

RESEARCH METHODOLOGY

The research methodology part of my current research work is discussed here. In this chapter the researcher comes to elucidate research objectives, hypotheses and different dimensions by applying an appropriate methodology to accomplish these objectives. In this chapter the researcher also gives a comprehensive view of the sample size, techniques for sampling, tools used for data collection and data analysis and its educational implications to complete the study. The data collection which is an essential part of the whole research process is the basis for entire data. Different techniques were employed for data gathering process. This part of research also demonstrates the sample which is observed as the center of research. In the present study the researcher adopted a sandwich of descriptive research design. Research methodology plays a very gigantic role in any research that becomes the reason that it is known as blue print of research. In this part, the researcher makes a comprehensive planning to bring out present research work methodically. In everyday life it is evident that research became a foundation stone for judgement and decision making in different situations.

The steps followed in this chapter are discussed below:

1. Population
2. Sample
3. Variables under study
4. Selection of the tools
5. Administration of the tools
6. Scoring procedure
7. Statistical techniques employed

3.1 Population

The concept of population in research refers to the group of individuals having some characteristics in common. The greatest amount of researches comprises in the depiction of inferences about a population and that whatsoever is known from the sample under study is taken to represent the population as a whole. Since the present

study includes 40 higher secondary schools of district Jammu as the population of the study.

3.2 Sample

Sampling is among the fundamentals of different aspects of research and sample is the subset and the representative of the whole population. It is necessary for all statistical studies. The researcher always demands for a sample which would be reflective for the whole population. In every research the sample should be good and moral so that it would be able to generalize the results efficiently. The term sample by the name refers to, that it is a smaller representative of the whole population. Sampling is that process in the research which holds all the characteristics of the population and generalizing the results to the total population.

Generally there are two sampling methods such as probability and Non-probability sampling method. In the current study the researcher applied simple random sampling method for data collection. The investigator prepared a list of all higher secondary schools of Jammu district, from which the investigator selected 8 schools randomly. In the present study a sample of 240, XIIth class students were selected from different higher secondary schools of district Jammu.

TABLE 3.1: Showing the details of sample selected from different higher secondary schools of Jammu city

S no.	Name of the Schools	Boys	Girls	Total
01	Central Basic Higher Secondary. School	15	15	30
02	Government Boys Higher Secondary School Gandhi Nagar	15	15	30
03	Government Girls Higher Secondary School Bazar Qasaban	15	15	30
04	Government Girls Higher Secondary School Shastri Nagar	15	15	30
05	Dewan Dewi Public School Rajpura Magotrian	15	15	30

06	BSF Senior Secondary School Paloura Camp	15	15	30
07	Dogra Higher Secondary School Shastri Nagsr	15	15	30
08	Heritage School Panjthirthi	15	15	30
TOTAL		120	120	240

3.3 Variables Studied

The variables that have been studied in the present study are as under

1. Emotional Intelligence
2. Cognitive Difficulty
3. Academic Achievement

3.4 Selection of the Tools

It is seen in every type of research that the investigator needs such kind of instruments to collect certain evidences and explore them in new arenas. The instruments which are used are called tools. In the current research study the researcher employed the following standardized tools to collect data on the selected psychological variables:

1. **Emotional Intelligence Test of Dr. Ekta Sharma by Prasad Psycho Corporation
New Delhi**

Introduction

“Emotional intelligence refers to the capacity of recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in us and in our relationships” (Goleman, 1998). It describes abilities distinct from, but complimentary to, academic intelligence, the purely cognitive capacities measured by Intelligence Quotient (IQ). Many people who look smart but lack emotional intelligence end up working for people who have lower IQ than those but who excel in emotional intelligence skills. Howard Gardner gave one of the most influential theories of intelligence in 1983. He pointed out the distinction between intellectual and emotional capacities. His list of seven kinds of intelligence includes not just the familiar verbal and mathematical abilities but also two personal varieties: knowing

one's inner world and social adeptness. Mayor and Salovey (1993) gave a comprehensive theory of Emotional Intelligence describing it as, "A type of social intelligence that involves the ability to monitor one's own and others' emotions and to discriminate among them and to use this intelligence to guide one's thinking and actions."

Latest psychological research shows that an individual's emotional quotient contributes much more vibrantly to one's productivity and success in life than much researched IQ. Daniel Goleman (1995) says that as much as 80% of adult success in life than much comes from Emotional Quotient (EQ). In the present study, taking a wider view of intelligence, Emotional Intelligence has been categorized into five domains as has been explained by Daniel Goleman.

1. *Self-Awareness (SA)*: Knowing what we are feeling at the moment, and using those preferences to guide our decision making; having a realistic assessment of our own abilities and a well-grounded sense of self confidence.
2. *Managing Emotions (ME)*: Handling our emotions so that they facilitate rather than interfere with the task at hand; being conscientious and delaying gratification to pursue goals; recovering well from emotional distress.
3. *Self-Motivation (SM)*: Using our deepest preferences to move and guide us towards our goals, to help us take initiative and strive to improve, and to preserve in the face of setbacks and frustrations.
4. *Empathy (E)*: Sensing what people are feeling, being able to take their perspective, and cultivating rapport and atonement with a broad diversity of people.
5. *Handling Relationships (HR)*: Handling emotions in relationship[ps well and accurately reading social situations and networks; interacting smoothly; using these skills to persuade and lead, negotiate and settle disputes, for cooperation and teamwork.

For the current research study the investigator employed Emotional Intelligence Test developed by Dr. Ekta Sharma. This test constitutes of 60 items from five domains of Emotional Intelligence i.e., Self Awareness, Managing Emotions, Motivating Oneself, Empathy, and Handling Relationships. The response pattern in the scale is of

Likert type i.e., on a five-point continuum from always, most often, occasionally, rarely to never. As all the items are socially acceptable, though positively and negatively stated, the scoring for each statement in the scale is done in descending/ascending order for determining the emotional intelligence by giving a score of 5 for always, 4 for most often, 3 for occasional, 2 for rarely, 1 for never and reverse for negative items.

3.5 Reliability and Validity

The five dimensions of emotional intelligence having the values of alpha reliability, the value of self-awareness is 0.667, for managing emotions the value is 0.604, for motivating one-self the value is 0.839, for empathy the value is 0.645 and for handling relationships the values is 0.837. Thus, it could be inferred that all the items are highly correlated and test developed is highly valid.

2. Cognitive Difficulty Scale by Dr. V. N. Yadav, Dr. Suraj Mal, Indu and Diksha by Prasad Psycho Corporation New Delhi 2016.

Cognition is a general term which involves attention, perception, learning, memory, reasoning, decision making, problem solving etc. In general an individual can perceive, learn, remember, reason and solve problems with great accuracy. It is generally assumed that cognition is influenced by external forces and it can lead to an individual astray. Memories and reasoning processes, for example are susceptible to certain well identified, systematic errors. In general term it is observed that individuals tend to over value information that is easily available to them. It is done even when this information is not optimally relevant to the problem at end. Sometimes important information is left behind in the course of cognitive processing. Cognitive psychologists try to study and often isolate the function of specific cognitive processes because they consider that cognitive processes work together. Sometimes the interaction between cognition and other processes occur at many levels it works in interaction with other systems. Therefore, it is thought to be important that numerous factors which may determine the intensity and direction of the behaviour. If an individual has difficulty in cognitive processing it may result in deterioration in the psychological health of an individual. The cognitive difficulty may also be an indicator of prolonged heightened stress. There is no one right way to study cognition.

Naïve researchers sometimes seek the best method by which they study cognition. Their search inevitably will be in vain. All cognitive processes need to be studied through a variety of covering operations. The varied methods of study seek a common understanding of cognition that may lead to the same concrete conclusions. For example, suppose studies of reaction times, error rates and patterns of individual differences all lead to the same conclusion. All these methods must be scientific. Non-scientific methods of study can commit errors and lead to wrong conclusions. To assess and identify cognitive difficulty in the individual has remained a problem due to various reasons and issues. However, there are host of measuring tests of cognition available all over the world, but there is a virtual scarcity of indigenous test. Hence, a need to develop a cognitive difficulty measure was perceived by the investigators and the present test was prepared for the purpose.

In the current study the researcher also employed Cognitive Difficulty Scale developed by Dr. V. N. Yadav, Suraj Mal, Indu and Diksha. This scale consists of 40 items which are having five five-point continuums from always, often, uncertain, sometimes to never. According to this scale a score of 5 for always, 4 for often, 3 for uncertain, 2 for some times, 1 for never and reverse for negative items.

3.6 Reliability and Validity

As far as reliability of the construct is concerned, it was determined by test re-test method on a sample of 120 subjects and it was 0.82. The internal consistency reliability was determined by adopting odd even procedure. Using Spearman Brown formula, the reliability coefficient correlation of the test was found to be 0.89.

The validity of the test was determined by correlating the scores on the present measure with the scores of Broadbent et.al. (1982) cognitive failure measure. The coefficient of correlation was .66, which was significant beyond .001 level of confidence.

3.7 Other Sources of Data

In this study the researcher collected the academic achievement of higher secondary students from the records of the concerned schools. The total marks and the marks

obtained by the students in their last examination were considered as their academic achievement by the investigator.

3.8 Administration of the Tools

In the present study the investigator visited both the government and private higher secondary schools of Jammu district by applying simple random sampling method. The investigator with all the concerned Principals discussed a lot about the need of his study for granting permission for the data collection. After getting permission from the principal the investigator established a moral and virtuous rapport with the sample and provides them directions for giving their responses very prudently.

3.9 Scoring Procedure

The scoring procedure of both the questionnaires was done as per the guidelines and procedures given in the manuals.

3.6 Statistical Techniques Employed

In the present study the investigator used MANOVA to analyze the data.