

CHAPTER - II : TEACHER-EFFICIENCY AND ATTEMPTS AT ITS MEASUREMENT

As already said in the previous chapter, like any other profession, the profession of a teacher demands certain physical and temperamental qualities, intellectual gifts, interests and aptitudes. A person with the above characteristics can turn out to be an efficient teacher.

Concept of Teacher-Efficiency

Many activities are involved in a teacher's job. Hence it is very difficult to have an adequate, explicit concept of Teacher-Efficiency. But it is a known fact that all the above characteristics contribute to the efficiency of a teacher. Hence in this work the different qualities needed to be an efficient teacher have been grouped under the following areas, and for the purpose of this inventory, a teacher who possesses all the qualities grouped under these areas is considered as an efficient teacher. The possible areas are :

- (1) Intelligence.
- (2) Knowledge of or scholarship in subject matter.

- (3) Professional skill and interest.
- (4) Ability for class management and administration.
- (5) Acquaintance with the principles of psychology.
- (6) Relationship with others - including the authorities colleagues, pupils and parents.
- (7) Individual qualities.

Out of these items belonging to the first two areas - intelligence and academic achievement or specialised scholarship - have not been specifically included in the present inventory, since it is thought that there are independent and better tools to test these abilities, whose results can be added to the information obtained on the present tool, so as to have an overall total picture of a growing teacher in a better way. The tool under construction aims to locate only and specifically teacher-efficiency.

From the above list of areas making a demand for a teacher's success, it can be seen that teacher-efficiency does not mean the ability of the teacher only in class room teaching. A number of abilities are involved. Much work has been done in teacher-efficiency, but in most cases the teacher-efficiency has been synonymous to teaching-efficiency. A teacher may be able to give a good lesson, but that does not mean that he is a good teacher. A teacher's job is not restricted only to class-room teaching. He is influencing the children in the class-room, in academic affairs, in the physical

social and moral aspects, or in a number of school and out-of-school activities.

The process of education is not merely imparting information. The personality of the teacher as a whole influences the child and whatever the teacher talks or does has a great effect on the personality of the children. Hence teacher-efficiency can better be equated with the aptitude for teachers' work. Aptitude according to Bingham¹ refers to those qualities characterising a person's ways of behaviour which serve to indicate how well he can learn to meet and solve certain specified kinds of problems. Also, it is directed towards a point of forward reference. An efficient teacher will possess qualities characterising a person's ways of behaviour which serve to indicate how well he can learn to meet and solve the problems specified in school condition. Hence teacher-efficiency consists mainly of the professional skill or aptitude.

It is often remarked that a person who has high intelligence, or deep interest in teaching or long experience in teaching line, can be an efficient teacher. But any one of these does not constitute "teacher-efficiency".

¹ Bingham Walter Vandyke : Aptitudes and Aptitude Testing, Harper and Bros. New York, 1937, p 18.

Intelligence and teacher-efficiency

Occupations differ greatly in the difficulty of the problems of adjustment they entail and individuals differ in their ability to make these adjustments, to overcome the difficulties, to solve promptly and correctly the problems that arise. This means that some people can think and act more intelligently than others. Studies have been undertaken to ascertain the minimum intelligence levels for admissions to professional training schools - teaching, nursing, law, medicine, etc. Hence intelligence is an important constituent of teacher-efficiency. But again we cannot say that mere intelligence makes an individual an efficient teacher.

Interest and Teacher-efficiency

Another factor almost as weighty as intelligence in estimating teacher-efficiency is the factor of interest. Unless a person has interest in teaching and in children he can never become a good teacher. A person, who cannot develop a liking for the profession along with proficiency in it, cannot be said to possess teacher-efficiency because he lacks the necessary drive.

Training and teacher-efficiency

Considering the effects of training on teacher-efficiency,

it can be said that training only enables the individual to acquire the efficiency quickly. It helps to make him a better teacher. An efficient teacher proves himself to be good at his work as soon as he takes up the profession. Whether long service has any effect on the efficiency of a teacher has yet to be studied.

Much effort has been made to define teacher-efficiency, to assess it and to list the qualities of good and bad teachers, to find out sufficient criteria for judging teacher-efficiency etc. A brief summary of the work done is given here.

Previous studies

Definition of teacher-efficiency:- Many activities are involved in teaching. In 'the Commonwealth Teacher-Training Study', Charters and Waples¹ developed a 'check-list' of 1010 items. The fact that only 122 items were classified under 'class-room instruction' emphasises that the total job of teaching includes numerous activities not directly related to 'teaching subject matter' and 'teaching pupils to study'.

It is customary to think of the teacher (a) as a director of learning, (b) as a friend and counsellor of pupils, (c) as a member of a group of professional workers

¹ Charters, W.W., Waples Douglas : Commonwealth Teacher-Training Study: University of Chicago Press, 1929, p 666.

and (d) as a citizen participating in various community activities - local, state, national and international. Just, how much emphasis one should place upon the teacher as a worker with pupils, as a co-worker with other members of profession, and as a citizen is not known except in very general terms.

There is no adequate explicit definition of teacher-efficiency, but three approaches are apparent in measurement procedures adopted previously : (a) definitions based upon estimates of traits assumed to function in the teaching act such as drive, considerateness, emotional stability, objectivity, intelligence, and the like; (b) definitions based on appraisals of activities included in teaching such as discovering and defining pupil needs, setting goals, stimulating interest, choosing learning experiences, guiding learning activities, appraising results, and the like; (c) definitions derived from measures of pupil growth.

Criterion of teaching success

A criterion of teaching success is a basis used in judging the quality of teaching. Since teaching success is conditioned by many teacher traits and acquirements, the criterion is necessarily complex. The criterion most frequently used in studies concerned with the pre-service selection of teachers is the judgment of persons in the field,

such as superintendents, principals, departmental supervisors and teaching colleagues. Such judgments may involve the use of rating devices or they may be inferred from data such as increments in salaries, tenure, or promotions. Other criteria include pupil achievement, practice teaching marks, and pupil evaluation of teaching.

Many are of the opinion that the judgment of experts is the best available criterion of teaching success. One of the most careful studies which extensively employed the judgment of experts was conducted by Sandiford¹ and others at the University of Toronto. The number of rating scales constructed suggests a wide-spread faith in their efficiency. These investigators do not believe that the use of rating scales decreases the subjectivity of the judgment.

Pupil achievement would seem to be a justifiable criterion of teaching success. However, its use is accompanied by numerous difficulties. The difficulty most commonly met with is in the confusing nature of the answer to the question 'What achievement' ? Answers are varied and include such items as information and knowledge, attitudes, appreciations and skills. Further difficulties are created by the lack of agreement upon 'what information', 'what knowledge' and so on. At the outset, there is absence of valid and reliable instru-

¹ Sandiford, Peter and others : 'Forecasting Teaching Ability', University of Toronto, Department of Educational Research, Bulletin No. 8, 1937, p 93.

ments for measuring specified achievements. Next, it is held that pupil achievement as ordinarily measured by the existing tools is nearly valueless because it may be merely a measure of the efficiency with which the pupil retained the factual information long enough to pass the tests. Finally, there is lack of compatibility between some of the measuring instruments and the recognised objectives of education and there is rather well-supported suspicion that the pupil's gain in at least information and knowledge is more due to his inherent ability and his habits of study than due to the instruction offered by a teacher. The studies which have employed the pupil-achievement criterion have not produced high correlations between pupil gains as measured by achievement tests and independent evaluation of teachers. A positive correlation apparently exists between pupil achievement and the achievement and ability of the teacher.

The criterion of pupil evaluation of teaching effectiveness has received attention from time to time. In a study of the personality traits of the effective teacher, Witty¹ analysed approximately 12,000 letters of pupils in grades 2-12 and found the four most frequently mentioned factors in describing the teacher who had helped them the most; these were : (i) cooperative democratic attitude, (ii) kindness

¹ Witty, Paul : 'An Analysis of the Personality Traits of the Effective Teacher'. Journal of Educational Research, 40, 1947, pp 662-71.

and consideration for the individual, (iii) patience, and (iv) wide interest.

Much attention is now being focussed upon the determination of a reliable criterion for judging teaching. There are at least two difficulties which hinder this determination in addition to those mentioned in the preceding paragraphs. The first of these is the necessity for judging teaching in terms of a number of recognised objectives of education. This means that any acceptable criterion must recognise adequately each objective. A second difficulty is that the elements which contribute to teaching success in different communities may vary in no small measure because of the dominant values accepted and the environmental conditions operating in the communities.

Factors relating to teaching success

Nearly every factor which, it is thought, may condition success in teaching has been studied, but the investigators have not provided a satisfactory answer to the question. In a large measure this is due to the lack of any valid and reliable criterion of instructional efficiency. In other words it is not possible to identify the factors prior to the determination of a criterion.

The research reported indicates that only four factors are important: intelligence, general scholarship, personality,

and scores earned on professional information and subject matter. The last one is probably a combination of intelligence and scholarship. The correlation between these four factors and teaching success is positive but low.

Teacher's abilities, traits and qualities

The lack of satisfactory means of measuring teaching success limits attempts to identify and define abilities, traits and qualities that contribute to success in teaching. Several types of studies have been reported : (a) studies of 'why teachers fail', (b) compilations of the opinions of pupils, (c) summaries of expert opinion, (d) studies of good and poor teachers, and (e) correlational studies of factors related to teaching success.

(a) Causes of failure

Beginning with the early studies by Litter¹ and Buellesfield², a number of investigators have sought to determine why teachers fail. On the basis of the results of a number of these investigations, the following list of causes of failure among teachers was developed.

-
1. Litter Sherman: "Why Teachers Fail" ? Home and School Education, 33, 1914, p 255.
 2. Buellesfield, Henry: "Causes of Failures among Teachers", Educational Administration and Supervision, 1, 1915, 439-52.

- (1) Lack of control over the technique of teaching.
- (2) Lack of ability to maintain order and discipline.
- (3) Lack of mastery of subject matter.
- (4) Lack of intelligence.
- (5) Lack of effort.
- (6) Lack of initiative.
- (7) Lack of adaptability.
- (8) Lack of commonsense.
- (9) Lack of physical ability.
- (10) Lack of standards of teaching efficiency.
- (11) Lack of ability to carry on.
- (12) Lack of singleness of purpose.
- (13) Lack of sympathetic understanding.
- (14) Lack of social background.
- (15) Lack of knowledge of what pupils can do.
- (16) Lack of adequate personality traits.
- (17) Lack of moral standards.

(b) Pupil opinion

There have been numerous studies^{3,4} of the opinions of pupils relative to the traits desirable for success in teaching.

-
3. Jerisild Arthur, T: "Characteristics of Teachers who are 'liked best' and 'disliked most'. Journal of Experimental Education. IX, 1940, p 139.
 4. Smith, A.A.: "What traits do high school pupils admire in teachers"? High School Journal, XXVIII, 1945.

In a recent study Witty¹ secured letters from some 14,000 pupils in the first contest and 33,000 in the second contest of choosing the teachers who had been helpful to pupils most. The qualities mentioned in his findings are given below :

- (1) Cooperative democratic attitude.
- (2) Kindness and consideration for the individual.
- (3) Patience.
- (4) Wide interests.
- (5) Personal appearance and pleasing manners.
- (6) Fairness and impartiality.
- (7) Sense of humour.
- (8) Good disposition and consistent behaviour.
- (9) Interest in pupils' problems.
- (10) Flexibility.
- (11) Use of recognition and praise.
- (12) Unusual proficiency in teaching.

The frequently mentioned negative traits are :

- (1) Bad tempered and intolerant.
- (2) Unfair and inclined to have favourites.
- (3) Disinclined to help pupils.
- (4) Unreasonable in demands.

1. Witty, P.A.: "Evaluation of studies of the characteristics of the effective teacher". In improving educational research official report A.E.R.A. 1948, pp 198-204.

- (5) Tendency to be gloomy and unfriendly.
- (6) Sarcastic, and inclined to use ridicule.
- (7) Unattractive appearance.
- (8) Impatient and inflexible.
- (9) Tendency to talk excessively.
- (10) Inclined to talk down to pupils.
- (11) Overbearing and conceited.
- (12) Lacking in sense of humour.

(c) Expert opinion

There have been a number of studies¹ summarising the opinions of practical schoolmen and other persons considered competent in regard to the traits having a significant relation to teaching success. One such study was done by Charters and Waples¹ who derived, following a carefully defined procedure, 25 traits considered important in training and judging teachers. Barr and Emans² made an analysis of 209 rating scales to discover the qualities most frequently expected in teachers. Barr³ studied the characteristic differences between good and poor teachers.

(d) Correlation studies

A large number of investigators have sought to identify

-
- 1. Butsch, R.L.C. : "Teacher Rating", Review of Educational Research, 1, 19-107, 149-52, 1931.
 - 2. Barr, A.S. and Emans, L.M. : "What qualities are prerequisite to success in teaching" ? Nations School. 6, 60-64, Sept 1930.
 - 3. Barr, A.S. : "Characteristic Differences in the Teaching Performance of Good and Poor Teachers of the Social Studies" Public School, 1929, 127 p.

qualities essential to teaching success by calculating the correlation between the measures of qualities and measure of teaching success. Barr and others¹ have compiled these studies comprehensively. Variations in the character of population studied, the nature of the measures of the teaching success and other conditions make the interpretation of summaries uncertain. It appears however, that age, years of experience and skill in handwriting approach zero in their correlation with teaching success. On the other hand, several relatively high correlations have been reported for measures of personality traits. Some aspects of teachers or teaching studied were :

I. Personal qualities

(1) Teaching aptitudes, (2) Resourcefulness, (3) Intelligence, (4) Emotional stability, (5) Considerateness, (6) Buoyancy, (7) Objectivity, (8) Drive, (9) Dominance, (10) Attractiveness, (13) Reliability, (14) Personality (general).

II. Competencies (abilities to do)

- (A) As a director of learning.
- (B) As a Counsellor and friend of pupils.
- (C) As member of a profession.
- (D) As member of a community.

III. Effects of teacher leadership

1. Barr, A.S. and others : The Measurement and prediction of teaching efficiency". A summary of investigations, Madison: Dembar Publications, Inc. 1948. p 81.

IV. Behaviour controls

- (A) Knowledge.
- (B) Generalised skills.
- (C) Interests, attitudes and ideals.
- (D) Health.
- (E) Morale.

V. Status factor

Measurement of teacher-efficiency

Though it is a complicated problem to measure teacher-efficiency, its rating has been carried on in one form or another wherever there is a class-room. Usually one or more of the following methods are employed : (1) an evaluation of the changes brought about in students; (2) an appraisal of the teacher's achievement, attitudes and knowledge of educational practices and principles; (3) ratings of the teacher by students; (4) teacher's self-evaluation; and (5) ratings made by supervisors.

(1) Measurement by the changes brought about in students

In its simple form this method consists of administering a series of tests at the end of one year or at the beginning of the second year and following this at the end of second year with the readministering of the same or similar tests. Scores of individual students are then examined and growth

or lack of it noted. However, the measurement of these changes is far more complicated than the administration and readministration of two sets of tests. But even if teacher evaluation were as simple as this, many other problems arise. For example, it is almost impossible to determine who or what is responsible for the growth measured. Some students may learn in spite of the teacher. Some move ahead tremendously on the basis of their reading. Some may progress because of their home environment. Other teachers may be responsible for the changes that come about in the students. Perhaps growth and maturation in themselves contribute to the increment. Hence it becomes almost impossible to say how much of any measured increment in a student's achievement is related to the work of any one teacher.

If the changes brought about in students are to be measured, then it must be decided what changes are important. The desired changes can be worked out in great detail on the basis of the objectives of a given class or school. Again to measure growth in all these objectives over a given period of time is very difficult. Much time and planning is needed. There are no single tests which measure these. Further, consideration of objectives will reveal that most of them are related to future activities in which the student may or may not engage in long after he has graduated from school.

We cannot have real criterion measure for this skill.

(2) Tests to measure teaching ability

There were many tests to measure teaching ability thirty years ago in USA. Now, none of these old batteries is used. Cox's Orleans Prognosis Test¹ of teaching ability is one such test. Currently the National Teachers Examination and its related battery - the Teacher-Education Examination programme - are the ones mostly used. In addition to the test batteries, there are attitude scales towards teaching practices and child development, such as the Minnesota Teacher Attitude Inventory.

National Teachers Examination

At the present time, the outstanding battery concerned with teacher education is the National Teachers' Examination which is designed to measure the professional background, mental ability, and general cultural attainment of teacher candidates. In the bulletin announcing this examination it is stated that these tests do not measure the other significant factors that contribute to teaching effectiveness in dealing with class-room situations.

According to Brownell², the 1958 edition of the National

-
1. The Cox's-Orleans Prognosis Test of Teaching Ability.
World Book Co., Yarkers, N.Y. 1930.
 2. Review ^{by} William A. Brownell, Dean, School of Education,
University of California, Berkeley, California (Fifth Mental
Measurement Year Book, 1959, p 631).

Teachers Examination comprises a total of 12 separate test booklets. The largest of these, entitled common examinations and intended as the name implies 'to measure General Knowledge and ability requisite to effective teaching' at whatever level, consists of five separate tests. The other eleven test booklets, optional examinations, are for use in specialised professional areas.

All tests are completely objective in character. The common examination consists of the following parts :

- (1) Professional Interests (covering educational psychology, child development, educational measurements).
- (2) General culture : (a) History, literature and fine arts; (b) Science and mathematics contemporary developments are included both in (a) and (b).
- (3) English expression.
- (4) Non-verbal reasoning.

The optional examinations consist of nine separate tests :

- (1) Education in the Elementary School.
- (2) Early childhood education.
- (3) Biological Sciences.
- (4) English language and literature.
- (5) Industrial Arts education.
- (6) Mathematics.

- (7) Physical Sciences.
- (8) Social Sciences.
- (9) Physical Education.

Customarily, students and candidates for teaching positions take the common examinations and one or more of the optional examinations. Candidates for elementary school positions take either optional test 'Education in the elementary school ' or X. 'Early childhood Education'.

All answers are of 'the best answer type', five alternatives being furnished in each instance, thus presumably reducing the chances of lucky 'hits'.

Scores on the various parts of the common examinations are scaled, so that comparisons can be made among them for a given student. The scaled scores are furnished to colleges and superintendents upon the candidate's request.

There is evidence, beyond the use of expert opinion in test preparation that the tests are valid. According to one research report they discriminate between good and poor candidates for teaching positions. According to another report candidates with fewer than four years of college work, in general, score lower than do college graduates, who in turn score lower than those with the master's degree. The reliability coefficient for the common examination was

rather low, ranging from 0.80 to 0.90. For the weighted total score however, a coefficient of 0.96 was reported. Reliability coefficient for optional examinations were higher being 0.91 or more.

Validity

The relevance of the battery for selection purposes is based on the judgment of professionally competent individuals. Though the test has been taken by a number of candidates applying for various teaching positions, no follow-up of subsequent teaching performance of these individuals has been reported.

One of the most valuable uses of the N T E at the present time would be for self-appraisal on the part of prospective teachers who are seriously interested in evaluating their competencies in the areas measured.

Possible reasons why the N T E is not more widely used are : Cost, time demand on students, the shortage of teachers, and local and state regulations which prevent making the use of the test obligatory. Brownell concludes that it is possible that there is a more fundamental objection which relates to the limited function that the tests serve.

Derthick¹ points out that the results of N T E used in con-

1. N T E (Educational Testing Service) : Review by Lawrence G. Derstrick - United States Commissioner of Examinations, Washington DC - Fifth Mental Measurement Year Book, 1959.

junction with additional information such as college records, supervised teaching recommendations and faculty evaluations can be a valuable instrument to aid teacher training institutions, school boards, and administrators in appraising teaching ability.

Teacher education examination programme

This is another battery that is available to institutions offering credited programmes in teacher education. This test also consists of two general parts : (a) General Professional Examination - 7 scores:- Foundations of Education, Child development and educational psychology, Guidance and measurement, Instructional methods, English, History, Literature - Fine arts, Science and mathematics. (b) Teaching field tests 11 : Early childhood education, Elementary school education, English language and literature, Social studies, Biological science, Physical science, Mathematics, French, Spanish, Industrial Arts and Physical Education.

Cook¹ describes this T.E.E. programme as 'old wine in new bottles' with the N.T.E. as the 'old wine'.

The scheduling arrangements for the T.E.E.P. were made more feasible than the N.T.E. The cost is also reduced by 45 % per student with the assumption of responsibility for administering the tests by the institutions and the elimi-

1. Teacher Education Examination Programme (Educational Testing Service) Review by W.Cook, Dean of College of Education, University of Minnesota (Fifth Mental Measurement Year Book, 1959).

nation of individual scores reporting services. The reliability of the general professional examinations has not gone above 0.84 and the 4 tests of professional education with reliability coefficients varying from 0.61 to 0.67 are clearly too unreliable for individual score comparisons. The administrative requirements appear to be better satisfied by the new test programme. It is questionable whether the T.E. E.P. scores now available provide any more information than the N.T.E. did for the individual students and the normative data are no better.

Minnesota Teacher Attitude Inventory

This is an instrument that attempts to measure teacher-pupil relationships. This consists of 150 items to which the examinee responds on a five-point scale, varying from 'strongly agree' to 'strongly disagree'. The items were constructed to cover the moral status of children in the opinion of adults; discipline and conduct problems both in and out of the classroom, principles of child development and behaviour, principles of education and the personal reactions of a teacher, his likes, dislikes and sources of irritation. According to Cronbach¹, test development of exceptional quality lies behind this inventory. Publication was preceded by patient and careful research which is well reported in the manual.

1. Review by Lee, L. Cronbach: Professor of Education, Bureau of Research and Service, University of Illinois, Illinois, (Fifth Mental Measurement Year Book, 1959).

The inventory is a device designed to predict which teachers will establish good relations with pupils. From a large trial set, items were chosen which were marked differently by criterion groups of teachers. The item selection and empirical scoring key were checked on several samples.

The central question is whether the inventory is valid for the recommended uses of teacher selection and guidance. The validity of the test as a predictive instrument has not been investigated. The authors have predicted a particular aspect of the teaching job, success in establishing rapport with children rather than a nebulous global criterion. Ratings of this quality by principals, observers and pupils themselves correlate 0.45 to 0.49 with success on the test. When the 3 types of ratings are combined into a more reliable criterion, correlations with test scores in three studies are remarkably good 0.60, 0.60 and 0.43. Split-half reliability is 0.93. This inventory is a promising tool for research on teacher success. At its present stage of development it should be employed only by people trained in research who can validate it for their purposes.

Stanford Educational Aptitude Test

This test provides a comparative measure of one's ability as a teacher, research worker in education and a school administrator. Three types of items are included :

(a) two teaching positions are described in some detail and the examinee is required to check his preference, (b) a discipline case is described and the examinee is required to check the procedure he believes should be followed and the degree of confidence he feels in his choice, (c) a school activity is described and the examinee is required to check the course of action he would follow and his confidence in his choice. Scoring keys are available. The test was validated against a group of 205 men selected on the basis of ratings by 1 to 7 judges. The correlations of test scores and the ratings of the judges for the criterion group was 0.85. The reliability for the entire battery was also 0.85.

Other tests are

(1) Educational Aptitude Test; George Washington Series Entrants to teacher-training institutions 1940 - Thelma Hunt and James Harold Fox. Centre of Psychological Service, George Washington University.

(2) Ohio Teaching Record Anecdotal observation form second revised edition, Ohio State University Press.

(3) Purdue Teachers' Examination : 'How I Teach' is the booklet title, 1942. Ida B. Kelley and Keith J. Perkins Educational Test Bureau, Educational Publishing, Inc.

(4) Teaching aptitude test. George Washington University F.A.Moss. T. Hunt and F.C.Wallace - Centre of Psychological

research.

(5) Aptitude test for elementary school teachers in training - Henry Bowers, J.M. Dent and Sons (Canada Limited) also called A.T.E.S.T. (1946-51).

The test consists of 7 parts as follows : (a) opinion (attitudes towards various social activities), (b) Books (attitude towards the title of six imaginary works), (c) occupations (preference for certain occupations), (d) interest (expressed interest in various activities), (e) an aspect of judgment (judgement of the degree of truth or falsity of several propositions), (f) performance (ratings of various traits in a standardised situation), and (g) High school percentile (a measure of high school performance).

Thus the measures derived from the test include expressions of preferences and judgment in a paper and pencil test, situation ratings and a measure of previous academic achievement.

(6) Barr-Harris Teachers' Performance Record: For teacher rating and in service training, 1943. No norms. A.S. Barr and A.E.Harris. Dembar Publications.

(7) The case of Mickey Murphy : A Case study instrument for evaluating teacher's understanding of child growth and

development. Warren R. Baller - University of Nebraska Press, 1948.

(8) Diagnostic Teacher-rating scale. A scale for rating teachers by children in grades 4-8, 1938. Edited by H.H. Remmers, M. Amatora, Tschechtelin Division of Educational Reference, Purdue University.

(9) Exceptional Teacher-Service Record - Summarisation and evaluation of evidence of superior teaching, 1947.

(10) Graduate Record Examinations Advanced Education Test.

(11) Scale for rating effective Teacher Behaviour - 1947.

(12) Teacher opinionnaire on Democracy. Democratic aspects of teacher philosophy.

(3) Student evaluation of teaching

Several arguments are placed against student evaluation. The most common of these is that students are not in a position to know what is good teaching and that it takes experience and age to evaluate a complex process like teaching. But this cannot be completely true. If there is agreement along a group of students that an instructor possesses this or that undesirable trait, there is some truth in it. What students

feel about a teacher or about a teacher's practice is in itself very important. There is no other individual who is in a better position to rate a teacher than the student. Administrators and supervisors rate a teacher only observing them once in a way. But the students are able to observe the teacher throughout the day in the class-room. Moreover, when an outside person like a supervisor is in the class-room, the situation is quite different from what it is when he is not there. Thus, any ratings these individuals might make are made under atypical conditions. Students may not be experts on educational matters, but their opinions about their teachers cannot be overlooked.

Another charge frequently made against these ratings by students is that it brings unnecessary dissatisfaction among the staff members. Ratings by pupils must be confidential between teacher and class. There is no reason for other teachers to become involved or compared to in a given rating situation.

It is also said that such factors as ability of the student, his achievement, sex of the instructor etc. have an effect upon the type of rating received by the instructors.

Student evaluation of teaching must be confidential. Its sole purpose should be to improve teaching. As the

students do not write their names on the rating sheets, they rate the teachers very well.

Studies of student evaluation

Downie¹ studied 16,000 evaluation forms from students on teachers. From these data, an attempt was made to answer the question of the effect of certain variables upon these ratings. Data were also available as to age, sex, rank, degree held and the number of years of service of the instructor. Ratings of 257 staff members under 40 years of age were compared with those of 169 teachers of age 40 and over. No differences were found. It was also found that there was a tendency for those with higher degrees to get higher ratings on knowledge of subject matter, organisation of the course and stimulating intellectual curiosity. The ratings of 300 male instructors when compared with those of 106 female instructors showed little difference. Bryan² in an earlier study showed no appreciable differences between the ratings of high and low IQ groups. Riley and others summarised a total of about 34,000 individual rating sheets on 384 members of Brooklyn College. From a list of 10 qualities considered important to good teaching each student was asked to note the top 3 for teachers in arts, pure science

1. N.M. Downie - Fundamentals of Measurement Techniques and Practices , p 371.

2. Bryan, R.C. "Pupil Ratings of Secondary School Teachers" School Review, 44: 357-68, 1938.

and social sciences respectively. These 10 qualities were:

(1) Organisation of subject matter; (2) Speaking ability; (3) Ability to explain; (4) Encouragement to thinking; (5) Attitude towards students; (6) Knowledge of subject; (7) Attitude towards subject; (8) Fairness in examination; (9) Tolerance to disagreement; and (10) Personality - the instructor as a human being. Then each student was asked to rate the teacher, he met first, second, third, fourth or fifth in the week's programme. In addition he was free to rate 4 other teachers of his choice. It is interesting to note here that the qualities deemed essential for effective instruction varied considerably depending upon the area of which the course related was a part. The three teaching qualities considered most important to students in arts were, in order, knowledge of subject matter, encouragement of thought, and enthusiasm for subject. In pure sciences, ability to explain, organisation of subject matter and knowledge of subject were listed. Other such studies were also carried out and it is found that the students' ratings are quite reliable and reveal a great deal of very important information.

(4) Teacher self-ratings

Another approach to teacher evaluation is to have the teacher himself complete such a scale as the Minnesota Teacher Attitude Inventory or the Kelley-Perkins "How I teach" scale.

By comparing his responses with those given as most desirable, he will have a good idea as to how he compares with what is considered good teaching. It is a matter of common acceptance among educational psychologists that the best type of evaluation is self-evaluation.

(5) Supervisor's ratings

In the past there existed a number of rating scales and score-cards to be filled out by administrators and supervisors on teachers. Some of these still exist and are used only in few schools. Now it is also known that such ratings have very low reliability because of the lack of information about the ratee by the rater. Some supervisors may know their teachers well because of their supervisory practices. It is found that ratings of student-teachers by their supervisors are apt to be higher both in respect of reliability and validity than principal's ratings of the teachers in his school.

Merit ratings

In some places attempts have been made to base teacher promotions and salary increments on a system of merit ratings. These are systematic evaluations of the teacher and his teaching made at regular intervals by his immediate superiors or supervisors. These appraisals are made by using the usual rating scales and check-lists. It might be summarised that

merit ratings - (1) reveal teacher-inefficiency; (2) stimulate professional growth, and (3) lead to the development of new teaching techniques.

Of all these ratings, student ratings of the teachers and his methods are by far the most practical and fruitful when used by the teacher to gather information to make him a better teacher.

The American Council on Education has taken an active interest in teacher selection and has sought to encourage the use of procedures that may contribute to the identification of good teaching. This committee helps in selection of teachers through advisory service and bulletins on the selection of teachers, arranging conferences and undertaking research on Teacher-Selection. It conducts the National Teacher Examination on a nationwide basis.

Use of the National Teacher Examinations : These are used in school systems primarily as an aid to selection at the time of employment. They are also administered in connection with teacher education programmes both at the undergraduate and graduate levels.

The tests are objective and as the scores of the various parts of the common examinations are scaled, comparisons of teachers are possible. It is also found that they discrimi-

nate between good and poor candidates of teaching positions. Hence the scores along with other High School records are used for selection purposes.

At present there are no tests which can be used to measure teacher-efficiency in our country. Recently, a few attempts in this direction are being made at some Indian Universities to fulfil the regional demands. Some of the American tests can be adopted by translating them into our languages. But even then they cannot be used because those tests are constructed on the basis of American culture suited to American environment. Stanford Educational Aptitude Test is useful only to compare the abilities of a person in the three fields namely teaching, educational research, and educational administration. The Minnesota teacher Attitude Inventory is a tool to measure only the teacher-pupil rapport which of course, is one of the main contributing factors to teacher-efficiency.

Position in Mysore State

In Mysore State there are two common examinations for the under-graduate candidates who wish to take up teaching profession, as primary school teachers. Those who wish to enter the profession undergo teachers' training course for a year or two which depends on their qualification, and take up the common examination conducted by the Department of

Education every year. A broad outline of the courses of studies followed for one year as well as for two years is as follows :

Teachers' training course in the Mysore State

The course contemplates two types of training : One course of one year duration for S.S.L.C. passed candidates and the other of two years duration for non-S.S.L.Cs. These courses are mainly meant for training primary school teachers.

One year course (for S.S.L.Cs) Basic and General :

Group I - Community living.

Group II - Part 'A' Theory (3 papers)

(1) Principles of education and Psychology.

(2) Educational administration and school management.

(3) General and special methods.

Part 'B' Practice Teaching

Group III - Crafts.

Group IV - General English.

Group V - Drawing, music, physical education.

Two years course (for non-S.S.L.Cs) Basic and General :

Group I - Community living.

Group II - Part 'A' Theory (3 papers)

(1) Principles of education and Psychology.

(2) Educational administration and school management.

(3) General and special methods.

Part 'B' Practice Teaching.

Group III - Crafts.

Group IV - 1 year - General subjects (6 papers of each 50 marks).

II year - General subjects (3 papers each of 50 marks).

Group V - Drawing, music, physical education.

Candidates for the one year course should have passed S.S.L.C. Examination or its equivalent. Candidates for the two years course should have passed at least the P.S.C. Examination, M.S. Examination, or Upper Primary Examination, Lower Secondary Examination or completed V Form course, E.S.L.C. Examination or its equivalent examination. Moreover, those who take up Basic Training have to give correlated lessons instead of general lessons.

Untrained teachers who are already in service are deputed to the training institutions and at the end of the training they take the examination. But now fresh graduates seek training to take up teaching profession and selection is made on the basis of their marks-card. But these marks do not indicate in any way the efficiency of the candidates to become teachers. Hence such selection is not helpful. Interviewing is also a common procedure in all the training insti-

tutions. This also is not wholly dependable. Selection of trained candidates for the teaching profession is again made on the basis of marks obtained by them in the examination at the end of the training. Such a method of selection also is not very effective. Hence a tool for selection is absolutely necessary for two purposes : (1) for selecting candidates to teacher training institutions, (2) for selecting candidates for the profession in schools.

Even in this country one or two attempts have been made to construct an aptitude test for teachers. Certain foreign tests of teacher aptitudes were adopted to Indian conditions and were administered to 429 student-teachers in 10 institutions in U.P. and Delhi¹. The investigator reports a very poor response from the teachers. Another attempt² has been made at Baroda to construct and standardise an aptitude test for secondary teachers of Gujarat. This is an English version. Though the importance of such tests have been realised, much work has not been done particularly in regional languages. This may be due to certain administrative and experimental difficulties that the experimenter has to face.

The present investigation aims to undertake the construction and standardisation of ' An Inventory for predict-

-
1. Adavel, S.B. Aptitude for teaching - an experimental investigation - Shiksha (8)2, October 1955, pp 118-131.
 2. Shah, M.M. "Construction and Standardisation of an Aptitude Test for Secondary School Teachers of Gujarat". Ph.D. Dissertation submitted to the M.S. University of Baroda, Baroda, 1961.

ing Teacher-Efficiency' of the primary school teachers, particularly for use in Mysore State. It is constructed in Kannada, for the regional language of Mysore State is Kannada.

Almost the same methodology as in M.T.A.S. was followed in constructing the present inventory. But an attempt has been made to develop a simpler scoring method wherein only positive scores are obtained.

:: :: ::