

CHAPTER - 1

THE PROBLEM

Part - I. Statement of the Problem, Social & Educational needs.

The aim of the present investigation is primarily to formulate a battery of tests of intelligence that may be applicable to a larger portion of the Indian population or atleast of the State of West Bengal who are uneducated or illiterates.

The need for appraisal of intelligence have been demanded mainly from two spheres of life, ^{- the social} and the educational.

The Social need :

(i) Diagnosis & education of the mentally deficient.

Though a large number of the mentally deficient are incapable of meeting their needs were present in the society from very early times there was no mention of them till the beginning of the 19th century. There was no very clear distinction between mental deficiency and mental disease. Esquirol in 1838 in his classic book first made the difference really explicit. He also called attention to the fact that mental deficiency is not a discrete category, clearly separated from the normal and manifested in all-or-none fashion. There are various grades of mental defect, separated from each by countless imperceptible steps.

Esquirol was thus very conscious of the need for some objective criterion by means of which the feeble-minded could be clearly distinguished from the normal and the various grades of mental defect might be classified. He clung to the physical measurements, like others of his day, the measurements of the size and proportions of the skull, but being disappointed soon

abandoned the use of anthropometry in favour of functional system. Terman arrived at the same conclusion some fourteen years later.

The publication of the American Journal of Insanity in 1844, with articles on the mentally subnormal, gave an impetus to the study of mental deviations in the United States of America. This awakened an interest in the field and called attention to the need for research on the controversial issues. Dr. Edward Seguin had to leave France on Political reasons and came to America in 1848 and was able to bring about a change in the general attitude toward the feeble-minded who were left out as incurable according to Esquirol's view.

Itard's disappointment over the slow progress of the Wild Boy of Avoyron was looked upon as a contribution of great scientific importance. The French Academy of Science and also Itard himself noted that though his pupil could not attain normal intelligence, a tremendous improvement over his early condition took place. The Wild Boy learned to speak one or two words and recognized a number of printed words and matched them with the corresponding objects. He understood simple commands and in short, underwent a measureable change of habits. Itard's pupil Seguin became an ardent protagonist of the doctrine that the feeble-minded can be educated. He did not make an idle claim but demonstrated the results of his own teaching. He established, probably the first successful school devoted entirely to the education of mentally defective children and was in charge of it till his emigration to America. Under Seguin's guidance many schools were started in different states of America and by 1894 no fewer than 80 public and private schools for mentally defective children were opened.

Gradually the need of an objective basis for admission into these schools was felt in order to guard against the turning of the schools into reformatories for delinquents. But the time was not yet ripe for systematic use of the developmental progress of the normal child as a standard of reference for judging the mental level of those whose minds had not developed normally. Not until 60 years of groping for signs and symptoms, measuring of skulls and other anatomical features, experimentation with tests of sensory acuity, motor speed and accuracy, with tests of rote memory and discrimination was the simple and effective concept of Mental Age to down in the versatile mind of Alfred Binet. By this time the need for some practical system of diagnosis and classification of the mentally defective became increasingly acute. Side by side it gave rise to public interest and scientific inquiry into another problem that of young offender the juvenile delinquent.

(ii) Management of Delinquent.

Upto the early part of the 19th century, treatment of the child offender was generally brutal and unintelligent. Whipping, long imprisonments of even death were imposed for minor offences. In New Plymouth in 1671, contained disobedience or re-bellion against parental authority in a child of 16 was accorded the death penalty.

Gradually with the passage of time, the treatment of juvenile offenders became somewhat lenient and public sentiment both in U.S.A. and abroad became opposed to the use of capital punishment for children. As the concept of insanity became more scientific and distinction between mental deficiency and mental disorder became more clearly understood, the practice of calling in the assistance of medical experts to testify mental competence, became more common. But then, as now, the experts frequently were unable to agree.

The responsibility of diagnosis of mental capacity was put on medical men till Psychology extended its researches into wider fields from its study of sensation and its attributes, these dominated by men like Weber, Fechner and Wundt.

In England, Sir Francis Galton was researching on mental inheritance, sex differences in mental traits, and characteristics of famous men. In France, Alfred and his associates in course of his experiments on the mental characteristics of children, developed the first really successful method of classifying individuals with respect to their mental capacities. And in America Cattell and others were entrusted in classifying and guiding college students on the basis of - it possible "mental tests" under the auspices of American Psychological Association. By this time the reliance upon such matters as physical appearance, the shape of the head the "glance of the eye" or the unsubstantiated report of poorly qualified judges - criteria upto then available for diagnosis and classification was gone for ever. The early tests, were far from perfect. Nevertheless, this was a ~~step~~^{turn} in the right direction as they called attention to the necessity of utilizing a standard situation, of providing a common basis of reference, if individuals are to be classified in a uniform and meaningful way. Thus the study of personality traits of the delinquents and proper measures to rehabilitate him became in accomplished fact.

(iii) Selection of Industrial Personnel and Vocational guidance.

In selection and vocational guidance, knowledge of the level of intelligence is important. Many occupations have been analysed and are found to have a range of intelligence within which a reasonable success is expected. In spite of the wide overlap, different kinds of occupations require different levels of intelligence.

Not only the industrial personnel but also the top-level management personnel is of no less concern of industrial organization and governmental authorities. ~~High~~ ability executives are hard to find, but modern psychology can now say with great confidence that they are to be found in the superior intelligence levels.

The ^{diagnostic} ~~diagnostic~~ implications of differences in the levels of intelligence are no less important. It has been found that in most mental disorders ~~important~~ impairment of function in the intellectual processes occur. In some, memory is affected, in some reasoning or judgement, in ~~some~~ some ability in dealing with number and so on, sometimes the loss is temporary, sometimes permanent.

THE EDUCATIONAL NEED FOR APPRAISAL OF INTELLIGENCE:

(i) Educational guidance. Education of the Backward child.

In 1908, F.L. Thorndyke in America published a report on the age-grade proportions at various levels in schools. According to him fewer than 10% of the children entering first grade ever completed high school. By the common requirement of law, children should remain in school until the age of 16, or earlier in case if they finished a given grade-usually the 5th or the 6th, and no one was allowed to leave the school before this minimal essentials of an education was attained. The average groups passed out by 14 years of age but the laggards did not profit by two or more years of failure.

There was little concept of adjusting the curriculum to the needs and abilities of the individual child. Enforcement of order in classrooms

was emphasised by punishment and backwardness by nonpromotion. The older children in lower classes had to seat in small desks suitable for, say, six-year-olds and repeat year after year the unintelligible words with meaningless alphabets. The problem was real and serious.

It was realised that failure to learn is not always due to laziness or depravity on the part of the child and that something other than punishment was needed to solve the problem. A different kind of curriculum as well as different methods of teaching was called for. Special class for these boys who did not profit in regular grades to make up the differences and returned to regular classes, did not prove much successful. In 1893 the first special class for retarded children was established under the direction of Lightner Witmer. He first realized the slow rate of mental development of retarded children. Then came the need for an outside criterion for selection of the retarded children, as well as for the students seeking admission in colleges where many were unable to do the required work.

Many sponsored investigations to assess the extent of retardation in U.S.A. were carried out in the schools. At each grade the number of pupils who were over-age by 3 or more years was noted and the percentage of retardation at each grade was calculated.

I feel really short to mention here that no such investigation has ever been attempted in India. With the introduction of the free-primary education in our country, this problem of overage in a class with its various troubles will ~~stand~~ stark, unless some thought is sent after it at the very outset.

An idea of the retardation in our schools may be had from the table below, which has been compiled from the obtained data, in this investigation.

The need for the selection of a proper course of a curriculum in accordance to the abilities and aptitudes of the individual child has been recognized and mental tests have been found indispensable for such educational counselling. 6A

A consideration of the problems, just enumerated clearly expose the practical importance of investigations like this.

Eventually in technical terms, the following hypotheses have been drawn and attempts have been made to arrive at a solution ^{from} the findings, which in turn will solve the original issue of the problem.

Part - II. Hypothesis in the present study :

It may now be clearly stated that the three considerations (1) whether intelligence can be classified according to its observable forms, into abstract, mechanical or social according to Thorndike; or abstract or concrete according to Alexander, quite distinct from each other or (2) whether intelligence may be grouped under one general head, one form being predictable from another, having independent form of manifestations or (3) whether intelligence has really distinct different forms, each having its particular contribution to the total intelligence of an individual, became the main issues of this investigations.

Accordingly, the following ^{alternative} few hypotheses were set up and attempts have been made to arrive at a solution, in the present investigation:

HYPOTHESIS -1. Whether the two forms of intelligence abstract and concrete are quite distinct from each other as obtainable under observational forms.

Or,

HYPOTHESIS - 2. Whether there are some common elements in the different manifestations of intelligence, even though they have distinct operational areas.

Or,

HYPOTHESIS - 3. If a good predictability is obtainable, one from the other, whether there is any need for considering them as separate entities and retain the existing classification.
