

## **CHAPTER- III**

### **METHODOLOGY**

A systematic methodology is a key step to any research because it directly influences the validity of the research findings. It is a way to systematically solve the research problem (Kothari and Garg, 2019). In this chapter a systematic approach was adopted for the present study. It describes the methodological tools and instruments adopted in conducting the investigation. The research design, conceptual framework showing the relationship of variables, description of the variables and operational definitions of the terms used in the study are explained briefly. Development of the tool for the data collection, sampling technique and procedure of data collection and data analysis used for the present study are also described.

A step-by-step procedure was adopted to carry out the present investigation. It was categorized under the following subheads:

- 3.1 Research Design
- 3.2 Variables and conceptual framework under the study
- 3.3 Operational Definitions
- 3.4 Locale of the Study
- 3.5 Unit of Enquiry
- 3.6 Sample size and Sampling procedure
- 3.7 Selection of the tool
- 3.8 Description and Development of Tool
- 3.9 Establishment of Content Validity of the Tool
- 3.10 Establishment of Reliability of the Tool
- 3.11 Data Collection Method
- 3.12 Data Analysis
- 3.13 Development of Educational Modules
- 3.14 Training Program on Hospitality Management Operations for Higher  
Secondary Girls for their Employability
- 3.15 Post-test of the respondents

### 3.1 Research Design

A research design is the set of methods and procedures utilized in collecting and analysing measures of the variables specified in the problem research. Descriptive research design was used for the present study. A survey was conducted to collect the data regarding the background information of the respondents and their knowledge regarding different sectors of hospitality field on the basis of which educational modules were developed for the respondents.

### 3.2 Variables and Conceptual Framework under the study

Any concept which can take from on different quantitative values is called variable (Kothari, 2014). Two sets of variables were there for the present study i.e. Independent and Dependent variables. The following variables were considered for the present investigation:

#### 3.2.1 Independent variables:

Independent variables are those variables, which are antecedent to the dependent variables and cannot be changed (Kothari, 2014).

For the present research the independent variables were categorized under two sub-heads:

- **Personal Variables of the respondents:** Personal Variables of the respondents included Age of the respondents (in years), Medium of Instruction and Locality.
- **Family Variables of the respondents:** Family Variables of the respondents considered were type of family, number of family members and family monthly income (in Rupees).

#### 3.2.2 Dependent variables

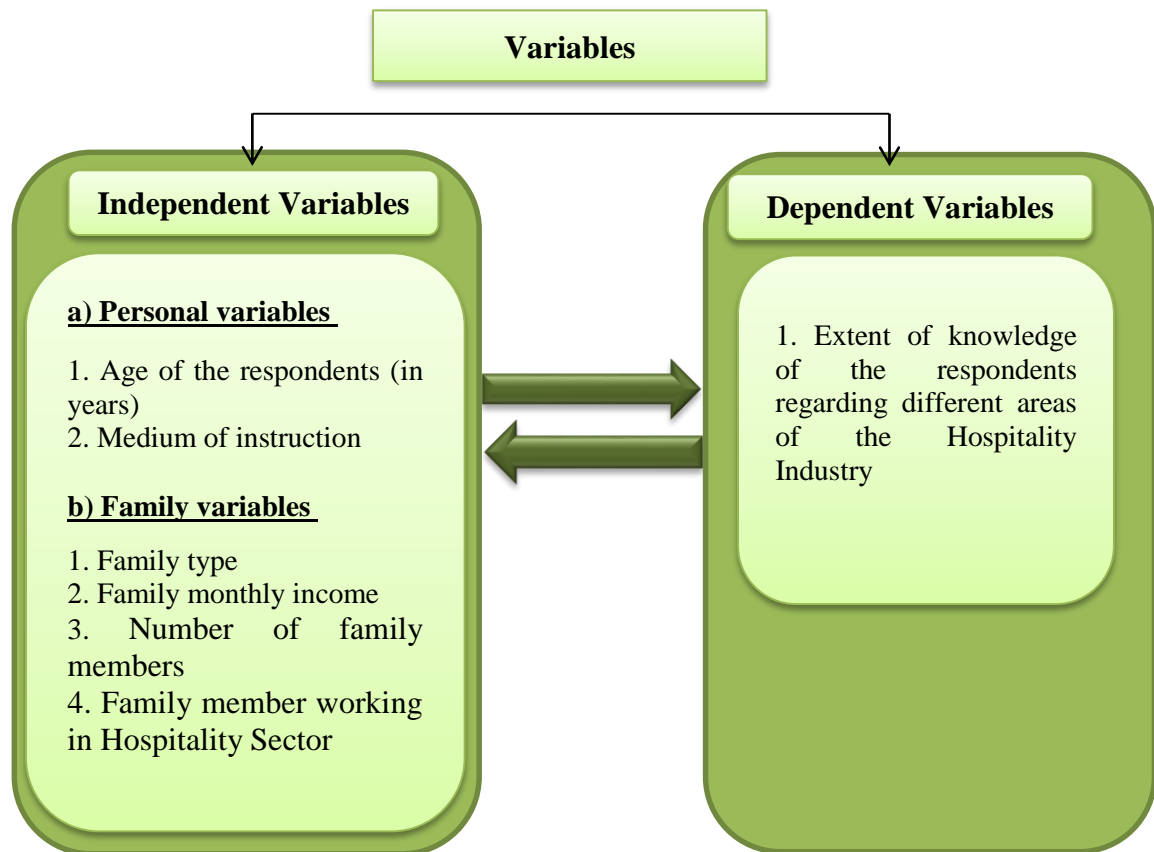
Dependent variables are those that are affected by the independent variables.

For the present study the dependent variables were as follows:

1. Extent of knowledge of the respondents regarding different areas of the Hospitality industry.

### 3.2.3 Hypothetical Relationship between Variables:

A schematic diagram showing hypothetical relationship between selected variables is presented below:



**Plate 8: Schematic presentation of hypothetical relationship between the variables**

### 3.2.4 Conceptual framework

The conceptual framework of study represents the relationship of variables with respect to objectives of the study. For the present study it was theorized that extent of knowledge of the respondents regarding different areas of Hospitality sector vary with the personal variables of the respondents viz. age of the respondent, Medium of instruction, Locality, Family variables such as: Family type, Family monthly income, Number of family members, and Family member working in Hospitality Sector.

### 3.3 Operational Definitions

The following terms were operationally defined for the present study:

- a. 12<sup>th</sup> Pass out girls** - For the present study it was operationally defined as those girls who had completed their intermediate studies (12<sup>th</sup> pass-out).
- b. Hospitality Operations** - It was operationally defined as the skills in managing, coordinating, and controlling activities of hospitality sections viz, front desk operations, housekeeping operations and food and beverage operations.
- c. Front desk operations** - It was operationally defined as an area of entrance of a hotel where the front desk agent or the receptionist are present. It included greeting the guests, getting costumers checked in, confirming reservations, guest's identity, taking payment and to note their entry and departure time.
- d. Housekeeping operations** - It was defined as performing all the duties towards cleaning, maintaining orderliness in the hotel/guest houses to maintain a highly desirable ambience.
- e. Food and beverage operations** - It was operationally defined as the process of presenting and serving food and beverages to the customers in hotels, restaurants, food stalls etc. This included fresh, prepared foods as well as packaged foods, and Alcoholic and Non-alcoholic drinks or beverages.
- f. Educational Modules** - For the present study, it was operationally defined as a method of using audio-visual teaching aids to make things clear to the respondents. Audio-visual aids for the present research includes video clips with voiceover.

### 3.4 Locale of the Study

The locale of the study was Surat city of Gujarat State, from where 120, 12<sup>th</sup> pass out girls were identified as the sample.

### 3.5 Unit of Inquiry

The unit of inquiry was the senior secondary pass out girls who discontinued their studies after 12<sup>th</sup> standard.

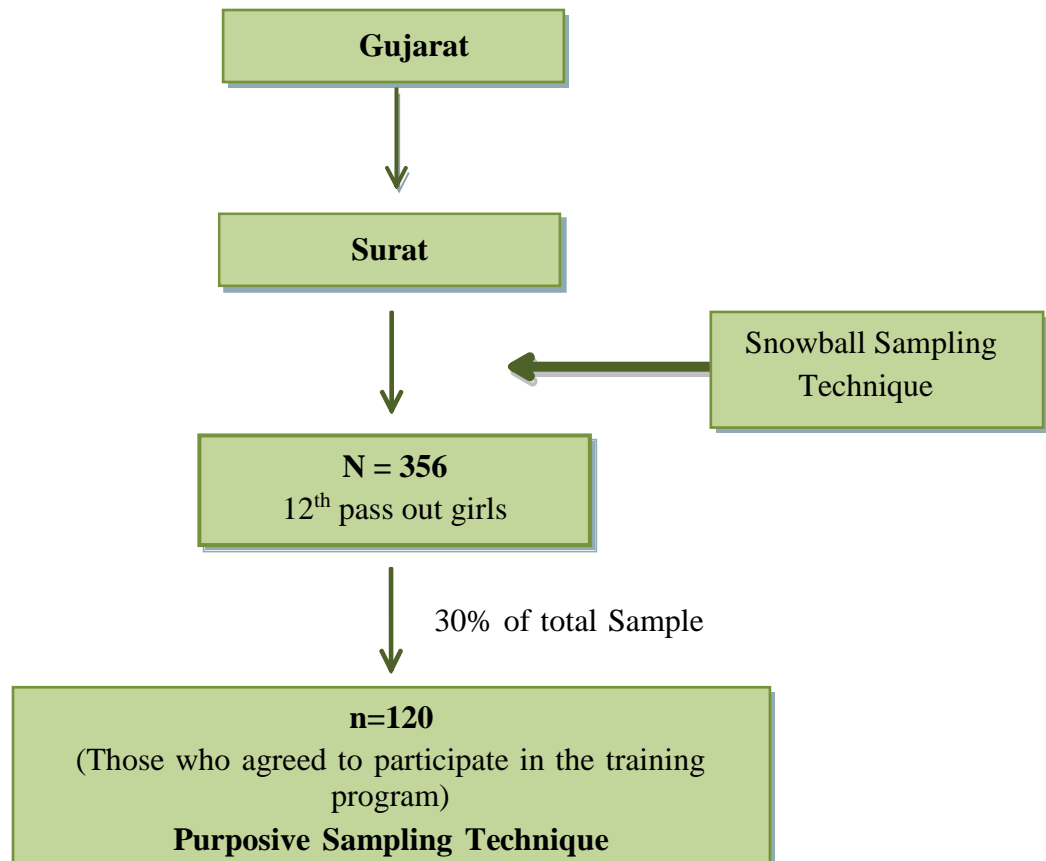
### 3.6 Sample size and Sampling Procedure

For the present study, the sample comprised of 120, 12<sup>th</sup> pass out girls from predominantly low income groups areas of Surat City who had discontinued their studies after 12<sup>th</sup> standard. The sample for the present study was selected through Purposive sampling method and the respondents were contacted through

Snowball technique method.

### 3.6.1 Sampling Procedure

The criteria for selecting participants were 12<sup>th</sup> pass out girls. Thirty percent of the total sample was taken for the study through Random sampling technique.



**Plate 9: Schematic Presentation of Sample and Locale Selection**

### 3.7 Selection of Tool

For the present research, the Questionnaire was selected as the tool. The questionnaire was selected keeping in mind the objectives of the present study. A questionnaire was used as a tool for following reasons: (i) very large samples are desired, (ii) the target groups who are likely to have high response rates are specialized, (iii) ease of administration is necessary, and (iv) moderate response rate is considered satisfactory.

### **3.8 Description and Development of the Tool**

Based on the objectives of the present study questionnaire was prepared. While preparing the questionnaire, care was taken to include all such questions that would elicit the information needed to attain the objectives of the study.

The questionnaire comprised of two sections: -

Section I: Background information of the respondents

Section II: Extent of knowledge regarding different areas of the Hospitality industry.

**Section I:** This section dealt with the questions regarding the background information of the respondents, which included name, age, year of passing 12<sup>th</sup>, medium of Instruction, current occupation, income, any subject learned in school regarding Hospitality Management, locality, type of family, number of family members, employment status of parents etc.

**Section II:** This section dealt with the extent of knowledge regarding different areas of hospitality industry (viz; Front desk operations, Housekeeping management operations and Food and beverage operations and safety measures). The respondents were asked to respond to a 3 point continuum scale in terms of “aware”, “undecided” and, “unaware” and the scores from 3 through 1 were given to the respondents respectively. To obtain the categories of extent of knowledge, the score range was divided on an equal interval basis.

### **3.9 Establishment of content validity of the Tool**

Validity indicates the degree to which a tool measures what it is supposed to measure. “Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study” (Kothari, 2014).

The content validity of the Extent of knowledge scale regarding different areas of hospitality industry was established. To test the validity of the statements prepared, the scales were given to a panel of 11 judges, who were from the Family and Community Resource Management. They were requested to check the clarity and relevance of the content for each subsection. They were also requested to state whether each statement fell in the category under which it was listed. A consensus of 80 per cent among the judges was taken as a benchmark for the inclusion of the statement in the final tool.

### **3.10 Establishment of reliability of the tool**

Reliability is the accuracy or precision of a measuring instrument. The reliability of the scales was established through split-half method. For split half method the scales

was divided in two using odd and even method. The coefficient of correlation was found between the two halves. Spearman-Brown correction formula was applied to estimate the reliability coefficient for the entire scale using following formula:

$$r_{rel} = 2r / 1 + r$$

where,  $r_{rel}$  is the reliability co-efficient and  $r$  is correlation co-efficient.

The overview of the reliability coefficient of the scale used in present study is given in table 3. The reliability value was found to be high for the scale as reported here.

**Table 3: Overview of the scale with reliability value**

Sr. No.	Scales Reliability	Reliability Value
1.	Extent of knowledge of the respondents regarding different areas of hospitality industry	0.85

### 3.11 Data collection Method

The data was collected by using Questionnaire (Pre-test and Post-test). Data were gathered by the investigator from May to September 2022. The respondents were identified through snowball technique from Surat city. The purpose of research was explained, and prior to data collection a rapport was established to ensure full cooperation from the respondents and get true responses. The investigator personally distributed and collected back the filled in questionnaire to make them understand clearly the terms used so as to avoid misinterpretations of words and elicit reliable data. The rate of return was 100%.

### 3.12 Data Analysis

The procedure used for analysing the collected data was categorization, coding, tabulation, and statistical analysis with the help of descriptive statistics (frequency, percentage and weighted mean) and relational statistics (t-test, coefficient of correlation, paired t-test).

### **3.12.1 Categorization**

#### **Background Information of the respondents:**

Categorization of the data was done for parameters like Medium of school, income, family type, Number of Family members, Monthly Family Income, whether any subject learned in school regarding Hospitality Management and family member working in the Hospitality field.

- a) Medium of instruction school:
  - 1. Hindi
  - 2. Gujarati
  - 3. English
- b) Type of family:
  - 1. Nuclear
  - 2. Joint
- c) Family composition:
  - 1. Mother
  - 2. Father
  - 3. Brother
  - 4. Sister
  - 5. Grandfather
  - 6. Grandmother
  - 7. Any other
- d) Monthly income of the family from all sources
  - 1. Less than ₹5000
  - 2. ₹5001-₹10000
  - 3. ₹10001 and above
- e) Family member working in the Hospitality field
  - 1. Working
  - 2. Not working

### **3.12.2 Extent of knowledge regarding different areas and related duties in hospitality industry**

The scale consisted of statements depicting different areas of hospitality industry viz. Front desk operations, housekeeping operations, food and beverage operations and information regarding safety measures. The



respondents were asked to respond on a 3 point Likert scale in terms of Aware, Undecided and Unaware where 3, 2, 1 were the scores assigned to them. Minimum and maximum possible score were divided into 3 categories of equal interval to determine the extent of knowledge into Low, Medium and High category. Lower scores indicated low extent of knowledge of the respondents.

**Table 4: Categorization and range scores for Extent of knowledge of the respondents regarding Front desk operations**

<b>Extent of knowledge of the respondents regarding Front desk operations</b>	<b>Score range</b>
Low Extent	38- 63
Moderate Extent	64- 89
High Extent	90- 114

For Front Desk Operations, the minimum item for the entire scale was 38 and the maximum score was 114.

**Table 5: Categorization and range scores for Extent of knowledge of the respondents regarding housekeeping department**

<b>Extent of knowledge of the respondents regarding Housekeeping Department</b>	<b>Score range</b>
Low Extent	21- 35
Moderate Extent	36- 49
High Extent	50- 63

For Housekeeping Operations, the minimum score was 21 and maximum was 63.

**Table 6: Categorization and range scores for Extent of knowledge of the respondents regarding Food and beverage department**

<b>Extent of knowledge of the respondents regarding Food and beverage department</b>	<b>Score range</b>
Low Extent	20- 33
Moderate Extent	34- 47
High Extent	48- 60

For Food and Beverage Operations the minimum score was 20 and maximum score was 60.

**Table 7: Categorization and range scores for Extent of knowledge of the respondents regarding the safety measures**

<b>Extent of knowledge of the respondents regarding the safety measures</b>	<b>Score range</b>
Low Extent	7- 11
Moderate Extent	12- 16
High Extent	17- 21

For information regarding Safety Measures, the minimum score was 7 and maximum score was 21 respectively.

### **3.12.3 Statistical analysis**

Data was analyzed by using the following statistical techniques:

**3.12.3.1 Descriptive statistics:** For the present study frequency, percentage, arithmetic mean, standard deviation and weighted mean were computed for analyzing the background information and extent of knowledge of the respondents.

**1. Frequency** = It was used to find out number of the respondents falling under a particular cell.

**Frequency** = Sum of responses (in number)

2. **Percentage:** It was used for making simple comparison.

$$\text{Percentage} = \frac{\text{Sum of all responses}}{\text{Total number of responses}} \times 100$$

3. **Arithmetic mean**

Arithmetic mean was calculated, to sum up, the characteristics of whole group of figures. It was obtained by adding up all the scores and dividing their total by the number of observations. Symbolically it is represented as:

$$\bar{X} = \frac{\sum f X}{\sum f}$$

Where

$\bar{X}$  is the mean

$f$  is the number of occurrences

$\sum f X$  is the sum of products  $f X$

$\sum f$  is the number of occurrences

4. **Standard Deviation**

The Standard Deviation is a measure of how dispersed the data is in relation to the mean.

$$SD = \sqrt{\frac{\sum (r_i - r_{avg})^2}{n - 1}}$$

Where

$r_i$  - The return observed in one period (one observation in the data set)

$r_{avg}$  - The arithmetic mean of the returns observed

$n$  - The number of observations in the dataset

**3.12.3.2 Relational statistics:** t-test and Co-efficient of Correlation were computed to test the hypothesis postulated for the study.

5. **t-test:** It was used to study the statistical difference in the means of the various variables under study. It was measured by:

$$t = \frac{\mu_A - \mu_B}{\sqrt{\left[ \frac{\sum A^2 - \frac{(\sum A)^2}{n_A}}{n_A + n_B - 2} + \frac{\sum B^2 - \frac{(\sum B)^2}{n_B}}{n_A + n_B - 2} \right] \cdot \left[ \frac{1}{n_A} + \frac{1}{n_B} \right]}}$$

Where,

$(\Sigma A)^2$ : Sum of data set A, squared

$(\Sigma B)^2$ : Sum of data set B, squared.

$\mu_A$ : Mean of data set A

$\mu_B$ : Mean of data set B

$\Sigma A^2$ : Sum of the squares of data set A

$n^A$ : Number of items in data set A

$\Sigma B^2$ : Sum of the squares of data set B

$n^B$ : Number of items in data set B

## 6. Correlation coefficient

The correlation coefficient that indicates the strength of the relationship between two variables can be found using the following formula:

$$r_{xy} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}}$$

Where,

$r_{xy}$  – the correlation coefficient of the linear relationship between the variables x and y

$x_i$  – the values of the x-variable in a sample

$\bar{x}$  – the mean of the values of the x-variable

$y_i$  – the values of the y-variable in a sample

$\bar{y}$  – the mean of the values of the y-variable

## 7. Paired t test

It is defined as the sum of the differences of each pair divided by the square root of n times the sum of the differences squared minus the sum of the squared differences, overall n-1.

$$t = \frac{\sum d}{\sqrt{\frac{n(\sum d^2) - (\sum d)^2}{n-1}}}$$

Where,

d- difference per paired value

n- number of samples

### 3.13 Development of Educational modules

Different educational modules were developed on Hospitality Management Operations for providing training to the 12<sup>th</sup> pass out girls on the following:

**Table 8: Development of modules on Front Desk Operations**

Sr. No.	Modules on Front Desk Operations	Length of module (in minutes)
a.	Personal grooming and makeup	3:36
b.	Telephone manners and etiquettes	5:00
c.	Guest cycle (from pre- arrival to departure)	6:50
d.	Taking payment through different methods	2:20

**Front Desk Operations:** Modules were developed on the following aspects such as: Personal grooming and makeup, Communication skills, Guest cycle from arrival to departure, Telephone manners and etiquettes, checking, handling keys and Taking payment through different methods, settlement of bills.

**Table 9: Development of modules on Housekeeping Operations**

Sr. No.	Modules on Housekeeping Operations	Length of module (in minutes)
a.	Bed making in rooms (single occupancy rooms, double room, suite room)	4:21
b.	Flower arrangement and decoration (Fresh and dry flower arrangement)	11:19
c.	Cleaning of rooms and bathrooms	3:12
d.	Housekeeping Chemicals/ cleaning agents (such as R1, R2, R3, R4, R5, R6, R7, R9) and their use	4:11
e.	Room service with the help of Housekeeping trolley	2:55
f.	Decorating rooms and different areas	2:09
g.	Management of different areas (such as Linen and laundry room management, Housekeeping stores)	4:06
h.	Handling keys	5:46
i.	Managing registers	4:50

**Housekeeping Operations:** Modules were developed on Bed making in rooms, Flower arrangement and decoration, cleaning of rooms and bathrooms using various cleaning agents with different techniques, Room service, Decorating rooms and different areas, Management of different areas: Linen and laundry, housekeeping stores, etc.

**Table 10: Development of modules on Food and Beverage Operations**

Sr. No.	Modules on Food and Beverage Operations	Length of module (in minutes)
a.	Table settings	6:15
b.	Napkin folding	16:22
c.	Table laying	3:40
d.	Taking orders and bill presentation	4:50

**Food and Beverage Operations:** Modules were developed on Table settings; Formal, Informal, Basic and Buffet, Napkin folding, Table laying, and Taking orders and bill presentation.

**Table 11: Development of modules on Information related to safety measures**

Sr. No.	Length of module (in minutes)	Length of module (in minutes)
a.	Emergency services: <ul style="list-style-type: none"> <li>• Fire extinguisher</li> <li>• Emergency calling</li> <li>• First aid kit</li> </ul>	5:20

**Information related to safety measures:** Under this section the modules were developed on Emergency services such as Fire extinguisher, Emergency calling especially in places such as lift when sometimes there is electricity/ power cut, First aid kit.

### **3.14 Training program on Hospitality Management Operations for Higher Secondary Girls for their Employability**

A three month training program was conducted for the respondents, which was focused on enhancing the knowledge of the 12<sup>th</sup> pass out girls regarding the different departments of hospitality industry. The training was provided by using the educational modules that were prepared by using audio-visual teaching aids to make topics clear to the respondents. It included video clips which helped respondents to gain an in-depth understanding of the hospitality operations. It was delivered in a Hindi language for better understanding of the respondents. The major focus in the training program was to acquaint learners with theoretical as well as practical knowledge of the duties, roles and responsibilities related to hospitality industry.

### **3.15 Post-test of the respondents**

After the execution of the training program a post-test was conducted to test the efficacy of the educational modules and to find out the difference in the extent of knowledge of the respondents regarding the different departments of hospitality industry before and after the training program.