CHAPTER-III

METHOD AND PROCEDURE

The present study is essentially empirical in nature and falls mainly in the purview of survey research design. Exploratory descriptive survey method was employed in this study. The study was completed in two phases. In first phase, the tool i.e. Socio-economic Status was constructed and validated by the investigator. In the second phase the data was collected, analyzed and interpreted. In this chapter, the abbreviated forms of various terms have been used in various tables. This chapter has been discussed under following sub headings:

3.1 Sample
3.2 Design
3.3 Tools used
3.4 Description of the tools
3.5 Procedure
3.6 Statistical techniques used

3.1 SAMPLE

The quality of a piece of research stands or falls not only by the appropriateness of methodology and instrumentation but also by the suitability of the sampling strategy that has been adopted (Cohen, Manion & Morrison, 2007).

A sample is a miniature picture of the entire group or aggregate from which it has been taken. A sample in other words, is a smaller representation of a larger whole. The entire group from which the sample has been taken is known as population (Aggarwal, 1988). The size of the population places an upper limit on the size of the sample that can be drawn from it (Ebel & Frisbie, 1991). The sample cannot be larger than the population (Robson, 1996; Ebel & Frisbie, 1991; Calfee, 1975). The larger the population, the more likely it to be heterogeneous i.e. include diverse and semi-independent areas of knowledge or ability. In order to achieve equally accurate results, a somewhat larger sample is required in a heterogeneous domain than in a homogenous domain (Robson, 1996). A larger sample will
always yield a sample (Garrett, 1981). The larger the sample, the smaller the sampling error are likely to be and such errors are not caused by mistakes in sampling (Ebel & Frisbie, 1991).

Sampling designs are classified into two categories. One is the probability sampling designs and other is the non probability sampling designs. The probability sampling designs are based on random selection as the fundamental element of control and permit the specification of the precision that can be obtained and the size of the sample requires for that purpose. The non- probability sampling designs are based on the judgment of the investigator as the most important element of control (Aggarwal, 1988). For the present investigation probability sampling design was used in which multistage random sampling was employed to choose the sample.

In the present study multistage random sampling technique was employed to choose the sample. The population for the present study was Punjab state. Punjab state is divided into four regions i.e. Majha, Malwa, Powadh and Doaba and out for the four regions of Punjab Doaba region of the Punjab was selected randomly. At next stage out of four districts (Jalandhar, Nawanshahr, Kapurthala and Hoshiarpur) in Doaba region two districts i.e. Jalandhar and Kapurthala were selected randomly. In the next stage list of government, government aided and private schools in Jalandhar and Kapurthala districts were prepared. All the schools could not have formed the subjects of the study by a single researcher. Hence, it was decided to select a representative sample of eighteen schools (six government, six government aided and six private) on the basis of simple random sampling method (lottery method). At next stage out of a large number of students studying in various sections only one section was selected randomly. Finally, a sample of 900 adolescents studying in different senior secondary schools constituted the sample for the study. Out of which 300 adolescents (150 male and 150 females) were from government schools, 300 adolescents (150 male and 150 females) from aided schools and 300 adolescents (150 male and 150 females) from private schools of Jalandhar and kapurthala district. The list of names of schools and total number of students were selected for data collection is shown in table 3.1.
## Table 3.1: School wise distribution of the sample

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of the School</th>
<th>Type of School</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kendriya Vidyalaya No. 1, Hardyal Road, Jalandhar Cantt.</td>
<td>Government</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>2.</td>
<td>Kendriya Vidyalaya No. 2, Bhagat Road, Opposite Topkhana Bazar, Jalandhar Cantt.</td>
<td>Government</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>5.</td>
<td>M.G.N Public School, Adarsh Nagar, Jalandhar.</td>
<td>Private</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>6.</td>
<td>Innocent Heart, Green Model Town, Jalandhar.</td>
<td>Private</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>7.</td>
<td>Army Public School, MH Road, Jalandhar Cantt.</td>
<td>Aided</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>8.</td>
<td>B.S.F Senior Secondary School, BSF Campus, Near BSF Chowk, Jalandhar Cantt.</td>
<td>Aided</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>9.</td>
<td>Police Dav Public School, Pap Campus, Near Pap Chowk Jalandhar Cant, Jalandhar</td>
<td>Aided</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>10.</td>
<td>Kendriya Vidyalaya, New Military Station, Kapurthala</td>
<td>Government</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>13.</td>
<td>G.D.R Convent School, Kapurthala Vill Bir Dhandoli Po Rawalpindi Hoshiarpur Road Phagwara, Kapurthala.</td>
<td>Private</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>14.</td>
<td>M.G.N Public School, Link Road, Kapurthala.</td>
<td>Private</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>15.</td>
<td>Anand Public School Mandi Road, Kapurthala.</td>
<td>Private</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>16.</td>
<td>Army School Opposite Guru Nanak Stadium, Jalandhar Road, Kapurthala.</td>
<td>Aided</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>18.</td>
<td>SD Model Sr Sec School, Sultanpur Lodhi, Distt. Kapurthala</td>
<td>Aided</td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>

**Total** | **450** | **450** | **900**
3.2 DESIGN

It is necessary to adopt a systematic procedure to collect the necessary data which helps to achieve the objectives and to test the hypothesis of the study. Research design provides the glue that holds the research project together. A design is used to structure the research, to show how all the major parts of research projects- the sample or groups, measures, treatments or programs, methods of assignments- work together to address the central research questions (Trochim, 2007).

Research design is the conceptual structure within which research is conducted; it constitutes the blue print for the collection, measurement and analysis of data (Kothari, 2012, p.31).

The present study employed a descriptive research method and aim to determine the relationship of career beliefs and its dimensions with internet savviness, dimensions of internet savviness, and dimensions of family environment, socio-economic status and career indecision. To investigate the effect of the six independent variables internet savviness, family environment, socio-economic status, career indecision, institutional types and gender. The variable of internet savviness was studied at two levels i.e. high and low internet savviness. The variable of family environment was studied at two levels i.e. positive and negative family environment. The variable of socio-economic status was studied at two levels i.e. high and low socio-economic status. The variable of career indecision was studied at two levels i.e. high and low career indecision. The variable of institutional type was studied at three levels i.e. private, government and government aided schools. The variable of gender was studied at two level i.e. male and female. Therefore, the sample groups must be compared and statistically tested for their equivalence. Therefore, the sample groups must be compared and statistically tested for their equivalence. The main dependent variable was career beliefs. In order to analysis the data 2×2×2 and 3×2 Analysis of Variance was used. The design of the covering six independent variables has been presented below:
• A schematic layout of 2x2x2 factorial design of internet savviness, family environment, socio economic status has been given in Fig 3.1

Fig. 3.1: The schematic layout (2x2x2) factorial design pertaining to the effect of internet savviness, family environment, socio economic status on career beliefs

Effect of internet savviness, family environment, socio economic status will be worked out on the dependent variable career beliefs.

Where Stands:

IS- Internet Savviness
IS1- High Internet Savviness
IS2- Low Internet Savviness
F1- Positive Family Environment
F2- Negative Family Environment
S1- High Socio-Economic Status
S2- Low Socio-Economic Status
A schematic layout of 2x2x2 factorial design of internet savviness, family environment, career indecision has been given in Figure 3.2

Fig. 3.2: The schematic layout (2×2×2) factorial design pertaining to the effect of internet savviness, family environment, career indecision on career beliefs

Effect of internet savviness, family environment, career indecision will be worked out on the dependent variable career beliefs.

Where Stands:

IS- Internet Savviness
IS₁- High Internet Savviness
IS₂- Low Internet Savviness
F₁- Positive Family Environment
F₂- Negative Family Environment
C₁- High Career Indecision
C₂- Low Career Indecision
A schematic layout of 2x2x2 factorial design of socio economic status, family environment and career indecision has been given in Figure 3.3

Fig. 3.3: The schematic layout (2×2×2) factorial design pertaining to the effect of socio economic status, family environment and career indecision on career beliefs

Effect of socio economic status, family environment and career indecision will be worked out on the dependent variable career beliefs.

Where Stands:

S - Socio-Economic Status
S₁ - High Socio-Economic Status
S₂ - Low Socio-Economic Status
F₁ - Positive Family Environment
F₂ - Negative Family Environment
C₁ - High Career Indecision
C₂ - Low Career Indecision
Method and Procedure

- A schematic layout of factorial design 2x2x2 of socio economic status, career indecision and internet savviness has been given in Figure 3.4

![Factorial Design Diagram](image)

**Fig. 3.4: The schematic layout (2x2x2) factorial design pertaining to the effect of socio economic status, career indecision and internet savviness on career beliefs**

Effect of socio economic status, career indecision and internet savviness will be worked out on the dependent variable career beliefs.

**Where Stands:**

S- Socio-Economic Status  
S₁- High Socio-Economic Status  
S₂- Low Socio-Economic Status  
C₁- High Career Indecision  
C₂- Low Career Indecision  
IS₁- High Internet Savviness  
IS₂- Low Internet Savviness
A schematic layout of (3x2) factorial design of institutional types and gender on career beliefs has been given in Figure 3.5

Effect of institutional types and gender will be worked out on the dependent variable career beliefs.

Where Stands:

I-Institutional Types  
G- Gender  
I₁- Private Schools  
I₂- Government schools  
I₃- Government Aided Schools  
G₁- Male  
G₂- Female

The study was further designed to find out the significant predictors of career beliefs from among the independent variables of internet savviness, family environment, socio-economic status and career indecision. For the present study descriptive survey method was employed.
3.3 TOOLS USED

For descriptive type of research, there is need of certain instruments to explore the new fields. The instruments employed for the collection of data are called tools. These tools employ distinct ways of describing and qualifying the data. A psychological tool is an objective and standardized measure of a sample of behavior (Anastasi, 1961). The following research tools were used to collect the data for the present study:

1. Career Beliefs Pattern Scale Version 3 by Arulmani (2012) was used.
2. Internet Savviness Scale by Geyer (2009) was used.
3. Family Environment Scale by Vohra (1997) was used.
4. Socio Economic Status Scale developed by investigator herself.
5. The Career Decision Making Inventory by Singh (1999)

3.4 DESCRIPTION OF THE TOOLS

The present part is devoted to the description of the existing standardized available tool used in the study and the development and standardization of the tool developed by the researcher.

3.4.1 CAREER BELIEFS PATTERN SCALE VERSION 3

- **Description:** The Career Belief Patterns Scale (CBPS) has been developed with the primary intention of gaining further insights into social cognitive factors that influence the individual’s orientation to the notion of career (Arulmani, 2012). Career Belief Patterns Scale (CBPS) version 3 is based on the following factors:

(i) **Control and Self Direction Beliefs:** Situations and experiences influence the direction that one’s life can take. The six items in this Factor describe circumstances reflecting the individual’s sense of control over his or her life situation and orientation to directing his or her life. Mind-sets in this category are linked to the career aspirant’s belief that he or she could deal with the exigencies presented by life situations and the orientation to direct and take charge of the way in which his or her life progresses. These vignettes reflect the confidence to manage the trajectory of one’s life. It was therefore labelled **Control and Self-Direction Beliefs**.

(ii) **Culture and Common Practice:** It comprises six items and was titled **Culture and Norms**. These items describe culturally embedded attitudes to career preparation. They reflect common practice and unwritten norms that orient the people of a community and shape their career preparation behaviour.
(iii) **Fatalism:** This Factor is made up of four items. The items portray a sense of resignation and a passive acceptance of one’s life situation. These vignettes are coloured by the feeling of pessimism and a sense that nothing can be changed and that matters are preordained by more powerful forces. The Factor was labelled *Fatalism*.

(iv) **Gender:** This Factor is made up of 3 items and was labelled *Gender Beliefs*. The items are tilted toward existing male-female stereotypes pertaining to engagement with the world of work. Thus the items portray professional engagement with work as being a male prerogative and rest on the understanding that high alignment with these ways of thinking imply a negative approach to work and occupation and therefore reveal negativity in career beliefs. Of particular interest to the researcher would be to examine how girls respond to these items.

(v) **Persistence Beliefs:** Successful career development requires the individual to face and attempt to overcome difficulties and hurdles that punctuate progress toward a career goal. The content of the six vignettes in this Factor reflect the determination to work toward future career goals in spite of difficulties and barriers encountered during the process of career preparation. Beliefs within this category reflect the resolve to persevere with determination toward career goals. These items also reflect a sense of purposefulness and resolve to strive for positive outcomes in the future. To this end they reflect the quality of the respondent’s orientation to the future. The Factor was labelled *Persistence Beliefs*.

(vi) **Prestige and Social Status:** Six items clustered around the themes of social acceptability and status of occupations, including the individual’s caste. These items reflect orientations to occupational structures and hierarchies that are deeply embedded in culture. It is possible that while a person from a ‘lower’ social status may be able to break through the material disadvantages inflicted by his or her status, socio-cultural forces may continue to influence mind sets which in turn could have an impact on career preparation. The Factor was labelled *Prestige and Social Status*.

(vii) **Proficiency Beliefs:** This Factor is composed of five items. The vignettes in this Factor appear to tap the respondent’s beliefs about the importance of acquiring qualifications and skills that enhance personal proficiency for an occupation before entering the world of work. They describe the willingness to submit to the rigors of a formal training programme and spend resources (time, effort and finances) to achieve the distinction of being formally qualified as per the norms of their society. Hence the Factor was labelled *Proficiency Beliefs*.
Method and Procedure

(viii) **Self-worth:** This group of four items describe beliefs related to personal ability for career preparation. The items reflect an overall orientation to being able to prepare for a career. The items also tap the respondents’ self-worth in relation to academic performance and career preparation. The Factor was labeled *Self-worth Beliefs.*

- **Scoring:** In its final form, the Career Beliefs Pattern Scale 3 comprises 40 vignettes designed to reflect negativity in career beliefs related to development. Respondents are required to indicate on a 7-point scale, the extent to which they ‘agree’ or ‘disagree’ with each vignette. Higher scores indicate higher negativity in the content of career beliefs.

The total career beliefs pattern scale score is to be obtained by finding the sum of the ratings marked by the respondent for each item. Similarly, the score for each of the eight subscales is to be obtained by finding the sum of the ratings marked by the respondent for each item. The scoring key of career beliefs pattern scale has been presented in table 3.2

**Table 3.2: Scoring key of career beliefs pattern scale version 3**

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>CBPS Sub-scales</th>
<th>Total Items</th>
<th>Items No.</th>
<th>Minimum-Maximum Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Control and Self Direction</td>
<td>6</td>
<td>12, 15, 20, 34, 35, 38</td>
<td>6 to 42</td>
</tr>
<tr>
<td>2.</td>
<td>Culture and Common Practice</td>
<td>6</td>
<td>16, 21, 23, 30, 31, 33</td>
<td>6 to 42</td>
</tr>
<tr>
<td>3.</td>
<td>Fatalism</td>
<td>4</td>
<td>7, 19, 28, 37</td>
<td>4 to 28</td>
</tr>
<tr>
<td>4.</td>
<td>Gender</td>
<td>3</td>
<td>25, 32, 39</td>
<td>3 to 21</td>
</tr>
<tr>
<td>5.</td>
<td>Persistence</td>
<td>6</td>
<td>6, 9, 10, 13, 22, 36</td>
<td>6 to 42</td>
</tr>
<tr>
<td>6.</td>
<td>Prestige and social status</td>
<td>6</td>
<td>2, 3, 5, 18, 26, 40</td>
<td>6 to 42</td>
</tr>
<tr>
<td>7.</td>
<td>Proficiency</td>
<td>5</td>
<td>1, 4, 11, 17, 27</td>
<td>5 to 35</td>
</tr>
<tr>
<td>8.</td>
<td>Self Worth</td>
<td>4</td>
<td>8, 14, 24, 29</td>
<td>4 to 28</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>40</strong></td>
<td></td>
<td><strong>40 to 280</strong></td>
</tr>
</tbody>
</table>

- **Reliability:** The reliability of the Career Beliefs Pattern Scale was estimated for low and middle SES high school students (Class 10) the findings of which are as follows:

(i) The CBPS was found to have a 6-week test–retest reliability of .84 on a sample of 467 randomly drawn middle SES boys and girls (boys were 51% of the sample) from 6 schools in different parts of South India.
(ii) The CBPS was found to have a 8 week test–retest reliability of .76 on a sample of 331 randomly drawn low SES boys and girls (boys were 46% of the sample) from 6 schools in different parts of South India

- **Validity:** The Career Beliefs Pattern Scale has been used in a number of intervention studies that specifically targeted the reduction of negativity in career beliefs. Each of these studies showed a statistically significant decrease in Career Beliefs Pattern Scale pre-intervention scores when the sample was tested after the intervention, while matched controls in these studies did not show statistically significant changes. See the following for examples:


  Similar findings have also been reported by researchers who have used the CBPS on non Indian samples. See the following for examples:


  These findings could be taken as evidence of the scale’s Face and Construct validity.

  A copy of scale has been given in **Appendix- I**

- **Norms:** Two sets of normative data based on which an individual’s score can be interpreted was developed.

  (i) Norms for interpreting the scores of males and females in the age range of 13 to 22 years, drawn from all SES groups, is given in **Appendix- II**
Method and Procedure

(ii) Normative data based on which the scores of males and females in the age range of 13 to 22 years, belonging to the low, middle and upper middle SES groups, is presented in Appendix- III

3.4.2 INTERNET SAVVINESS SCALE

The internet savviness scale has been developed with the primary intention of testing and measuring the construct of Internet-savviness and its underlying dimensions. The relationships between these factors and other variables of interest are also explored in order to better understand how educators can instructionally exploit the rapid changes taking place and the intense motivation most children have while engaging and using the Internet (Geyer, 2008).

- Dimensions of Internet Savviness Scale

  (i) Creative Expression: The term Creative Expression describes the activities of children who use the Internet for personal expression and creative work. These activities might include authoring and publishing websites, designing and creating artwork, blogging, podcasting, and creating video artifacts. Lenhart and Madden (2005) found that 57% of online teens create content for the Internet (p. 2). A significant percent of this group (19%) reconstitute or “re-mix” various forms of existing media (audio, video, and images) into entirely new and unique creations (p. 2).

  (ii) Internet Self-Efficacy: Internet Self-Efficacy is defined as individuals’ beliefs about their capabilities to produce designated levels of performances or outcomes in navigating the Internet and accessing its resources for personal or school use (Bandura, 1986). Exploration and use of new Internet tools and resources that they perceive to be of interest and use in their lives would be eagerly investigated by children who have high Internet self-efficacy.

  (iii) Internet Fluency: A common definition of fluency includes such descriptors as “easily changed or adapted,” “knowledgeable,” and “skillfulness and with expertise” (Fluency: meaning). Internet Fluency not only includes children who have extensive knowledge of the Internet but who also possess the core competencies and skills to navigate and make use of its resources. An example of a child possessing Internet fluency might be one who could not only provide a definition of a homepage but could also change the homepage in any browser.
Method and Procedure

(iv) **Social Collaboration:** Children co-construct knowledge in a social context (Bedrova & Leong, 1994). Further, when these interactions take place in a larger, “real-world” framework, meaningful to the learner, the opportunity to learn is expanded (Brown, Collins, & Duguid, 1989). Socially collaborating on an online project, activity or problem allows for an exchange and sharing of ideas and artifacts which deepen learning (Bednar, Cunningham, Duffy & Perry, 1995). An example of this might be working in an online study group to research, write, and present a research paper in class.

(v) **Computer Mediated Communication:** Computer mediated communication (CMC) involves communications using a wide variety of formats and tools to exchange conversation or data between two or more individuals. Today, synchronous forms of communications, (audio, video) and asynchronous forms (instant messaging, email, chat rooms, and discussion forums) provide a framework for one-to-one, one-to-many, and many-to-many modes of communication and are familiar tools for all users of the Internet, particularly young users (Lenhart et al., 2005). CMC is the key enabler for social collaboration in a virtualized setting.

(vi) **Information Gathering:** Information gathering involves both information literacy and fluency. This construct includes the ability to use Yahoo, Google, and other specific and generic search engines to find resources of interest. It might also include the use of keywords and tags along with boolean operators in order to make successful searches. Given the sea of information found on the Internet, this skill also includes the ability to filter, discriminate, and verify accurate from inaccurate information often found on the Internet (American Association of School Librarians & Association for Educational Communications and Technology, 1998).

- **Scoring:** Each item has a response option on Likert four point’s continuum viz, Strongly Disagree, Disagree, Agree, Strongly Agree with respective weighs of 4, 3, 2 and 1 for unfavorable statements and 1, 2, 3 and 4 for the favorable statements. The scoring procedure adopted is presented below in table 3.3.
### Method and Procedure

**Table 3.3: Scoring procedure for each item of internet savviness scale**

<table>
<thead>
<tr>
<th>Items</th>
<th>Scores Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>Favorable</td>
<td>1</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 3.3 shows that internet savviness scores of the subject is the sum total of the items scores of all the statements. The theoretical range of scores on this scale is from 38 to 152. High score on the internet savviness scale corresponds to high internet savviness among adolescents and vice-versa.

- **Adaptation**

Before using the Internet Savviness Scale in the present study, adapted version of the scale was developed by the investigator and was got checked up for technical accuracy of the content as well as the language by the five experts. On the basis of their agreement a needed modification was done. There after its concurrent validity with its original version was ascertained by the investigator. For this original and adapted version of the scale were administered on the sample of 100 adolescents which included both male and female adolescents. The adolescents were drawn randomly from the three schools. This has been reported in table 3.4

**Table 3.4: Selection of adolescents for the concurrent validity**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kendriya Vidyalaya No. 1, Hardyal Road, Jalandhar Cantt.</td>
<td>33</td>
</tr>
<tr>
<td>2.</td>
<td>M.G.N Public School, Adarsh Nagar, Jalandhar.</td>
<td>35</td>
</tr>
<tr>
<td>3.</td>
<td>Police Dav Public School, Pap Campus, Near Pap Chowk, Jalandhar Cantt.</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 3.4 shows that 100 students were selected from the three schools for concurrent validity.
Before administration of the scale of the scale necessary instructions was given to the adolescents and proper rapport was established with them. No time limit was imposed for completion of the tool. But ten minutes interval was kept between the administrations of two scales. The scoring was done with the standard key. The co-efficient of correlation was found out between these two measures. This has been reported in Table 3.5.

**Table 3.5: Concurrent validity index of original and adapted version of internet savviness scale**

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Value of ‘r’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adapted and Original Version of Internet Savviness</td>
<td>100</td>
<td>r = .814**</td>
</tr>
</tbody>
</table>

**Significant at 0.01 level**

It is evident from table 3.5 that concurrent validity was obtained as .814 which was found to be highly significant (<.01).

Test-retest reliability of adapted version was also ascertained. For this adapted version of internet savviness scale was administered twice with the interval of four weeks on the 100 adolescents randomly drawn from the three schools as referred above. Co-efficient of correlations was found out between the two sets of scores. The co-efficient of correlation was computes for the above data has been reported in table 3.6.

**Table 3.6: Test-retest index of adapted version of internet savviness scale with the interval of four weeks**

<table>
<thead>
<tr>
<th>Co-Efficient of Correlation for the Scores of Two Adapted Version of Internet Savviness Scale (N=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Administration of Adapted Version of Internet Savviness</td>
</tr>
<tr>
<td>Second Administration of Adapted Version of Internet Savviness</td>
</tr>
</tbody>
</table>

**Significant at 0.01 level of confidence**

Table 3.6 shows that co-efficient of correlation was quite high and significant. It means that the adapted version had high level of reliability for adolescents. A copy of adapted version of internet savviness scale has been given in Appendix- IV.
3.4.3 FAMILY ENVIRONMENT SCALE

- **Introduction:** Family environment is the first and perhaps the most enduring context for growth. Adjustment within the family means identifying with models, accepting values, playing out family roles, developing affection, and eventually distinguishing one’s own values and goals from those held by other family members. One central part of life after childhood is discovering all those motives, values and beliefs that were not accepted within the boundaries of your family (Newman & Newman, 1981).

Family Environment Scale (FES) was developed as a means to get information about the family environment in a rapid, objective and standardized manner. It is brief and non-stressful scale, applicable to all but the lowest educational levels. It is appropriate for use with ages of 10 years and above throughout adulthood. The scale gives an accurate appraisal of family environment. This scale is easily administrated individually or to large groups at one time. It can even be used as self-administering test. It includes 98 statements and numbers of items for each dimension are divided equally. Each statement has two possible answers.

Family Environment Scale is based upon dimensional theory, where several dimensions measured together to give a complete and comprehensive picture of one’s family environment. Present scale is uses seven such clearly defined independent dimensions to measure family environment.

(i) **Competitive Framework:** This dimension measures the extent to which activities (such as school and work) are cast into achievement oriented or competitive framework. High score on the dimension means that the family members are high on competitiveness and achievement orientation. They give importance to grades in school or success one achieves at work or in any other areas of life. However, low scores on this dimension means that family members are low on competitiveness and need for achievement is also low. They do not really work too hard or hardly worry about job promotions, school grades etc.

(ii) **Cohesion:** This dimension measures the degree of commitment, help and support from family members provide for one another. High score on this dimension means that the family members support each other and they have a strong feeling of togetherness. They usually get along well and have time to pay attention to everyone in the family. Low
score on cohesion means that the family members openly express anger and to show aggression in their behavior. There is always conflict among family members and they often criticize each other.

(iii) Expressiveness: Expressiveness measures the extent to which family members are encouraged to act openly and to express their feelings directly. High score on this dimension means that the family members are free to say anything they want to, feelings of disagreement or disapproval can be freely expressed at home. They usually indulge in spontaneous discussions without any fear or hesitation of hurting each other feelings. However, low score on expressiveness means family members are not discussed openly and they are always cautious about they say to each other.

(iv) Independence: this dimension measures the extent to which family members are assertive, self-sufficient and make their own decisions. High score on this dimension means that family members are encouraged to be independent, they usually do things on their own and they are given freedom to solve their problems themselves. However, low score on independence means that family members are not really encouraged to speak up for themselves and there is little or no privacy at home. There is usually one family member who makes most of the decisions.

(v) Moral orientation: This dimension measures the degree of emphasis given to ethical, moral and religious issues and values. High score on this dimension means that family members give high importance to religion. They have high ethical and moral values and are encouraged to follow them. However, low score on this dimension means that family members attach little or no importance to religion and show little or no ethical and moral values.

(vi) Organization: This dimension measure the degree of importance of clear organization and structure in planning family activities and responsibilities, and extent to which set rules and procedures are used to run family life. High score on the dimension means that family members place high emphasis on rules, there activities are carefully planned. Each individual’s duty in the family is clearly defined and they are usually neat and orderly. Low score, on the other hand, means that family rules are pretty flexible in their household and activities are not really planned carefully. Their duties are not well defined and they are usually dirty and undisciplined in their daily activities.
(vii) **Recreational orientation**: This dimension measures the extent of participation and interest in social, recreational, political, intellectual and cultural activities. The high score on this dimension means that family members have varied interest in various recreational activities and that they spare time for their hobbies, cultural activities and/or intellectual discussions. They go out very often to see plays, attend lectures, watch sports events or just go out for fun. However, low score on this dimension means that family members are not really very much interested in arts and cultural, politics or other intellectual activities. They rarely go out to watch plays, attend lectures, watch sports events or go out just for fun.

- **Scoring**: Scoring procedure of the Family Environment Scale is very objective and simple. For scoring transparent stencil scoring key is used. Scoring of each item is 0 or 1. Stencil key should be placed on the answer sheet and be sure that it is aligned properly with the outer box printed on the body of the answer sheet. After this, scores should be added horizontally for each dimension and write in the space provided on the right hand of the answer sheet. For dimension ‘Vi’, the ‘Vi’ score is used in which answers should be compared through the corresponding boxes and if the answer is same given a score of 1, if the answer is different no score is given. Then add these scores of ‘Vi’ and convert in sten scores. After this interpret ‘Vi’ score by using the following Table 3.7 to check the distortion in responses or consistency

**Table 3.7: Interpretation of ‘Vi’ scores**

<table>
<thead>
<tr>
<th>‘Vi Sten Scores’</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>No Distortion: There is little or no distortion. Response are quite consistent.</td>
</tr>
<tr>
<td>5-9</td>
<td>Low Distortion: Scores are fairly accurate and retesting is not required.</td>
</tr>
<tr>
<td>1-4</td>
<td>High Distortion: Scores are not reliable, as it is one or more sten scores higher or lower on some dimensions than they should be. Desirable for the individual to take the test again after some time.</td>
</tr>
</tbody>
</table>

After using this criterion, the investigator retained only those answer sheets in which there is no distortion or low distortion. Then investigator converted raw scores of each dimension into sten scores. A copy of scale has been placed in Appendix- V
• **Validity**: In Family Environment Scale, the factorial validity is determined by the weights (called loadings) contributed to the total-test scores by each of derived scores. It is determined by the relative independence of one another (low intercorrelations). These factorial validity coefficients are shown in table 3.8.

**Table 3.8: Validity coefficients**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Dimensions</th>
<th>Validity Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>CF</td>
<td>0.84</td>
</tr>
<tr>
<td>(ii)</td>
<td>Co</td>
<td>0.83</td>
</tr>
<tr>
<td>(iii)</td>
<td>Ex</td>
<td>0.77</td>
</tr>
<tr>
<td>(iv)</td>
<td>In</td>
<td>0.82</td>
</tr>
<tr>
<td>(v)</td>
<td>Mo</td>
<td>0.80</td>
</tr>
<tr>
<td>(vi)</td>
<td>Or</td>
<td>0.79</td>
</tr>
<tr>
<td>(vii)</td>
<td>Ro</td>
<td>0.80</td>
</tr>
</tbody>
</table>

• **Reliability**: The reliability or internal consistencies is important to study i.e. the agreement of dimension scores with itself under some change of conditions. The internal consistencies for seven dimensions of Family Environment Scale are all in an acceptable range which is shown in table 3.9. Test-retest reliabilities of seven dimensions are all in acceptable range, varying from a low of 0.78 for Independence to a high of 0.89 for Cohesion. Split-half reliabilities of seven dimension are varying from 0.81 (Independence) to 0.91 (Cohesion). Table 3.7 shows the internal consistencies, test-retest reliabilities and split half reliabilities of seven dimensions of Family Environment Scale.

**Table 3.9: Internal consistencies, test-retest reliability and split-half reliability**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Dimensions</th>
<th>Internal Consistencies</th>
<th>Test-retest Reliability</th>
<th>Split-half Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>CF</td>
<td>0.68</td>
<td>0.79</td>
<td>0.82</td>
</tr>
<tr>
<td>(ii)</td>
<td>Co</td>
<td>0.78</td>
<td>0.89</td>
<td>0.91</td>
</tr>
<tr>
<td>(iii)</td>
<td>Ex</td>
<td>0.71</td>
<td>0.80</td>
<td>0.84</td>
</tr>
<tr>
<td>(iv)</td>
<td>In</td>
<td>0.75</td>
<td>0.78</td>
<td>0.81</td>
</tr>
<tr>
<td>(v)</td>
<td>Mo</td>
<td>0.78</td>
<td>0.82</td>
<td>0.85</td>
</tr>
<tr>
<td>(vi)</td>
<td>Or</td>
<td>0.76</td>
<td>0.81</td>
<td>0.84</td>
</tr>
<tr>
<td>(vii)</td>
<td>Ro</td>
<td>0.72</td>
<td>0.82</td>
<td>0.86</td>
</tr>
</tbody>
</table>
Method and Procedure

- **Norms**: Sten of 1-3 indicates low and extremely low scores, sten of 4-7 indicates average score and sten of 8-10 indicates high and extremely high score on dimensions.

3.4.4 **SOCIO ECONOMIC STATUS SCALE**

- **Introduction**: Due to lack of any suitable tool to access socio-economic status of the adolescents in the present study, the investigator constructed socio economic status scale. So, the investigator laboriously went through the existing stock of tests and tools available. A critical review of relevant existing scale during the past three decades for measuring socio-economic status was observed. Socio Economic Status scale by Mohan (1972), Kuppuswami (1981), Bhardwaj (2001), Socio-economic Status Scale (Urban) by Srivastava, (1978), Manual of socioeconomic status (rural) by Pareekh (1981).

  The scanning of the already developed above mentioned tools revealed that most of the scales were constructed are outdate so could not be used in current scenario. Society can never be static as dynamism is requisite of the social life so we cannot use the outdated tools. So the investigator developed and standardized the socio-economic status tool according to the contemporary structures of the society. Following steps have been undertaken for the construction of socio economic status scale.

  **Step-I: Planning of the Scale**

  The test construction specifies the broad and specific objectives of the test in clear terms. Hopkins (1978) observed that the planning stage of a test include nature of the test, test items and statement of condition under which it will be administrated.

  The Socio Economic Status scale was developed with the objective of measuring socio economic status of families of adolescents in Indian situation. For the construction of the scale, literature on socio economic status was taken into account while framing the statements. To acquaint with the existing scales related to socio economic status, the researcher studied the test and manuals of available tools related to socio economic status. These were Socio Economic Status Scale by Mohan (1972), Kuppuswami (1981), Bhardwaj (2001), Socio-economic Status Scale (Urban) by Srivastava, (1978), Manual of socioeconomic status (rural) by Pareekh (1981). Further various other sources such as newspapers, magazines and journals were also consulted.

  Discussion were also held with university teachers, educators from the college of education, student teachers, school teachers and students to seek their view to plan appropriately for socio economic status scale for the families of adolescents. After careful exploration of literature and consultation with supervisor and other educational experts, the
investigator identifies that what items will be included in the scale so that it measures the socio-economic status of the families of adolescents. The following aspects were taken in mind for planning the test:

(i) **Purpose of the Scale**: The purpose of the scale is to measure the socio-economic status of the adolescents.

(ii) **Target Population**: The students studying in class X in government, aided and private schools of Doaba region formed the target group.

(iii) **Preparation of First Draft with Expert Opinion**:

The following points were considered while framing the test items:

a) Language used was simple.

b) Items those are comprehensible to the respondents.

c) Textbook language was avoided.

d) Interdependence among the items was avoided.

On the basis of nature of problem, 50 items were tentatively framed in the preliminary draft.

The preliminary draft of 50 items was given to 12 experts (Two Readers, Two Associate Professors and Four Assistant Professor from Education Department and University School of Open Learning, and Four Research Scholars from The Education Department in Panjab University, Chandigarh) for their judgments and suggestions on the following points:

a) To critically analyze each item for its adequacy in terms of language and content included in the test.

b) To suggest any other questions.

c) To add any other area of relevance.

d) To correct ambiguities, poor phrasing etc.

e) To examining the relationship between the objectives of the study and items of the scale.

List of the subject expert’s is given in the Appendix- VI

Keeping in view their judgments, comments and suggestions, some statements had been dropped and some were reworded and reframed in order to make them more precisely relevant. In all 13 items were dropped, 5 were reframed and reworded as shown in table 3.10
Table 3.10: Description of items dropped and modified

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Item No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>4, 6, 10, 11, 17, 19, 22, 26, 30, 36, 40, 42, 49</td>
<td>Dropped</td>
</tr>
<tr>
<td>2.</td>
<td>2, 15, 28, 33, 50</td>
<td>Modified</td>
</tr>
</tbody>
</table>

Table 3.10 shows that upon evaluation by the experts 13 items were dropped, while 5 were modified in the light of the suggestions. In this way a pool of 37 statements was finalized for the first draft of the scale.

Step-II Try out

The first draft of socio economic status scale comprised of 37 items was administered to a sample of 100 adolescents of different government, aided and private schools for item validity. The detail of the sample selected for the try-out for the first draft of socio economic status has been given in table 3.11.

Table 3.11: Selection of adolescents for the first try-out

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Kendriya Vidyalaya No. 1, Hardyal Road, Jalandhar Cantt.</td>
<td>33</td>
</tr>
<tr>
<td>2.</td>
<td>M.G.N Public School, Adarsh Nagar, Jalandhar</td>
<td>35</td>
</tr>
<tr>
<td>3.</td>
<td>Police Dav Public School, Pap Campus, Near Pap Chowk ,Jalandhar Cantt.</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Step-III: Item Analysis

The responses of the subjects were scored as per the allotted weightage. The weighted score for each item and for each subject was summed up. On the basis of total scores, 27% with high scores (high group) and 27% low scores (low group) from the group were identified. Their scored responses in terms of weighted scores for each item were worked out. Item analysis was carried out by employing the t-test for each of the 37 statements for the higher and lower group. Thus, the significance of difference between the mean was worked out to find the discriminating power of each statements. Only those statements which showed a significant difference between high and low groups at least at 0.05 level of significance were selected for inclusion in the final draft or final form of scale. The t–ratio of the 37 items or statements have been placed in the table 3.12. Out of 37 items only 29 were retained which were significant at 0.05 level.
Table 3.12: t-ratio of items of socio economic status scale

<table>
<thead>
<tr>
<th>Item No.</th>
<th>t-ratio</th>
<th>Item No.</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>4.10**</td>
<td>21.</td>
<td>1.32</td>
</tr>
<tr>
<td>2.</td>
<td>2.27*</td>
<td>22.</td>
<td>3.95**</td>
</tr>
<tr>
<td>3.</td>
<td>4.88**</td>
<td>23.</td>
<td>4.25**</td>
</tr>
<tr>
<td>4.</td>
<td>1.55</td>
<td>24.</td>
<td>3.36**</td>
</tr>
<tr>
<td>5.</td>
<td>3.03**</td>
<td>25.</td>
<td>3.91**</td>
</tr>
<tr>
<td>6.</td>
<td>5**</td>
<td>26.</td>
<td>2.24*</td>
</tr>
<tr>
<td>7.</td>
<td>4.80**</td>
<td>27.</td>
<td>1.60</td>
</tr>
<tr>
<td>8.</td>
<td>-1.72</td>
<td>28.</td>
<td>3.60**</td>
</tr>
<tr>
<td>9.</td>
<td>4.91**</td>
<td>29.</td>
<td>4.31**</td>
</tr>
<tr>
<td>10.</td>
<td>13.05**</td>
<td>30 (a)</td>
<td>3.04**</td>
</tr>
<tr>
<td>11.</td>
<td>1</td>
<td>30 (b)</td>
<td>3.05**</td>
</tr>
<tr>
<td>12.</td>
<td>2.32*</td>
<td>30 (c)</td>
<td>2.56*</td>
</tr>
<tr>
<td>13.</td>
<td>2.05*</td>
<td>31.</td>
<td>3.45**</td>
</tr>
<tr>
<td>14.</td>
<td>3.55**</td>
<td>32.</td>
<td>3.38**</td>
</tr>
<tr>
<td>15.</td>
<td>2.41*</td>
<td>33.</td>
<td>2.91**</td>
</tr>
<tr>
<td>16.</td>
<td>0.37</td>
<td>34.</td>
<td>6.82**</td>
</tr>
<tr>
<td>17.</td>
<td>1.38</td>
<td>35.</td>
<td>1.40</td>
</tr>
<tr>
<td>18.</td>
<td>2.14*</td>
<td>36.</td>
<td>3.99**</td>
</tr>
<tr>
<td>19.</td>
<td>2.18*</td>
<td>37.</td>
<td>2.15*</td>
</tr>
<tr>
<td>20.</td>
<td>2.53*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at 0.05 level
** Significant at 0.01 level

(Critical Value 2.67 at 0.01 and 2.00 at 0.05 level, df 52)

Table 3.12 shows that the t-ratio for 8 items 4, 8, 11, 16, 17, 21, 27 and 35 was not found significant even at 0.05 level of significance and rest of the items were found significant at 0.05 and 0.01 level of significance. Hence, out of 37 items, 8 items were dropped and 29 items were retained for the final draft.

Step-IV: Final Draft of Socio Economic Status Scale

The final draft of the Socio Economic Status Scale consisted of 29 items. A copy of scale along with scoring has been presented in Appendix-VII.

Step-V: Reliability

Reliability refers to the consistency of test scores obtained by the same person when they are examined with the same test on different occasion, or with different sets of equivalent items under other variables examining conditions (Anastasi & Urbina, 2008).
Reliability is the degree of consistency that the instrument or procedure demonstrates: whatever it is measuring, it does so consistently (Best & Kahn, 2010). There are four procedures in common use for assessing the reliability of a test. They are:

(i) Alternative or parallel form of method
(ii) Split half method
(iii) Rational equivalence method
(iv) Test-retest method

All these methods have a common approach of obtaining the two sets of measures from the same scale and administer to the same sample for the purpose of finding co-efficient of reliability. The scale being heterogeneous and items having been arranged logically, the two halves could not have been identical. Therefore, test-retest reliability criterion was found to be the most suitable for determining the reliability of the scale. For establishing the reliability of the socio economic status scale, the scale was administrated to 100 adolescents. After the gap of 4 weeks same tool was administered on the same sample of 100 adolescents for the test–retest reliability. The product moment coefficient of correlation between two sets of scores was found to be .849. This was fairly high to testify the soundness of the scale.

Step-VI: Validity

The validity of a test, or of any measuring instrument, depends upon the fidelity with which it measures what it purports to measure (Garrett, 2011). There are different types of validity including: content validity, criterion validity and construct validity (Koul, 2007). For the construction of Socio Economic Status Scale content validity was measured. The content validity was determined by comparing the items in a test with the content and objectives of the test and was distributed to 12 educationists individually. On the basis of their observation, the test was found to possess content validity as there was correspondence between table of specifications and the test items. Socio-economic status scale by Mohan (1972) was used in order to establish concurrent validity. The validity coefficient’s was 0.77 (with N=100) which found to be highly significant (<.01).

Step-VII: Norms

Percentile norms were established for the inventory. The corresponding grouping of high, average and low socio economic status in terms of percentile norms for interpretation is given as below:

- High socio economic status- $P_{76}$ or above
- Average socio economic status- $P_{26}$ to $P_{75}$
- Low socio economic status- $P_{25}$ or below
3.4.5 CAREER DECISION MAKING INVENTORY

The Career Decision Making Inventory (CDMI) is an 18 item self-report measure to assess the career decidedness and career indecision. It consists of career decidedness scale (5 item) and career indecision scale (13 items). The test items are printed in a reusable booklet designed to be used with a separate answer sheet, respondents are asked to circle the three options i.e. exactly like me, somewhat like me and not all like me, on the basis of how closely the items describe them.

(i) Decidedness Scale: Decidedness scale provides a measure of the degrees of decidedness in having made a decision about career. To obtain the raw scores for decidedness scale ratings of item 1 through 5 are added. The decidedness scale score which are at the 15th percentile or less should be considered significant suggesting that the student is uncertain about the selection of career or major.

(ii) Indecision Scale: It is a measure of career indecision. Total ratings for items 6 through 18 added and thus raw scores are obtained for the indecision scale. The score on indecision scale which equal or exceed the 85th percentile are considered significant indicating a serious level of indecision.

Only Indecision scale is used by the investigator in the study to find out the career indecision of the adolescents

- Scoring: Each item alternative is assigned a weightage ranging from 3 to 1. 3 is given to exactly like me, 2 is given to somewhat like me and 1 is given to not at all like me. A copy of inventory has been presented in Appendix-VIII

- Validity: The criterion related with Career Decision Scale (Osipow, 1986) yielded significantly coefficient of correlation of 0.69 and 0.59 for career decidedness scale and career indecision scale respectively.

- Reliability: The test-retest reliability coefficient for career decidedness scale and career indecision scale were found to be 0.97 and 0.94 respectively.

3.5 PROCEDURE

After the selection of the sample and prior to the administration of the composite booklets containing career beliefs, internet savviness, family environment, socio-economic Status and career indecision scales to Xth class students, the investigator sort permission and cooperation from the principals of the selected schools. A schedule was fixed to collect information from the students of class Xth with the help of respective teachers. On the schedule date informal introduction with the students was done through class teacher to develop rapport. As it is necessary to reduce anxiety before starting the test, the subjects were
assured that their responses and the information given about them will be kept strictly
confidential and used for research purpose only. After maintaining rapport with respondent
all the five booklets were administered to 810 adolescents. While handling over the booklets
of the scales to the subjects, they were requested to go through the printed instruction and
understand them correctly before responding to the items of the tools. The investigator again
emphasized the paramount need of genuine research i.e. the need to respond to the items of
research tools with utmost honesty and truthfulness. Sufficient time was given to the
respondents to respond. The data pertaining to the gender (male/female), type of schools
(government/aided/private) of subjects were obtained from the particulars they were required
to mention in the relevant columns of the title page of the scales used. Out of 900
adolescents, only 820 adolescents filled the entire test completely. Firstly the scoring of
family environment scale was done to check the distortion in responses or consistency of
responses as per the criterion given in manual of family environment scale. After using the
criterion only those individuals were considered for the study whose responses on the family
environment scale were consistent or there was low distortion or no distortion in the
response. 100 students showed distortion in response on family environment scale. So out of
out of 820 adolescents, only 720 were considered for the study and comprised the final
sample of the study. Scoring of all the scales was done as per the instruction given in the
respective manuals for a sample of adolescents under the study. Thereafter, the scores of the
subjects pertaining to each other variable were tabulated on a proper code sheet which was
used for statistical analysis.

3.6 STATISTICAL TECHNIQUES USED

For the analysis of data following statistical techniques were used:

1. Descriptive statistical techniques such as mean, standard deviation, skewness and
   kurtosis were worked out to ascertain nature of the distribution of the scores on the
dependent variables career beliefs and its dimensions and independent variable of
internet savviness and its dimensions, dimensions of family environment, socio-
economic status and career indecision.

2. Pearson’s Product Method was used to compute correlation of the career beliefs and
   its dimensions with internet savviness and its dimensions, dimensions of family
environment, socio-economic status and career indecision.

3. Analysis of Variance (2×2×2) and (3×2) were employed to find out the main effects
   and interaction effects of different variables.

4. Step-Wise Multiple Regression Analysis was done to find out the predictors
   (contributors) of criterion variable career beliefs from among the independent
variables of internet savviness, family environment, socio-economic status and career
indecision.