CHAPTER VI
SUMMARY AND CONCLUSIONS
6.1 Introduction

"One's Handwriting is the clear index of one's mind"

Humans are the most evolved species, have the unique attribute called intellect by virtue of which it has created the infinite ocean of knowledge. In his pursuit of knowing everything around him has led to innumerable discoveries and inventions. He has even explored the universe, found many other worlds, but the greatest of the mysteries lies inside us only, i.e., our own self. It is the mystery of exploring ones’ own self and people around him. One has the unending zeal to know ourselves and significantly others. What, why and how are the big questions one asks about ourselves and still feel amazed to find new answers every time. In order to gratify the curiosity, psychologists have developed various tools and techniques to assess a person on different dimensions of personality attributes such as questioning, interview, inventories, observation, etc. In these techniques, the true knowledge depends on the honesty and will of the person. His internal and external emotions may be different. Among all these tools, there is a unique and extraordinary technique available to understand a person which shines like a silver lining on the cloud; this is about analysing handwriting of a person which is clear index of one’s state of mind while writing. However, handwriting may also vary to some extent but certain features of handwriting never change certain strokes and curves, which are the characteristic of one’s handwriting and the individual.

6.2 Emergence of Problem

While checking the notebooks of the students during teaching and answer sheets of examination, the researcher found a great difference in the writing of some students while for others no significant changes were observed. Clearly, there was difference in state of mind of the students on both the occasions. Moreover the bent of mind towards science or arts or fine arts may affect one’s handwriting. For example, M.F. Hussain had very beautiful handwriting. Moreover signatures of no two people are same and even if one tries, an expert has ways to identify the true signatures. How and
why all these differences are emerging was the pinching question. Thus, the researcher got interested in researching about the personality, self-concept and mental health of the prospective secondary school teachers and the variations therein as depicted by their handwriting. A Pilot study was also conducted by the researcher to study the handwriting of the prospective secondary school teachers.

6.3 Title of the Study

HANDWRITING ANALYSIS IN RELATION TO PERSONALITY SELF-CONCEPT AND MENTAL HEALTH OF THE PROSPECTIVE SECONDARY SCHOOL TEACHERS

6.4 Statement of the Problem

To study the English handwriting in relation to the personality – introversion/extraversion, neuroticism and psychoticism; self-concept and mental health of male-female prospective secondary school teachers of private and government colleges in Chandigarh and Punjab.

6.5 Objectives

Objectives of study give direction to the study and keep the investigator focussed in due course of time. The investigator worked on the study in hand keeping in view the following objectives.

1. To construct and standardize handwriting analysis scale.

2. To study the relationship of handwriting analysis with the personality of prospective secondary school teachers.

3. To study the relationship of handwriting analysis with the self-concept of prospective secondary school teachers.

4. To study the relationship of handwriting analysis with the mental health of prospective secondary school teachers.

5. To study the relationship of personality with self-concept of prospective secondary school teachers.
6. To study the relationship of personality with the mental health of prospective secondary school teachers.

7. To study the relationship of self-concept with mental health of prospective secondary school teachers.
   a. To study the relationship between dimensions of self-concept and dimensions of mental health of prospective secondary school teachers.
   b. To study the relationship of dimensions of handwriting analysis with dimensions of personality, dimensions of self-concept and dimensions of mental health of prospective secondary school teachers.
   c. To study the relationship of dimensions of personality with dimensions of self-concept and dimensions of mental health of prospective secondary school teachers.

8. To compare the handwriting analysis of male and female prospective secondary school teachers.


10. To compare the handwriting analysis of prospective secondary school teachers of education colleges of Chandigarh and Punjab.

11. To compare the handwriting analysis of prospective secondary school teachers of all the four colleges individually.

12. To compare the mental health of male and female prospective secondary school teachers.

13. To compare the mental health of prospective secondary school teachers of government and private colleges of education.


15. To compare the personality of male and female prospective secondary school teachers.

16. To compare the personality of prospective secondary school teachers of government and private colleges of education.
17. To compare the personality of prospective secondary school teachers of education colleges of Chandigarh and Punjab.

18. To compare the self-concept of male and female prospective secondary school teachers.


21. To ascertain the conjoint contribution of personality, self-concept and mental health to the total variance in the handwriting analysis of prospective secondary school teachers.

6.6 Hypotheses
After reviewing the related literature following hypothesis were framed for the present investigation which were verified by using various statistical techniques:

1. There exists a significant relationship between handwriting and personality of prospective secondary school teachers.

2. There exists a significant relationship between Handwriting and self-concept of prospective secondary school teachers.

3. There exists a significant relationship between handwriting and mental health of prospective secondary school teachers.

4. There exists a significant relationship between personality and self-concept of prospective secondary school teachers.

5. There exists a significant relationship between personality and mental health of prospective secondary school teachers.

6. There exists a significant relationship between self-concept and mental health of prospective secondary school teachers.

a. There exists a significant relationship between dimensions of self-concept and dimensions of mental health of prospective secondary school teachers.
b. There exists a significant relationship of dimensions of handwriting analysis with dimensions of personality, dimensions of self-concept and dimensions of mental health of prospective secondary school teachers.

c. There exists a significant relationship of dimensions of personality with dimensions of self-concept and dimensions of mental health of prospective secondary school teachers.

7. There exists no significant difference between handwriting analysis of male and female prospective secondary school teachers.

8. There exists no significant difference between personality of male and female prospective secondary school teachers.

9. There exists no significant difference between self-concept of male and female prospective secondary school teachers.

10. There exists no significant difference between mental health of male and female prospective secondary school teachers.

11. There exists no significant difference between handwriting analysis of Prospective Secondary School Teachers of Government and Private Colleges of education.

12. There exists no significant difference between personality of prospective secondary school teachers of government and private colleges of education.

13. There exists no significant difference between self-concept of prospective secondary school teachers of government and private colleges of education.

14. There exists no significant difference between mental health of prospective secondary school teachers of government and private colleges of education.

15. There exists no significant difference between handwriting analysis of prospective secondary school teachers of education colleges of Chandigarh and Punjab.

16. There exists no significant difference between personality of prospective secondary school teachers of education colleges of Chandigarh and Punjab.

17. There exists no significant difference between self-concept of prospective secondary school teachers of education colleges of Chandigarh and Punjab.

18. There exists no significant difference between mental health of prospective secondary school teachers of education colleges of Chandigarh and Punjab.
19. There exists no significant difference between Handwriting of prospective secondary school teachers of all the four colleges individually.

20. The variables of Personality, self-concept and Mental Health will significantly contribute to the total variance in the Handwriting Analysis of prospective secondary school teachers.

6.7 Methodology
This study was correlational in nature, studying the handwriting of prospective secondary school teachers in relationship with personality, self-concept and mental health. The present study aimed at assessing the handwriting, personality, self-concept and mental health of prospective secondary school teachers.

6.8 Tools Employed
Tools of data collection are pivotal in a research project. They decide the kind of data generated and type of statistics used to draw meaningful information from the data. In order to collect data from prospective secondary school teachers following tools were used:

1. Handwriting Analysis Scale: Self constructed Handwriting Analysis Scale was used to collect the data.
2. Eysenck’s Personality Questionnaire (Revised) – Eysenck and Eysenck (1980)

6.9 Sample
The descriptive survey method was used to conduct the research. The data were complete in case of 476 subjects only; about 24 subjects formed the experimental mortality. So the results are based on a sample of 476 subjects only. Prospective secondary school teachers were taken from Chandigarh and Punjab (in the periphery of 100 to 150 km). In Punjab, 128 students responded from Government College (State College of Education) while 122 from Private College (Rayat & Bahra College of Education). Similarly, in Chandigarh 140 students responded properly from Government College of Education while only 86 students responded from Private College (Dev Samaj College of Education) leading to very high mortality. There
were 441 female and only 35 male prospective secondary school teachers. This imbalance resulted due to lesser number of male than female prospective secondary school teachers taking admission in these colleges, moreover Dev Samaj College of Education, Chandigarh is only for women. Purposive quota sampling technique was used to collect the data. The variables under the study were measured by use of standardized psychological tests.

6.10 Procedure to Collect Data
In order to collect data, firstly, requisite permissions were taken from the principals of the respective colleges and a convenient appointment was fixed. Researcher established a rapport with the students and explained the purpose of the research. Instructions were given to respondents regarding the nature of questions and they were requested to mark the first response that comes to their mind. There after, Questionnaires were distributed. Students were given ample time to answer and any queries thereof were attended to by the researcher.

6.11 Statistical Techniques Used
After all the necessary data for each of the test that was used in the study was collected and analysed, scores were tabulated for finding out the nature of tests scores for all the variables under consideration. Descriptive statistics like the frequency distribution, the measures of central tendency – mean, median and standard deviation were worked out to study the general nature of the sample in relationship to emotional intelligence, self-concept and personality. Skewness and Kurtosis were worked out to see the trend of departure of the sample distribution. From the normal probability curve, coefficients of correlation were computed to test the hypotheses. Based on the analysis, conclusions were drawn and suggestions were extended.

Data were tabulated and analysed using Pearson Product Moment Correlation and a distribution of the scores were studied as per their state (Chandigarh/Punjab), sex (female/male) and type of college (Government/Private). Descriptive and Inferential statistics were used to test the hypotheses.
6.12 Results and Conclusions

Results and conclusions are generalizations drawn from the inferences. Following conclusions were drawn from the analysis of data:

1. There exists significant relationship of handwriting with personality, self-concept and mental health, meaning thereby that handwriting analysis of prospective secondary school teachers significantly depend on personality, self-concept and mental health. Thus, personality, self-concept and mental health affect handwriting and in turn get affected by it. If prospective secondary school teachers have extrovert behaviour, same is reflected in their handwriting analysis. Varying levels of self-concept and mental health are also reflected in their handwriting analysis. From this it can be inferred that prospective secondary school teachers having good handwriting have better personality are mostly extroverts and have high self concept with positive mental health. Similar inference can be made for the prospective secondary school teachers achieving lower scores in the variables of handwriting, personality, self-concept and mental health. So one can say that if the teacher pays little attention on the handwriting of the school students, they can become better members of the society.

2. Handwriting analysis, extraversion and neuroticism dimensions of personality, self-concept and mental health did not differ due to difference in gender. This implies that gender of the prospective secondary school teachers does not form a basis for difference in their handwriting, personality, self-concept and mental health and the difference, if any, is due to chance error. Similar patterns were found for all the variables under study of male and female prospective secondary school teachers. Male and female prospective secondary school teachers differed only on psychoticism dimension of personality, which shows that there is difference in psychotic tendencies among male and female prospective secondary school teachers.

3. A significant difference was found in the handwriting analysis, neuroticism and mental health of prospective secondary school teachers of government and private colleges of education while self-concept, extraversion and psychoticism dimensions of personality did not show any significant difference between
teachers of government and private colleges of education. Such a difference may be due to the difference in the background and ability of students coming to government colleges of education. It is generally seen that meritorious students prefer to take admission in government colleges and usually come from urban areas, and they may have better personality, mental health and different neurotic tendencies which are also reflected in their handwriting analysis. Although self-concept and extraversion and psychoticism dimensions of personality were similar in both government and privately managed colleges of education. So prospective secondary school teachers in both types of colleges perceive their self in similar way of distribution of scores and may be equally extrovert and have psychotic tendencies.

4. Handwriting analysis and extraversion did not differ due to difference in locale i.e., Chandigarh and Punjab, while other dimensions of personality, self-concept and mental health differed significantly due to difference in locale. This further implies that prospective secondary school teachers of Punjab and Chandigarh have similar handwriting and show similar distribution of extraversion trait. A prospective teacher in Chandigarh or Punjab can have like handwriting analysis. On the other hand, prospective secondary school teachers of Chandigarh and Punjab differ in their psychotic and neurotic tendencies which may be the result of difference in the school culture, their social setup, family backgrounds and different value sets. Their upbringing and family environment also play vital role in development of psychotic and neurotic tendencies among prospective secondary school teachers. These factors do affect their self-concept and mental health. Prospective secondary school teachers having better nurturing environment at home, school and society are less prone to psychotic and neurotic tendencies as well as low self-concept and negative mental health.

5. Analysis of variance of handwriting confirmed the above results that prospective secondary school teachers of government colleges of education of Chandigarh and Punjab as well as private colleges of education in Chandigarh and Punjab did not differ significantly. While significant difference did exist between prospective secondary school teachers of Government College of Education, Chandigarh and Dev Samaj College of Education, Chandigarh; Government College of Education,
Chandigarh and Rayat & Bahra College of Education, Sahauran; State College of Education, Patiala (Punjab) and Rayat & Bahra College of Education, Sahauran; and State College of Education, Patiala (Punjab) and Dev Samaj College of Education, Chandigarh. This means that prospective secondary school teachers of government colleges of Chandigarh and Punjab have similar handwriting analysis and the locale of the college does not matter in case of government colleges of education. Similar conclusions can be drawn for the private colleges of Chandigarh and Punjab. The prospective secondary school teachers of these colleges showed similar patterns of handwriting analysis irrespective of the locale of the private college. On the other hand, prospective secondary school teachers of government and private colleges of education of Chandigarh and Punjab did differ significantly in their handwriting analysis which may be due to the difference in the teaching, management and environment of these colleges as well as the emphasis laid on handwriting by the teacher educators.

6. Regression analysis showed significant contribution of extraversion dimension of personality towards variance of handwriting analysis while psychoticism and neuroticism dimensions of personality, self-concept and mental health did not contribute towards variance of handwriting analysis of prospective secondary school teachers. This indicates the presence of some other important psychological attributes which may contribute significantly. Although the coefficients of correlations were mostly significant but certain other factors need to be taken into account to better understand the contributing factors for handwriting analysis.

6.13 Educational Implications

Educational implications that follow the research project have been enlisted in the following points:

1. Given the training in handwriting analysis to prospective secondary school teachers they will be better equipped to deal with students in an effective manner. Teacher is the person who comes across the students' handwriting everyday and notices even the slightest change in the handwriting. A teacher is the best person to diagnose problems through handwriting analysis leading to early intervention, hence minimizing the chances of problems at later stages of life in the students.
2. In the role of guidance worker and counsellor, teacher can be immensely helped by the handwriting analysis scale by using it for vocational guidance also. The aptitudes and communication ability of the student can be assessed through handwriting analysis which is greatly useful in choice of vocation. Many multinational companies prefer the resume to be handwritten and seek the advice of handwriting analysts before short listing the candidates for recruitment.

3. Use of Grapho-cybernetics, technique to influence personality traits through modification in handwriting, can help teacher in solving the problems of students. This is an upcoming field and yet to be popularised in Indian scenario. People still need to believe in handwriting analysis as a scientific technique rather than a leisure activity. It is only after that, handwriting analysis can be seriously used for behaviour modification, guidance and counselling and other educational purposes in Indian schools.

4. According to Nagar, Savaliya & Bhensdadia (2006), by analysing own handwriting one can learn whether the present job is good for him/her or he/she should change the work. The success is rare, unless and until a job which most suits to his/her personality. By analysing partner's handwriting one can learn about his or her character and accordingly decide whether partnership will flourish or fail. Businessman too can improve their business relations by analysing other's handwriting. Handwriting analysis may help in learning unhealthy practices and attitudes. Similarly, a study of the handwriting of the various members of family may reveal their character and attitude which may help in taking the right step to handle them wisely to maintain family peace. A good analysis of handwriting of the children may help the parents in correcting their problem.

6.14 Suggestions for Further Research
Following are some suggestions for further research:

1. Handwriting analysis may be studied with other psychological variables like anxiety, defence mechanisms, aptitudes etc.
2. Handwriting analysis scale may be applied to other populations e.g., students of various professional and degree colleges, universities, regions and backgrounds.

3. Handwriting is not given due importance in schools nowadays, especially in higher classes. Attention should be paid to the handwriting of students at all levels of education. This can be done only when teachers will be trained in handwriting analysis, which is possible with inclusion of handwriting analysis in teacher education program.

4. Handwriting analysis scales can be constructed for other Indian languages. More scientific exploration of handwriting analysis is required in the field of education. More the research in this area, better will be the understanding and more application of handwriting analysis can be done in schools for diagnostic and remedial purposes.

These suggestions indicate certain important areas of research which need immediate attention of research workers in this country but are by no means exhaustive.