
UNIT 2 **METHODOLOGICAL APPROACHES IN APPLIED SOCIAL PSYCHOLOGY***

Structure

- 2.0 Objectives
- 2.1 Introduction
- 2.2 Concept of Research in Applied Social Psychology.
 - 2.2.1 Goals of Psychological Research
 - 2.2.2 Characteristics of Psychological Research
- 2.3 Research Concepts and Components
- 2.4 Quantitative Research in Applied Social Psychology
- 2.5 Action Research
- 2.6 Ethics in Psychological Research
- 2.7 Let Us Sum Up
- 2.8 References
- 2.9 Key Words
- 2.10 Answers to Check Your Progress
- 2.11 Unit End Questions

2.0 OBJECTIVES

After reading this unit, you will be able to,

- discuss the research in applied social psychology;
- explain research concepts and components;
- describe qualitative research in applied social psychology;
- explain the concept of action research; and
- discuss ethics in psychological research.

2.1 INTRODUCTION

Seema was a psychologist working with a Non Governmental Organisation. She mainly worked with migrant labourers and felt that health related

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awareness was very low amongst the migrants that made them vulnerable to various illnesses. So she decided to carry out a research to understand the areas of health related behaviours that need to be focused on. She used a standardised tool to measure health related knowledge, attitude and practices and collected data. As she analysed the data using statistical techniques, she could identify the areas of health that needed attention. Based on the results she developed a workshop plan for the migrant labourers.

As you can see in the above example, with the help of research, Seema was able to develop a suitable health related intervention strategy to help migrants. In a similar manner, in order to understand and deal with various social issues, research can be carried out and based on the results of these research suitable intervention strategies can be developed.

There are a number of problems and issues in the society that can be directly or indirectly related to human behaviour, be it aggressive behaviour in terms of road rage, bullying or even cyberbullying, overindulgence in social networking, lack of effective communication and interpersonal relationship, suicidal ideation and so on. Such problems and issues need to be researched further in order to not only develop better understanding about them including factors leading to them and to develop suitable intervention strategies to deal with them effectively.

Research is an important aspect of any subject area. In applied social psychology as well, research is carried out in order to further broaden the scope and knowledge area of the subject. Further, research in applied social psychology also focuses on development, implementation and evaluation of intervention strategies.

2.2 CONCEPT OF RESEARCH IN APPLIED SOCIAL PSYCHOLOGY

Before we go on to specifically discuss about research in applied social psychology, let us look at the definition, goals and principles of psychological research. You may have covered this to great extent in BPCC105: Psychological Research, that was core course in third semester. We have to remember that applied social psychology is a branch of social psychology, which in turn is an area under psychology. Thus the goals, principles and characteristics of psychological research also hold true for applied social psychology.

Research in simple terms can be explained as adding to the existing fund of knowledge. The term research is derived from the French word 'recherche' which means to travel through or survey. Research can be described as an enquiry that is not only critical but complex as well. Research can also be described as an analysis and recording of controlled observation that is

objective and systematic in nature. And this analysis and recording can result in generalisations, and also development of theories.

Some of the definitions of research are given as follows:

Kerlinger (1995, page 10) defines scientific research as “a systematic, controlled, empirical and critical investigation of natural phenomenon guided by theory and hypotheses about the presumed relations among such phenomena”.

Research, in simple terms, can be defined as “a systematic investigation to find answers to a problem” (Burns, 2000).

Best and Khan (1999) have defined research as “systematic and objective analysis and recording of controlled observation that may lead to the development of generalisation, principles or theories, resulting in prediction and possibly ultimate control of events”.

Some of the key points in the above given definitions of research are as follows:

- 1) **It is systematic in nature:** Psychological research is systematic as well as scientific in nature and follows a pattern and scientific process. It is important that research is carried out in systematic and scientific manner so as to ensure that the outcome of the research can be relied on and the researcher(s) have confidence in the outcome of the research.
- 2) **It is objective:** Objectivity is a significant characteristics of any research and care needs to be taken that no subjectivity creeps in so that the internal validity of the research is maintained. Thus, the subjective beliefs of the researcher should not interfere in the research process or the outcome, rather the focus needs to be on reality that is objective in nature.
- 3) **It seeks answers to certain problem:** Psychological research is carried out with an objective that needs to be clear and specific. There could be certain problems and issues that the researcher(s) may come across and may seek answers to.
- 4) **With the help of research, generalisations can be made and theory and principles can also be developed:** Based on the research findings generalisations can be made. Further, based on the findings, theory and principles can also be developed.

2.2.1 Goals of Psychological Research

The main goal of psychological research is to comprehend human and animal behaviour. The more the researchers are able to decipher human behaviour, the more it will benefit the society in general and individuals in specific. For example, developing a better understanding about aggressive behaviour

amongst youth, can help develop suitable intervention. Let us now look at certain specific goals of psychological research, that are discussed as follows:

- 1) **Description:** This is one of the prominent goals of research that involves description of behaviour in a systematic manner. Description involves information about what exactly is happening in a situation, where and with whom is it happening. In description a certain phenomenon/ event or issue is identified and reported. For example, safety behaviour of employees can be observed and described.
- 2) **Explanation:** This mainly involves explaining why a certain behaviour/ phenomenon is taking place. For example, if employees in an organisation are not using safety devices, then explanation can be generated as to why they are doing so.
- 3) **Prediction:** Yet another goal of psychological research is prediction. Based on research certain predictions can be made about the behaviour under study. In prediction, the factors that may be correlated or related with certain behaviour or phenomenon are identified. For example, predictions are made with regard to why employees are not using safety devices based on previous research and information.
- 4) **Control:** Control is also an objective of research which involves bringing about a change in the behaviour with the help of suitable intervention strategies. For example, suitable intervention strategies can be developed to promote use of safety devices amongst the employees.
- 5) **Application:** Inferences can be drawn based on the results obtained by carrying out the research and these can then be applied for problem solving as well as decision making.

A good psychological research is systematic and scientific in nature. It also needs to be valid as well as verifiable and replicable. A good psychological research needs to be logical as well and it should be possible to make generalisations or develop theories and principles based on the research outcomes. Thus, a research could be carried out to systematically and scientifically test certain hypothesis(es) and theories and this is done by controlling the influence of extraneous or confounding variables.

2.2.2 Characteristics of Psychological Research

An adequate psychological research needs to have the following characteristics:

- 1) **The purpose and objective(s) of the research needs to be stated in clear and specific manner:** It is important that the purpose and the objective(s) of the research are stated clearly and specifically, as the choice of research design and other aspects of the research will depend on the objectives of the research.

- 2) **In order to ensure objectivity, the research procedure needs to be planned adequately:** Any research needs to be adequately planned. Even while building a house, a plan is to be drawn that is followed. In a similar manner while carrying out research as well, a plan is to be drawn. That is the reason why often a research proposal or synopsis is created that provides details about the problem, objectives, hypothesis(es), sample, research design, tools for data collection and data analysis.
- 3) **Research design needs to be appropriately selected based on the purpose and objective(s) of the research:** Research design provides a structure to the research and it is important to adequately select a research design based on the statement of problem stated in the research. Suitable selection of research designs can ensure high internal validity.
- 4) **Appropriate tools need to be used for data analysis:** Data analysis is an equally important aspect of a psychological research and again based on the purpose and objective(s) of the research suitable techniques of data analysis need to be employed.

Let us now focus on research in applied social psychology. The main focus of research in applied social psychology is not only on understanding the social issue or problem but also to develop suitable intervention strategy to deal with the issue. For example, if a research is carried out to understand elderly abuse, after understanding the issue, an intervention strategy will be developed to reduce elderly abuse. Though, in certain cases, applied social psychologists may also refer to the existing research in order to develop suitable intervention strategy to deal with certain issues.

Some of the important aspects of research in applied social psychology (Shetgovekar, 2018) are as follows:

- The research may not be based on scientific curiosity. Rather it focuses on a social issue or problem and how to alleviate it.
- The approach utilised is an interdisciplinary approach as any social issue or problem cannot be studied from a single dimension.
- The research is mainly carried out in field set up.
- An action plan is developed based on the results obtained. And this intervention could be further subjected to evaluation to understand its effectiveness.

Check Your Progress I

- 1) List the goals of psychological research.

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2.3 RESEARCH CONCEPTS AND COMPONENTS

You have already studied of psychological research in BPCC105. This is just an overview to revisit what was learned by you. Let us look at some of the research concepts and components in research.

Constructs

When we discuss about constructs, it is also important to understand what is concept in the context of psychological research. As defined by Kerlinger (1995, page. 26), a concept “expresses an abstraction formed by generalisation from particulars”. Thus, height can be a concept, that can be expressed in terms of observation of objects that are long or short. To take an example of a psychological variable, adjustment, abstraction can be formed for adjustment based on observations of individual behaviour. In a similar manner various psychological variables can be abstracted based on certain behaviours that can be categorised together.

A construct can be termed as a concept that is adopted for empirical purpose (Kerlinger, 1995). Thus, when adjustment is adopted in a research for empirical purpose, it will be termed as a construct. When a concept is adopted as a construct in a research, it is entered in to the theoretical framework and thus can be related to other constructs in numerous ways. Further, constructs can be subjected to observation and measurement (Kerlinger, 1995). For instance, a standardised scale on adjustment can be used to measure the construct of adjustment.

Variables

Variable means something that varies. It can also be explained as quantity or a number that will vary or will have different values. If a researcher is carrying out a study on emotional intelligence and self esteem of adolescents in India, in this study, emotional intelligence and self esteem can be termed as variables. Emotional intelligence and self esteem can be high or low. Both these variables can possess varied values. Even gender can be termed as a variable because it will vary in terms of males or females. Variables can be of different types including the following:

- **Independent variable:** Variable that is manipulated by the researcher is independent variable.
- **Dependent variable:** In a research, variable that is measured for any changes when independent variable is manipulated is dependent variable.
- **Extraneous variable:** Variables that may impede or interfere in the relationship between independent variable and dependent variable are called extraneous variables.

Population and Sample

The term population can be used to describe the persons, objects, elements, animals or even reactions that display a pattern of characteristics that is unique. It can also be explained as set of persons, objects, elements, animals, reactions that the researcher wants to study. If a researcher wants to carry out a study on adolescents in New Delhi, then his/ her population will be all the adolescents in New Delhi. Population can be finite or infinite in nature (Mohanty and Misra, 2016, page 3). An example of finite population is number of students in a school who have failed in mathematics. And an example of infinite populations would be number of stars in the sky.

In simple terms, sample can be defined as the group of individuals who participate in the research. If we take the example of adolescents in New Delhi, discussed above, it is not feasible for the researcher to contact and collect data from all the adolescents in New Delhi. Thus, the researcher will take a sample (preferably representative) from that population. To take another example, in a cold drink factory, if the quality inspector wants to find out if the quality and taste of the cold drink is adequate, he/she will not test all the bottles of cold drink, but take a sample and test the same and preferably this sample is taken randomly.

Thus, a sample is a smaller group from the population that participates in the research. It is important that the sample is representative of the population, that is, it is as much as possible similar to the population or possesses the same characteristics or elements as the population (Mohanty and Misra, 2016). Thus, sampling techniques are relevant in research, which help in selection of sample. Sampling techniques can be categorised in to probability sampling and non probability sampling. The sampling techniques have been described in table 2.1

Table 2.1: Sampling Techniques

Sampling technique	Description	Example
Probability Sampling	Every individual who is part of the population has an equal chance of being included in the sample. Sample is assumed to be representative of the population.	If the population for a research is students in class 9th of a school, each and every student has equal chance of being selected for the research.

Table 2.1: Sampling Techniques

Simple random sampling	Participants are randomly selected from the population using methods like lottery method.	Names or roll numbers of all the students are written on the chits that are then put a bowl and ten chits are taken out (sample size for research is 10) and these students form the sample of the study.
Systematic random sampling	A list of individuals in the population is created in a random order and sample is selected based on a random integer, keeping in mind the sampling fraction and the interval size.	For 50 students in a class (N), the research may want to take a sample of 10 (n) for the research. Sampling fraction ($f = n/ N = 10/50 = 0.2$). Interval size ($i = N/n = 50/10 = 5$). The random integer from 1 to 5 could be 4. Thus, from the 4th student in the list the researcher will select every 5th student (4, 9, 14, 19 and so on) till he/ she gets the sample of 10.
Stratified random sampling	Population is divided in to homogeneous group and then the sample is selected randomly.	Population divided in to males and females and for each groups sample is randomly selected.
Cluster sampling	Population divided in to clusters that are then randomly selected and then all the individuals falling in the selected clusters are taken.	In a school, from all the classes, five classes are randomly selected and then all the students in these classes form the sample for the research.
Multistage random sampling	As the name suggests, this is carried out at multiple levels.	Using cluster sampling the classes in a school are selected and then simple random sampling/ stratified random sampling, sample is selected from these classes.
Non-probability Sampling	There is no random selection of the participants to be included in the sample. Hence, the sample may not be representative of the population.	If a study is to be carried out on female victims of domestic violence, then randomisation is not used and based on the availability and consent of the persons, they are included in the sample.

Table 2.1: Sampling Techniques

Convenient sampling	Whether an individual will be included in the sample will depend on his/ her availability.	The researcher will approach the female victims of violence and based on their availability, they will be included in the sample.
Voluntary sampling	Participants willing to be part of the research are included in the sample	Female victims of violence who are willing to participate in the research are included in the sample.
Judgement sampling	Sample selection is carried out an individual who has a good idea about the sample	A teacher may identify students who will participate in the research.
Quota sampling	Based on a fixed quota, the sample is selected.	Quota could be 100 junior managers and 50 senior managers in a company that will form the sample of the study.
Snowball sampling	A researcher approaches an individual with characteristics as per the requirement of the sample and then this individual is asked to further refer individuals with similar characteristics.	A researcher may contact parents having gifted children and then they may be asked to refer other parents having gifted children.

Experimental and control group

The group for which independent variable is manipulated is called experimental group and a group for which independent variable is not manipulated is called control group. For example, if we want to study the effect of noise distraction (independent variable) on performance of an individual on a simple task (dependent variable). The experimental group will be subjected to noise distraction, whereas, the control group will perform a task under normal condition. Inclusion of control group in a research can strengthen the research, though it is important to use techniques of randomisation and matching while selecting sample and dividing them in to group, experimental or control.

Confederate

Research in applied social psychology (as also in social psychology) could involve confederates. Confederates are individuals who help or serve as accomplices in the research. They are provided certain specific role to play. For example, in Milgram experiment, the participants had to deliver electric shock to another participant who made errors in given task. The other participant was an accomplice or confederate.

Research design

Based on the problem, the researcher needs to select suitable research design. Research design denotes structure of the research. As stated by Kerlinger (1995, page 280) "Research designs are invented to enable researchers to answer research questions as validly, objectively, accurately and economically as possible". Research designs not only help in obtaining answers to the research problem but also help in variance control, that includes maximisation of true variance (variance in independent variable leads to variance in dependent variable) and minimisation of error variance (variance in dependent variable that can be attributed to extraneous variable). There are various types of research designs, for example, factorial design, small n designs and so on that can be selected based on the requirement of the research and research problem. Further, research could be qualitative or quantitative in nature or may employ a mixed approach. Some of the research designs have been given in table 2.2.

Table 2.2: Research Designs

Sr. No.	Research Design	Description	Example
1	True designs	<ol style="list-style-type: none"> 1) Independent variable (s) [IV] can be manipulated 2) High control (of extraneous variables) 3) Randomisation possible 4) Can be used for studies in laboratory set up 	<p>Effect of temperature (IV) on Performance of the participants.</p> <p>Temperature can be manipulated as warm, normal and cold.</p>

2	Faulty designs	<ol style="list-style-type: none"> 1) Independent variable (s) cannot be manipulated as they have already taken place. 2) Low control 3) Randomisation not possible 4) Used in field studies 	Caregivers burden of caretakers of individuals with terminal illness (IV). Here IV is the terminal illness that has already occurred and not under the control of the researcher.
3	Quasi Experimental designs	<ol style="list-style-type: none"> 1) Quasi means resembling 2) This design resembles true designs 3) Independent variable can be manipulated 4) Control is possible to some extent 5) No randomisation 6) Used in field experiments 	Two teaching methods (lecture and group discussion, IV) given to two different classes to see their impact on students' learning.
4	Factorial designs	<ol style="list-style-type: none"> 1) Used to study the effect of more than two independent variable (s) on the dependent variable. 2) Main effect (of each variable separately) as well as interactional effect (of all the IVs) studied. 	Effect of gender (IV1) and Socio- Economic Status (IV2) on Self Esteem (Dependent Variable) of adolescents.
5	Small n designs	<ol style="list-style-type: none"> 1) Small sample 2) In-depth study 3) Same sample studied over a period of time. 	Study on soldiers having Post Traumatic Stress Disorder

Methods of Data Collection

There are various methods of data collection that can be used by the research to collect data. Though it is also possible that more than one method of data collection is used in a research. These are briefly explained as follows:

- **Observation:** Observation can be described as a process of data collection in which the units/ events/ phenomena/ individuals witnessed first hand. A researcher, for example, can observe employees at work, children

interacting with each other, people belonging to certain community and so on. Observation can be carried out either in a naturalistic set up or it can be carried out in a laboratory or a clinical set up. The benefits of naturalistic situation are in a way high as the behaviour of individuals in their natural set up can be studied. In such a case there is no manipulation or control of any variables. Observer plays an immensely important role in observation as he/ she needs to observe and record events and details. Types of observation include participant observation, nonparticipant observation, structured and unstructured observation.

- **Interview:** Kerlinger (1995, page 441) described interview as “a face to face interpersonal role situation in which one person, the interviewer, asks a person being interviewed, the respondent, questions designed to obtain answers pertinent to research problem”. The key points in this definition are that there are two main individuals involved, interviewer and interviewee who are involved in a face to face interaction. And during this interaction, the interviewer will ask certain questions to the interviewee to elicit responses. One of the main aspects of the interview is the interview schedule. Interview schedule is nothing but questions that the interviewer has to ask as well as certain guidelines with regard to how the interviewer is expected to proceed with the interview. Types of interview include structured interview, unstructured interview, semistructured interview.
- **Psychological tests:** Cohen and Swerdlik (2010, page 2), defined psychological testing “ as the process of measuring psychology-related variables by means of devices or procedures designed to obtain a sample of behavior”. Psychological tests are objective in nature and need to be valid and reliable. they also have a discriminant feature and are comprehensive in nature.
- **Projective techniques:** These are subjective in nature. Here, the test taker may be asked to respond to certain semi-structured or unstructured stimuli. The responses are then to be interpreted by the administrator, where subjectivity may creep in. Examples of projective tests are Rorschach Inkblot test, Somatic Inkblot Series, Sentence Completion Test, Thematic Apperception Test and Children’s Apperception Test.
- **Questionnaire:** These could include questions that are open ended or closed ended. Often rating scales like Likert’s five point scale are also incorporated in the questionnaire. Care needs to be taken while the questions are formulated so that they are simple and clear.
- **Sociometry:** In social psychology, (and applied social psychology) yet another method of data collection is sociometry, that can be used in order to study social interaction. It involves data collection and analysis related to communication and interaction between individuals. Sociometric matrices or sociograms can also be created based on the data obtained.

The process of research mainly starts with review of literature and selection of variables. Once the basic idea of what research is to be carried out is clear, then the problem and objectives are specified and hypothesis (if required) are formulated. The nature and sample size along with sampling technique is also decided. Further, research design as found to be adequate and suitable for the study is to be finalised. Methods of data collection is then to be selected and once the data is collected it needs to be analysed and interpreted. The results can then be published or made available for other researchers, policy makers, subject experts, general public and so on. And more importantly in case of applied social psychology, the results can be utilised to develop suitable intervention strategy.

Data analysis

Once the data is collected, the data needs to be analysed. Based on whether the data is quantitative or qualitative, the analysis needs to be carried out. For quantitative data various statistical analysis can be computed as per the objectives of the research. We discussed about statistical techniques in BPCC104 and BPCC108 and these can be adequately used for statistical analysis. Qualitative analysis can also be carried out using various techniques. We will discuss qualitative research in next unit.

The above concepts and components are relevant as they provide a background about research, which will assist you carrying out research in applied social psychology.

Check Your progress II

- 1) What are the different types of variables?

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2.4 QUANTITATIVE RESEARCH IN APPLIED SOCIAL PSYCHOLOGY

Let us now discuss about various types of quantitative research that can be used in applied social psychology.

Descriptive research

Descriptive research involves description of certain phenomenon or event. It mainly involves observation and recording about the phenomenon or event. Descriptive research helps the researcher describe certain behavioural

patterns and it can be effectively used when manipulation of variables that are being studied is not possible.

The data that is collected in descriptive research could either be qualitative, quantitative or both. Qualitative data can be organised on the basis of emerging patterns and descriptive statistics (discussed in later units of this course can be used to analyse the quantitative data.

There are three main categories of descriptive research, viz, naturalistic observation, case study and surveys. These are discussed as follows:

- 1) **Naturalistic Observation:** This involves observation as well as recording of behaviour in a natural setting. As such there is no control and the researcher is involved in mere observation of the phenomenon or event. For example, researcher can observe a group of children playing or may want to study crowd behaviour. In such a case, he/ she can effectively use naturalistic observation, that will provide valuable information about how individuals behave in a natural set up. Naturalistic observation has higher ecological validity (that is, findings can be applied in realistic situations).
- 2) **Case Study:** In case study, a single individual or situation is studied in an in-depth manner. For example, a person having certain psychological disorder or a rare chronic illness is studied. As such it is not possible to make any predictions based on the case study method. While using this method, the researcher's bias could creep in, that can have an impact on the way research is carried out.
- 3) **Survey method:** In survey method, it is possible to contact a large number of individual and carry out a survey. For example, a survey can be carried to get feedback about a certain product from general public. Questionnaires or interview can be used to collect data from the participants. It is important that the questions that have been framed are adequate, clear and easy to understand.

Correlational research

Correlational research is mainly used to study relationship between variables. For example, we may carry out study to understand the relationship between Family environment and self concept of children. Correlation ranges from -1.00 to $+1.00$. Here, the 0 indicates lack of relationship and 1 indicates strong correlation. The signs $-$ and $+$ indicate whether the relationship is negative or positive respectively. Though correlations provides adequate information about the relationship between the variables and its direction and degree, it provides no information about cause and effect relationship between the variables.

Experimental research

In experimental research the independent variable can be manipulated. The research or experiment is carried out under controlled condition. Thus, the interference of extraneous variable (s) can be controlled. Randomisation can be used in order to select the sample. It has high internal validity and thus it can be said that the changes in dependent variable (s) are as a result of independent variable(s) and not extraneous variable(s). Though, it has lower external validity (as the study is carried out under controlled conditions, the results as such cannot be generalised to other situations).

Non-experimental research

A lot of research in applied social psychology is carried out using non-experimental research. In this research independent variable cannot be manipulated. The control is also low. It may not be possible to use probability sampling and thus mainly the non-probability sampling techniques are used. Non-experimental researches have high external validity, but low internal validity. An example of non-experimental research in applied social psychology would be the Mental health and Perceived Social Support of Individuals who recovered from COVID19.

Field experiments

These are researches that are carried out in natural setting but it is possible to manipulate independent variable and there is some control possible. For example, a research can be carried out in classroom or work setup. The external validity of this research is high, though it may not be possible to select the sample using randomisation. Internal validity would be lower compared to the experimental research. An example of field experiment could be the effectiveness of an intervention strategy developed to help employees deal with work stress. In this research, there can be two groups, experimental and control group. The experimental group will receive the intervention strategy, whereas the control group will not. Here a pretest-posttest design could be used.

Field Studies

These researches are non - experimental in nature. The study is carried out in naturalistic setting. The researcher cannot manipulate the independent variable(s). It is not possible to select sample using randomisation. The internal validity of field experiments is low, though the external validity is high. An example of field study could be the Psychological hardiness and Psychological wellbeing of Health professionals.

Box 2.1: Internal and External Validity

Internal Validity: Internal validity denotes that the changes in dependent variable (s) are as a result of independent variable(s) and not extraneous variable(s).

External validity: External validity denotes whether the results can be generalised to other situations or population. External validity is of two types, ecological validity and population validity. Ecological validity denotes whether generalisation of the results can be carried out to other situations and population validity denotes whether generalisation of the results (of the study carried out a certain group of participants) can be carried out to the population.

Check Your Progress III

1) State the three main categories of descriptive research.

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2.5 ACTION RESEARCH

This is yet another significant research that can play an important role in applied social psychology.

Action research was developed and promoted for application in psychology by Kurt Lewin in 1946 (Lafreniere et al., 2012). It can be termed as a research having certain purpose. Here the focus is mainly on how the research will benefit the participants. Kurt Lewin who is also credited with contribution to the development of applied social psychology, also emphasised the use of action research. Lewin believed that a research rather than leading to a book, could lead to an action that results in benefit to the participants and society in general.

The focus of action research is thus on intervention as is that of applied social psychology.

Action research can be described as a method that can be used in designing research studies that not only inform the practice but also influences it (Reason and Bradbury, 2006). Winter and Munn-Giddings (2001, page 8) define action research, as a “study of a social situation carried out by those involved in that situation in order to improve both their practice and the quality of their understanding”.

According to Meyer (2000), the main strength of action research is its focus on seeking solutions to certain practical problems. And this is done by carrying out research and then developing and implementing an intervention base don the results of the research.

Let us highlight the features of action research (Koshy, 2010).

- 1) Action research involves action, evaluation and also critical reflections.
- 1) It is collaborative and participative in nature and can be carried out by individuals with common purpose.
- 2) It is specific to a context and a situation.
- 3) Reflections can be developed based on the participants' interpretations.
- 4) There is creation of knowledge through action and during application.
- 5) It can involve problem solving if the solution results in improvement of practices.
- 6) Findings in action research are not conclusive or absolute in nature.

The main characteristics of action research are thus, its participatory aspect, democratic tendency and contribution to the area of knowledge as well as social change. The participatory aspect focuses on the perception and willingness of the participants to change and also play an active role in the research process. With regard to democratic tendency, in action research, all the participants are equal. And the findings of an action research will not only help in adding to the existing fund of knowledge of the subject area but will also help in bringing about social change. The intervention strategies developed based on the results of the research can help deal effectively with the problem.

The main phases in action research are planning, fact finding and execution (Ronald J Fisher, 1982). Planning mainly involves developing better understanding of the situation. Fact finding phase involves collection of data and the execution or action phase involves development of an action plan or intervention strategy.

Action research can be of varied types (Shetgovekar, 2018), including:

- **Diagnostic action research:** The problem or issue is analysed or diagnosed in order to understand it better.
- **Participant action research:** The persons who will implement the action or on whom the intervention strategy will be implemented are involved in the research process. This also helps deal with any resistance.
- **Empirical action research:** As an action is taken, the same is to be regularly monitored. And to do so an external researcher may also be appointed.
- **Experimental action research:** Experimental action research is utilised in order to study the effectiveness of an action or intervention strategy.

The process of action research involves, identifying the problem, developing an action plan, data collection and analysis, deriving conclusions leading to modification of theory. The process can be repeated with modified theory being put to evaluation, ultimately leading to reporting of the results.

Check Your progress IV

1) What is action research?

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2.6 ETHICS IN PSYCHOLOGICAL RESEARCH

Research in psychology is necessarily carried out on humans and in this regard it is important to follow certain ethical issues while carrying out research, in order to ensure that they are treated in respectful way.

Before we go on to discuss various ethical issues, let us look at two of the experiments that raised questions related to ethics in research.

A research was carried out by John Watson in order to study whether emotional responses are learned. The study was carried out on a young child named Albert. In the study Albert was repeatedly exposed to a white rat. Initially, he did not show any negative reaction to the white rat. However, when the exposure to the white rat was accompanied repeatedly with a loud noise, Albert displayed negative reaction to the white rat. Further, as the study continued, Albert displayed negative reactions towards stimuli that were similar to the white rat like a white rabbit and fur coat.

This study raised some serious ethical issues as there is no mentions whether any informed consent was taken from the parents/guardian of Albert (Albert being a minor). Further, ethical issues can also be raised with regard to whether it was really fair to subject Albert to such conditions and instilling fear in him, that could have repercussions later in his life.

Yet another study was carried out by Zimbardo and is known as Stanford Prison Experiment. In this research, Zimbardo attempted to study participant's group behaviour, how they adopted the abusive roles in the process of following certain orders. In this study, a simulation of prison was created and the participants were divided in to two groups, prisoners and guards. The participants also signed a contract and received monetary benefits. The guards were give instructions by Zimbardo (who acted as a warden of the prison) to maintain order amongst the prisoners (though any physical aggression was not allowed). The experiment had to be ended within a few days as role was internalised by the participants to such an extent that the guards were displaying aggressive behavior that negatively affected the participants who played the role of prisoners.

This experiment as well raised certain ethical issues, as the beneficence of the participant was at stake.

Thus, the above two experiments and many more led to more and more focus on ethical issues in research in order to ensure wellbeing of the participants.

As such, the origin of ethical codes can be found in the Hippocratic oath that was written way back in 400 BC. Though, ethics in research received attention mainly after certain studies, as discussed above, raised questions regarding safety as well as welfare of the participants in research. The experiments carried out by Nazis during World War II also lead to development of the Nuremberg Code (that mainly focused on informed consent and coercion) that was a result of the Nuremberg war crime trials. Besides, there were other studies as well that raised ethical issues, like the Tuskegee syphilis study that was conducted by the U. S. Public Health Services in 1930s on African Americans, having low income, who suffered from syphilis. The participants were not aware that they were suffering from syphilis and were not given any treatment (Penicillin) as they participated in the study.

Yet another study on how development of children is affected by social interaction, was carried out by René Spitz in 1940s. The study involved two groups of children whose development were studied from birth onwards. One of these groups were babies in orphanages who were deprived of any human contact and appropriate care. The other group of babies (from prison nursery) belonged to incarcerated mothers, who received care from their mothers. The results of the study indicated that social deprivation had an impact on the development of the children.

Thus, such studies brought ethical issues and concern for safety and welfare of participants in the light. The Belmont Report was presented by U.S. Department of Health, Education and Welfare in 1979, where three ethical principles were highlighted:

- **Respect for persons:** Recognising the autonomy of the participants and protecting those with lower autonomy.
- **Beneficence:** Maximising benefits and minimising any harm and risk to the participants.
- **Justice:** Fairness in terms of who receives the benefits of research and faces risks.

These ethical principles were later stated as regulations by Department of Health and Human Services and the Food and Drug Administration. In 1991, they were adopted by the Federal Policy for the Protection of Human Subjects.

American Psychological Association proposed their own ethical standards in 1953, that were revised from time to time. And these are the ethical issues that we mainly follow while we conduct research.

Ethics as such are relevant at every stage of research. Any research is to be carried out keeping in mind the risk and benefit ratio. If the risks are high and benefits are low, there is no point in carrying out the research. If the benefits are high and risks are low, provided that the minimal risks are taken care of, the research can be initiated. If the benefits and risks both are low, then again there is no use of carrying out the research. If the benefits and risks, both are high, then the decision with regard to whether the research should be carried out or not is difficult. But such researches can be carried out by managing the risks. Besides the vulnerability of the population also needs to be kept in mind. For example, children can be considered as vulnerable population.

In psychology and also in applied social psychology research, deception could also be used. Deception can be defined as “efforts by researchers to withhold or conceal information about the purpose of a study from the persons who participate in it” (Baron and Byrne, 1995, page. 31). Though deception needs to be avoided, it may not be possible to do so in case of certain researches. Using deception could also raise certain ethical issues as the participants may not be pleased when they come to know about the actual objective(s) of the research and may in fact resent for participating in research and may avoid participating in any research in future. Further, deception may lead to the participants being subjected to stress and anxiety. If deception cannot be totally avoided then it should be ensured that the participants don't face any serious risk during the research and debriefing needs to be provided. In debriefing, after the data is collected from the participants, information about the research is provided to them, their doubts are clarified and privacy and confidentiality are assured.

There are certain significant ethical issues that need to be considered before any research is carried out, these are discussed as follows:

Beneficence and Non-maleficence: A research needs to be carried out by keeping in mind its benefits to the participants (beneficence) and it should be ensured that the participants are not subjected to any harm (non-maleficence). Thus, any risk to the participants is to be identified and eliminated and if there is any minimal risk, the participants need to be informed about the same and their consent for participation in the research needs to be taken,

Privacy and Confidentiality: In any research, privacy and confidentiality of the participants is to be maintained. The researcher needs to take adequate care to ensure that the identity of the participants is not revealed. The participants may seek privacy and may not want others to know that they participated in the research. For instance, an employee may participate in certain research being carried out in his/ her organisation but may not want

other employees to know about the same. Confidentiality is equally important as is privacy, where, information and details regarding the participants are not shared by the researcher with others. One way in which privacy and confidentiality can be assured is by using codes instead of the names of the participants.

Anonymity: Anonymity denotes that even the researcher may not be able to identify the participant. In anonymity, the participants may have objection to others knowing that they participated in the research, but may have no problem with their performance details being shared.

Informed Consent: As discussed earlier, the participants need to be informed about the details of the research, and this is done by taking informed consent from the participants. According to Berg (1998, page 47) informed consent means “the knowing consent of individuals to participate as an exercise of their choice, free from any elements of fraud, deceit, duress, or similar unfair inducement or manipulation”. Though, when deception is used in psychological research, obtaining informed consent could be a challenge, as is also true when a study is carried out with the help of naturalistic observation. An informed consent needs to provide details about the research including the duration, procedure and benefits of participating (including incentives, if any) in research. It also needs to mention the participants right to decline from participating in research or to leave or withdraw even after the research has started. Any consequences with regard to denying to participate in research or withdrawing from the research also need to be explained in the informed consent. The participants also need to be updated with any risks that they may face during their participation. If there are any limitations with regard to confidentiality, the same also needs to be mentioned in the informed consent. Lastly, the details of contact person whom the participants can contact in case if they have any query also need to be mentioned in the informed consent.

Ethical issues are significant at every stage of research right from selecting the research problem, finalising the research design, sample to data collection and analysis and reporting of the research. While the research is being written and reported, the researcher needs to ensure that there is no plagiarism and that the sources cited in the research are duly acknowledged.

For detailed information on the Principles of Psychologists and Code of Conduct given by American Psychological Association, refer to the following link <https://www.apa.org/ethics/code>

CheckYourProgress V

- 1) List the three ethical principles that were highlighted in the Belmont Report.

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2.4 LET US SUM UP

In the present unit, we mainly focus on the methodological approach to applied social psychology. Research methods employed in psychology can also be employed in applied social psychology. In the unit we defined research and discussed about the goals and characteristics of psychological research. Various research concepts and components were also discussed. The quantitative research in applied social psychology was then highlighted. The unit also discussed action research that plays an important role in applied social psychology. Lastly the ethics in psychological issues were also explained.

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2.6 KEY WORDS

Action research: Winter and Munn-Giddings (2001, page 8) define action research, as a ‘study of a social situation carried out by those involved in that situation in order to improve both their practice and the quality of their understanding’.

Research: Research can also be described as an analysis and recording of controlled observation that is objective and systematic in nature. And this analysis and recording can result in generalisations, and also development of theories.

Research designs: Kerlinger (1995, page 280) ‘Research designs are invented to enable researchers to answer research questions as validly, objectively, accurately and economically as possible’

Sample: Sample can be defined as the group of individuals who participate in the research.

Variables: Variable means something that varies. It can also be explained as quantity or a number that will vary or will have different values.

2.7 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress I

1) List the goals of psychological research

The goals of psychological research are:

- Description,
- Explanation
- Prediction
- Control
- Application

Check Your progress II

1) What are the different types of variables?

The different types of variables are:

- **Independent variable:** Variable that is manipulated by the researcher is independent variable.
- **Dependent variable:** In a research, variable that is measured for any changes when independent variable is manipulated is dependent variable.
- **Extraneous variable:** Variables that may impede or interfere in the relationship between independent variable and dependent variable are called extraneous variables.

Check Your Progress III

- 1) State the three main categories of descriptive research.

There are three main categories of descriptive research, viz, naturalistic observation, case study and surveys.

Check Your progress IV

- 1) What is action research?

Action research can be termed as a research having certain purpose. Here the focus is mainly on how the research will benefit the participants.

Check Your Progress V

- 1) List the three ethical principles that were highlighted in the Belmont Report.

The Belmont Report was presented by U.S. Department of Health, Education and Welfare in 1979, where three ethical principles were highlighted:

- **Respect for persons:** Recognising the autonomy of the participants and protecting those with lower autonomy.
- **Beneficence:** Maximising benefits and minimising any harm and risk to the participants.
- **Justice:** Fairness in terms of who receives the benefits of research and faces risks.

2.8 UNIT END QUESTIONS

- 1) Explain the significance of research in applied social psychology.
- 2) Describe any three research concepts and components
- 3) What is population and sample? Describe various sampling techniques.
- 4) Describe descriptive and experimental research.
- 5) Describe action research.
- 6) Highlight the ethics in psychological research.