CHAPTER – III

RESEARCH METHODOLOGY

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RESEARCH METHODOLOGY

This chapter deals with the sampling details, variables, the research design, tests employed for the gathering data, procedure for conducting the study and the statistical methods to be used for analysis.

Statement of the Problem

“A correlational study of Defense style with respect to Locus of control, Ego strength & Ego identity among University students from Gujarat”

Objectives

➢ To study the relation of Defense style (DSQ-60) with locus of control i.e.-
  - Powerful others (P)
  - Chance control (C)
  - Individual control (I)

➢ To study the relation of Defense style (DSQ-60) with ego Identity status i.e.-
  - Diffusion
  - Foreclosure
  - Moratorium
  - Achievement
➢ To study the relation of Defense style (DSQ-60) with ego strength.

Hypotheses

d) Defense style (DSQ-60) will be significantly correlated with following locus of control-
   a-1) Powerful others (P)
   a-2) Chance control (C)
   a-3) Individual control (I)

e) Defense style (DSQ-60) will be significantly correlated with following ego Identity status-
   b-1) Diffusion
   b-2) Foreclosure
   b-3) Moratorium
   b-4) Achievement

f) Defense style (DSQ-60) will be significantly correlated with Ego strength.
Methodology

Sample:

Locale of the present investigation was confined to the colleges and Universities of Gujarat state. The stratified randomize sample taken into consideration for the study. Total sample comprised of 2700 college students of various discipline (Arts, Commerce and Science) with age range 17 yrs to 25 yrs and studied in FY, SY, TY, Masters I and II levels. Further the whole sample constituted of equal number of male and female adolescents from the faculties belonging to arts, commerce and science. The sample distribution is depicted as follows-

<table>
<thead>
<tr>
<th>Gender → Standard ↓</th>
<th>ARTS</th>
<th>COMMERCE</th>
<th>SCIENCE</th>
<th>TOTAL</th>
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<td>TOTAL</td>
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</table>
Variables

- Defense style
- Locus of Control
- Ego strength
- Ego identity

Research Design

A Correlation research design with Single randomized group was used to find out the relation of defense style with Locus of Control, Ego strength and Ego Identity. The sample selected was 2700 from 3 different faculties of 3 different Universities in Gujarat State. Rapport was established with each subject individually & Consent was obtained. Data collection was done keeping the objectives in mind in a quiet place. The results were analyzed and discussions were concluded for the research study.
### Research Tools

#### Table 3.2

**List of Tests**

<table>
<thead>
<tr>
<th>Aspect Measured</th>
<th>Name of the Test</th>
<th>Author</th>
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<tbody>
<tr>
<td>Defense Style</td>
<td>Defense Style Questionnaire</td>
<td>M. Bond, R.W. Trijsburg, &amp; M. Drapeau</td>
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<tr>
<td>Locus of Control</td>
<td>Levenson’s Locus of Control scale</td>
<td>Sanjay Vohra</td>
</tr>
<tr>
<td>Ego strength</td>
<td>Ego strength scale</td>
<td>Dr. Q. Hasan</td>
</tr>
<tr>
<td>Ego Identity</td>
<td>Ego Identity Status Scale</td>
<td>Gerald R. Adams</td>
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</table>

### Description of the Tools

**Defense Style Questionnaire (DSQ-60)**

To assess the defense style, Defense style questionnaire developed by M. Bond, R.W. Trijsburg, & M. Drapeau was used in the present research. The Defense Style Questionnaire is the most widely used self-report questionnaire for the assessment of defenses (Bond, 2004). The 60 item version of the scale assesses 30 defense mechanisms (Trijsburg et al., 2003) as follows:

1. Altruism
2. Passive Aggressive
3. Suppression
4. Sublimation
5. Splitting/other
6. Rationalization
7. Humour
8. Projection
9. Reaction Formation
10. Self-observation
11. Denial
12. Devaluation of other
13. Projective identification
14. Dissociation
15. Self-assertion
16. Omnipotence
17. Acting-Out
18. Devaluation/self
19. Fantasy
20. Withdrawal
21. Intellectualization
22. Displacement
23. Repression
24. Idealization
25. Anticipation
26. Help-rejecting Complaining
27. Undoing
28. Isolation
29. Affiliation
30. Splitting/self

This 60 item version was derived from previous versions of the Defense Style Questionnaire (Andrews et al., 1989; Bond et al., 1983; Trijsburg et al., 2000); it was developed in response to the weak psychometric properties of previous versions of the scale (Thygesen et al., 2008) and to assess the defenses described in the DSM-IV Defensive Functioning Scale (APA, 1994). As such, the DSQ-60 is identical to the Defensive Functioning Scale (DFS), with the exception that the three
defenses of the Defensive deregulation level contained in the DFS (psychotic defenses: delusional projection, psychotic denial, and psychotic distortion), which indicate a pronounced break with objective reality, are not assessed in the questionnaire.

Since the development of the DSQ, there have been many studies examining the factor structure, reliability and validity of the DSQ (e.g., Andrews et al., 1989; Bond et al., 1983; Bond et al., 1989). These studies overall, results have shown good reliability and validity for the defense styles measured by the DSQ. The DSQ-60 has been found to have satisfactory test-retest reliability over 6 weeks with the three factor structure (range = .76 - .86; Muris & Merckelbach, 1994) and over 6 months with the four factor structure (range = .68 - .73; Bond et al., 1989). Several studies have demonstrated good validity for the DSQ-60.

**Locus of Control scale**

To measure the External and Internal Locus of control Levenson’s Locus of Control scale developed by Sanjay Vohra (1992) was used. This is Likert type 5 point scale and consists 24 items with eight statements for each subcategory which included: (P) powerful others, (C) chance control, and (I) individual control. (P) Powerful others; Belief that outcomes are controlled by powerful others. High scores in this domain indicated that, study participants believed that other people controlled their outcomes.
(C) Chance control; Belief that outcomes are controlled by chance. High scores in this domain indicated that study participants believed that Unordered chance or random events controlled their outcomes.

(I) Individual control; Belief that outcomes are controlled through own individual effort. High scores in this domain indicated that, study participants believed that their outcomes were controlled by their own effort- that their current situations and current rewards are direct outcomes of things they control.

Responses range for each item is from strongly Agree, Agree, undecided, Disagree to strongly disagree which were scored as 5,4,3,2, and 1 respectively. Higher the score showing greater strength of the factor or subcategory namely (P) powerful others, (C) chance control, and (I) individual control.

The Split out, odd-even and test-retest reliability of this test was found to be .72, .72 and .76 respectively. The predicted validity as well as concurrent validity against Rotter’s Locus of Control was also found to be high.

**Ego strength scale**

Ego strength scale developed by Dr. Q. Hasan was used to measure subjects’ ego strength. The original Ego-strength scale was developed by Barron (1963) to predict the responses of psychoneurotic patients to psychotherapy. This questionnaire consists 32 items in 5 dimensions. They are:
1. Perception  
2. Mortality  
3. Binding Tension  
4. Judgement  
5. Synthesizing  

The score range lie in between 0 to 32 as one mark is given for each of the “no” response against each item. The odd-even and test retest reliability of this adapted scale was found to be .78 and .82 respectively. Regarding validity of this scale this scale was found to be significantly correlated with such meaningful personality characteristics as neuroticism, external-internal control and security-insecurity.

Extended Objective Measure of Ego Identity Status (OMEIS)

Subjects’ identity status was measured using the Extended Objective Measure of Ego Identity Status, (OMEIS) as the OMEIS has been found to be a reliable and valid measure of ego identity (as conceptualized by Erikson and Marcia) for samples of Canadian and U.S. college students (Adams et al., 1989). This scale was developed by Adams, Shea, and Fitch (1979) which measures levels of exploration and commitment to ideology, occupation, and interpersonal relationships. It is responded to on a Likert-type scale and is used as a series of continuous scores for diffusion, foreclosure, foreclosure, foreclosure, foreclosure. Legal proceeding by which a borrower's rights to a mortgaged property may be extinguished if the borrower fails to live up to the obligations agreed to in the loan contract, moratorium A suspension of activity or an authorized period of delay or
waiting. A moratorium is sometimes agreed upon by the interested parties, or it may be authorized or imposed by operation of law, and identity achievement. It can also be used to classify an individual into a particular status.

The EOM-EIS II is a 64-item extension of the 32-item Objective Measure of Ego Identity (OM-EIS) scale. Originally, the OM-EIS was designed to provide an alternative testing format to examining Marcia’s (1966) identity status types (achievement, moratorium, foreclosure, and diffusion) related to ideological domains. The measure was expanded to include an additional domain: interpersonal identity. Each domain consists of 32 items and 4 subcategories:-

1. Diffusion
2. Foreclosure
3. Moratorium
4. Achievement

The ideological domain subcategories are occupation, religion, politics, and philosophical life-style. The interpersonal domain items tap friendship, dating, sex roles, and recreation and leisure. Participants rate the extent to which they strongly agree or strongly disagree with each statement on a six-point scale. The EOM-EIS II is appropriate for use in samples aged 13 – 30.

To create subcategory and domain scores for each identity status, all items are reverse coded so higher scores are indicative of higher levels of the respective identity status type. Then, the sum of all of the items
related to each subcategory or domain is calculated. The resulting raw scale scores can be used for analyses or participants can be classified into single status category (“pure” identity type) group. To be classified into a pure status type, an individual’s raw status type subscale score must fall one standard deviation above the mean and the remaining status type subscale scores must fall below the appropriate cut-off score. In the 25 years since the introduction of the OM-EIS, continual efforts have been made to increase the psychometric properties of the instrument. The obtained alpha coefficients for the EOM-EIS II were as follows: Interpersonal – Achieved 0.62, Moratorium 0.75, Foreclosed 0.75, Diffusion 0.62, and Ideological – Achieved 0.60, Moratorium 0.58, Foreclosed 0.80, and Diffusion 0.64 (Bennion & Adams, 1986). A factor analysis of the EOM-EIS II supported the theoretical distinctions between status categories with one exception; the Diffusion and Moratorium subscale loaded on the same factor. Achievement and Foreclosure were distinct factor scores (Adams, 1998). Bennion and Adams (1986) examination of the measure’s psychometric properties revealed the expected results when assessing for convergent validity.

Specifically, the interpersonal status-type scores were most highly correlated with the corresponding ideological status-type score. Assessing the results of the factor analysis and convergent validity led Bennion and Adams (1986) to conclude that diffusion and moratorium measure overlapping but distinct concepts. Concurrent validity was assessed by comparing the EOM-EIS II with the identity measure by Rosenthal et al. (1981). As expected, ideological and interpersonal identity achieved subscales were positively correlated with Rosenthal et al.’s identity
subscale score, Rs = 0.38 and 0.47 respectively (Bennion & Adams, 1986).

**Research Procedure**

First of all a list of various private and government colleges and Universities (M.S. University, S.P. University, Gujarat University) situated in Gujarat state was made and then one by one these colleges were visited. A written permission was sought out from the respective Principals after discussing the purpose of the present study. Accordingly, a schedule was fixed in each college and University students were approached. Before proceeding further the subjects were introduced about the purpose of the present study. Hereafter they were provided with personal information schedule in which the demographic information like their age, gender; socio economic status, class, discipline etc. were collected. On the basis of information provided in personal schedule by students the subjects were selected as per sample distribution criteria considered in the present research. After constitution of the samples they were administrated on Locus of Control scale Indian Adaption of Levensons by Sanjay Vohra, Objective Measure of Ego Identity Status Scale by Gerald R. Adams, Defense style by M. Bond, R.W. Trijsburg, & M. Drapeau and Ego strength scale by Dr. Q. Hasan in-group. Before administration of the test on subjects the rapport was built with them and they were also insured that their answers and identity will be kept confidential. Tests were administrated one at a time in order to reduce fatigue and boredom effect. To fill the test subjects were given general instructions regarding each test and administrated after their assurance that they are able to fill response. Finally the data were obtained by using particular scoring pattern standardized for each test.
Statistical Analysis

The data was analyzed by suitable descriptive and inferential statistical techniques as follows:

Descriptive statistics

The mean (with graphical representation) and standard deviation for each variable namely Defense style, Locus of Control, Ego strength and for Ego identity were analyzed.

Inferential statistics

To attain the objectives of the present investigation Pearson’s product moment correlation analysis was employed.