterns that have been observed arise. Rather, they explain what transpires in certain scenarios. Laws can be used to forecast the results of future observations and are frequently represented as mathematical formulas or equations. Within a certain context or topic, scientific laws are thought to be universally true, but they are susceptible to adjustment or improvement when new data becomes available.  
   **Hypothesis** – An explanation for a phenomenon is put forth in a hypothesis. It's a claim that can be verified by observation and experimentation. Usually, it is founded on preexisting information, beliefs, or observations. Scientific inquiries begin with hypotheses, which form the basis for planning experiments and acquiring data.
8. A diagram of a method

   Description automatically generated

(Bertram, 2003)

Reference List  
Bertram, J.E.A. (2003) *A simple diagram illustrating the function of the hypothesis in the...*, *Hypothesis testing as a laboratory exercise: A simple analysis of human walking, with a physiological surprise*. Available at: https://www.researchgate.net/figure/A-simple-diagram-illustrating-the-function-of-the-hypothesis-in-the-scientific-method\_fig1\_11340460 (Accessed: 27 March 2024).