CHAPTER VIII

EVALUATION AND FURTHER RESEARCH

The end of a research is the beginning of another and probably many more; for the done, that is always small, appears to be insignificant, as compared against the vast undone. There can be, a sense of achievement, but never of perfection. So, the present work may be judged for what it is, rather than what it would have been. It could surely have been better; but the real problem is, whether it is good enough for the purpose.

The chief limitation of the scale lies in the lower end. The "floor" is low enough as an IQ as low as 45 is found in the standardisation group. But it has already been pointed out that this does not seem to be plausible. It is difficult to believe that the 2.15 per cent of the total school population (vide, Table XXVI), tested in this standardisation could be comprised of mental defectives. The very fact that they have withstood four years of formal schooling in the primary schools and have been able to enter the secondary schools is enough to make us suspect their poor performance on the scale. The best course, under the circumstances, is to verify the results by the use of an individual test.

But except that, the present test can favourably be compared with any well standardized group intelligence scale in India or abroad. It has been standardized on a large and representative sample of the normative population for whom, it claims to be utilized. It has also been shown, that in spite of group differences, such general norms, established on a large unselected sample, can safely be utilized as indices of the
individuals' relative positions in the group as a whole. The corrected or extrapolated norms are also found to have been valid. The test has been subjected to almost exhaustive and rigorous studies concerning reliability and validity. It has survived them all. Such a claim, it is hoped, would not be considered illegitimate.

Hence, the scale can safely be used for various purposes. It is not the author's intention to enumerate exhaustively, the uses of the scale that can possibly be made. She would rest content by suggesting some of them and leave the other possibilities to be explored by the patrons of the test themselves.

In research, the measure of intelligence can be used for various types of general surveys. However, such an instrument would be found particularly handy in action research studies, conducted on experimental lines. Of late, action research studies have received a remarkable recognition by educational authorities at the state, as well as at all India level. The schools too, have been vigourously responding to such efforts. Quite a few teachers are found to possess the right type of research attitude. The day is not far, when an average Indian teacher would be research minded. The present test can be utilized by such action research workers for equating or classifying the groups on the basis of general ability level. The test can also help to find out how pupils at various levels of intelligence, react to particular school subjects and teaching methods.

The battery would also be found useful in handling some of the organizational school problems which require consideration on psychological
grounds. Homogeneous or heterogeneous classes with regard to general mental ability can be formed. A single class can also be divided into sub-groups for the implementation of the group study methods. The teachers may adjust the curricula and methods they use, in view of the general ability of their learners. The institution can know the average mental level of its population and might maintain or raise its standards by admitting pupils on the basis of their performance on such a scale of general intelligence.

Such a scale, as the present one, can help the educational guidance programmes of a school. The democratic philosophy of education recognizes the importance of each individual child in a programme of national development. It is hence, that educational guidance, at all levels, is considered essential. We in India, do not have a school-wide programme of guidance services. Some sort of guidance work is being done at the end of the high school but that is mainly vocational. We did make a beginning, a few years back, by introducing the cumulative record cards. But we have been rather slow to progress. However, as was pointed out in the introductory remarks to this work, an awakening is seen. The contribution of the present test in this advancement may not be underrated. Such a test can help a teacher to detect a child whose scholastic achievement is not in consonance with his mental level. The teacher would then hesitate to label such children as 'prized dunces' of the school. He would look elsewhere for the causes of a child's retardation. They may be lacking in industry, adjustment, proper study habits, study facilities and such other qualities - but surely not in general ability to study. Those that may be, can be remedied and the child saved from being doomed for life. When that happens, the test would have served its purpose. There is nothing more valuable, it can achieve.
Because intelligence tests are validated against school achievement and teachers' estimates and known as scholastic aptitude tests, it is argued that they may be dispensed with. But we have seen how the correlation between the two fluctuates. School examinations and teachers' ratings are sufficiently notorious for their lack of reliability. Besides, even a standardized achievement test cannot reasonably be allowed to replace an intelligence examination. The achievement tests assess the past, the intelligence tests predict the future. We are surely more interested in the future. It must also be noted that low achievement is not always the result of low ability.

The mental tests, thus, have their own glory. But, no one who recommends their use, must end without a word of warning. Mental tests have their limitations too. They should never be taken as the 'final word', especially when the results are against the individual. The criminal proceedings in courts of law have their own ethics. They require that a single innocent man should not be punished, even though a thousand criminals may escape. Some such ethics should be prescribed for psychometrics also. Large scale screening on the basis of mental tests alone, in a system of nationalized education, has its own dangers. They must not be overlooked. The nation who does it will have lost the essence of democracy. That was done in the West during the infancy of psychometry. But they have realized the mistake. Let not India repeat it. The school psychologists and the teachers, who use mental tests, must be clear about the fact that mental analysis is not analogous to chemical analysis. Mental tests are not the ends but means to diagnosis. The work of guidance only begins with a mental test; it does not end with it.
It was said at the beginning of the chapter that the 'undone' is vast. It would be in the fitness of things to suggest problems for further research, which may be undertaken. Most of these have already been mentioned or indirectly indicated. But, the present investigator is tempted to enlist them here under the expectation that some of them may be taken up.

The correlation between scores on verbal and non-verbal tests is found to be quite appreciable, yet establishment of Verbal and Non-verbal IQs on the lines of Wechsler would be an interesting research.

Even though, almost exhaustive studies on the test reliability and validity were made, two more, which are quite valuable, would surely lead to a better evaluation of the test. One of them is the estimate of reliability at various ability levels. The other is the study of the predictive efficiency of the test over years. For this, the pupils tested in the present standardization may be followed up and their progress watched and compared with their IQs on the present test.

Similar work, significant for the validity study of the test, may be undertaken by collecting data about those 2.15 per cent of the testees who have been classified as 'very superior'. But more interesting and also more necessary, is the work of studying the progress of the 2.15 per cent, who, unluckily for them, have been classified as 'defectives' and who, as it has been clearly pointed out, are most probably not defectives.

The very popular studies of IQ distribution, as found in the various occupational and caste groups were not done. They may be undertaken,
as the findings are likely to be very interesting. We would be able to know whether the social and educational structure of the Indian life has undergone any change by comparing the findings with those, made during previous researches.

More detailed studies of the cultural groups, namely rural, semi-urban and urban may be undertaken. The present investigator is particularly interested in finding out whether the common norms show an equal amount of predictive efficacy with regard to all the three types. The simplest way would be to correlate the IQs on the present test with future success in school, separately for the three groups. Such a study would of course be only elementary and limited and leave scope for research on more scientific lines.

The tests may be tried in grades IV to VII of the primary schools and separate norms for them may be fixed, provided that they are found to work satisfactorily.

And lastly; it has been assumed that the norms established on a stratified sample of the nine districts and three cities of Gujarat, would be equally valid for the remaining parts of the Gujarat State, known as Saurashtra and Kutch. This assumption may be experimentally verified.