

How is research used in psychology essay

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* Research in Psychology as in all fields of science has two focuses of interest. * Basic Research = is concern with the quest for knowledge regardless of whether it has immediate practical value. * Applied Research = seeks to improve the human condition by discovering something that can be put to practical used. * When the scientist work, strive to find relationships between observable variables. For example, Robert Boyle found a direct relationship between the temperature of a gas and its volume under certain conditions.

* By knowing one, the other can be predicted * By manipulating one, the other can be controlled. But psychologists use several methods of relating variables to predict, control, and understand behavior. How do psychologist work? What methods do they use * As with all science, psychology is interested in discovering a new information that can be verified by other researchers. The methods that psychologists use include: experimental method, observational, survey, test method and case histories. *

Experimental Method = is the most widely used of scientific ways of getting information. The method can be used outside the Laboratory as well as inside under controlled conditions.

The experimental method is a matter of Logic, not of location * However, most of the experimentation takes place in " special laboratories" chiefly because * The control conditions commonly require special equipment that is best housed and used in one place. * Variable = one of the varying factors being studied in experimental or other research * Independent variable = this is the factor under experimental control to which the changes being studied are related because we change it independently * Dependent

variable = depends on these changes under investigation. The experimenter, before making any actual observation defines and analyzes the problem under consideration in what he calls experimental design.

1. A formal definition of the problem. 2. The experimenter works out the conditions under which observations and measurements are to be made. 3. The phase of securing the apparatus or instruments to be used in the study is done. 4. The experimenter outlines the procedure he will follow in dealing with the results obtained. In stating the problem, the experimenter follows one of two approaches or sometimes both. 1.

He may begin by saying in effect: " Lets try this and see what happens. " 2. He may set up certain hypotheses: " If I do this and so, this is what will happen. " The test of a theory or hypothesis is what happens to the independent variable. If the changes in the predicted manner, then the hypothesis is accepted.

If the prediction fails, the hypothesis is rejected. Experiments is the collection and arrangement of tentative explanatory theories and testing of theories by trial under controlled conditions. They usually involve comparisons between the behavior of a controlled group and that of an experimental group. Observation Method * Is a visual and oral method of examining, describing and interpreting the reactions of individuals and groups in a laboratory, classroom, or out-of-school situations. * The investigators go into the field with question or set of questions and make observation. They are recorded accurately in order to avoid projecting their own wishes or biases onto what they report. Kinds of Observation

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Uncontrolled Observation -this method of observation does not follow any particular scope of behavior to be observed.

It is a casual and the psychologist is free to observe any activity that comes his way without any formal recording of such behavior. Naturalistic Observation- An observation of things as they naturally happen. Other investigators call this as a field study method. Here critical observations are made of nature " in the raw". Controlled Observation or Formal Observation- follows certain rules, in gathering materials in order to draw the best conclusions.

Survey Method = give us valuable guidelines for measuring attitudes getting at those factors that influence behavior and making predictions. This is frequently used to obtain information from relatively large numbers of people through questionnaires and interview The questionnaire, to be more useful, should be pretested to make sure that all respondents understand theData obtain from a large group particularly that group which will constitute a representative sample. SAMPLE= carefully selected to insure that the respondents are representative of the population to be studied and appropriate methods of data analysis so that the results are properly interpreted. The word POPULATION = " all" of anything and this is difficult to arrived at.

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The word POPULATION = " all" of anything and this is difficult to arrived at. Generally a SAMPLE from a population is selected using random selection. Random Sampling every unit in the population has a mathematically equal chance of being included in the sample thus making the sample representation of the population.

Test Method - makes use of test as a research instrument. The test is used to measure all kinds of abilities, interests, attitudes and achievements. Case histories - are scientific biographies which are important sources of data for psychologist studying an individual. The case histories can be of institutions or group of people. Most case histories are prepared by reconstructing the biography of a person to include the individuals earlier history necessary to understand the present behavior. Other case histories are based on a longitudinal study by following an individual or group of individuals over a an extended period of time. How do psychologists measure behavior and experience? What ever method psychologists use they find it necessary to make statements about amounts or qualities and thus can be measured.

Measurement relates to the identification of both the qualitative and quantitative. A set of values that goes up or down is called a scale. There are nominal scales, ordinal scales, and interval scales. This kinds of classification employed are quantitative and qualitative classification * Quantitative - is one wherein categories are determine on the basis of characteristics which

are present in different degrees and can be measured mathematically. *

Qualitative - is one wherein items are group into categories on the basis of the qualities or characteristics they have in common. * Experimental design is used to describe the procedures used in planning an experiment.

The simplest experimental designs are those in which the researcher observes one variable called independent and dependent variable. Other experimental designs call for a group called experimental group and another group called control group. Ex. Grade 6 pupils uses CAL Statistical Method Statistics - is the science that deals with collecting and handling of numerical data, and the making of inferences from such data. Statistics is needed for understanding the tests utilized to appraise individuality such as intelligence tests, personality tests, and many other kinds of appraisal devices.

Psychologist classifies his facts in meaningful categories on the basis of similarity Statistical Measures 1. NORMAL DISTRIBUTION CURVE = this is the standard symmetrical bell-shaped frequency distribution used in making statistical inferences.

2. MEASURE OF CENTRAL TENDENCY = this is frequency distribution namely mean median mode of a distribution of scores. 3.

CORRELATION = is the numerical index used to show the degree of relationships between two sets of paired measurements. = degree of relationship between 2 variables. Statistical inference this is a statement about a population based on a statistical measures derived from samples.

A researcher who says that the difference between the experimental and control is statistically significant means that the observed difference is like to <https://assignbuster.com/how-is-research-used-in-psychology-essay/>

occur again if the experiment is repeated based on the statistical tests that have been applied to the data gathered. How are computers used in psychology? Computers are used in psychology to provide fast means of analyzing data laboratory control, and even theory construction