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*Poster*

## **Characteristics and elements of judgment in scientific inquiry**

Scientific method as a systematic and organized procedure of obtaining data placed more emphasis on how facts and truth emerged from rigorous observations and empirical studies of the real world. Its practical features or characteristics make it remain as the only rational process for deciding and agreeing upon which statement, hypothesis, theory or explanation is more adequate and suitable to describe, clarify, explicate or expound and analyse a situation, an event or a phenomenon in the natural as well as in the social world. The characteristics of scientific method- logic; determinism; specificity; parsimony; empiricism; intersubjectivity; objectivity; verifiability; factualism; reliability; and proportion allow the method to give much confidence to the producer of an explanation.

The findings would be sustainable being feasible, possible, viable and practicable. The results would be equitable since they are impartial, justifiable, fair, rightful, and unbiased. Finally, the conclusion, verdict or theory would be transformable on the fact that, its standard or validity is adaptable and can be used to translate, alter, exchange, change, convert or transform the phenomenon. The logic behind the philosophy of science and scientific methodology springs from the general insecurity of human life. Security is obtained chronologically by knowing the fact and understanding the situation of the fact then elucidating and manipulating the situation to the advantage of the system or environment in general.

Natural science studies natural and physical phenomena and variables which are prone to laboratory experimentations and tests. The applicability of experimentation method is limited in social sciences because of its complexities. Methodological standards therefore can be very technical, complex and discipline specific. Contrast is made between general methodological standards or principles governing inquiry in any scientific discipline, and discipline-specific standards or principles applicable to inquiry in a particular profession given its goals and focus, theories and traditions, and also variables and techniques.

Social sciences were able to come up with other methods such as survey, phenomenology, ethnomethodology and others in order to complement the positivists' method. All methodological standards play a similar role in inquiry since scientific methods guide scientists in research by providing a systematic, precise and objective manner of obtaining knowledge and avoiding ignorance.