# SUMMARY

In the first chapter of this thesis an attempt is made to study the psychology of children's drawings. After examining the works of important authors who have studied children's drawings the psychology of the children's drawings as a spontaneous activity is described. The discription refers to the various aspects such as the nature of the activity, its process, its developmental stages, the factors involved in drawing etc. The parallelism that exists between the development in drawing and the development of language in its form and content is traced after showing how written language is the development of the human ability to draw.

Psychologists have tried to explain the desparity they have observed between children's drawings and the real objects they represent. The important explanations given by different psychologists at different times are summarised.

The survey of the psychology of children's drawings is followed by the survey of the studies done on children's drawings in the second chapter. The studies done on children's drawings during the last fifty years are numerous. Many of the qualitative studies have been done on small samples and are not decisive. Quantitative studies made are with reference to the study group and hence cannot be generalised. A number of researches are enumerated and classified according to the aspect of study emphasised by the investigator. The procedure of work and interpretations of results are given wherever possible. The work done in India is referred to with details. Goodenough's Draw-a-man Test is selected for the purpose of this study because it is one of the most objective scales of measuring intelligence based on drawing activity of children. Since it is also a quick and easy method of measuring of intelligence, it has a particular value for India where standardised tests of intelligence are few and psychological research is consequently held up.

In the third chapter Goodenough's Draw-a-man test, her scoring points and the studies made by other investigators on the test are discussed. The review of Goodenough's original work, and other critical studies of the scale show

that the scoring scale is valid, reliable and objective. It has been indicated in some studies that the scale requires modifications when it is to be used in an altogether different cultural environment. The works done in India also suggest that the scoring scale requires modifications so as to be applicable to the performances of Indian children. A tentative plan for the critical study of Goodenough's Draw-a-man scale is drawn.

The last chapter deals with the present investigation which can be summed up as follows : The test was administered to a random sample of sixty children of seven plus age group. The validity of the scoring scale was studied by calculating the coefficient of correlation, between the Draw-a-man scores and the mental ages on Dr. Kamat's Tests for measuring intelligence of Indian children. The coefficient of correlation was (calculated 'r' ) not as high as it was expected to be. Some other difficulties were also experienced while scoring the drawings. So an attempt was made to revise the scale by adding a few more suitable points and removing those which were unsuitable. The simple addition and omission of a few points did not, however, show the desirable improvement in the scale. A new method of scoring the performance in Goodenough's Draw-a-man Test was therefore evolved. The same instruc-

tions and the procedure of the test were followed; but the scoring points and the method of scoring was changed. The scoring points were selected on the same principles as observed in Goodenough's scale. The scoring of the points was based upon the development observed in the drawings regarding each scoring point.* The new method of scoring was studied thoroughly and the following were the conclusions drawn.

(1) The coefficient of correlation between the scores on new modified scoring scale and Kamat's tests is .50 ± .06.

(2) The scale is also applicable to the age groups of six plus and eight plus as the validity scores are r = .51 ± .11 and r = .54 ± .11 respectively with reference to these age groups.

(3) The variability of the three groups - six plus, seven plus, and eight plus - is the same.

(4) The new scoring scale is objective. The correlation between the scorings by the present writer and the scorings by three other scorers are .959 ± .008. .90 ± .011 and .884 ± .012.

(5) The reliability, studied by retest method, is .817 ± .041.

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* The scale is illustrated in Appendix V.

(6) The new scoring scale is, therefore, valid, reliable and objective and hence it may be used to calculate norms on larger groups.

(7) Norms are calculated on 722 drawings of children belonging to six plus, seven plus and eight plus age groups.

(8) The comparison of these norms and the tentative norms on Goodenough's scoring scale calculated in other studies suggest that with suitable scoring scale the performance of Indian children will be similar to the performance of American children and not lower as indicated in other studies.

(9) Validity of the major scoring points is tested by the simple criterion of increase in the scores at successive ages. All the points show the desirable trend.

(10) Grade norms are calculated on a group of 561 boys from grades I, II, III and IV in primary schools.

(11) The new scoring scale may be accepted for scoring 'Draw-a-man Test'. It may be used for a quick measure of intelligence of school-going children of ages five to nine years.*

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* Application of the scale is illustrated in Appendix VI.