"When you purchase a package of seeds you find the directions printed on the cover, and you know that if you sow those seeds according to directions you will get the results correct. If however, you plant those seeds in some way not in accordance with the directions you will get different results whatsoever."

- Albert E. Cliffe

CHAPTER X
RETROSPECT AND PROSPECT

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Thus, the general ability test is ready for use in the State of Gujarat.

A thorough process of construction, standardization and validation has been described in the present volume. It is observed that the two parts of the test will supplement each other so as to provide very useful estimates of general ability. The test items of both the parts have passed through minute statistical scrutiny at various levels of test construction.

The test is standardized on a large representative sample of population of Gujarat State. From the data of the population, grade norms, age norms, percentile ranks, deviation IQ's etc., have been computed. The reliability and validity of the test have been estimated by most of the methods and formulae, and found to be very high. Behind this strenuous and expensive task, there is a ray of hope that the test will now be utilized as a very well standardized, reliable and valid measure of general ability in the State of Gujarat.
10.1 Observations:

Following observations were made during the process of Standardization.

(1) Sex Differences:

Divergent views prevail about the existence of sex differences with regard to general mental ability. It is observed from the present test results that there is no significant sex differences. A few of the test constructors have reported sex differences in the pupils of Gujarat. But in the case of the present test, the difference is not traced at any level, which supports the test to be free from any culture. Another reason for this can be ascertained that with the expansion of education, girls, as well as boys, from all strata have started taking education. It is observed from the results that sex seems to have no role in determining one's general mental ability.

(2) Significance of Age-groups:

Though the test is scientifically constructed, there are some observations which cannot be ignored.

The present test is standardized for the pupils of classes VIII to X. Now it is traced, from the data of age-wise distribution of total population, that there is no significant difference between
the mean scores of age-groups 12-0 and 13-0 and 17-0 and 18-0. Hence while computing PR's and IQ's, two age-groups, viz. 12-0 and 18-0 have been dropped. As a matter of fact, very few pupils of age-groups 12-0 and 18-0 are found studying in the classes VIII to X. Such pupils may be in those age-groups because of acceleration, late entry in the school or detention in the class either for one year or for more years.

The mean scores of the age-groups 12-0 and 18-0 are very near to those of 13-0 and 17-0 respectively. For calculation of IQs either the norms of the age-group that is near may be tentatively used to get approximate idea only or to accept the limitation of the test and avoid further calculations. No doubt such cases might be very rare.

(3) IQ Distribution

From the study of the IQ distribution, classification of IQ's and normality by $X^2$ technique, it is observed that the population under testing programme is normally distributed.

(4) Existence of One Factor in the Test

The factorial validity study of the present test has scrutinized that there is one common factor in the test.
10.2 **Uses of The Test** :

The present test can be used by the teachers, administrators, counsellors and researchers for different purposes. Some of the uses of the test are as follows:

(a) **Homogeneous Grouping** :

The teachers realize difficulties in teaching pupils, who are widely different in their capacities to learn. The teaching materials, suitable to the average class would bore the bright and confuse the dull. To remedy such situation, homogeneous groups of pupils may be formed, wherever possible. The present test can help in classifying the pupils.

(b) **Class-room Survey** :

The educator should know the educund if he wants to be effective in the class. For this purpose, the educator can make use of the test and study all the pupils, entrusted to him.

(c) **Vocational Guidance** :

The measurement of general mental ability, possessed by an individual will help the counsellor to give guidance for the proper choice of the profession. The present test can serve fruitfully as one of the useful tools to the Guidance and Counselling Centres.
(d) **Identifying Under-achievers**

It is recommended that scores on general ability test be compared with those on achievement test to identify pupils whose achievement is inconsistent with their ability. It is hypothesized that pupils who score higher on ability test than on achievement test are under-achievers. Studies of such pupils may be undertaken; and individual instruction programme may be planned for them. The present test can help in identifying under-achievers.

(e) **Testing Programme for Scholarship Awards**

The need for this programme arises from the fact that substantial scholarship funds come from sources like donors, industries, government, charity trusts etc. Some merit scholarship corporations also want to identify bright pupils. The test can profitably be used for the purpose.

(f) **Educational Guidance**

Up-to-date maintenance of pupils' Cumulative Record Cards is a felt need of the modern schools. The test will be useful in recording levels of general ability in C.R.C. Such records will be much more useful for giving individual guidance to the pupils.
(g) **Conducting Educational Researches:**

In the present educational set-up, research work is receiving good impetus. The teachers take up action-researches and experimental projects on classroom problems. The M.Ed. students also conduct small scale researches for their dissertations. During the course of the research work many occasions arise wherein they require to form parallel groups of pupils. The present test can serve as a dependable tool at that time.

10.3 **Suggestions for Further Research:**

Research on any subject has no end. Following rotated studies may be undertaken as further research work in the field.

i. To study General Ability of the pupils in relation to socio-economic status.

ii. To establish part-score norms and study their predictive implications.

iii. To construct and standardize General Ability Tests (on the line of the present test) for:

(a) K.G. to Class I,
(b) Classes II, III & IV; and
(c) Classes XI and XII,
As to complete series of General Ability Tests to measure general ability of the pupils from K.G. to class XII.

Tests Suggest but Never Prove:

To sum up in the words of H.W. Lyman, Test Scores reflect ability; they do not determine ability. Test scores may suggest, but never prove .... There are many pitfalls to the use of tests and their proper interpretation. There are all sorts of limitations to tests and test scores. But tests can be helpful. Donot be overly cautious or you will never get any testing done. Go ahead and try!

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