Chapter 3:

RESEARCH METHODOLOGY

The process of uncovering the facts related to the high internet propensity and cyber deviance among children strengthened with a proper methodology. The methodology always tried to stick to the basic ethical standards of scientific research.

Statement of the Problem

The Internet is a term created by the human being in the twentieth century. The very ‘fresh’ and ‘new’ nature of the virtual world in itself created a form of confusion in the minds of people. It is interesting that none of the users know the world of internet fully. Because of these people in the physical world often get attacked, abused and misused by internet or computer-assisted devices or programs. Cyber media has evolved as the most powerful media which can control the lives of the individual and the society.

We can find a thin layer of categorization in the society due to the socialization of “internet”. One is a generation born before the internet and observing the contemporary cyber media from outside. The second one is the one who born on the internet and they use the internet like water for drinking. The third generation is perhaps the most interesting one, those who have born before the internet and socialized in a society were internet was not that common and living on the internet after internet literacy.

As per the ‘Internet Crime Report’ of 2016 of Federal Bureau of Investigation, IC3 (Internet Crime Complaint Center) “India stands second in the world for the most number of internet crime victims” (Federal Bureau of Investigation, 2017). This report itself shows how critical is the issue of cybercrime in India. According to the report, “18,712 cases were reported in
the USA where social media acted as a medium or tool to felicitate crime. It is approximated that a loss of around 6.6 million $ caused due to 18,712 cases” (Federal Bureau of Investigation, 2017).

According to the ‘Statista’ The statistics portal, “in 2015, 26 percent of the Indian population is using the internet”. ‘Statista’ is of the opinion that “by 2021, India will have around 635.6 million internet users. Majority of them access internet through mobile phones and in 2016, about 323 million people accessed the internet using mobile phones. There will be 358.2 million social networking users in India by 2021. E-commerce and ‘facebook’ penetration is also high in India” (Statista, 2017).

As per the Crime in India statistics 2015, there is a hike in the number of cybercrime cases reported and persons arrested. “A total of 11,592 cases were registered under the cybercrimes (which include cases under Information Technology Act, offences under related sections of IPC and offences under Special and Local Laws (SLL)) in comparison to 9,622 cases registered during the previous year (2014) which shows an increase of 20.5% over the previous year. In these cases, a total of 8,121 persons were arrested during 2015 in comparison to 5,752 persons arrested during the previous year (2014) registering 41.2% increase over the previous year” (NCRB, 2016).

According to the Crime in India statistics 2015, some of the following facts are relevant:

1. “In 2015, 73 juvenile in conflict with the law were apprehended for IT- Computer-related offenses. Among them 70 were boys and 3 were girls.

2. In 2015, 10 ‘juvenile in conflict with law' were apprehended for IT-Publication/ Transmission of Obscene/Sexually Explicit Content. No girls were apprehended for that category of offense.
3. In 2015, a total of 98 juvenile in conflict with the law were apprehended for different offenses under IT Act.

4. In 2015, a total of 52 juvenile in conflict with the law were apprehended for computer-related offenses under Indian Penal Code. The offenses were Cheating, Data Theft, Forgery, and etc.

5. In 2015, 2 juvenile in conflict with law were apprehended for offenses under Copyright act-1957 and falls under the category of Cyber offenses” (NCRB, 2016).

The facts show that Cyber propensity and deviance of the population in India, and especially the children are to be dealt with. Hence it is important to conduct a study to uncover the truth and facts related to cyber propensity and deviances in India. To attain perfection in the study and to gain the in-depth knowledge, the study area is limited to Kerala.

**Scope and Significance of the Study**

It is understood that the cybercrime and cyber technology influences the human population to a great extent. The new technology has given rise to different issues in the society. Hence I think it is equally important to study empirically the advantages and disadvantages of the new world of cyber. Since the introduction of the computer technology, many crimes were reported on the misuse of the technology. It has observed that the existence of the human kind itself is at a risk. Many crimes which are done by computers or computer networks, or done against the networks or computers are seen in this world. A Huge amount of victims of cybercrime and the severe pain or loss that it imposes on individual demands for studies to tackle the cybercrime. An in-depth knowledge of the causation and patter of cybercrime will help the criminal justice system to safeguard the public. Hence this study of internet propensity and Cyber deviance among children is significant.
This study mainly focused on the different aspects of internet propensity of children, the pattern of the internet propensity, cyber deviance among children, the etiology of cyber deviance among children, the pattern of cyber deviances and the different aspects of children into the world of adult entertainment. The pioneer study has mainly focused on the children in the state of Kerala, India.

The Research Problem

The prime objective of this study is to uncover the exact pattern and behavior of the children in the cyber world where they access the internet and some of them deviate from the normal behavior. This very statement expanded during the process of research where a wide understanding of the cyber world is tried to happen.

Specific Objectives

1. To study all the factors which attract a child to the virtual world.
2. To investigate the etiology of cyber deviance among children.
3. To investigate the depth of cyber deviance among children in the society.
4. To understand the pattern and behavior of children with regard to online ‘adult entertainment’
5. To study the social implications of high internet propensity and cyber deviance among children.
6. To suggest some preventive measures for the cyber deviance and high internet propensity among children

Research Questions

- What are the factors which attract the child to virtual world?
- Is there any association between gender and internet propensity?
What are the reasons behind cyber deviances?
What are the patterns of cyber deviances?
How well the children are into the online adult entertainment?
What are the implications of cyber deviances in the society?

Hypothesis of the Study

H1: There is an association between the gender and internet propensity.

H2: There is an association between the age and level of addiction.

Key Concepts:

- Cyber Deviance: Any deviant activity by an individual or a group of individuals in the cyberspace which may or may not be punishable by the law of the land.
- Internet propensity: A tendency or inclination towards the internet by an individual or group of individuals.
- Children:
  - Theoretical: Any person who has not attained the age of 18 years (Universal Law, 2016).
  - Conceptual: Both boys and girls in the age group 14 years to 17 years
- Adult Entertainment: Any form of entertainment that one must be an adult and involves sexual content which may or may not be prohibited by the law of the land.

Variables

Independent variables: Age, gender, area of living
Dependent variables: owning mobile phone, time spent in internet, factors attracting to internet, internet services most used, time spent for social activities, addiction level etc

**Theoretical Framework of the Study**

Many Criminological theories and theories of other disciplines where crime and deviances are explained is been used in this study to give a strong theoretical base in explaining the internet propensity and cyber deviances among children.

**Space Transition Theory- K. Jaishankar**

Being considered to be the first proper theory to explain the behavior of the individual in the cyber world, Space transition theory has its significant role. K Jaishankar (2008) propounded this theory by saying that “there is a deficiency for a theory to properly explain cybercrime” (Jaishankar K., Space Transition Theory, 2008).

1. “Persons, with repressed criminal behavior (in the physical space) have a propensity to commit crime in cyberspace, which, otherwise they would not commit in physical space, due to their status and position.

2. Identity Flexibility, Dissociative Anonymity and lack of deterrence factor in the cyberspace provides the offenders the choice to commit cybercrime.

3. Criminal behavior of offenders in cyberspace is likely to be imported to Physical space which, in physical space may be exported to cyberspace as well.

4. Intermittent ventures of offenders in to the cyberspace and the dynamic spatio-temporal nature of cyberspace provide the chance to escape.
5. (a) Strangers are likely to unite together in cyberspace to commit crime in the physical space.

(b) Associates of physical space are likely to unite to commit crime in cyberspace.

6. Persons from closed society are more likely to commit crimes in cyberspace than persons from open society.

7. The conflict of Norms and Values of Physical Space with the Norms and Values of cyberspace may lead to cybercrimes” (Jaishankar K., Space Transition Theory, 2008).

**Routine Activity Theory- Cohen and Felson**

Routine activity theory was proposed by Lawrence E. Cohen and Marcus Felson in the year 1979. “The focus of routine activity is the study of crime as an event, highlighting its relation to space and time and emphasizing its ecological nature and the implications thereof” (MIRÓ, 2014).

Cohen and Felson (1979) suggested that “a crime should be thought of as an event that occurs at a specific location and time and involves specific people and/or objects”. They argued that “crime events required three minimal elements to converge in time and space:

1. An offender who was prepared to commit the offense;

2. A suitable target, such as a human victim to be assaulted or a piece of property to be stolen;

3. The absence of a guardian capable of preventing the crime.

The lack of any of these three elements, they argued, would be sufficient to prevent a crime event from occurring” (Criminal Justice Research, 2014).
Rational Choice Theory - Garry Becker, Cornish and Clarke

The Rational Choice Theory (RCT) was developed in the 18\textsuperscript{th} century as part of economics. Garry Becker has published a paper in the year 1968 on the RCT in explaining the crime and criminal behavior (Regis University, 2015). This theory was based on a “utilitarian principle” (Wikipedia). Cornish and Clarke (1986) explained the model of crime causation by means of “weigh between means and ends, costs and benefits and make a rational choice” (Steele, 2016). This theory explains “intentionally committed crime as the reward gained dominates the risk associated with it”. This theory tries to explain “the process of balancing between the risk of the act and the gain” (Regis University, 2015).

Design of the Study

The main aim of the study was to uncover the facts relating to high internet propensity and cyber deviance among children. The study was adopted a mixed methodology consisting of both Qualitative and Quantitative data. The study was carried out using a ‘Descriptive’ cum ‘Exploratory’ research design to uncover the facts. Exploratory research design has helped in exploring the pattern and behavior of the children on the internet as well as the causation factors of cyber deviances among children. Descriptive design helped to describe the peculiar nature of children on the internet and the internet propensity. The study has adopted an ‘Inductive approach’ to deal with the qualitative analysis to identify “patterns and relationships”. Grounded theory (GT) is made use in this research to deal with the qualitative aspects and in formulating concepts (Research Methodology.net, 2015).

Participants of the Study

Population: This research was focused on all the school going children of the age group 14-17 years of age who are the residents of the state of Kerala.
Unit of the Study: Any person who has completed the age of 14 years and who has not attained the age of 18 years who are the regular students of any English, Malayalam medium schools (State, CBSE, ICSE syllabus) of Kerala. School dropouts and children who are the residents of Kerala and attending schools of outside Kerala were excluded from the study. There was no discrimination based on the private or public sector schools.

Pilot Study:

To test the validity and to develop a tool to effectively uncover the facts relating to the high internet propensity and cyber deviance among children, a pilot study was conducted. The study was conducted to nullify all the errors of the carefully developed tools for data collection. The study was conducted among the school going children of Kerala. The Internet Addiction Questionnaire was given to ‘5’ (five) participants of Kottayam district and their responses were collected. Based on the feedback obtained from the responses and as well as from the experts after analyzing the responses, two items were removed and the scores were adjusted accordingly.

Another ‘5’ (five) participants were selected from Ernakulam district, the questionnaire was given and the responses were collected. After analyzing the data obtained, the researcher has made some changes in the questionnaire. The researcher obtained feedbacks from experts in this field and made the corrections.

Another ‘5’ (five) participants were selected from Kozhikode district and conducted the in-depth interview to see whether there are any provoking questions or questions of obscene nature. The responses were collected and analyzed manually and finalized after getting the opinion from the experts in the corresponding fields. During this process, the researcher could identify that it was necessary to have frequent visits to the school and to have frequent interaction with the children to obtain maximum true responses.
Thus a total of ‘15’ (Fifteen) respondents were used to conduct the pilot study and testing the validity of the questionnaire.

**Sampling**

**Questionnaire:** The researcher has adopted a Multistage Sampling technique to draw the samples from the population. In the first stage, the researcher with the use of lottery method selected four districts from the fourteen districts of Kerala. They were Thiruvananthapuram, Ernakulam, Malappuram, and Kannur. After selecting the four districts, in the second stage, the researcher obtained the school’s lists from the district authorities, ‘Education Department, Government of Kerala’ and from other trustable sources.

After obtaining the entire list, the researcher made a single list for each district by shuffling different categories of schools. The researcher included only those schools having classes from the eighth standard to twelfth standard in the list. This was done to minimize the number of schools. Then two schools were selected from the list using systematic sampling (item in the first and middle positions). The permission to conduct the study was obtained from the school authorities well before the collection of data. It was done by means of visiting the school and talking with the school authorities. It was made sure that the responses will not be used for any other purpose than research. The researcher had given the surety that name of the school will not be used in any stages of reporting of the study. The researcher had chosen the next school (to the previously selected school) when the selected school authorities rejected the request for data collection.

After the selection of the schools, a separate list of boys and girls were obtained and the respondents were selected using systematic sampling from the list of students. The researcher made sure that the respondents are of both genders and are equal in number.
After the selection of respondents, the researcher obtained the consent for data collection. The researcher made frequent visits to schools and interacted with them personally and in the group to build the rapport. The questionnaire was then administered and the responses were collected. While administering the questionnaire, the researcher explained every single element of the question in detail to the respondents and made sure that maximum possible number of errors was excluded from the responses.

Four districts were selected from Kerala and two schools from each district selected. After selecting eight schools, 50 students (25 boys and 25 girls) were selected and the responses obtained using the questionnaire. After the data collection, it is found that 8 questionnaires have inadequate data or wrong information to consider for analysis. In order to meet the gender proportion, other 4 questionnaires were deleted by means of lottery method.
So 12 questionnaires were not considered and the total sample size was restricted to 388 (194 boys and 194 girls).

Internet Addiction Test (IAT): To administer Internet Addiction Test of 18 items (deleted 2 items from total 20 items), the researcher selected 100 children using Purposive Sampling technique. The test was given to the 100 respondents and the responses were collected. While administering the test, the researcher had explained each question to the respondents in detail.

The researcher adopted Purposive Sampling technique to draw 84 respondents to conduct the in-depth interview. The interview was done after getting consent from the respondents. Rapport was built by means of frequent visits and interactions with the respondents. Other than the questionnaire and in-depth interview, the researcher made use of Quasi Participant Observation method to collect the data and understand the behavior.

**Ethics**

The study was carried out keeping all the ethical standards of the research. None of the respondents were given responses by any kind of intimidation or by offering anything. Every response was voluntary and consent was obtained prior to the data collection from both the respondents and from respective school authorities. The researcher had carried out the research after getting approval from the Doctoral Committee held at M.G. University, Kottayam, Kerala. In every phase of the research, it was monitored by the Research guide and the Director/HOD of the Institution. No respondents can be identified from the report and full confidentiality is maintained.

**Data Used for the Study**

Both Primary and Secondary data were used to uncover the facts relating to the high internet propensity and cyber deviance among children in the state of Kerala. Primary data were collected from children of age group 14-17 years using Standardized self-made Questionnaire, Standardized Test,
In-depth interview and Observation methods. The data consisted of both Qualitative and Quantitative nature. Apart from these samples, opinions were also collected from experts, parents, school authorities, public, political leaders, law enforcement agencies, religious priests and etc.

Secondary data were collected from the available pieces of literature, statistics, reports, and etc. pertaining to the area of cyber propensity and deviance.

**Tools Used for Data Collection**

A self-created Questionnaire is used to get responses from children regarding the socio-demographic data, internet usage time, other internet usage details, social networking usage, e-commerce site usage, illegal site usage, pornographic contents usage, and etc. The questionnaire was self-prepared and standardized after the pilot study and testing the validity with the help of experts. The questionnaire was finalized after some corrections.

Internet Addiction Test (IAT) of 18 items was administered to collect data on the children’s internet addiction pattern. The IAT was having 20 items and after the pilot study, two of the items were removed as it found irrelevant for the unit of the study. “The Internet Addiction Test (IAT; Young, 1998) is a 20-item scale that measures the presence and severity of Internet dependency among adults. Dr. Kimberly Young, a professor at St. Bonaventure University and director of the Center for Internet Addiction Recovery, developed the IAT to assess symptoms of Internet addiction and compulsivity in a variety of test settings” (The Center for Internet Addiction, 1998).

In-depth interview was conducted to uncover the hidden aspects of internet usage and cyber deviance among children. They were asked for the pattern of the behavior, impact of the internet on social life, use of adult entertainment, social life, family life, interactions, and etc. All the responses were recorded and entered into the sheet manually to analyze the responses. These
manuscripts were manually arranged and coded. After that, the interconnected categories were identified and then connected those categories.

Apart from questionnaire and interview method, Quasi Participant Observation method has also used to collect data from the respondents. Their behaviors were closely observed in a quasi-participant observation and events were recorded carefully without personal biases.

**Fieldwork**

The final fieldwork was conducted during the period of 2013 July to 2016 February in the four districts of Kerala. Each of the tools was standardized and administered after getting the consent of the respondents. After the completion of every district, each of the responses was analyzed carefully and tried to record all the data carefully. None of the data were kept outside so that another person can get to see the responses.

**Data Analysis**

As the study used a mixed methodology of having both qualitative and quantitative data, the researcher processed the responses in different ways. All the quantitative data were processed, coded manually and entered into SPSS V19. After that, the data were analyzed using statistical techniques applicable to the collected data and suitable for the objective.

Qualitative data were collected, recorded and analyzed manually to find common information. Qualitative data analysis is done manually keeping all the ethical standards of qualitative data analysis. All the responses were recorded and entered into the sheet manually to analyze the responses. These manuscripts were manually arranged and coded. After that, the interconnected categories were identified and then connected those categories. Thus the researcher could form patterns and relationships. The inductive approach is made used to analyze the data with the help of Grounded theory.
Summary

This methodology chapter tried to explain well regarding the steps adopted in this study to obtain the results and the methods adopted. This chapter also explained the various sampling methods, tools for data collection, and has given an introduction to how the data were analyzed.