

Educational Testing in Japan¹⁾

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It is a great honor and pleasure for me to have been given this opportunity to make a report on testing in Japan. I wish to dedicate this paper to *Profesor Yataro Okabe*, one of my teachers who passed away recently and who had been a pioneer in the field of educational evaluation in Japan.

The modern theory and methodology of tests as means of educational evaluation were introduced in Japan at the beginning of the twentieth century. Based on the theory of objective standardized tests, several kinds of tests such as intelligence tests, scholastic achievement tests, personality tests and aptitude tests were constructed and used experimentally by educators and institutes or associations for educational research. Such tests had been well developed and had achieved practical usability by the beginning of the Second World War. However, the war suspended further development of tests.

In this paper, I will deal with the present situation of educational testing in Japan, with reference to the following seven categories:

1. Published standardized tests
2. Teacher-made tests
3. Tests for guidance and orientation
4. Scholastic achievement tests for screening
5. Tests made by the Educational Test Research Institute

1) This paper was read as one of the invitational speeches at the International Workshop on *Possibilities and Limitations of Educational Testing*, May 1967, Berlin, West Germany. The writer was invited as one of the two invited speakers from Asia.

6. National surveys of scholastic achievement
7. Other newly developed tests

Before proceeding with the topic, I will briefly tell you about Japan's present educational system as a basis for understanding educational testing in Japan.

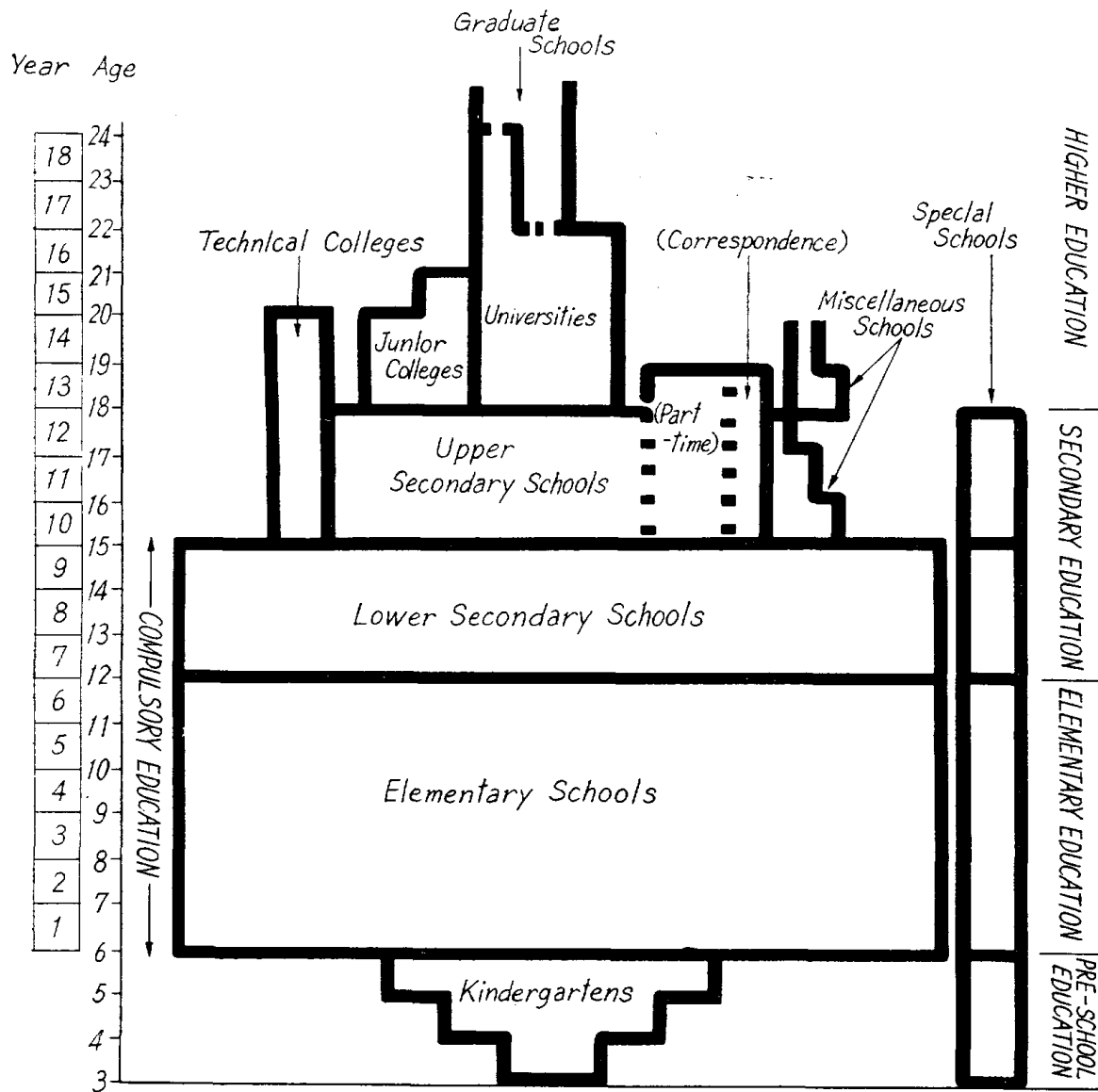
After the Second World War the organization of various Japanese public institutions and systems shifted to a democratic basis. The educational system was also reformed; the "multi-track" system was changed into the "single-track" system which provides equal opportunity for all and prohibits discrimination on account of race, creed, sex, social status, economic position and family origin.

The Constitution establishes basic national policies for education, and the Fundamental Law of Education sets forth in more detail the aims and principles of education in accordance with the spirit of the Constitution. The following laws such as the School Education Law, the Private School Law, the Law Governing Provisional Measures on Publication of Textbooks, etc. expand in more detail the aims as stated in the Law of Education and regulate every aspect of education.

The present Japanese educational system is patterned mainly on the 6-3-3-4 system. Chart 1 shows the framework of the system. Elementary and lower secondary schools provide compulsory education for children from 6 to 15 years of age. Upper secondary schools are not compulsory and only admit those who have passed entrance examinations. The technical colleges are institutions newly established in 1962.

The requirements and standards for curricula are established by the Ministry of Education with the advice of the Curriculum Council. The Council consists of university professors, principals and teachers of schools and teacher consultants of prefectural or municipal Boards of Education. The Course of Study issued by the Ministry outlines the basic framework for all

Chart 1. Organization of the School System in Japan



curricula...the aim of each subject and the aims of teaching the subject at each grade. Legally, each school is expected to organize its own curricula in accordance with the prescribed Course of Study, giving due consideration for local community conditions and to the students' stages of development and experience. But approval by the board of education for curriculum is required. As a result, the curricula in schools throughout Japan are predominantly similar.

Legally, Japanese education is decentralized, but actually it

is controlled by the Ministry of Education through many educational laws.

Published Standardized Tests

At present, 27 publishing companies publish standardized educational tests. Tests published are: 83 intelligence tests, 59 personality tests, 12 vocational guidance tests, and 483 scholastic achievement tests. Among these, there are questionable ones, the content of which or the validity and reliability of which are doubtful. Though standardized, in some of the tests, the selection of the norm groups itself seems to be inadequate for the test to be called standardized. Consequently, tests which could dependably be used as standardized tests might be half of the total number reported above.

The reason why so many standardized tests exist may be that in an original school record form, which is made uniform for elementary, lower and upper secondary schools throughout

Table 1. Number of Intelligence Tests Published in Japan (1967)

| Age Range | 2 yrs. to Adult | 8, 9 yrs. to Adult | 16 yrs. to Adult | Under 9 yrs. | 4 to 15 yrs. | 10 to 12 yrs. | 13 to 18 yrs. | Total |
|-------------------|--------------------|-----------------------|---------------------|-----------------|-----------------|------------------|------------------|-------|
| Individual Tests | | | | | | | | |
| Binet type | 1 | | | 2 | 3 | | | 6 |
| Wechsler type | | 1 | 1 | | 1 | | | 3 |
| Others | 1 | | | 2 | | | | 3 |
| Sub-total | 2 | 1 | 1 | 4 | 4 | | | 12 |
| Group Tests | | | | | | | | |
| Verbal | | 2 | | | | 1 | 2 | 5 |
| Non-verbal | | 7 | | 19 | | 4 | | 30 |
| Verbal+Non-verbal | | 8 | 7 | 6 | | 14 | 13 | 48 |
| Sub-total | | 17 | 7 | 25 | | 19 | 15 | 83 |

Table 2. Number of Personality and Vocational Guidance Tests Published in Japan (1967)

| | |
|---------------------------|----|
| Personality Tests | |
| Inventory methods | 38 |
| Projective methods | 17 |
| Performance methods | 4 |
| Vocational Guidance Tests | |
| Aptitude test | 7 |
| Interest inventory | 5 |

Table 3. Number of Standardized Scholastic Achievement Tests for Elementary School Pupils (1967)

| Subjects \ Year | Newly enrolled | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|----------------|----|----|----|----|----|----|
| Japanese | | 13 | 13 | 12 | 12 | 12 | 12 |
| Arithmetics | | 10 | 10 | 10 | 11 | 11 | 11 |
| Social Study | | 8 | 8 | 8 | 8 | 8 | 8 |
| Science | | 8 | 8 | 8 | 8 | 8 | 8 |
| Others | 2 | | | | | | |

Table 4. Number of Standardized Scholastic Achievement Tests for Lower Secondary School Pupils (1967)

| Subjects \ Year | Newly enrolled | 1 | 2 | 3 | Any year |
|-------------------------------|----------------|----|----|----|----------|
| Japanese | 3 | 10 | 10 | 10 | 2 |
| Social Study | 3 | 7 | 8 | 8 | 6 |
| Mathematics | 3 | 9 | 10 | 10 | 2 |
| Science | 3 | 8 | 9 | 9 | 1 |
| English | | 10 | 11 | 11 | 1 |
| Music | | | 2 | 2 | |
| Health & Physical Ed. | | | 2 | 2 | |
| Industrial Arts or Homemaking | | | 2 | 2 | |
| Fine Arts | | | 2 | 2 | |

Table 5. Number of Standardized Scholastic Achievement Tests for Upper Secondary School Pupils (1967)

| Subjects \ Year | Newly enrolled | 1 | 2 | 3 |
|-----------------|----------------|---|--|---|
| Japanese | 2 | 4 | 4 | 4 |
| English | 2 | 4 | 4 | 5 |
| Mathematics | 2 | Math. I5 Math. II5 | Math. III5 Applied Math. ...1 | |
| Social Studies | 1 | Geography2 Japanese History2 World History2 Ethics-Civics1 Political Science, Economics...1 | | |
| Sciences | 1 | Earth Science.....2 Biology.....3 Chemistry3 Physics.....3 | | |

Japan, there is a column for recording results of standardized tests, and that, though a pupil is not required to take such tests, the teachers are encouraged to use results on intelligence test and other standardized tests for guidance of pupils.

Here, it must be noted as a unique feature in Japan that such tests, their keys and manual are sold on the open market, and anyone can buy them. Therefore, if one knows beforehand that he will be given a mental test or a personality test at screening for admission to school or for employment, he can practice taking the same test or a similar one. Even technical guide books for such preparation are published.

Teacher-made Tests

In Japanese schools, teachers are to evaluate students' progress and give grades at the end of each term. They seldom use standardized scholastic achievement tests, but in most cases make tests by themselves. The grades depend upon the results in such tests. In order to learn what types of tests are used most frequently, the reporter obtained samples of

tests given to students in the period of one year, from the fall of 1965 to the summer of 1966, from the following number of cooperating science teachers. They were twelve elementary school teachers, ten lower secondary teachers, twelve upper secondary teachers and five university teachers. By analyzing these tests, it was found that at university level all of the tests were of essay type except for one professor who used multiple choice type test items in a general education course. At schools below upper secondary, recognition type questions were more frequently asked at the lower grades and recall type and essay type questions were asked more often as the grades progressed. This is seen in Table 6.

Table 6. Types of Teacher-made Questions in Science
(Fall, 1965—Summer, 1966)

| Level Test type | Elementary School | | | Lower Secondary School (%) | Upper Secondary School (%) |
|------------------------------|-------------------|---------------|---------------|-------------------------------------|-------------------------------------|
| | 1—2 (%) | 3—4 (%) | 5—6 (%) | | |
| True-False | 108 (23.7) | 79 (10.7) | 82 (8.2) | 59 (4.7) | 12 (1.1) |
| Multiple-Choice | 242 (53.0) | 327 (44.4) | 394 (39.1) | 341 (27.0) | 226 (21.6) |
| Matching | 26 (5.7) | 51 (6.9) | 104 (10.3) | 198 (15.7) | 95 (9.1) |
| Ordering | 6 (1.3) | 15 (2.0) | 21 (2.1) | 13 (1.0) | 9 (0.9) |
| | 382 (83.7) | 472 (64.0) | 601 (59.7) | 611 (48.4) | 342 (32.7) |
| Simple recall | 54 (11.8) | 126 (17.1) | 238 (23.6) | 367 (29.2) | 334 (31.8) |
| Completion | 11 (2.2) | 82 (11.1) | 80 (8.0) | 148 (11.8) | 214 (20.4) |
| Graph or Pic- ture draw'g | 7 (1.5) | 48 (6.5) | 55 (5.5) | 21 (1.7) | 42 (4.0) |
| Essay | 3 (0.7) | 10 (1.4) | 31 (3.1) | 114 (9.0) | 116 (11.1) |
| | 75 (16.2) | 266 (36.1) | 404 (40.2) | 650 (51.7) | 706 (67.3) |

At lower grades, simple recognitions were tested, whereas more complex types of recognition were tested at higher grades. This may be considered, as will be referred to later, to be due to the influence of entrance examinations. Nevertheless, the reporter feels that it could be said to be influenced to a great extent by the students' stage of development.

Scholastic Achievement Tests for Guidance and Orientation

In Japan, university graduation is considered as a necessary requirement for obtaining a desirable job, and graduation from one of a few "prestige" universities is considered to guarantee one's economic success. Therefore, competition for admission to a university is so keen as to be, all often, actually desperate.

Children and parents think that a person should enter a university to obtain a good job, and that to enter a good university he should go to a good upper secondary school. The fame of a lower secondary school depends on the number of its graduates entering good upper secondary schools and the public ranking of an upper secondary school is largely based on the numbers of its graduates who have entered a name university. Thus, whether they like it or not, teachers have to center their teaching around the preparation of students for the entrance examination. Students have to study for entrance examinations.

Consequently, guidance to students for educational instructions of higher grade becomes one of the important role of teachers. The school record gives only a rough guide as to whether or not a student has the ability to pass the entrance examinations. However, most teachers and students get information for guidance by the results of trial examinations. Trial examinations are simulations of actual screening examinations. The screening test for upper secondary schools is

called "scholastic achievement test," and is constructed by each prefectural Board of Education. Hence, all third year students of lower secondary school in a prefecture take the same examination. University entrance examinations are administered by each university once a year, and the subjects covered in the examinations are not uniform.

Trial tests are given for the purpose of judging and improving students' ability to handle severe comprehensive examinations. These are given a few times in a year and cover such subjects as are required in the screening examinations. They are mostly given by individual schools. Sometimes pupils take trial examinations given by private institutes and publishers which are primarily interested in giving preparatory teaching and guidance to pupils outside the school. Usually, such examinations are given two or three times a year. In some cases, they are given on a national scale. Large number of pupils and students take such examinations. The sponsor of the examination sends to each examinee a report of test scores and the rank in prefecture, in the case of lower secondary school pupils, and that among those intending to apply for a given program of a given university, in case of upper secondary school students. This report is a valuable guidance resource for selecting educational institutions of higher grade.

Though publicly it is often said that such trial examinations are not desirable, in many schools teachers tell all students wishing to go to educational institutions of higher grade to take them, thinking they perform the function of an educational test for guidance. However, when many universities come to use ETRI tests discussed later, such trial examinations will gradually lose their popularity.

Scholastic Achievement Test for Screening

In Japan, screening examinations are done at the time of

entering the upper secondary school and the university. At upper secondary schools, screening is based on the result of examination and grade report from lower secondary school. At most universities, performance on the examination is the sole determiner of the result of screening. Before the Second World War, all the tests asked at screening examinations were of essay type. After the war, it was decided, on the advice of Civil Information and Education Section of the Occupation Army's General Headquarters, to use objective tests at screening examinations. Since then, objective tests have been used.

However, in the last few years, there has been criticism against tests of the recognition type being included among objective tests. The points of argument are: (1) Since there are right answers included in the questions, students could be successful without having correct understanding or knowledge. (2) The test puts undue weight on measuring fragmentary knowledge which is mechanically memorized and fails to measure the ability to recognize relationships between facts, to analyze, to compare, integrate and make judgements, or the ability to think productively and creatively, etc. (3) Such methods of screening set the framework for the pupils' learning habits and motivation for learning. They make efforts to obtain fragmentary knowledge of information, numbers, definitions and the like, but do not try to take a bird's eye view of the contents, to interpret them or to build up their own ideas and opinions. They are not good at doing the latter. (4) As a result, they lack ability to build up their ideas and write a paper. Their ability in composition is low. (5) Evaluation by teachers becomes mechanical. They make tests with little effort, so that there are those who are not clear as to what they measure. Some teachers use published tests instead of making tests by themselves.

In order to solve such problems many persons have come to

believe that so-called "written type tests", to which a student writes an answer himself, should be used instead of choosing an answer. The written type test is a combination of recall-type test of objective-type tests, and essay-type test. The Table 7 shows the types of achievement tests for upper secondary schools in the last ten years. The study is made on tests in science given in ten prefectures.

Table 7. Types of Scholastic Achievement Tests in Science for Upper Secondary School Entrance in Ten Prefectures

| Test Type \ Year | | 1957 | 1966 | 1967 |
|---------------------|--------------------------|-------------|-------------|-------------|
| Answer choice type | True-False | 12 (4.6%) | | |
| | Multiple-choice | 152 (58.0%) | 123 (49.6%) | 90 (40.8%) |
| | Matching | 71 (27.1%) | 33 (17.3%) | 10 (4.6%) |
| | Ordering | 2 (0.8%) | 3 (1.2%) | 3 (1.4%) |
| | | 237 (90.5%) | 169 (68.1%) | 103 (46.8%) |
| Written answer type | Simple recall | 7 (2.7%) | 22 (8.9%) | 33 (15.0%) |
| | Completion | 18 (6.9%) | 45 (18.1%) | 61 (27.8%) |
| | Graph or Picture drawing | | 9 (3.6%) | 9 (4.1%) |
| | Essay | | 3 (1.2%) | 14 (6.4%) |
| | | 25 (9.6%) | 79 (31.8%) | 117 (53.3%) |

The same trend is seen in screening examinations for universities. While until 1966 no essay type test had been given, this year, 1967, some universities gave essay-type tests. Moreover, not a few universities gave all examinations in written type. Since this phenomenon of increased use of written-type test for screening in 1967 was applauded in mass-communications and welcomed by teachers, it is expected to increase further in 1968.

National Survey of Scholastic Achievement

In 1947, a new school system was inaugurated in Japan. The

effects of this new system have been evaluated from various points of view. Particularly heated debates were held among various circles as to whether the scholastic achievement of pupils was rising or declining. To secure data bearing on the problem, various achievement test programs have been conducted by prefecural and municipal boards of education, public or private educational research institutes, educational research institutes attached to universities, etc.

In 1952, a nation-wide survey of the standard of scholastic achievement of elementary and lower secondary school pupils was conducted by the National Institution for Educational Research with the cooperation of the Ministry of Education and local boards of education. The test was given to sampled uppermost grade pupils of elementary and lower secondary schools. A similar testing program was continued in 1953 and 1954.

In 1956, the Ministry of Education planned a new nation-wide survey of scholastic achievement. The aim of the survey was to test and evaluate the extent of progress in scholastic achievement in every subject which pupils studied in terms of educational aims and objectives as stated in the national Course of Study written by the Ministry of Education. The test results were used not only for pedagogic purposes, but also as data for the formulation of national policy in the field of educational administration and for curriculum revision. Two different subjects were tested in a year. Tests were given to about five percent of the total population in the uppermost grade pupils of elementary, lower and upper secondary schools.

The sample survey from 1956 terminated in 1960. From 1961 until 1966, a complete survey was conducted among second and third year pupils of lower secondary schools. This "Nation-wide Survey of Scholastic Achievement of Lower Secondary School Pupils" was the first complete survey that was conducted

annually by the Ministry of Education. The number of pupils tested was about four millions every year. The aims of the survey were the same as the sample survey which I mentioned in the above. By making the complete survey, the Ministry expected that each teacher would obtain information for improving his classroom teaching by comparing the test results of his class with those of other classes, other schools and of the prefecture as a whole.

Scoring of the tests was done by teachers appointed by municipal Boards of Education. The scorers also did the computing and tabulating for the school under their charge. Municipal and prefectural Boards of Education and the Ministry of Education did the computing and tabulating both by subject and by question.

Pupils' individual situations such as economic status, physical and mental handicaps and schools' regional and educational conditions were reported on separate forms by schools. Accordingly, the prefectural Boards of Education and the Ministry of Education made an analysis of the relationship between scholastic achievement and educational conditions. The result of analysis on the national level made by the Ministry of Education has been published every year.

The Ministry of Education intended such scoring and analysis to (1) reveal the actual status of scholastic achievement of pupils, schools or areas, as a basis for improving the curriculum and teaching guidance; (2) identify able pupils who cannot go on to educational institutions of higher grade due to financial difficulties; (3) examine some variable factors of school environment and characteristics so as to determine their relationship to the mean test scores achieved by schools. The selected variable factors for analysis are: (a) type of area, (b) the percentage of pupils of the school to be surveyed who want to go on to advanced schools, (c) the percentage of teachers who

have majored in the subject which they are presently teaching, (d) number of school hours for each subject, (e) school size and class size, (f) amount of contributions and fees per pupil and per class, (g) facilities and equipment for science education.

The Japan Teachers' Union has been making a vigorous opposition against this national survey from its beginning. Their reasons for opposition are: (1) Teachers will be evaluated according to the result of this testing. (2) Differences in levels of scholastic achievement among schools and among different areas are expressed in terms of numbers. (3) As a consequence of (1) and (2), there will be competition for obtaining better scores, the inevitable result of which will be that students will be forced to make preparatory study for this test. Therefore, normal classroom teaching will be disrupted. (4) To impose a test made by the Ministry of Education is the same as to impose a uniform government-made curriculum throughout the country. This means state control of education. (5) Since the testing is nation-wide, the form of test necessarily becomes objective, which is undesirable for pedagogical reasons. (6) As for individual teachers, the test is not profitable for classroom study or guidance.

The opposition was supported by some scholars and mass communication circles. As a result, in November, 1966, the Ministry of Education announced the termination of the test, since necessary data had been obtained for improvement of curriculum by the annual nation-wide survey of scholastic achievement. It was also announced that this test would not thereafter be given annually and that nation-wide testing in Basic Japanese Language and Basic Mathematics would be given every three years to the uppermost grade pupils in primary and lower secondary schools. The first series of national survey of scholastic achievement was thus terminated.

If the reporter may state his opinion, he has some question

as to the attitudes of some scholars, the Teachers' Union, and mass-communication media that agitate the public by saying that the survey is an expression of national control over education without recognizing the great contribution it has made to improve school facilities and equipment, and the curriculum and methods of teaching. It was practically impossible for teachers to use the test results for guidance and teaching, because they could not interpret and analyze test results by the lack of training in evaluation.

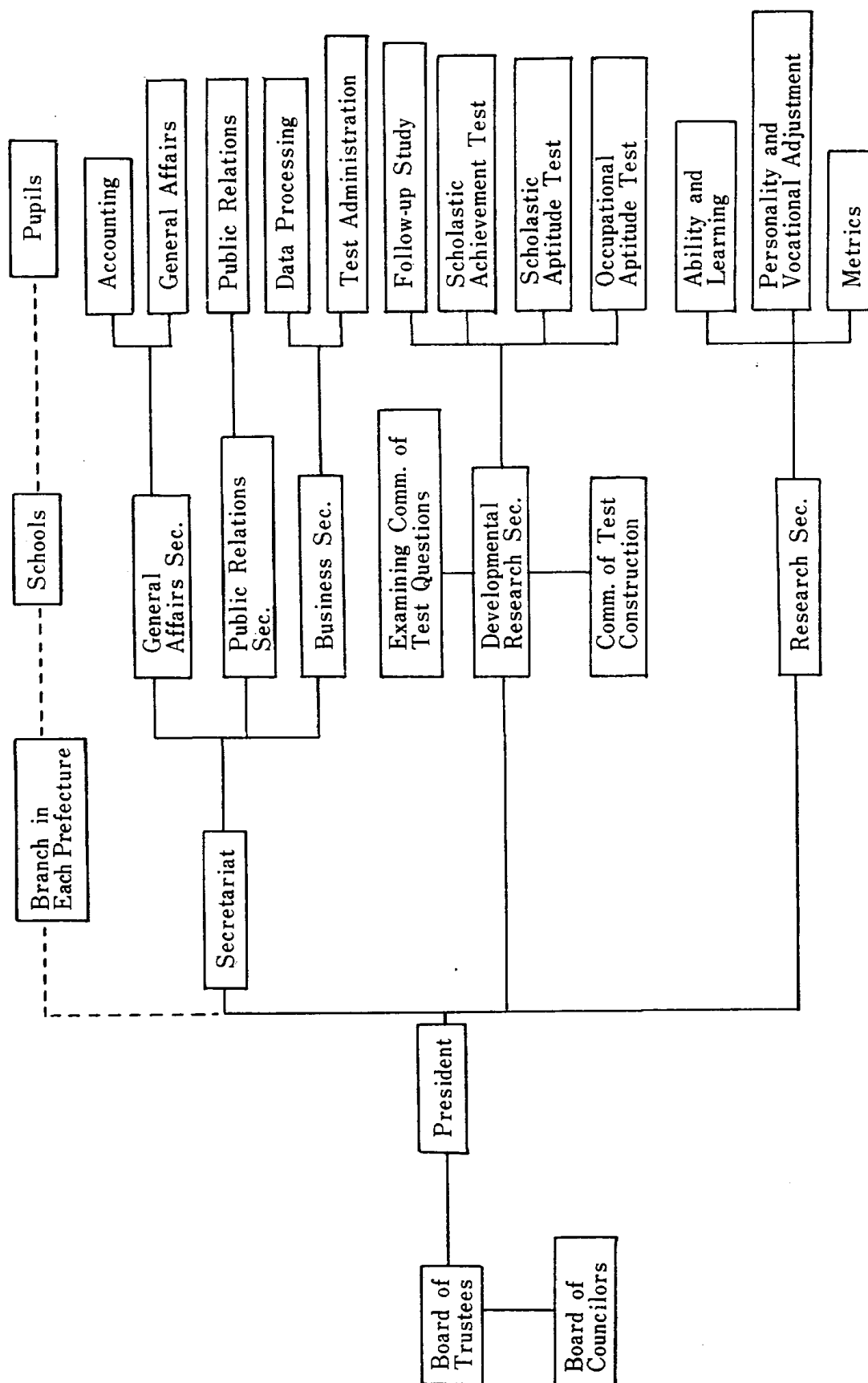
Tests Made by the Educational Test Research Institute

The higher institutions limit the number of students to be admitted each year in spite of the strong desire of the large number aspiring to universities and colleges. Hence, selection for university entrance is a very serious educational and sociological problem in Japan.

In accordance with the recommendation presented by the Central Education Council, an advisory organ to the Minister of Education, the Educational Test Research Institute (ETRI in abbreviation), on which the reporter serves as a research staff member, was established in January, 1963, through the cooperation of upper secondary schools, higher educational institutions, Boards of Education, and the Ministry of Education.

The aims of the Institute are: (1) to study and establish methods of obtaining highly reliable information regarding the scholastic aptitudes and the scholastic achievements of candidates for university entrance, (2) to administer nation-wide objective tests by adopting such methods, (3) to improve the entrance examination system, and (4) to give better guidance for pupils in selecting their future careers. The organization of the Institute is shown in Chart 2.

Chart 2. The Organization of the Educational Test Research Institute*



* Japanese name: 能力開発研究所 (Noryoku Kaihatsu Kenkyūsho)

To realize its aims, the Institute constructs the following five kinds of tests; Scholastic Aptitude Test, Scholastic Achievement Test, Occupational Aptitude Test, National Merit Scholarship Test, Entrance Examination Test for National Technical Colleges. The purposes, grades, subjects of the tests, administrators, and dates to be given are shown in Table 8.

Table 8. ETRI Tests Administered in 1966

| Name | Aim | Subject | Adminis- tered in : |
|---|---|--|------------------------|
| Scholastic Aptitude Test (for second and third years) | *To measure scholastic apti- tude for universities *To contribute to the improve- ment of screening system of university entrants | Verbal reasoning and Non-verbal reasoning | June |
| Occupational (for first and second years) | *To measure occupational aptitudes *To contribute to occupational selection and guidance of jobs | General Aptitude Basic Scholastic Aptitude | June |
| Second year Scholastic Achievement Test | *To measure scholastic achievement in subjects learned at school *To contribute to selection and guidance of future plans | Japanese Language (modern and classical) Mathematics (Math. I) English One can select from 3rd year subjects | Novem- ber |
| Third year Scholastic Achievement Test | *To measure scholastic achievement in subjects learned at school *To contribute to the im- provement of screening sys- tem of university entrants *To contribute to the selection and guidance of future plans of individual pupils | Japanese Language Social Studies (5 subjects) Mathematics (3 subjects) Science (4 subjects) Foreign Languages (English, French, German) | Novem- ber |

The number of pupils who took the ETRI tests are shown in Table 9.

Table 9. Number of Pupils Who Took ETRI Tests

| Year | Scholastic Aptitude | | Scholastic Achievement | | Occupational Aptitude | | |
|------|---------------------|---------|------------------------|-----------------------|-----------------------|---------|--------|
| | 2nd | 3rd | 2nd | 3rd | 1st | 2nd | 3rd |
| 1963 | 198,311 | 124,379 | 198,311 | 124,379 | — | — | — |
| 1964 | 232,453 | 90,424 | 133,727 | 92,912 | 140,100 | 142,301 | — |
| 1965 | 180,957 | 76,175 | 139,101 | 124,967 | 126,961 | 118,880 | 14,009 |
| 1966 | 180,962 | 76,493 | 101,360 ¹⁾ | 121,282 ²⁾ | 237,494 | | |

* Average number of subjects taken by a person:

1) 3.2 2) 4.1

On the average, a pupil takes about four subjects in the Scholastic Achievement Test. This means that more than one million answer cards will be sent back to the ETRI office at once for scoring. The ETRI and the Nippon UNIVAC (Universal Automatic Computer in Japan) have developed a new optical card reader for computer that reads about three hundred and eighty answer cards per minute. All processes for scoring and report making is handled by computers.

As the reporter mentioned in the section of Scholastic Achievement Tests for Screening, many criticisms are raised against objective-type tests. ETRI tests are not exceptions. For the improvement and analysis of tests, ETRI is currently conducting the following studies.

- (1) *Check against Random Guessing*: All ETRI tests are of multiple choice or matching type, so that the whole process of scoring and analysis can be computerized. The objective test forms being not entirely free from chance scores, each test is carefully designed to minimize the probability of guessing the correct answer by increasing the number of alternatives or combinations of possible responses.

A non-chance range of scores is calculated for each

test with the aim that more than 95% of the individual scores will be in the effective range. The checking of chance scores is also explored in relation to item difficulty, intercorrelations and "response biases" in uncertain decision. Several other factors undesirably involved in objective test forms are being studied.

- (2) *Item Analysis*: Dividing the examinees into three groups with respect to their total scores, the upper and lower 27% and the middle groups, item difficulty, discriminative power and factor structures are determined for each group, by which the items and test constructs are evaluated.
- (3) *Structure Analysis*: Whether the response structures properly correspond to the content structures, as intended by test makers, has been examined by the use of factor analysis and other correlational methods. Response patterns are studied by listing the successive pairs of item responses by tracing various groups of individuals who made a correct response to a given item to their responses to other items. The findings are used to improve test items in the light of the mutual dependency among items suggesting to what extent the solution of a given item related to the solution of other items.
- (4) *Study of Norm Groups*: It has been found that there are positive correlations between the test averages of groups of examinees and the sizes of the groups at various testing places. There is a number of small groups of examinees, most of which have been found to be unstable, drifting in number and level of achievement and generally poor in test averages. This study is concerned with the adjustment of those groups in selecting the most appropriate samples of students and schools for norm development. Several pilot surveys are being made to

relate various factors, such as school curricula, proportion of the students entering colleges and so on, with the group achievement. General criteria for establishing a norm group are being examined. A longitudinal systematic survey of groups of examinees under varying conditions is being planned.

In addition to the above studies, ETRI is conducting research in developing personality tests for normal people and in follow-up study of those who took ETRI tests and enrolled in a university. The subjects of this follow-up study are 12,000 in number and are enrolled in 157 departments of 37 universities. Those who became seniors this April (1967) are the group who took the first ETRI tests. Therefore, only interim results have been obtained.

Though Japan's ETRI is a similar organ to ETS (Educational Testing Service) in the United States, the members of the Japan Teachers' Union take its test to be similar to the aforementioned scholastic achievement test by the Ministry of Education, and are making strong opposition and telling the pupils not to take the tests. At a certain ranked university, which had planned to utilize the test as one of the data for screening, actual utilization was hindered by an opposition movement of students who had been agitated by the Teachers' Union, Zengakuren (National Student Association) and some professors and who blockaded the university building and boycotted the classes.

Japanese scholars of educational measurement and intellectuals think it is important to promote this Institute, as it is the only institution for the study and administration of educational testing. It, however, is now facing financial difficulty.

Other Newly Developed Tests in Japan

Most educational tests used in Japan are translated or ad-

adapted versions of foreign tests, and there are very few of her own. The unique tests developed and published in Japan so far are those developed by ETRI and LIS Non-verbal Reasoning Test. The LIS Test has been developed and standardized by Dr. T. Indo and Dr. F. Samejima of Japan, based on the theory of test scores by Dr. F. M. Lord of ETS in the United States. This draws our attention to the fact that to measure reasoning factors the test was constructed according to a mathematical test theory. Methods used to tabulate and process the answers and scores are very unique.

Concluding Words

In the foregoing the reporter has outlined the state of educational testing in Japan. In a word, Japanese educational tests and the users of tests are in the course of development. Many of the problems are caused by lack of understanding of evaluation on the part of teachers. This lack of training of teachers in evaluation is a problem not only in Japan but also in all of Asia. As a conclusion of this report, the reporter will quote one of the recommendations presented by the Committee on Evaluation in School Biology Teaching, of which the reporter was the Chairman, at the First Asian Regional Conference on School Biology held in December, 1966, in Manila.

It states :

"Teachers should be orienteed on the philosophy of evaluation. More specifically, training should be provided on test construction, with particular emphasis on test items which tend to measure not only simple recall, but comprehension, ability and skill of analysis and application of data. Such training should be provided in both pre-service and in-service levels of teacher education."

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