

one comes after a while to the point where he does not feel it necessary to question anything that he says unless one has right at hand the facts that contradict him.

HENRY H. GODDARD.

Vineland, N. J.

Regarding the question of age standards. Age standards have to be set up in order to make a test usable for diagnostic purposes either by arranging the tests according to ages, as in the Binet Scale, or by determining standard scores for the various ages in tests or test groups which are not themselves arranged according to age. In the one case the age standard is used directly and is incorporated into the arrangement of the test series; and in the other case it is used indirectly. In the latter case a score must be determined in absolute or percentage (point scale) terms, and then transmuted into terms of age progress by comparing it with the standard absolute or percentage scores by ages.

Absolute or percentage score can be interpreted directly if performance in the test is not affected by age. Otherwise it is obvious that any particular absolute or percentage score would mean one thing for a child of one age and another thing for a child of another age. It would simplify matters then if we could use tests which are relatively little affected by age differences. It is true, as Seashore asserts, that we approach this condition when we examine the elemental capacities, as pitch discrimination, discrimination of two points, scope of attention for simple objects, and probably color discrimination. In such simple traits we appear to be able to approach a measure of individual differences among persons of different age. But the differences we obtain are of the least significance for intelligence, as it appears from the studies of several, among them Seashore himself, Norsworthy, Simpson and Burt, that the simple sensory and motor tests are correlated least with other measures of intelligence. It is in the more complex functions, which develop more with age, that the chief indications of intelligence are to be found. In other words, the capacity for learning, which is responsible for the greater part of progress with age, is closely related to intelligence. An intelligent child differs more at different ages than a stupid one. Hence functions which show marked development with age must be the chief subjects of intelligence tests.

The chief difficulty with the Binet scale, so far as its general form is concerned, is not that it is organized in age groups, but that the score is not analyzable. It lumps together scores on too many different functions, and not the same functions throughout the scale. Others have already proposed the remedy, which is to organize a series of graded tests all of which are to be given to all ages (or all ages within a certain definite period). A score can then be given in each type of mental process, and either by reference to age norms or by virtue of the fact that the score is in terms of age, the child can be given a qualitative rank which expresses his relative strength and weakness. For purposes of general ranking the individual scores can be combined.

To make any scheme usable for diagnostic purposes, the norms will have to be adapted to the particular social and perhaps racial group to which a child belongs. This is just as necessary for the interpretation of a point scale as for any other.

Different degrees of merit in an answer should be taken account of in the score.

A test arranged so as to constitute steps of increasing difficulty, the score to be based on the last step successfully attempted is very convenient when the nature of the task permits this form of organization.

FRANK N. FREEMAN.

University of Chicago.

The avidity with which the Binet-Simon tests have been seized upon and used in many countries, is striking evidence of the need there is for this sort of application of psychology. These tests were devised for a local purpose in Paris, to separate the mental defectives from the normal children in the schools. They have been extended into the examination of every sort of social misfit in hospitals, courts, and correctional institutions, and in the schools.

It is patent to most persons working in this field of applied psychology, that we are waiting only for an improvement in methods of measurement and analysis, in order to make a wonderful extension of this species of psychological measurement into the field of vocational guidance. We all realize that psychology should be the guide of educational practice in the realization of the most desirable socialization of the individual. We also realize that the analysis of the mental equipment of our best endowed children, in order that they may be effectively trained for the highest service, is vastly more