CHAPTER-IV

METHOD AND PROCEDURE
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To carry out a research study scientifically and to make it worthwhile, it becomes essential to choose an appropriate design and methodology. The research method describes overall approach to the problem by giving relevant direction to the investigation and is of utmost importance in the research process.

STATEMENT OF THE PROBLEM

“A Study of Teacher Effectiveness in relation to Teaching Styles and Personality Types of Secondary School Teachers.”

OPERATIONAL DEFINITIONS OF THE VARIABLES

Teacher Effectiveness

The term teacher effectiveness refers to attainment of needed competence in the roles and functions of teachers such as; preparation and planning for teaching, classroom management, knowledge of subject matter, teacher characteristics and interpersonal relations (Kulsum Teacher Effectiveness Scale, 2000).

Teaching Style

Teaching style refers to particular pattern of needs, beliefs and behaviours that faculty display in the classroom (Grasha-Riechmann, 1996). In the present study teaching styles of teachers include expert (transmits information), formal authority (sets standards and define acceptable ways), personal model (teaches through illustrations), facilitator (guides and directs) and delegator (develops students ability to function autonomously). These five teaching styles are converged into four clusters which are further clubbed into two broader teaching styles i.e. teacher-centered and learner-centered teaching styles.
**Personality Type**

Personality type approach focuses upon a syndrome of characteristics, which are assumed to go together. In the present study, personality type refers to five basic personality dimensions selected on the basis of their pertinence to personality complex of introversion-extraversion. The five dimensions are: boldness, competition, enthusiasm, self-sufficiency and social warmth as given in Scale for Introversion-Extraversion Dimension (1993).

**DESIGN OF THE STUDY**

Design is the heart of research. The present study was essentially a descriptive survey study coupled with correlational approach. Descriptive research seeks to find answers through analysis of relationships among variables i.e. what factors seem to be systematically associated with occurrences or conditions or types of behaviour (Best, 1989). In the present study, descriptive survey method of research was employed to investigate teacher effectiveness of school teachers teaching secondary classes in relation to their teaching styles and personality types. Further, teacher effectiveness of school teachers (male and female) teaching science and humanities subjects to secondary classes in government and private schools were compared on the variables of teaching styles and personality types. The present study was descriptive because it aimed to describe the nature and present status of the phenomenon and was concerned with conditions or relationships that existed and opinions that were held. It involved some type of comparisons or contrasts among existing variables. It was correlational research because it attempted to discover relationships among existing variables i.e. teacher effectiveness, teaching styles and personality types of school teachers. Further, 2x2x2x2 factorial design was used to study the interactional effects of types of school, teaching stream, teaching styles and personality types on teacher effectiveness of secondary school teachers.
Sampling Technique

The sampling technique employed in accordance with the objectives of the study, was random and purposive in nature. The sampling was purposive as sample was drawn from the schools which were affiliated to Central Board of Secondary Education (CBSE) in Chandigarh. The main purpose to take government as well as private schools in the study was to have a fair representation of all strata in the society. Further, from the selected government and private secondary schools, teachers teaching humanities and science subjects were selected randomly.

SAMPLE

The investigator conducted survey in forty schools of U.T, Chandigarh providing secondary education. Out of total government and private secondary schools of Chandigarh as per list of schools issued by Department of Education, Chandigarh administration, twenty government secondary schools and twenty privately managed secondary schools were randomly selected. Out of each school, ten school teachers (five teaching science subjects and five teaching humanities subjects) were taken up randomly as sample for the study. The present sample comprised of 400 secondary school teachers, out of which 200 school teachers were from government schools and 200 were from private schools. Two hundred teachers belonged to science stream and 200 teachers belonged to humanities stream. Further, out of total 400 secondary school teachers, there were 74 male and 326 female teachers in the sample. Figure 4.1 presents pictorial form of sample. List of schools is attached in Appendix-I. Demographic location of the selected schools of U.T., Chandigarh is given in Appendix-II.
HYPOTHESES

The following hypotheses were formulated to test the objectives:

1. a) There will be significant relationship between teacher effectiveness and teaching styles of secondary school teachers.
   b) There will be significant relationship between teacher effectiveness and personality types of secondary school teachers.
   c) There will be significant relationship between teaching styles and personality types of secondary school teachers.

2. a) There will be significant difference in teacher effectiveness of government and private secondary school teachers.
b) There will be significant difference in teaching styles of government and private secondary school teachers.

c) There will be significant difference in personality types of government and private secondary school teachers.

3. a) There will be significant difference in the teacher effectiveness of male and female government secondary school teachers.

b) There will be significant difference in the teaching styles of male and female government secondary school teachers.

c) There will be significant difference in the personality types of male and female government secondary school teachers.

4. a) There will be significant difference in the teacher effectiveness of male and female private secondary school teachers.

b) There will be significant difference in the teaching styles of male and female private secondary school teachers.

c) There will be significant difference in the personality types of male and female private secondary school teachers.

5. a) There will be significant difference in the teacher effectiveness of school teachers teaching science and humanities subjects.

b) There will be significant difference in the teaching styles of school teachers teaching science and humanities subjects.

c) There will be significant difference in the personality types of school teachers teaching science and humanities subjects.

6. a) There will be significant difference in the teacher effectiveness of male and female science teachers.

b) There will be significant difference in the teaching styles of male and female science teachers.
c) There will be significant difference in the personality types of male and female science teachers.

7. a) There will be significant difference in the teacher effectiveness of male and female humanities teachers.

b) There will be significant difference in the teaching styles of male and female humanities teachers.

c) There will be significant difference in the personality types of male and female humanities teachers.

8. a) There will be significant difference in teacher effectiveness of secondary school teachers in relation to teaching styles.

b) There will be significant difference in teacher effectiveness of secondary school teachers in relation to personality types.

c) There will be significant difference in teacher effectiveness of secondary school teachers in relation to teaching experience.

9. a) There will be significant interactional effects of

i) Teaching style x personality type

ii) Teaching style x teaching stream

iii) Personality type x teaching stream

iv) Teaching style x type of school

v) Personality type x type of school

vi) Type of school x teaching stream

on teacher effectiveness of secondary school teachers.

b) There will be significant interactional effects of

i) Teaching style x personality type x type of school

ii) Teaching style x personality type x teaching stream
iii) Teaching style x teaching stream x type of school

iv) Personality type x teaching stream x type of school

on teacher effectiveness of secondary school teachers.

c) There will be significant interactional effect of teaching style x personality type x teaching stream x type of school on the teacher effectiveness of secondary school teachers.

TOOLS USED

2. Teaching Style Inventory developed by Grasha-Riechmann (1996).

DESCRIPTION OF TOOLS USED

Kulsum Teacher Effectiveness Scale (2000)

Kulsum Teacher Effectiveness Scale (Appendix-III) is a self-anchoring striving scale constructed on the lines of self-anchoring striving scale of Kilpatrick and Cantril (1966). The self-anchoring striving scale is based on the first person approach and is more empirical. The scale did not involve rigidity, predefined dimensions, verbal categories prepared phrases or sentences as outlined by the originators of the scale. The data collected through the scale are psychologically as well as directly comparable i.e. the scale level selected by one person can be specifically and meaningfully said to be higher or lower or equal to the scale level of some other individual because the frames of reference of the replies are similar psychologically.

Areas of the Scale

This scale assesses five areas of teacher effectiveness covering all aspects of teacher’s roles and functions. A brief description of each area is given below:
1. Preparation and Planning for Teaching: This area includes statements pertaining to the ability of the teacher in preparing, planning and organizing for teaching in accordance with the course objectives by using different source material. The total number of items in this area is 11 and serial numbers of the items are 2, 6, 11, 23, 27, 33, 37, 44, 49, 54 and 58.

2. Classroom management: This area includes statements pertaining to the ability of the teacher to successfully communicate, motivate the students and evaluate the teaching learning process and also to maintain discipline in the classroom within the framework of democratic set-up. The total number of items in this dimension is 14 with serial numbers 3, 7, 12, 16, 20, 24, 28, 38, 45, 50, 51, 55, 56 and 59.

3. Knowledge of subject matter: This area includes statements on the ability of the teacher in acquiring, retaining, interpreting and making use of the contents of the subject matter he/she is dealing within the classroom situations. Delivery of course contents, and its presentation including B.B. summary constitutes essential aspects of the teaching-learning process. The total number of items pertaining to this area is 7 with serial numbers 1, 8, 14, 17, 29, 39 and 46.

4. Teacher characteristics: This area includes statements pertaining to the personality make up and its behavioural manifestations that have their own level of acceptability in the teaching profession. Ability to arouse a perceptive mass and seeking active participation of pupils constitutes essential demand characteristics of effective teacher. Total number of items in this dimension is 17 with serial numbers 4, 9, 13, 18, 21, 25, 30, 31, 34, 35, 36, 40, 41, 47, 48, 52 and 57.

5. Interpersonal Relations: The ability of the teacher to adapt himself/herself to maintain cordial relations with his/her colleagues, pupils, their parents and other persons in the community with whom he/she is to interact as part and parcel of his/her profession, forms the basis to have statements pertaining to
this area. Total number of items in this area is 11 with serial numbers 5, 10, 15, 19, 22, 26, 32, 42, 43, 53 and 60.

**Administration**

The scale is self administrable. It is ensured that proper instructions have been given to the testees besides individual reading. There is no time limit and there are no right or wrong responses. Hence, the individual teachers are quite free to express their responses as they perceive, keeping in view the maximum possible effectiveness of teachers and the least possible effectiveness of teachers, as frame of reference for individual rating.

**Scoring**

Each item elicits two responses (1) step number on now, and (2) step number aspiring to attain in the next three years. The time dimension of the next three years is to score as a frame of reference for the now (present) effectiveness, hence the step number given for each item for present time is taken as the score of the effectiveness of each of the respondent teacher.

**Reliability**

The Test-Retest reliability coefficient of correlation is found to be 0.63 with a time gap of 16 days. The split-half reliability coefficient of correlation is found to be 0.68.

**Validity**

Three types of criterion related validities have been established for the scale as given below:

1. Correlation between Headmaster’s ratings of teacher effectiveness and teachers self assessment of their effectiveness was found out for the total scores and area-wise scores. The coefficient of correlation between the areas: Preparation and Planning for Teaching, Classroom Management, Knowledge of Subject matter, Teacher Characteristics and Interpersonal Relations are 0.64, 0.72, 0.57, 0.78 and 0.66 respectively. The correlation between the total score
of rating scale is 0.85 indicating that teacher effectiveness scale has high criterion-related validity.

2. Contrasted group validity was established by finding out the two contrast groups of teachers as rated by their respective headmasters in terms of effective teachers (N=92, M=398.70) and ineffective teachers (N=88, M=287.40). The obtained ‘t’ value of 9.9 is significant beyond 0.001 level of probability indicating that the scale has differentiated the effective teachers from ineffective teachers. 3. Internal Consistency of the scale expressed by the inter correlations of the areas of the scale and the correlations between the area scores on the one hand and the total scores of the scale on the other hand is high and ranges from 0.24 to 0.76 (N=180) showing high internal consistency.

Grasha-Riechmann Teaching Style Inventory (1996)

Grasha-Riechmann teaching style inventory (Appendix-IV) identifies five teaching styles as description of prevalent aspects of teacher’s presence in the classroom.

1. Expert: In this teaching style the teacher possesses knowledge and expertise that students need and strives to maintain status as an expert among students by displaying detailed knowledge and by challenging students to enhance their competence. The teacher is concerned with transmitting information and insuring that students are well prepared. Teachers teaching through this teaching style possess information, knowledge and skills. If overused, the display of knowledge can be intimidating to less experienced students and may not always show the underlying thought processes that produced the answers.

2. Formal Authority: Teacher teaching through this teaching style possesses status among students because of knowledge and roles as a faculty member, concerned with providing positive and negative feedback, establishing learning goals, expectations and rules of conduct for students. The teacher is
concerned with the correct, acceptable and standard ways to do things and providing students the structure needed by them for learning. Teacher focuses on clear expectations and acceptable ways of doing things. A strong investment in this style can lead to rigid, standardized and less flexible ways of managing students and their concerns.

3. Personal Model: In this teaching style the teacher believes in "teaching by personal example" and establishes a prototype for how to think and behave. Here the teacher oversees, guides and directs by showing how to do things and encouraging students to observe and then to emulate the instructor's approach. Teacher emphasizes on direct observation and following a role model. Some teachers may believe that their approach is the best way leading some students to feel inadequate if they cannot live up to such expectations and standards.

4. Facilitator: Teacher teaching through this style emphasizes the personal nature of teacher-student interactions and guides, directs students by asking questions, exploring options, suggesting alternatives and encouraging them to develop criteria to make informed choices. Teacher's overall goal is to develop in students the capacity for independent action, initiative and responsibility. Teacher works with students on projects in a consultative fashion and tries to provide as much support and encouragement as possible. This style has personal flexibility with focus on student's needs and goals and the willingness to explore options.

5. Delegator: In this teaching style teacher is concerned with developing student's capacity to function in an autonomous fashion and students work independently on projects or as part of autonomous teams. The teacher is available at the request of students as a resource person. Teacher helps students to perceive themselves as independent learners. Teacher misreads student's readiness for independent work and students may become anxious when given autonomy.
These five teaching styles represent typical orientations and strategies used by the teachers. These styles converge into four different clusters that make up the characteristic ways teachers design their instructional settings.

Cluster 1: The Expert/Formal Authority: In this teaching style cluster, general classrooms methods applied by teachers are traditional teacher centered presentations and discussion techniques. Students typically do not need to display what they know during class nor do they have to take much initiative or responsibility for obtaining information. Students need the emotional maturity to sit quietly in class and the motivation to periodically ask or to answer questions. Control of classroom tasks, works best with teachers who are willing to control the content presented, the flow of information and how the class time is spent. This cluster is teacher-centered.

Cluster 2: The Personal Model/Expert/Formal Authority: In this cluster general classroom methods employed by teachers for teaching are role modeling and coaching students on developing and applying skills and knowledge. Students need adequate knowledge and skills, must take initiative and accept responsibility for obtaining what they need to learn. Students further need emotional maturity to handle feedback and must have the motivation to improve. To control classroom tasks, it is important for teacher to periodically empower learners to show what they can do. They also must work to develop relationships. Effective models are liked and respected by students. This is a teacher-centered cluster.

Cluster 3: The Facilitator/Personal Model/Expert: This cluster is a student-centered model for the classroom. Teacher designs activities, social interactions and problem solving situations that allow students to practice the processes for applying course content. In addition to being willing to acquire appropriate content, students need to be willing to take initiative and to accept responsibility for meeting the demands of various learning tasks. They must
have enough emotional maturity and motivation to work with others on tasks. Teachers must exercise some control over the processes used in order to facilitate learning and should be less interested in controlling the details of the content students acquire. When processing a group task, emphasis should be on listening to student ideas, facilitating a discussion and clarifying ideas. Good relationships facilitate the teacher’s role as a consultant and make students more willing to share their ideas.

Cluster 4: The Delegator/Facilitator/Expert: Teachers teaching through this cluster place much of the learning burden on the students. Teachers provide complex tasks to student initiative and often group work to complete. Teacher acts as a consultant and resource person for students. Students need proficient levels of knowledge and skill and must take initiative and accept responsibility for their learning, need emotional maturity to work alone and with others and the motivation to succeed when asked to work independently. To control classroom tasks, it is important for the teacher to move into the background and serve as a consultant and resource person. Good communication is needed when consulting with the students to maintain relationships. This is a student centered cluster.

Instructions for administering the Scale

The Grasha-Riechmann Teaching Style Inventory has been designed for self administration. The subjects are given instructions to respond each of the items in the inventory in terms of how they teach some course. There is no time limit and the subjects are to respond to all the forty questions of the inventory on a five point rating scale:

1= strongly disagree
2= moderately disagree
3= undecided
4= moderately agree
5= strongly agree
Respondents are instructed to answer as honestly and as objectively as they can.

**Scoring of Items**

Scoring of the inventory is done with the help of answer key provided with the instructions. The scores for five different teaching styles (Expert, Formal Authority, Personal Model, Facilitator and Delegator teaching styles) are shown separately.

**Reliability Analysis**

Reliability analysis was performed for the *Grasha-Riechmann* Teaching Style inventory by the investigator. The instrument consists of forty questions, which measure five teaching styles. Each of the forty questions is designed to measure one of the five styles. The item numbers related to Expert teaching style are 1, 6, 11, 16, 21, 26, 31 and 36; for the Formal Authority item numbers are 2, 7, 12, 17, 22, 27, 32 and 37; item numbers 3, 8, 13, 18, 23, 28, 33 and 38 measure Personal Model teaching style; item numbers 4, 9, 14, 19, 24, 29, 34 and 39 measure Facilitator teaching style and item numbers 5, 10, 15, 20, 25, 30, 35 and 40 are related to Delegator teaching style.

The *Chronbach’s* Alpha coefficient was calculated for the entire teaching styles inventory, and for the group of questions related to each of the five teaching styles. The *Chronbach’s* Alpha is a measure of the internal consistency of the items, representing the average correlation of all possible situations where half of the items are correlated with the other half of the items. As the results indicate, the overall reliability is in the acceptable range. For the overall question group *Chronbach’s* Alpha value is 0.93, for the Expert, Formal Authority, Personal Model, Facilitator and Delegator teaching style question groups *Chronbach’s* alpha values are 0.44, 0.51, 0.51, 0.80, 0.58 respectively (N=400). All these *Chronbach’s* alpha values are in the acceptable range.

Test-Retest reliability coefficients of correlation were also computed by the investigator by administering the teaching style inventory to a sample of
103 school teachers and with a gap of three months the test was again administered to the same teachers. The values of coefficients for items on each type of teaching style were as: 0.85 for EX teaching style; 0.84 for FA teaching style; 0.82 for PM style; 0.91 for FC style and 0.90 for DE teaching style.

Split-Half method (odd-even) of reliability testing was also employed by dividing the test into two halves through odd-even split. Self-correlation of the half-tests was calculated to estimate reliability coefficient of the whole test using Spearman-Brown prophecy formula. The values of split-half coefficients were: 0.47, 0.51, 0.42, 0.80 and 0.58 for EX, FA, PM, FC and DE teaching styles respectively.

Validity

The intrinsic validity of Grasha-Riechmann teaching style inventory was established by the investigator through index of reliability by taking the square root of reliability coefficient alpha which is 0.83 ($N=400$) and its square root comes to be 0.91. Thus, it indicates that the inventory is highly reliable and valid.

Scale for Introversion-Extraversion Dimensions (SIED, 1993)

In the scale for Introversion-Extraversion Dimensions (Appendix-V) five basic personality dimensions were included. These five personality dimensions were selected from twenty basic personality dimensions measured by the Multi-dimensional Assessment of Personality series (MAP series). These five dimensions were selected on the basis of their pertinence to the personality complex of introversion and extraversion. These five dimensions are as follows:

Dimension Bo : Boldness
Dimension Co : Competition
Dimension En : Enthusiasm
Dimension Ss : Self sufficiency
Dimension Sw : Social warmth
These are briefly described as under:

Boldness (Bo): Individuals who score high on Bo are sociable, bold, ready to try new things, spontaneous and abundant in emotional response. Individuals who score low on this dimension tend to be shy, withdrawing, cautious and retiring. They usually have inferiority feelings and tend to be slow and impeded in speech and expression.

Competition (Co): Individuals who score high on Co, are assertive, self-assured and independent minded. Individuals, who score low on Co, tend to give way to others and are docile, dependent and confessing.

Enthusiasm (En): Individuals who score high on En dimension tend to be cheerful, active, talkative, frank, expressive, effervescent and carefree. Individuals scoring low on En, dimension tends to be restrained, reticent and introspective. They tend to be sober and dependable individuals.

Self-Sufficiency (Ss): Individuals who score high on Ss dimension, prefer to work and make decisions with other people and depend on social approval and admiration. Individuals who score low on Ss, dimension are temperamentally independent, accustomed to going their own way, making decisions and taking actions on their own.

Social-Warmth (Sw): Individuals who score high on Sw dimension, tend to be good natured, easy-going, emotionally expressive, ready to cooperate, attentive to people, soft hearted, kind and adaptable. Individuals scoring low on Sw, tend to be stiff, cool, skeptical and aloof. They like things rather than people and like to work alone.

Introversion-Extraversion (Total): Individuals who score high on this dimension are highly social in nature. They are overtly enthusiastic, talkative, participating, expressive, assertive, adventurous and uninhibited in emotional response. They have high extraversion tendencies. Individuals who score low on this dimension prefer to be by themselves, than to have social contact with
other people. However, a little contact goes a long way for them. They have high introversion tendencies.

This scale is a power test (that is there is no time limit). However average subject requires approximately 10-15 minutes to complete the test in full. It can be given both individually or in group situations.

**Administration**

The SIED is a self administrable test. The subjects are motivated to answer questions in the scale truthfully and they are given instructions that the questionnaire is about their attitudes to know how they feel about certain situations. Some people feel one way; other feel another way. These are no right or wrong answers since everybody has the right to his or her own views.

**Scoring**

The scoring procedure in SIED is very objective and simple. Transparent stencil scoring key is used. At first, it has to be ensured that the subject has answered all the questions in the booklet. If more than five questions are skipped, the test is invalid and should not be scored. It has also been ensured that each question has only one and one answer. The raw scores are converted to sten scores. The sten scores of 4-7 indicates average strength of introversion-extroversion. Sten scores above 7 i.e. from 8-10 indicates that the subject is high on extraversion dimension. The scores less than 4 indicates high on introversion dimension.

**Reliability**

Reliability coefficients of both split-half reliability as well as test-retest reliability were computed for 1625 individuals for the present SIED scale. The split-half reliability coefficient values of its different dimensions i.e. Bo, Co, En, Ss, Sw are 0.89, 0.87, 0.92, 0.93 and 0.88 respectively (N=1625). The split-half reliability coefficient value for total scores is 0.89 for N=1625. Test-retest reliability coefficient values of its different dimensions i.e. Bo, Co, En, Ss, Sw are 0.86, 0.83, 0.90, 0.92 and 0.85 respectively and 0.87 for total scores.
on an interval of 2-7 days for N=1310. Test-retest reliability coefficient values on these dimensions are 0.85, 0.82, 0.78, 0.88, and 0.81 respectively and 0.83 for total scores on an interval of 2-6 months for N= 1225.

Validity

The SIED scale has validity index or lie index. It is recognized that the questionnaire method is not the best approach for the measurement of personality traits, particularly in a motivated situation. However, the majority of questions in the SIED are indirect, asking about interests which the subjects would not necessarily perceive to be related to the dimensions in question. Moreover, dimensions measured are not interpreted from the nature of the subject’s responses about himself, but from the known correlations between these “mental interiors” as found in questionnaire dimensions and the dimensions as actually established in behaviour. In other words, the responses are treated as behaviours and not as valid self-ratings. The SIED consists of 40 items out of these 34 are dimension questions (measuring “introversion-extraversion”) and 6 questions are “validity index” questions to give validity indicator score (Vi scores). Further items in this scale are survivor from thousands of items generally tried. Against the dimensions to be measured, present scale constitutes only those items which continue to have significant validity against the dimension to be measured, even after successive factor analysis. The construct validity values for SIED scale are exceptionally high. Direct construct validity coefficients of its different dimensions i.e. Bo, Co, En, Ss, Sw (N=625) are 0.86, 0.71, 0.88, 0.84 and 0.80 respectively. Indirect concept validity coefficients (N=625) are 0.86, 0.71, 0.88, 0.84 and 0.80 respectively.

PROCEDURE FOR DATA COLLECTION

For the purpose of this study data was collected from the 400 secondary school teachers and randomly selected from forty secondary schools (20 government and 20 private schools) of Chandigarh U.T. Investigator personally
visited the schools and with the due permission of the principal/head of the school, five humanities and five science teachers were randomly selected from the list of school teachers provided by the head of the school. Randomly selected teachers were consulted at the convenient time as directed by the Head of the school. The questionnaires comprising of scale of teacher effectiveness, teaching style inventory and personality types scale were collectively distributed to randomly selected teachers. It was ensured that proper instructions have been given to the teachers besides individual reading. Teachers were instructed to mention their names, name of school, type of school, gender, age, qualifications, teaching subjects, classes being taught and teaching experience on the first page of questionnaire in the specified columns. Teachers were given instructions to feel free in giving their opinions as the information supplied would be kept confidential and would be used for research purposes only. As there was no time limit to finish the task and these were not right or wrong responses so they were asked to answer as honestly and as objectively as they can. The subjects were instructed to clarify their doubts, if any. When the teachers finished the task, test copies were collected with thanks. The tests were scored with the help of scoring keys and the data were analysed statistically to test the hypotheses.

STATISTICAL ANALYSIS

In the present study, following statistical techniques were employed to test the hypotheses:

1. Mean, Median, SD, Skewness and Kurtosis for all variables i.e. teacher effectiveness, teaching styles and personality types were obtained.
2. t-test was applied to compare the variables i.e. teacher effectiveness, teaching styles and personality types.
3. Pearson Product Moment Correlation method was used to compute correlations among the variables.
4. 2X2X2X2 Analysis of variance was used to study interactions among different variables.
5. Graphic representations were presented wherever necessary.
<table>
<thead>
<tr>
<th>Tools Used</th>
<th>Codes</th>
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<tbody>
<tr>
<td>Kulsum Teacher Effectiveness Scale</td>
<td>KTES</td>
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<tr>
<td>Grasha Riechmann Teaching Style Inventory</td>
<td>GRTSI</td>
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<tr>
<td>Scale For Introversion-Extraversion Dimensions</td>
<td>SIED</td>
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### Components of Teacher Effectiveness

<table>
<thead>
<tr>
<th>Teacher Effectiveness</th>
<th>TE(Total)</th>
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<tbody>
<tr>
<td>Preparation and Planning</td>
<td>PP</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>CR</td>
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<tr>
<td>Knowledge of Subject</td>
<td>KS</td>
</tr>
<tr>
<td>Teacher Characteristics</td>
<td>TC</td>
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<tr>
<td>Interpersonal Relation</td>
<td>IR</td>
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### Types of Teaching Styles

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<tr>
<th>Teaching Style</th>
<th>TS</th>
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<tr>
<td>Expert</td>
<td>EX</td>
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<tr>
<td>Formal Authority</td>
<td>FA</td>
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<tr>
<td>Personal Model</td>
<td>PM</td>
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<tr>
<td>Facilitator</td>
<td>FC</td>
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<td>Delegator</td>
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### Dimensions of Personality Types

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<th>Personality Type</th>
<th>PT</th>
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<tr>
<td>Social Warmth</td>
<td>Sw</td>
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<tr>
<td>Enthusiasm</td>
<td>En</td>
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<tr>
<td>Boldness</td>
<td>Bo</td>
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<td>Self-Sufficiency</td>
<td>Ss</td>
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<tr>
<td>Competition</td>
<td>Co</td>
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<td>Introversion-extraversion</td>
<td>Total</td>
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<td>Validity indicator</td>
<td>Vi</td>
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