Chapter IV

THE PRESENT STUDY

The present study is concerned with the development of an intelligence scale in Hindi for children in the age group of 8 to 12 years. The constructed scale has following tests:

i) Information
ii) Comprehension
iii) Arithmetic Problems
iv) Similarities
v) Vocabulary

The information test is intended to tap child's general range of information which is generally considered to be a good indicator of his intellectual ability. The first evidence for range-of-information as a good measure of intelligence was furnished by the data obtained from the Army Alpha Examination. When the individual tests of Army Alpha battery were analysed with regard to their correlation with various estimates of intelligence, the information test turned out to be one of the best of the entire battery. Information tests proved very satisfactory in the Wechsler's scales of intelligence also (Wechsler 1958). A general feeling about such tests has been that they are very much dependent upon one's education and cultural opportunity. This objection is met to a considerable extent if due care is taken to develop the items covering only the knowledge that an average child with average opportunities
Tests of general comprehension have found place in intelligence scales ever since intelligence testing started. General comprehension items are found in original Binet and all its revisions (Terman and Merrill 1937). They occur, in one form or the other, in many group tests of intelligence in India. The comprehension scale as it appears in the present study is, however, not equivalent to these group tests because of its distinct advantages over the group tests as discussed earlier. The test measures the amount of practical information and the ability to evaluate past experiences and accounts for reasons for the happenings of certain events. These events involved in the items under this test are such that children have themselves seen them taking place or had the opportunity to know about them from other environmental experiences. The test is based on the theoretical model of Spearman's three 'neo-genetic' principles: principle of experience, eduction of relations and eduction of correlates—a systematic method of reasoning.

The test of Arithmetic problems taps child's numerical ability. Here an attempt has been made to keep the computational skills to the minimum and the emphasis is on the ability to apply numerical concepts to solve arithmetic problems experienced by children in their day to day life. Similar tests have been very popular with intelligence test authors. This popularity is supported by the data of the present study.
The objective of similarities test was to assess child's ability to perceive the common elements of the terms presented in pair and, at more abstract level, his ability to bring them under a single concept. This relationship may be at superficial level or it may be essentially a logical relationship depending upon his ability to perceive the relationship. The essential logical relationship could be perceived only if the child has superior mental ability as it is more abstract in its nature. It was in this context that the partial scoring system was evolved for this test. This test has been comparatively less popular with intelligence test authors. The reason for this neglect may be its appearance which may give rise to the apprehension that it would be greatly influenced by language and word meaning. Contrary to this belief experience in this study, proved this test to be a quite satisfactory measure of intelligence.

The size of child's vocabulary, contrary to lay-man's opinion, is not only an index of his schooling but also a satisfactory measure of his intelligence. The vocabulary immediately speaks of his fund of general information, range of his ideas and therefore of his ability to learn. The same objection as against the information test holds good for vocabulary test also. But the researches including the present one show that vocabulary as a test of intelligence is a satisfactory measure of intelligence. This, in fact, has proved to be a better test with age than any other test of the
scale. It is, however, difficult to find four or five words which would be close enough in meaning to the correct answer to function as challenging distractors but not be considered as the correct answer. This is particularly true of abstract words in Hindi, which are so necessary in a vocabulary test because difficulty of items i.e., words is associated with abstract words. The format of the present scale in which a word is read to the child and he is required to give its meaning is especially suited for the vocabulary test.

Through these tests it is intended to measure (a) ability to perceive logical relations; (b) ability for verbal, numerical and, in general, abstract reasoning; and (c) the extent of general verbal information and general range of one's ideas which are dependent on his ability to learn. These are different aspects of intelligence and when put together should give a comprehensive measure of verbal intelligence.

The scale was standardized on a stratified sample from Delhi. Stratification was done on the following variables:

i) Geographical location, i.e., urban/rural
ii) Sex
iii) Parental occupation
iv) Parental education

The sample was drawn from Delhi population mainly for practical reasons.

While developing the scale of intelligence like the present, one has to consider the point as to how many people or children are going to be benefitted by it. In the light of
this consideration it was decided to develop the scale in Hindi for Delhi is predominantly a Hindi speaking area. Norms were developed for children in the age group of 8-12 years. The reliability and validity were ensured before the construction of the scale was considered as final. A detail description of the process followed for the development of the scale is reported in the following chapters.
REFERENCES
