

INTRODUCTION

Psychology has now developed to such an extent that works on intelligence testing no longer need a long introduction. Mental testing has been accepted as an useful and essential practice in all progressive countries of the World. It has led to greater individual happiness and efficiency, in almost all the spheres of one's life, which could not have been achieved otherwise.

It is a matter of regret that intelligence testing programmes have not yet come to the aid of common people in India. We have just achieved our independence, our mental powers are to be evaluated as correctly as possible so that the educational vocational and other related programmes may be planned according to the requirements of the nation as well as the individual.

Intelligence has been variously defined and varieties of scales for measuring intelligence, differing in their contents to suit the others' concept of the items are in vogue. A brief historical overview has been incorporated for a ready reference. A critical analysis of all of them is not our object.

The most characteristics of the Indian population is the existence of groups differing widely in their language and culture, side by side. Even within a group people differ in their culture and degree of literacy. India at present, can not claim to have a good percentage of educated people. Naturally, assessment of intelligence of such persons

who are handicapped for reasons of language or scholastic attainments present difficulties.

The present study was begun in the year 1952 in an attempt to formulate a scale of performance test of intelligence to assess the intelligence of such persons who can not take the verbal intelligence test standardized in a particular language. The impetus of the work grew directly out of the programme of psychological examination of children, adolescents and adults who appeared for counselling, services, vocational, educational or clinical in the Department of Psychology, University of Calcutta. The interest heightened in course of the testing programmes to collect data in different schools and colleges for the purpose of standardization of the adapted tests and selection works of industrial personnel, in which the present investigator had always been an active member.

The school testing programmes were discontinued by the University and the present investigator had to carry on the testing project all himself. The administration of the whole battery of tests along with the information data sheets took about 5 hours for each candidate, which had to be distributed over a number of sittings. Towards the end of 1960, the data collected were considered adequate to test my hypothesis.

There were many hurdles to be crossed. Apart from the physical hardships, there were many adverse opinions. Opinions of my colleagues and opinions of many reputed authors on these topics.

Intelligence tests in general have been criticized by one or other psychologists; performance tests of intelligence have still more severely been criticized.

But the arguments of most of the makers of the performance tests that instead of one's ability to respond with verbal symbols only, the ability to do something with concrete materials also, would be the nearest approach to one's general intelligence, were very much encouraging. Moreover, the performance tests, are said to be free from cultural influences.

It may be mentioned in this connection, here, that the findings of this investigation have revealed that educational and cultural influences not only affect behaviour in general but performances on performance tests of intelligence, ~~may~~ mental tests as a whole in particular.

Towards the beginning of 1961, a preliminary try-out in one age-group viz. 16 years, gave encouraging results. Our, the then Professor S.C. Mitra, M.A., Ph.D. (Leipzig), F.N.I., encouraged me to check the hypothesis through all the ages. It was the memory of his kind and sympathetic words of encouragement for continuing the work to completion, I must admit, that I have been able to come to a successful completion. Added to his suggestions, the following considerations also have been helpful.

Even a cursory glance at the hobbies and pastimes, popular amongst individuals in higher socio-economic groups reveal that they involve practical activities of superior types than those taken up by individuals in the lower socio-economic status. It is not because of the economic reasons alone but possibly due to difference in abilities. Similarly, urban children because of their opportunity of handling gadgets in their play or everyday necessities which need mechanical and manual manipulations, ~~are~~ show superior managing qualities in practical situations of life or in other words are better in solving concrete situations of life than the rural children who do not get such opportunities from their early years. The urban children have, so to say,

what the educationists have for years stressed on, greater opportunities for learning by doing. The Montessori-Kindergarten schools produce students who are better in their performance in the so-called performance tests of intelligence. On the other hand, bright students of the rural area-schools, often achieve a higher score in the Binet type of tests, than in performance types of tests. It was therefore, on these grounds, that students from rural areas just new in Calcutta, were excluded from the sample under investigation.

Prof. P.E.Vernon, also recognized the influence of culture on performance tests of intelligence, in his writings as well as in a reply to specific inquiry.

There are other evidence, also, in favour of performance tests being used to measure of one's intelligence, in place of verbal tests.

The ability to handle concrete materials in situations of life, is being gradually accepted to be an important adjunct to intelligence. Weschler, stresses on the global intelligence which includes the practical ability or the ability to deal with practical situations of life and included performance tests in his scale of intelligence.

The Behaviourists maintain an extreme view. According to them, bodily action is not only fundamental to all mental life, but ultimately, it is the whole of mental life, for in the last resort, thought itself is nothing other than highly abbreviated action. "It should be clear now," says Watson, "that we should not abstract language, overt or implicit, or other implicit thought processes from their natural setting in bodily integration as a whole...."

Prof. Fear, stresses on the importance of kinaesthesia in mental life. According to him, the isolation of those whose world is mainly verbal from those who think in terms of movement, may be attributed to the neglect of the "intelligentia" to recognize the value of bodily activity. The language of kinaesthesia will break down the intolerance of one type for the other. The language of kinaesthesia, may be thought of, to be expressed in one's ability to deal with practical situations of life. The performance tests claim to measure such ability. If intelligence is ability to adapt oneself to novel situations of life, then certainly the concrete intelligence as measured by performance tests, and abstract intelligence as measured by the verbal type of tests, must have a good deal of common elements.

It is perhaps on the basis of these common grounds, authors of the performance tests have found a positive correlation with verbal tests of intelligence. Some of the makers of the performance tests have obtained a very high correlation with verbal types of tests. (Alexander, Koh, Weschler etc)

Moreover, the present society places more importance on the vocations like engineering, technology etc. which need the exercise of an ability to deal with concrete situations rather than an ability to deal with idea and symbols only.

Because of these conflicting ideas regarding the so called performance types of intelligence or concrete intelligence, I had particularly guarded myself, at every step, against any overhasty conclusions and wishful thinking.

I have therefore, taken a long time to survey the possibilities and limitations of my method of approach as stated in this dissertation and

have considered the theories and assumptions, both explicit and implicit as far as practicable, underlying the construction, administration and interpretations of the tests. On the otherhand, emphasis has been placed upon the necessity of interpreting test results in the light of the psychological principles involved, of the statistical bases in test construction and of an understanding of developmental and behavioural principles. Mechanical use of tests and rule-of-thumb interpretation of the tests have been avoided in particular.

In our country, still now, more emphasis is placed on the activities that are called forth by abstract ideas and symbols, ^{in our schools and colleges,} till the admission in a technical institution.

It may be argued that, till the present educational system in India is so organized and oriented as to include both abstract and practical items in the curriculum, the performance tests may not show as high a correlation with the verbal tests of intelligence as the respective authors have obtained in their countries.

It is happy to note that attempts are being made by the Government of India to put the Secondary Education on an uniform and standardized footing through the country. When all the stages, the primary, secondary, College and university education will be standardized, the performance tests of intelligence will reveal an ability that will ~~will~~ be linear and continuous and under such social conditions, mental tests in general will be valuable for any prediction.

The findings of this investigation will be helpful in eliminating indiscriminate use of the performance tests in complete or partial replacement of the verbal types of intelligence tests and may be helpful in saving psychological testing from a disrepute.