

11 Psychology

Chapter 2

Methods of Enquiry in Psychology

❖ Goals of Enquiry in Psychology

- **Description:** Description of behaviour or a phenomenon accurately is important in a psychological study because it helps to distinguish the different kinds of behaviour.
- **Prediction:** Description of accurate behaviour helps in predicting it.
- **Explanation:** This goal identifies the determinants or antecedent conditions of the behaviour being studied so that cause-effect relationship between the two variables could be established.
- **Control:** It refers to controlling the occurrence of a particular behaviour, reducing it or enhancing it.
- **Application:** Knowledge is applied in order to bring about positive changes in the lives of people.

❖ Procedure to conduct a Scientific Research

- **Conceptualising a Problem:** Before starting with the research it is important to understand and narrow down the theme or problem which needs to be enquired.
- **Collecting Data:** Collection of data involves developing a research design and deciding about participants, methods of data collection, research tools and procedure for data collection.
- **Drawing Conclusions:** It involves the analysis of the data collected in order to verify the hypothesis and draw conclusions.
- **Revising Research Conclusions:** A researcher needs to reconsider the conclusions if they are not in accordance with the hypothesis.
- Psychological research is also conducted in order to understand the subjective interpretation of events as they occur in a particular context, and also relies on the analysis of one's own behaviour and experiences.

❖ **Different Types of Data in Psychology**

- **Demographic Information:** It includes personal information like name, age, gender, birth order, number of siblings, education, caste, etc.
- **Physical information:** It includes information on ecological conditions, housing conditions, facilities at home, transportation, etc.
- **Physiological Data:** Physical, physiological and psychological data include information on height, weight, heart rate, blood oxygen levels, running and jumping rates etc.
- **Psychological Information:** It includes the information on intelligence, personality, interest, values, creativity, emotions, thought processes etc.

❖ **Methods to Collect Data**

- **Observational Data:** Data is collected by observing the particular behaviour or event upon which the research needs to be done. This is done by following techniques:
 - **Selection** of the particular behaviour or event.
 - **Recording** the observation by taking notes regularly or through photography and video recording.
 - **Analysis of data** by deriving some meaning of the observation.
- **Types of Observation**
 - **Naturalistic vs. Controlled Observation:** Natural observation is based on natural behaviour or event whereas controlled observation is carried out in a laboratory.
 - **Non-Participant vs. Participant Observation:** In the non-participant observation, the psychologist observes the behaviour from a distance, while in participation observation s/he becomes a part of the particular group on which research is to be conducted.

- **Experimental Method:** It is used to establish a cause-effect relationship between two sets of events or variables in a controlled setting.
 - **Experimental Group:** The members are exposed to independent variable manipulation.
 - **Control Group:** It is a comparison group which is treated like the experimental group, but the only difference is the absence of manipulated variable.

- In order to control the relevant variables, the experimenters have to use following techniques:
 - Elimination
 - Constantly holding the variables
 - Matching
 - Counter-balancing
 - Random assignment of participants

- **Correlational Research**
 - The researcher finds out the relationship between two variables to determine whether they are associated or covary or not.
 - The relationship between the two variables is represented by a number called correlation coefficient.
 - The value can range from +1.0 through 0.0 to -1.0.
 - It has three types of correlation:
 - i. **Positive correlation** is indicated by a positive number.
 - ii. **Negative correlation** is indicated by a negative number.
 - iii. **Zero correlation** is indicated by 0.

- **Survey Research**
 - **Personal Interview:** It is a purposeful activity conducted to determine factual information, opinions and attitudes from the respondents.
 - There are two types of interviews:

- i. Structured or Standardised
 - ii. Unstructured or Non-standardised
 - An interview may have the following combination of participants:
 - i. Individual to Individual
 - ii. Individual to group
 - iii. Group to individuals
 - iv. Group to group
 - Questionnaire surveys consist of a set of questions which the respondent has to answer.
 - It is the most simple and low-cost method to collect information.
 - Telephonic survey is conducted through either phone calls or message.
- **Psychological Testing**
 - It is a standardised and objective instrument used to assess an individual's standing in relation to others on some mental or behavioural characteristics.
 - The construction of a test requires it to be **reliable, valid**, and based upon **norms**.
 - Types of psychological test:
 - i. **Verbal:** It is used for literate people.
 - ii. **Non-verbal:** The items are made of symbols.
 - iii. **Performance:** It requires the movement of objects from their respective places.
 - iv. **Individual:** It is administered by the researcher to one person at a time.
 - v. **Group:** It is administered to large number of people at the same time.
 - vi. **Speed:** It has a time limit to answer all the items.
 - vii. **Power:** The items are placed in an increasing order of difficulty.
 - **Case Study**
 - The emphasis in this method is given on in-depth study of a particular case.
 - The case can be of an individual or a group.

- It involves various method of collecting information like interview, observation and psychological tests.
- It plays an important part in clinical psychology and human development.

❖ **Analysing the Data**

- **Quantitative Method:** It deals with the use of statistical instruments to arrive at a conclusion.
- **Qualitative Method:** It deals with the use of narrative method and the method of content analysis, which are non-statistical.

❖ **Limitations of a Psychological Enquiry**

- **Lack of True Zero Point:** There is no zero point in psychology which leads to relative score rather than absolute score.
- **Relative Nature of Psychological Tools:** The tests in psychology are created according to a particular context and cannot be used in other contexts.
- **Subjective Interpretation of Qualitative Data:** Data from qualitative studies are subjective because they involve interpretation on the part of the researcher as well as the person providing data.

❖ **Ethical Issues**

- **Voluntary Participation:** The participation and withdrawal of the subject in a research depends on his/her own choice.
- **Informed Consent:** The participant should be informed about the kind of research he/she will go through.
- **Debriefing:** The participants are provided with necessary information to properly understand the research after the study is conducted.
- **Sharing the Results of the Study:** It is important for the researcher to inform the participant about the results of the study to fulfil their expectations and get their opinions.

- **Confidentiality of Data Source:** The researcher must maintain the anonymity of the participant and safeguard their privacy under strict confidence.

❖ **Important Terms and Definitions**

- **Control Group:** It is a comparison group, which is similar to the experiment group. However the manipulated variable is absent in it. Subjects in a study who do not receive the special treatment given to the experimental group.
- **Correlational Research:** It investigates the relationship between two variables with the goal of describing their strength. between two or more events or characteristics or variables.
- **Data:** Qualitative and quantitative information, which is related to mental processes, subjective experiences and behaviour, gathered from individuals. It is a significant aspect of a psychological enquiry.
- **Debriefing:** The process of informing a participant of the actual intent of an experiment after its successful completion. It reassures the participant and removes anxiety in them.
- **Dependent Variable:** It is a variable in which the effect of independent variable is observed. Thus, it is the effect of an experimental situation.
- **Experimental Group:** It is a group whose members experience the manipulation of independent variable.
- **Experimental Method:** It is a method of enquiry which seeks to is used to establish a cause-effect relationship between two sets of events or variables in a controlled setting.
- **Hypothesis:** A tentative statement of a phenomenon or the relationship between variables as answer to the questions in a research.
- **Independent Variable:** It is the cause in an experimental situation that can be altered by the researcher. heck the predicted effect on some other even
- **Interview:** It is a technique generally based upon face-to-face interaction but sometimes can

- also be taken over the phone. Interview is conducted to collect information and reasons for a particular behaviour by an individual.
- **Negative Correlation:** It denotes the relationship between two variables in which the value of one variable increases and the other decreases.
 - **Norms:** It is the standard average performance of an individual or a group of people, which is used in interpreting scores on psychological tests.
 - **Objectivity:** The process of carrying out the research in which the researcher is free of pre conceptions, so that the experiment or the research is neutral in nature, without any form of biasness.
 - **Observation:** It is a procedure to obtain information by intentional examination and recording of an object or process as it occurs. It can be done in naturalistic or controlled laboratory conditions.
 - **Positive Correlation:** It denotes the relationship between two variables in which the value of both of the variables increases.
 - **Psychological Test:** It is a standardised measure of an individual's behaviour in relation to the others.
 - **Questionnaire:** A set of questions in a research for the participant in order to carry out the research and collect information. It is the most common, convenient and inexpensive technique to derive at answers.
 - **Reliability:** It is the degree of consistency of scores by an individual in a same test and different stages or levels.
 - **Structured Interview:** An interview where the questions are organised in a formal pattern and written in an ordered sequence.
 - **Survey:** A research method that includes written questionnaires or interviews both at personal and impersonal levels. It is conducted to obtain data of a given population.
 - **Unstructured Interview:** An interview where the questions are in an informal and disorganised pattern, without any proper sequence.
 - **Validity:** It demonstrates the actual aim of a test as a test should be valid in order to be used and should examine only the aim of the research.

- **Variable:** An event, characteristic or a stimulus that can vary at different situations and are measurable in nature study.

