

What is the meaning of science? essay

[Finance](#)



However, sciences can be sorting out to different branches particularity, like formal sciences, physical sciences, life sciences, social sciences and applied sciences etc. The people who engage in 'Science' called 'Scientists'.

Normally, scientists use some systematic and accurate methods to interpret facts and knowledge with calculation, observation, explanation and prediction. During the experiment, there may be some trial and error happened but the scientists can still go through.

There are some remarkable examples those scientists who explore and discover some theories or reach some achievements which are always a legendary and the best interpretation in their scopes as before until now. Sir Isaac Newton, one of the most influential scientists in the world till now. Furthermore, he was an English physicist and mathematician regards as a miracle that the theories he ever found out. The law of universal gravitation and the law of motion that mentioned by Newton are still phenomenal in providing proper logic and a boost to future generation or scientists to help them in study of universe and mechanic or further application. This is a good example for us to know that 'Science' is always surrounding just like what Newton's found. What are the major components of the scientific method?

There are some major components of the scientific method may included to help the scientists to solve problem with their profession. First, we need to set a research question to let the people know what kind of problems that the scientists want to understand and solve.

Second, Hypothesis and prediction should be set up. Hypothesis is a 'professional guess' that created by the theoretical explanations of the scientists. Then, prediction can be also set up which is related to the theory

of the scientists. For example, like Einstein equivalence principle etc. Third, they should frame an experiment or testing carefully to test their hypothesis or assumption. Moreover, the experiment should include some elements being shown as below.

Variables, control, observation, collect data, Journal, data, chart and graphs which are the main elements may affect the experiment directly. Forth, list out the material (supplies and equipment) being used in the experiment to ensure the experiment can go on smoothly. Fifth, they should record down the procedure to observe the variation of the experiment. Then, they can write down the results, conclusion and analysis to explain what they have seen or solved in this experiment. If there is something (technology or application) can be used or learned at the end of the experiment, they can invent something new or talk with their experience. What are the goals of using scientific method? The scientific method is a logical and rational order of steps by which scientists come to conclusions about the world and the phenomena around them.

The scientific method helps to organize thoughts and procedures so that scientists can be infinite in their answers they have found. Scientists use observations, hypothesis and comparison against the hypothesis to make these conclusions carefully. In the process, intelligence and patience may be required as the characteristic of the scientists. To what extent do social scientists comply with the scientific principles in explaining human behaviors and decisions? The scientific method using in the social science is called ‘ case studies’ which are a common method among the social scientists. Case

studies can be hosted as an individual, group or events as a format to roommate their assessment or investigation conveniently.

Nowadays, we can also use the ‘ case studies’ method in explaining human behaviors and decisions. We can start to understand with the society changes to study the human behaviors and decisions. The scientific discipline or principle can be measure by the extent to which that principle is creative to the new phenomena. Before, in the study of the social phenomena, it is said that the social sciences do not meet the creation of the social phenomena. As an argument, the social sciences is indeed plays an important role in he creation of the said phenomena as well as the kind of persons, and the entities that inhabit the society. The social science are composed of three criteria which is characterized by a high level of consensus on what counts as secure knowledge, can generate the rapid discovery of new results, and the applied research to it. The process is actually reinforces consensus and the sense of objectivity of what has been discovered. The consensus is enhanced by another characteristic of the natural sciences: the applied research techniques and instruments have a history which embodies the past of the science and the skills of previous generations of scientists, at the same time as they develops and extends them (Osborne & Rose, 1999).

What difficulties have social scientists encountered in applying the scientific method to the study of social phenomena? Imagine some research and experiment, like exploring the universe that is a long term war. Lack of resources (finance or ground) and manpower are the main threaten which may affect the process or accuracy of the research or experiment. Research <https://assignbuster.com/what-is-the-meaning-of-science-essay/>

and experiment always contain variables that may effect the result. For example, a survey which is talking about the labor force in Hong Kong, there is a question which is about the qualification. Some residents may mislead the surveyor to select a higher qualification because of the self-esteem or self-protection. Certainly, it may be a minor influence if it is just a few happened.

The social phenomena became known as the general in contemporary society which gives forth to the development of the method. The awareness of using a method in the study is important to give better understanding on the study and create and impressive explanations. However, most of the methods became a failure because of the difficulties that involved in implementing the method. The reduction in the important elements of the method is one of the most common difficulties that can be occurred during the examination of the social phenomena. Because of the vast variables that can be used in the study, the researchers engaged in the field of the social science are applying the different versions of the method. In addition, the researchers are also failing to achieve the logic of the investigation.