

CHAPTER XII
SUMMARY AND
OBSERVATIONS

The volume embodies a complete report of the procedure adopted in Constructing and standardizing the verbal group test of intelligence. The introductory chapter contains the importance of intelligence tests in the present day world and its need felt in Kashmir for measuring the intelligence of pupils.

The first three chapters of the volume deal with the theoretical aspects, viz. concept of intelligence and its meaning, the need to measure it and study of the attempts made to this date.

Chapter IV contains the outline plan drawn out to construct and standardize the test for the age group and the area of population concerned. This also deals with the procedure adopted to select the test, age group, sub-tests and the construction of the items. The test contains seven sub-tests with 148 valid items in all.

The Chapters V and VI of the volume contain the procedure for item analysis. Item analysis procedure consists of the following steps viz. item validation, internal consistency of the items and item difficulty.

Chapter VII deals with ~~the~~ detail^{ed} information about the final administration of the test and its statistical analysis. The test was administered to about 6,000 pupils of different age groups (i.e. 12 plus to 16 plus). After proper checking it was found that 5372 pupils' booklets were in proper order. The rest were deleted because of the variation in their age records etc.

Chapter VIII deals with the standardization of the whole test. From the raw scores the frequency distribution of all these scores with their Mean, Standard Deviation, Norms and Intelligence Quotients were calculated.

Besides, the normal nature of the distribution of the test data is proved statistically and the same has been presented graphically by the histograms for each age group and also graph showing the frequency distribution of 5372 children.

Another graph No. 8 on which frequency distribution of mean score curve is plotted. It shows the increase in the mean score with ~~the~~ age. It also indicates an irregular ascent from age group 12 plus to 13 plus; it grows steep^e from age group 14 to 15 and from 16 to 17 it becomes horizontal. Thus with

the exception of ^{the} 12 and 13 years group the others show a constant rise in intellectual growth which is in agreement with the findings of other test makers while the age groups 12 and 13 show abnormality to some extent.

In Chapter IX is discussed the reliability of the test. The reliability of the test has been studied by two methods; Split-Half Method and Test-Retest Method. The different coefficients obtained by different methods are interpreted in this chapter.

Chapter X deals with the validity of the test. Different types of validities are discussed in this chapter. The chapter also contains the procedure adopted to cross validate the test between the two Criterion groups of top and bottom scorers. Their mean, standard deviation, standard error and critical ratio have been found out.

The validity of the test has been further established by correlating the I.Qs of pupils with teacher's estimates and with the scores of Progressive Matrices.

Lastly the chapter on Evaluation of the test deals with the main characteristics of the test, i.e. administrability, scorability, adequacy, comparisons and interpretation.

Utility Value of the Tests

The battery of tests that has been presented here is the outcome of labour and experience in the actual field of education which deals with age group 12 plus to 16 plus. As the material is based on real situations

it is hoped the tests would prove useful to the teachers who are interested in knowing what they are expected to do. Similarly, it would be helpful for any practical vocational guidance programme undertaken either by the school concerned or by government or semi-government bodies who care for the welfare of this age group which forms a rich fodder for higher educational institutions on the one hand and for semi-skilled jobs in commerce and industry on the other.

These tests can be employed to gain fairly accurate knowledge of the intellectual abilities of every pupil in the class-room. That would help in better maintenance of cumulative record cards and such other records.

Educational Guidance

These tests would also be useful educationally to encourage really gifted children to intellectual pursuits on the one hand and to employ the mediocre abilities of the rest into profitable professions. This would solve the problem of proper personnel both for such jobs as require a very high I.Q. and of those where manual skill would give sufficient results. They would also indicate the lines on which any programme for betterment of those who lag behind not because of inherent abilities but because of social, economic or other reasons, can be well chalked out.

Vocational Guidance

India is striding along towards the age of machines and even in Kashmir, machines are being

introduced in various spheres of life. That would expect future citizens to have some training in manual manipulations, Many hands would be required just to look after and to work upon these machines, may be, with low or average intellectual capacity. These tests would classify such groups of children so that they could be sent to such further training as would make better craftsman and skilled or semi-skilled hands that move the machines.

This will also give an opportunity to the Employment Exchanges and Vocational Guidance Centres of the schools and universities, if they at all function at present.

Again, as it is often observed, students rush to the universities after passing their Matriculation examination whether they are fit for the higher education they would have in the universities or not, with the result that often many do not complete their higher education or do not get proper jobs on completion. With diversity in economy of this beautiful land of ours, persons with diverse ~~capacities~~ ^{abilities} would be required and here these tests would definitely be of great help.

Though it is not within the field of this investigation, it is not impudent to say that the labour shown here would help future research in education. Even if Advanced Study Centres are going to be opened here in future, as they happen to be in other parts of India, this battery of tests would, it is hoped, shed its flickering light.

In conclusion, it may be added, that the labour of the present investigator would be amply rewarded if the material, both theoretical and practical, on test construction in this Valley of Kashmir, is given proper attention to and made use of in the construction of similar Intelligence Tests for age groups or samples of ^{the} population not covered ~~over~~ here.