

TECHNIQUES
FOR THE
DETERMINATION OF TEACHING EFFICIENCY

by

BEVERLEY FRANCIS MASON

A PAPER

submitted to

OREGON STATE COLLEGE

in partial fulfillment of
the requirements for the
degree of

MASTER OF EDUCATION

Plan B

June 1951

APPROVED:

Redacted for privacy

Professor of Education

In Charge of Major

Redacted for privacy

Dean of School of Education and Chairman of School
Graduate Committee

Redacted for privacy

Dean of Graduate School

Date paper is presented 4/14/51

Typed by Clara Young

ACKNOWLEDGEMENT

To Dr. Riley J. Clinton the writer wishes to express his appreciation for the time so constructively spent in channeling the writer's thought on this subject.

Dr. Clinton's clarity of purpose in properly requiring exactitude and professionalism in the form and content of this paper is also appreciated.

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CHAPTER I

INTRODUCTION AND PURPOSE

Statement of the problem. The problem of giving students the greatest possible opportunity for total physical and mental growth has ever been the fundamental educational challenge to all society. The basic truth of this statement is readily seen when one remembers that the hope of a people is in its youth.

Awareness of social need, brotherly love, spiritual inspiration, obedience to the higher law, insight, perseverance, and perspicacity are traits which abound in great teachers. Unfortunately, these matters are largely immeasurable. (40, p.813)

The great teachers were and are too few to serve daily all of those who need education. We, therefore, have to depend on the technically expert teacher to give our children the training and, we hope, the fine moral education which supposedly goes with it. For society to assure itself of these gains, it is necessary to attempt to prove a pattern of characteristics which are common to efficient teaching.

Purpose of this paper. There will be presented a brief history of the rudimental actions which led to the present marked interest in teaching efficiency. Also the recent and current efforts toward determining teaching efficiency will be reviewed. Following this

there will be drawn such conclusions as seem proper.

Comment. This subject has been the lodestone of educational research. It probably has a more enduring challenge to the thought of educators than any other single phase of education. There has been a vast amount of experimentation, writing, lecturing, and discussion on it. Except for the business aspect of education, the whole effort of administration and teachers alike is actually directed toward better educated citizens through the continuing improvement of teaching efficiency. The realization of the vastness of this effort leaves the writer with a deep sense of humility in regard to this problem - a humility which he trusts is properly expressed in the treatment of this paper.

CHAPTER II

REVIEW OF TECHNIQUES

Beginnings. Some of the earliest attempts to promote teaching efficiency are reported by Eby and Arrowood (24:147) as of the sixteenth century in England. The government held bishops responsible for the regular attendance of the schoolmasters at the worship service of the Established Church, for their orthodoxy, and for their loyalty to the government. Seemingly, it was expected that teaching ability and effectiveness were cared for by the previous education of the teacher and maintained by attending the Established Church. Such an assumption today would be generally recognized as false.

The New World was the inspiration for many departures from the established order. Among these was a clearer statement of educational responsibility. This statement was made in the early 1600's and is found (24:166-167) in the charter of the West India Company and bound the company "...to maintain good and fit preachers, schoolmasters, and comforters of the sick." The supervision and management of these schools were in the hands of the deacons of the local churches.

Following this there was, in 1642, a more direct move by the Puritans in New England whereby home and school instruction was inspected. Eby and Arrowood further state (24:179) that:

This inspection was in the hands of ministers and elders. The original purpose of inspection was not concerned so much with the effectiveness of instruction: of chief moment was the desire to check any heretical doctrines which might be imparted to the children. It was, therefore, not so much supervision as censorship.

It seems to the writer that such inspection was truly a rudimental attempt and probably, for the time, an effective means of crudely determining teaching efficiency in terms of the then current educational objectives.

Progress was unhurried for it was in the early eighteenth century, in 1709, that the first citizens' committee was appointed "...to visit and inspect the (school) plant and equipment and to examine pupil achievement." (10, p.3) Later the "function of criticising and advising the teacher was included." (Ibid.) Even in larger schools the principal teachers had no supervisory duties. These duties were, for more than this century, a poorly administered but jealously guarded right and duty of the citizenry and, to a continually decreasing extent, of the church authorities.

The institution of the office of superintendent of schools occurred during the first quarter of the nineteenth century. It was probably an expression of the realization that a growing society demanded an educational specialist. This officer's authority and responsibility grew slowly for the next hundred years. Boards of education retained their powers until the new authority was proven. These powers were then slowly relinquished but only as the increasingly complicated nature of student gain made professional supervision necessary.

The present day professional efforts, though still rudimentary, to determine the nature of teaching efficiency were made possible by the establishment of the office of the superintendent of schools.

The first ventures. Supervision of teaching with its implied purpose of insuring teaching efficiency has, during the procession of administering authorities and their changing objectives, swung from stress on pupil improvement toward the determination and establishment of good teaching characteristics. The fundamentals of visitation and conference have largely remained the same though the purposes and means involved have varied as widely as have the objectives of the changing authorities. Somewhere between the extremes of the means and objectives of the past and present supervisors, will probably be found the factors which will give an index of teaching efficiency.

The attempt to study teaching with the intent of improving its efficiency is a fairly recent effort. Barr, Burton, and Brueckner quote (10, p.4-5) E. C. Elliot as having stated in 1914 that "supervisory control is concerned with what should be taught, when it should be taught, to whom, by whom, how, and to what purpose." They refer to this as one of the very first statements concerning the study of teaching efficiency. Since that time there has been an ever increasing number of trends and their accompanying techniques until the peak of production was reached. This peak occurred in the later 1930's.

The first modern statement in this regard seems to have been made by Burton (15, p.10-12) in 1922. There were fourteen points in the original statement but his 1929 statement reduced them to six. His latter statement was (16, p.6-8) that:

1. Supervision must center upon the improvement of teaching.

2. Supervision must be a clearly defined, definitely organized program.
3. Supervision must distinguish between instruction and administration.
4. Supervision must be scientific.
5. Supervision, while scientific, must be kindly and sympathetic, sensitive to the human factors involved.
6. Supervision must be democratic; a cooperative undertaking of teachers, principals, and supervisors.

Burton's attempt to improve the work of the teacher was a marked advance toward determining efficiency in teaching.

Very elaborate checklists were worked out, according to Rivlin and Schueler (42, p.782). Then pupils were given appropriate standardized tests to check on the subject matter gain achieved by the teacher. The supervisor would then tell the teacher how to improve. Supervisors conducted curriculum investigations, made new courses, selected textbooks, and prepared materials for the teachers. The above authors then state that (*Ibid.*) "supervision was conceived formerly as the inspection by administrators of classroom management as conducted by teachers." That is, in the first two decades of the present century visitation and conference were for the most part matters of undocumented personal interpretation by the supervisor.

In 1927, Arent was instrumental in offering to teachers in the United States a series of prizes "...for the largest and best lists of 'Excellences and Errors in Teaching.'" (3, p.1) This work represented a climax in what had almost become a popular indoor educational game; the practice of making lists of positive and negative factors in regard to teaching. There were 1002 lists received having from 76 to

8770 items on each list. The total number of items was 1,486,250 and the average was 1483 per list. After four years he finally derived 1513 items. He then broadly divided the balance of his book into six sections. These regard the attitude of teachers, the traits of teachers, the teacher's knowledge, the teacher's relationships, the teacher's self traits, and the beginning teacher's mistakes. Aside from this, the book is interesting more for the fact that it culminated a trend which had been overtaken by a more humanized and scientific approach.

The trend toward specifics. According to educational authority (10, p.30), a specific way of doing things of whatever nature is a technique. Efforts toward studying teachers' efficiency prior to the thirties largely had dealt in increasingly grandiose generalities instead of specific factors. While others did not use Aven's section headings, he did a service in stressing the wisdom of dividing the field for more particular and specific study. He was not the first to subdivide this subject however.

Barr, Burton, and Brueckner (10, p.479) conducted

a review of the investigations relating to the qualities essential to success in teaching... From this review of investigations it was seen that many different qualities were essential to success in teaching. Temporarily, these qualities were classified under the following seven major categories: (1) the teacher's personal fitness, (2) the teacher's professional equipment, (3) the teacher's academic preparation and cultural background, (4) the teacher's mental capacity, (5) the teacher's physical equipment, (6) the teacher's emotional balance and adjustment, and (7) the teacher's social ability.

Thus we increasingly see a study of the teacher as related to the

teaching situation. We also see for one of the first times several recognized authorities in agreement on definite areas, knowledge concerning which could be developed through objective investigation.

In 1934, Frank W. Hart, stating (30, p.1) that for more than a decade attention had been given to the likes and dislikes of students and to the doctrine of interest, gave the results of a survey of 10,000 high school seniors. These seniors were located in 66 large and small high schools throughout the United States. They were asked (30, p.2-4) to assess their four years experience with high school teachers in terms of their likes and dislikes and to give reasons for "...liking 'Teacher A' best." They were then asked to "...think of the one you have liked least of all." This was "Teacher Z." If neither "A" nor "Z" were the best teacher the students were asked to tell how the best teacher, "Teacher H," differed from "Teacher A."

Random sampling reduced the number to 3725 student opinions and the stress these seniors put upon the factors of their choosing gives the thoughtful teacher much to consider. Hart says (30, p.279):

As one contemplates this composite picture of "Teacher H" he is again impressed with the keen, searching character analysis of these youngsters. One is also compelled to recognize and regard the high standards they set for us. They again command our respect, admiration, and confidence. We can therefore profit immeasurably by the criticism.

He proposes these three charts as a very objective means of self-analysis and speaks of them (30, p.255) as "...the best self rating card [sic] for teachers ever constructed..."

This is one of the first studies which pointed the way toward the development of objective tools. We thus see the inauguration of

objective means whereby teaching efficiency may be determined.

Subjective means still had the greatest number of exponents and the subjective tools were still increasingly being devised. The trend toward specific, objective, and scientific investigation of teaching efficiency was by this time well established.

The technical tools. As always there are differences of opinion in regard to the methods to be used in accomplishing certain ends. So there were in the late twenties and early thirties those who did not apparently believe in the use of subjective tools in this matter of determining teaching efficiency. For instance Kyte in his book "How to Supervise," devoted but three pages (32, p.150-153) to forms. He mentions two and shows but one. He does show, however, a distribution by frequency of items listed on twenty-five rating devices. He apparently was not much in sympathy with the development or use of the vast number of rating devices of that time. On the other hand there were such writers as Uhl (49) who were seemingly quite taken by the plethora of rating methods. Much of "The Supervision of Secondary Subjects," which he edited, is devoted to techniques and their usage. Today's attitude appears to be expressed by the authors here referred to. In other words those who believe in this method of determining teaching efficiency develop and use or just use these devices. It is well, however, to remember that many sincere educators do not use the techniques which will now be reviewed briefly.

In the early thirties rating scales of teaching efficiency had become so numerous that to choose from them was quite a task itself.

As an indication of the complexity which had developed, a reference is here made to a study made by Barr and Emans (11, p.63-64) wherein they arrive at a common denominator in the analysis of 209 rating scales. The list is here included as it appears in the original article. It will be noticed that the items are not listed in rank order. This makes no difference for the purpose of this paper so no change has been made by the writer.

	Frequency
I. Classroom Management (general)	205
1. Attention to physical conditions	
A. heat	48
B. light	49
C. ventilation	58
2. Housekeeping and appearance of room	173
3. Discipline	160
4. Economy of time	34
5. Records and reports	67
6. Attention to routine matters	72
II. Instructional Skill (general)	371
1. Selection and organization of subject matter	177
2. Definiteness of aim	110
3. Skill in assignment	118
4. Attention to individual needs	70
5. Skill in motivating work	78
6. Skill in questioning	72
7. Skill in directing study	65
8. Skill in stimulating thought	35
9. Daily preparation (lesson planning)	116
10. Skill in presenting subject matter	54
11. Pupil interest and attention	22
12. Pupil participation	38
13. Attitude of pupils	56
14. Results (in one form or another)	305
III. Personal Fitness for Teaching (general)	369
1. Accuracy (carefulness, definiteness, and thoughtfulness)	145
2. Adaptability	64
3. Attitude toward criticism	28

4.	Considerateness (appreciativeness, courtesy, kindness, sympathy, tact, and unselfishness)	145	
5.	Energy and vitality	55	
6.	Enthusiasm (alertness, animation, inspiration, spontaneity)	67	
7.	Fairness (sense of justice)	49	
8.	Forcefulness (courage, decisiveness, firmness, independence, purposefulness)	5	
9.	Good judgment (discretion, foresight, insight, intelligence)	30	
10.	Health	106	
11.	Honesty (integrity, dependability, reliability)	46	
12.	Industry (patience, perseverance)	46	
13.	Leadership (initiative, self-confidence, self-reliance)	131	
14.	Loyalty		sic
15.	Morality	56	
16.	Openmindedness		sic
17.	Optimism (cheerfulness, pleasantness, sense of humor)	54	
18.	Originality (imaginativeness, resourcefulness)	58	
19.	Personal appearance	213	
20.	Posture	5	
21.	Progressiveness (ambition)	15	
22.	Promptness (dispatch, punctuality)	112	
23.	Refinement (conventionality, good taste, modesty, simplicity)		sic
24.	Self-control (calmness, dignity, poise, reserve, sobriety)	83	
25.	Skill in expression	93	
26.	Sociability	52	
27.	Thrift		sic
28.	Understanding of children	23	
29.	Voice (pleasing)	96	

The foregoing three topics were given in detail but the last four had only the topic headings listed. They are:

IV.	Scholarship and Professional Preparation	301
V.	Effort Toward Improvement	98
VI.	Interest in Work, Pupils, Patrons, Subjects Taught, etc.	172
VII.	Ability to cooperate With Others	235

There was a total of two hundred items which appeared five or more times. The authors go on to say (11, p64):

The items found in the rating scales analyzed were, for the most part, highly subjective and undefined... One gets the impression from the data presented that teaching is an exceedingly human task, the social and personal traits surpassing both in frequency and consistency of mention all other traits enumerated in the study.

The fact that but two hundred items from a total of two hundred and nine scales studied were mentioned five or more times would indicate that there is little agreement on even the items to be included in what is admitted generally to be a very subjective means of rating teachers.

Wrightstone, in Monroe's Encyclopedia of Educational Research (35, p.887), divides rating methods, procedures, and devices into three categories: rating scales, rank-order method, and paired-comparison method and comments that the first is the most common. He quotes a study to the effect that of the several rating scales that the graphic type has proven the most popular and most satisfactory. He also lists (35, p.889) "... several advantages of this type of rating scale, such as simplicity and comprehensibility, ease of administration, freedom from direct quantitative terms, and ratings as finely discriminated as the rater chooses."

The Principal's Confidential Report on Probationary Teacher form as used in the Oakland, California, Public School system is here included as an excellent example of the graphic rating scale (38). As will be noted there are here included elements of what will later in this paper be listed as the man-to-man or human scale. The

OAKLAND PUBLIC SCHOOLS
PRINCIPAL'S CONFIDENTIAL REPORT ON PROBATIONARY TEACHER

Teacher	Assignment	School
<p>The principal will rate this teacher, giving confidentially his unbiased professional opinion after carefully comparing teacher with the outstanding teachers whom he knows. This rating will be indicated by placing a check mark at the proper place on each line.</p>		
1. <i>Character</i>	Possesses highest ideals	Possesses low ideals
2. <i>Personality</i>	Winning	Unattractive
3. <i>Disposition</i>	Even, cheerful, pleasant; has fine sense of humor	Erratic, morose, unpleasant
4. <i>Personal Appearance</i>	Neat, clean, and dressed tastefully and becomingly	Careless in personal cleanliness and dress
5. <i>Mental Alertness</i>	Has outstanding initiative and imagination; keenly alert at all times	Passive
6. <i>Health and Physical Vigor</i>	Capacity to carry in a satisfactory manner a maximum teaching load throughout the school year	Can carry only a minimum load; attendance irregular

(OVER)

7. <i>Self-control and Poise</i>	Master of self and meets situations with deliberation and poise	Usually master of self	Loses self-control easily
8. <i>Culture and Refinement</i>	Possesses high type of culture and refinement	Possesses average type of culture and refinement	Crude and uncouth
9. <i>Kindness and Courtesy</i>	Kind and considerate of others	Often considerate of others	Seldom considerate of others
10. <i>Loyalty</i>	Loyal to the best interests of the Oakland Public Schools	Loyal most of the time	Disloyal
11. <i>Judgment</i>	Common sense prevails in all situations	Reasonable degree of common sense shown in most situations	Good judgment seldom in evidence
12. <i>Reliability</i>	Thoroughly dependable	Dependable on most occasions	Not dependable
13. <i>Adaptability</i>	Readily adaptable to new situations	Adaptable to some situations	Not easily adaptable
14. <i>Voice</i>	Exceptionally pleasant and well modulated	Reasonably pleasant and well modulated	Harsh, loud, husky, monotonous, inaudible
15. <i>Personal Peculiarities</i>	Has no peculiarities which are offensive to fellow workers or pupils	Has some minor peculiarities	Has marked peculiarities
16. <i>Attitude of Pupils Toward Teacher</i>	Teacher leadership joyfully recognized	Teacher leadership dependent upon authority	Teacher leadership resented

17. <i>Attitude of Teacher Toward Pupils</i>	Interested in growth and development of each pupil	Interested to a small degree	Not interested
18. <i>Knowledge of Individual Children</i>	Interested in mental, physical, and social conditions of each pupil	Interested in some of the children	Not interested
19. <i>Knowledge of Subject Matter</i>	Thoroughly familiar with subjects taught	Working knowledge of subjects taught	Indefinite and unorganized grasp of subject matter
20. <i>Skill as an Instructor</i>	Skillful in directing the learning of each child	Average skill in guiding learning	Lacking in skill
21. <i>Inspiration</i>	Inspires pupils to maximum development	Inspires pupils to average development	Uses force to get results
22. <i>Pupil Maladjustment</i>	Teacher recognizes evidences of maladjustment and understands how to diagnose the cause and satisfactorily remedy the situation	Ability to recognize causes of maladjustment but inability to remedy the situation	Inability to detect causes or to apply the remedy
23. <i>Class Organization and Management</i>	Carefully evaluates and organizes curriculum offerings. Distributes and collects supplies and equipment efficiently. Renders accurate reports promptly	Has average ability in class organization and management	Lacks ability in class organization and management
24. <i>Growth</i>	Marked professional growth	Average growth	Little growth
25. <i>Cooperation</i>	Willing always to cooperate with fellow workers for the best interest of the school.	Generally willing to cooperate	Will not cooperate

(OVER)

26. <i>Background of Experiences</i>	Makes outstanding contribution to children from former experiences	Moderate contribution	No definite contribution
27. <i>Interest in Important Social, Economic, and Political Problems</i>	Reasonably familiar with the important problems of today	Somewhat familiar	Unfamiliar
28. <i>Teacher as a Contributing Member of the Faculty</i>	A fine attitude toward extra-curricular activities, P.-T. A., and all local school and community organizations	Attitude average	Attitude unsatisfactory
29. <i>Relations With Parents</i>	Knows many parents and secures their cooperation easily	Secures cooperation of some parents	Antagonizes parents
30. <i>Attitude Toward Professional Organizations</i>	Is a member of all leading educational organizations	Member of some	Member of none
Remarks: _____			

Form 38 11-3-31		Date	Signature of Principal

principal is directed to (see scale) compare the teacher with outstanding teachers whom he knows.

Wrightstone goes on (35, p.889) concerning the last two of his three classifications by explaining the rank order method as being a serial order "in accordance with the rater's judgment of the degree to which a stated, or defined, quality is present." As to the paired-comparison method, his comment follows. "Ratings obtained by the paired-comparison method require that each individual, object or attribute be judged in turn as better or worse than every other one in the group." He goes on to state that each object of comparison is then assigned a scale value. These last two categories are seldom used in regard to the study of teaching efficiency.

A much more complete list of tools is given by Barr, Burton, and Brueckner (10, p.379) and is here included:

List of Data-Gathering Devices Ordinarily Used in Studying the Teacher and Methods of Teaching.

- I. Tests
 - A. Growth and achievement tests
 - B. Intelligence Tests
 - C. Tests of teaching aptitude
 - D. Tests of character, personality, etc.
- II. Rating scales
 - A. Point scales
 - B. Quality scales
 - C. Diagnostic scales
 - D. Graphic scales
 - E. Human scales
 - F. Conduct scales
- III. Check-lists
 - A. General subjective check-lists
 - B. Objective items to observe
 - C. Activity check-lists
 1. Qualitative check-lists

GILES RECITATION SCORE CARD

By J. T. GILES

State Supervisor of High Schools
Madison, Wisconsin

Scoring recitation of (Teacher)

School Grade

Rated by Date 19...

DIRECTIONS. Rate each item on a five-point basis as follows:

Far above average = 5 = upper 10 per cent

Above average = 4 = next 20 per cent

Average = 3 = middle 40 per cent

Below average = 2 = next 20 per cent

Far below average = 1 = lowest 10 per cent

		RATING	WEIGHT	WEIGHTED RATING	
A. Arrangement of physical and personal surroundings	a. Lighting.....	()	2	()	
	b. Temperature and humidity.....	()	2	()	
	c. Seating.....	()	1	()	
	d. Working tools.....	()	1	()	
	e. Morale.....	()	2	()	
B. Arrangement of immediate conditions for learning					
	1. Presenting new material	f. Teacher directing and assisting....	()	5	()
		g. Pupils planning and executing....	()	5	()
	2. Working over material previously studied	h. Testing for knowledge or skill.....	()	3	()
		i. Directing practice.....	()	3	()
C. Use of ideas and tools by pupils		j. Fertility of suggestion.....	()	4	()
		k. Organization of ideas.....	()	5	()
		l. Evaluation of materials and methods.....	()	4	()
		m. Accuracy of manipulation.....	()	3	()
D. Use of the English language	n. Grammatical correctness.....	()	4	()	
	o. Convincing speech.....	()	3	()	
	p. Pleasing address.....	()	2	()	
E. Attitudes of teacher and pupils	q. Interest.....	()	4	()	
	r. Open-mindedness.....	()	3	()	
	s. Courtesy.....	()	2	()	
	t. Good will.....	()	2	()	
Sum of Weighted Ratings.....				()	
Total Rating.....				()	

- 2. Quantitative check-lists
- D. Standardized criteria for evaluating efficiency of teaching and expressed in terms of principles of learning and teaching
- IV. Mechanical measuring and recording devices
 - A. Mechanical instruments of measurement
 - B. Recording devices
 - 1. Time-recording devices
 - 2. Frequency-recording devices
 - 3. Sound recording
 - 4. The sound motion picture
- V. Written records of various sorts
 - A. Stenographic reports
 - B. Diary records
 - C. Written samples of the teacher's work
- VI. Interviews
- VII. Questionnaires

Illustrations of much of the foregoing will now be given.

A tremendous amount has been accomplished through investigation of the fields of intelligence testing, personality testing, and educational achievement. These are all well-known areas which are occasionally called upon in the study of teaching efficiency and so no other mention will be made of them here. Teaching aptitude tests and character tests are still in a very rudimentary stage and serve little other purpose than investigation so as to further develop them.

Of the rating scales the first is the point scale. One of the better of these is the "Giles Recitation Score Card" (26) developed during the middle twenties by J. T. Giles and published in 1925. It illustrates the beginning of a return to simplicity for many of this period were quite complicated. There is no effort to evaluate special teaching methods or curriculum material. Giles writes (26, p.1)

JUDGMENT TEST OF TEACHING SKILL

20

By

L. J. BRUECKNER, University of Minnesota

Compulsion Type

Directions: The following teachers of geography came upon the topic of France in their course of study. Each of the nine paragraphs below describes the teaching efforts of one teacher. Study the descriptions carefully. Then assign to each teacher a ranking according to your judgment of her skill with this method. Use the slip at the bottom of the last page for your record.

Teacher A—The class had one more day to complete the study of France.

"Get out your books and begin where we left off." Several pupils who did not seem to know where that point was, wasted most of the study period thumbing through their texts, because they were afraid to disclose this fact to the teacher, and dared not ask a neighbor.

During the recitation which followed, the text book map question list furnished the line of least resistance for the teacher. She attempted to ask the questions in their logical order. Frequently she lost her place, or asked the same question twice, because it was often necessary to stop the lesson to check disorder in the class, which occurred when she was off her guard. Then, to save time, she skipped two pivotal questions around which the subject was organized with the remark, "We haven't time to take that up now."

Not once was the map on the wall referred to by either teacher or pupils. No attempt was made to check the pupils' answers, as she scarcely waited for them to reply until another point was taken up. Hence many inaccuracies crept in.

Several pupils who failed to answer any questions were given no help, and her only comment was, "It's your own fault, you should never have been promoted to this grade anyway."

After many interruptions and outbursts of disorder the work was only partially covered.

The entire class had a don't care attitude, and even the bright pupils gained only a vague and inaccurate notion of far-away France.

Teacher B—The teacher had assigned the subject matter on France, logically, according to the text book, stating emphatically that facts were to be memorized as they were found in their geographies. Cities, rivers, and mountains were to be located on their maps and the list of questions in the book was to be used for drill work.

The next day the questions were asked rapidly and methodically with no explanation by the teacher. Children who timidly raised their hands for help were ignored. The drill and review work were enjoyed by most of the pupils, and although quite well organized, this part of the lesson was hurried through so rapidly that the slower pupils failed to profit by it. They became a source of annoyance until the most persistent of them was dismissed from the room.

During the class period most of the children were interested and alert and were able to give back the main facts of the lesson with a good measure of accuracy. The posture of the children was excellent and the lesson proceeded with snap and precision.

Teacher C—The teacher told the children to take the next two pages, her usual assignment, and be able to answer questions on them.

The teacher was very sarcastic and asked questions chiefly of three good pupils to whom she was partial, or of three or four poor pupils whom she disliked. During the recitation, there was a noticeable lapse of time between questions while she read the paragraph just ahead of the last question to formulate the next. So much

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Minneapolis - Nashville - Philadelphia

time was wasted in scolding an idler in the next class, and in rapping another pupil's fingers for persisting in looking in his book that the drill planned could not be given.

Several pupils scowled as they answered without rising, others leaned against their desks as they mumbled answers in an undertone and dropped back into their seats. She accepted these answers, but gave several who failed completely a penalty of answering five new questions at noon.

Only the brightest pupils knew the assignment well and only about a fourth of the others could answer the most important questions.

Teacher D—"For the next assignment take pages 118-119, and be ready to answer questions 10 to 19, particularly emphasizing 11, 14, 16 and 18. Look up difficult words in the dictionary and refer to the large map of France in the text book in locating places wanted in your reading."

Three or four pupils whose inattention the teacher failed to check were required to get their assignment from their neighbors. No connection was made between the previous lesson and the new assignment.

The teacher deviated occasionally from the logical order due to lack of preparation on her part, thus confusing several of the pupils, and as a result time was wasted in getting back on the track. All questions were stressed alike in spite of the fact that she had asked the pupils to pay particular attention to certain definite ones. No reference was made to the map and dictionary assignment. She stated that answers must be in the exact words of the book, but in four or five instances let inaccuracies slip by. A fair amount of drill was given over part of the work.

She asked questions of most of the pupils, but never worried if she failed to reach three or four of the same pupils each day. Seven or eight of the pupils failed to answer the questions they were asked, and only in two instances did she find out their difficulties. Instead they were marked zero, and some one else was called upon to give the answer. Two pupils were corrected; one for not standing on both feet, the other for leaning on the desk, but no attention was given to incorrect sitting posture of the other children.

At least three-fourths of the class were attentive during the whole period and these learned some answers to most of the questions in the lesson. There was a strong bond of sympathy between the bright pupils and the teacher, but little attention was paid to the lower group, and as a result these pupils came to class reluctantly.

Teacher E—At the beginning of the period the teacher said, "You will find your assignment on page 61. Read paragraphs 1-15 on France. Be able to give the answers to all questions I shall ask on this material in the exact words of the book."

The recitation began with the first pupil in the row answering the first question the teacher called out. She followed with the next in order down the row. Question after question was read directly from the material assigned, and some answers that showed any resemblance to the book statements were accepted as correct.

The teacher had a good deal of difficulty in controlling her class and resorted to threats that were never carried out. In spite of this she succeeded in covering most of the material assigned.

Very little drill was given, but on the whole, about one-half of the pupils learned the answers to some of the questions assigned.

***Teacher F**—The teacher was a rigid disciplinarian. Every child was compelled to keep in perfect order, to sit rigidly in the standard position, to pay absolute attention to everything that was said, and to strive to acquire perfection in all his work.

Every child worked during the study period at his top speed, because the lessons assigned were generally sufficiently long to require it, and the compelling force back of the command made by the teacher to know these important facts served to make every one sit up and concentrate on what he was doing. On the other hand, if the material was difficult, the lessons assigned were short so that it was possible to learn them.

Papers were marked with care, every i not dotted, and every t not crossed being noted and later corrected by the pupil. Answers to questions which were not in the exact language of the book were counted wrong, and there were no supplementary readings or discussions. Any child could ask any formal questions he

*Adapted from a description by S. A. Courtis.

wished about anything he did not understand, but the question had to be asked during the study period, not during the recitation.

The teacher was absolutely fair and impartial, knew every pupil's weakness and success, held herself up to the standards set for the class. Deliberate misbehavior was sure to receive swift and vigorous corporal punishment, failure to learn meant additional drill.

There was much well organized drill and review. Class questioning was vigorous and snappy and enjoyed by the entire class. When the study of France was concluded, the children could answer any question of the continuous list which the teacher had given without hesitation, and with no deviation from the words of the text.

Teacher G—The teacher, after reminding her 6A Geography class that this was their last lesson on the study of France, said, "Complete yesterday's lesson, and begin with paragraph No. 1 on page 63, and finish the chapter."

During the recitation the pupils of the class, who had recited the previous day and knew that they would not be called upon today slouched in their seats and made no attempt to follow the work. The teacher was constantly nagging at the pupils who failed to respond but gave them no help. Because of this a few pupils disliked her and created as many difficulties and disorders as they dared. She meant to be fair in her decisions, but in her carelessness she blamed the children for things which they did not do. The drill given was very ineffective because it met the needs of so few of the pupils.

The results of the work were general ideas about France and a large mass of vague and often inaccurate information.

Teacher H—When the bell had rung and all the pupils had taken their seats, the teacher told them to get their books and begin with the fifteenth question on page 60 and complete the list on the study of France. Answers not found in the textbook could be found in the reference books on the teacher's desk, with the pages marked on the board.

During the recitation which followed, the teacher asked the questions which the pupils had studied, and each child sat in a very good position and eagerly waited to answer when his turn came. The children who proved to be unprepared were kept after school for drill. The map on the wall was referred to whenever needed by the teacher and pupils. After much brisk drill and review on the words of the text the teacher accepted slight variations from the words of the book in the pupil's answers. They were allowed sufficient time to answer one question fully before taking up another. No use was made of the reference material.

There were few disciplinary troubles in the class, for the teacher had very good control over the pupils. Should there be some distraction during the recitation, she would stop the person reciting until the commotion ceased and the attention of every member was concentrated on her. Usually in a few seconds the recitation continued with the same vim and snap as before. At the end of the work on France every pupil who was marked satisfactory had a large mass of almost exact information at his tongue's end and had put in many days of careful study.

Teacher I—The assignment on France, pages 219-222, was next in order of the text book arrangement. Logically arranged questions on the board set the goal to be reached. Maps, reference books, and a globe were mentioned as available for material not found in the text. The answers recorded in a note book for future review were not referred to again.

Any child who did not understand a question was given permission to ask the teacher for help, but two who did seek advice were sharply reprimanded and told to take their seats. While at work a fairly good sitting posture was maintained in the room. During the recitation answers deviated from the words of the text. A few pupils were not called upon to recite, one or two others who were called upon replied, "I didn't get that far." All of the questions were given equal attention in the half-hearted review drill.

Three children were spoken to on several occasions because of inattention.

Three-fourths of the children learned the answers to all of the questions, while others left their work unfinished.

that he attempts to analyze general teaching techniques and that this score card is a "...scheme of self self-analysis sic ..." to be used by a teacher or between a teacher and a supervisor.

Quality scales are well illustrated by Brueckner's "Judgement Test of Teaching Skill, Compulsion Type." (13, p.1) "The basis of each of the four sets of descriptions is one of the four types of teachers defined by Courtis (S. A.)." There were four sets of tests designed, one under each of these teacher types; compulsion, teacher preparation, motivation, and purposing. These were designed to differentiate between the teacher's method of teaching and her skill in utilizing these methods (10, p.453).

The graphic scale has already been illustrated on pages 14 through 17. The human or man-to-man scale is also illustrated in the same place.

For an illustration of the conduct scale, the writer would have preferred to have used another than the one used by Barr, Burton, and Brueckner but Connor's score card seems to be the first one to rate teaching instead of teachers. The above authors state (10, p.455) that:

Connor, a number of years ago, after presenting an analysis of current methods of rating teachers, suggested that teaching and not teachers, be rated and that teaching should be measured in terms of results only.

Burton (15, p.355) makes this comment: "this score card is remarkable also for its reduction of questions involved into terms of pupil activity." Referring to Connor's article (21, p.358) it is

found that he had used several forms of the score card for determining salary increases but later abandoned this phase of the work. In its last form it was divided into numerous subdivisions of seven concrete acts. These were: (1) deportment, (2) ethical self-control, (3) emotional reactions, (4) morale, (5) initiative, (6) knowledge and skill, and (7) thinking.

Connor (ibid.), in criticizing the scheme, comments to the effect that of all the acts listed very few are subject to scientific evaluation. "Consequently, it would be foolish to assert that the most careful observer can detect more than the general trend of habit and attitude formation..." He says that this is a strong point made by teachers.

The writer would have liked to have included Connor's card for illustrative purposes but was unable to get a copy of it.

Check-lists have also proven quite popular and though the majority of them are wholly subjective they have served to channelize the thinking of administrator, supervisor, and teacher alike on the necessity for having a constantly alert and self-critical attitude of willingness to prove or disprove personal qualities, teaching methods, and subject materials.

One of the better of the general subjective check-lists for rating teaching and the teacher was devised by Rose A. Carrigan and is here included. She proposed (18, p.1) to improve teaching "...by means of supervision properly administered." She also specified that this card be used only by properly qualified supervisors. It was

CARRIGAN SCORE CARD FOR RATING TEACHING AND THE TEACHER

By ROSE A. CARRIGAN, M.A.

Principal, Shurtleff Elementary and Intermediate Schools
Boston, Massachusetts

Name of person being rated.....Position.....

School.....Rated by.....Position.....

Date.....19.....City.....State.....

Before using the score card, read it carefully and become familiar with the main headings. Read the "Directions for Making Ratings" on pages 10 to 11 of the Manual of Directions.

Until you know the items in the score card by heart, it will be necessary for you to take it into the classroom and make your judgments while observing the work there. After you have become familiar with the score card, your judgments may be sufficiently accurate if you do not have it before you while making your observations. A teacher may become self-conscious when she is aware that a supervisor is making note of her teaching in order to rate her.

Use a separate score card for each teacher.

The interpretation of scores should be made in terms of the descriptive estimates given on pages 3 and 4. (See the Manual of Directions, page 10.)

	TOTAL SCORE	ESTIMATES
Part I		
Part II		

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PRINTED IN U.S.A.

PART I. TEACHING

A. THE BACKGROUND OR WORKSHOP		250
I. Was the atmosphere of the room conducive to learning?...	110	
1. Were the hygienic conditions, so far as they were within the control of the teacher, at their best, — for example, ventilation, seating of pupils, cleanliness of pupils, etc.?	30	
2. Was the room neat and orderly?	20	
3. Were there attempts to beautify it in any simple, inexpensive way?	15	
4. Were there visible evidences of proper incentives to study, such as:		
(a) display of best work;		
(b) graphs of achievement;		
(c) appropriate rewards for effort;		
(d) material to supply voluntary work to quick pupils, etc.?	25	
5. Were the necessary mechanical tools in good condition and ready at hand for quick distribution?	20	
II. Were there evidences present of sufficient preparation for advance in learning?	140	
1. Was there present a written plan of procedure covering the undertaking of the day, or the week, or the month?	25	
2. Did the plan of procedure show distinction in treatment between study for automatic reaction to a stimulus and study for effective thinking?	25	
3. Did the accumulated plans of procedure evidence in any degree mastery of subject matter and wisdom in handling it?	25	
4. Did the work under way show sufficient progress in the year's work as set forth in the prescribed course of study, and adaptation to the children of the class?...	25	
5. Had the teacher provided or caused the children to provide such material for the day's work as would be likely to arouse enthusiasm in the learning?	40	

B. THE WORK	375
I. Was the subject matter, so far as it was under the control of the teacher, worth while?	50
II. Was the specific aim apparent, definite, and of sufficient worth?	50
III. Was the organization good?	50
IV. Was all the time profitably employed, thus indicating that the teacher had a proper sense of values?	40
V. Did the proportion of individual response in the class prove the teaching successful?	50
VI. Was the work wholly coöperative, or merely a guessing game in which the children tried to find out what answers the teachers wanted?	45
VII. Was there a checking of results?	40
VIII. Was there suggested any vital connection with a future activity?	50
C. THE CHILD	375
I. Did the child have a conscious objective in mind at the beginning of the lesson?	95
II. Was the task set within the power of the individuals, provided they made the effort?	90
III. Was there a satisfactory proportion of individual children who, throughout the entire period, were absorbingly interested in the work and were putting forth effort?	100
IV. Did each child experience the satisfaction of a measure of success, through effort expended?	90
<i>Total number of points</i>	1000

TABLE FOR EXPRESSING TOTAL SCORES AS DESCRIPTIVE ESTIMATES

DESCRIPTIVE ESTIMATES	TOTAL SCORE EQUIVALENTS
Superior	950 to 1000
Excellent	900 to 949
Very Good	850 to 899
Good	750 to 849
Fairly Good	700 to 749
Passable	650 to 699
Poor	600 to 649
Unsatisfactory	500 to 599

PART II. THE TEACHER

I. Is the teacher prompt?	20
1. In attendance at school	10
2. In being at an assigned post of duty	5
3. In sending required reports to the office	5
II. Is the teacher efficient?	20
1. In submitting required reports that are correct in every particular	5
2. In so interesting the pupils of her class that flagrant disciplinary cases referred to the office are rare	10
3. In maintaining observance of adopted regulations at posts of duty assigned outside the classroom	5
III. Is the teacher coöperative?	15
1. By maintaining friendly relations with all school workers ..	5
2. By working for the best interests of the entire school	5
3. By accepting graciously reasonable extra assignments in the school's interests	5
IV. Is the teacher's work in character education as effective as she can make it?	25
1. By giving faithfully her best effort each day in preparing carefully instruction aimed to lead pupils to develop character	15
2. By, so far as is apparent, cultivating in him (her)self all the virtues urged upon the pupils	10
V. Is the teacher's voice in the classroom natural, conversational in tone, human and appealing, rather than harsh, dictatorial, and at times angry?	10
VI. Is the teacher's personal appearance, dress, neatness, etc., a fitting model for pupils to copy?	10
<i>Total</i>	100

TABLE FOR EXPRESSING TOTAL SCORES AS DESCRIPTIVE ESTIMATES

DESCRIPTIVE ESTIMATES	TOTAL SCORE EQUIVALENTS
Superior	95 to 100
Excellent	90 to 94
Very Good	85 to 89
Good	75 to 84
Fairly Good	70 to 74
Passable	65 to 69
Poor	60 to 64
Unsatisfactory	50 to 59

published in 1930 and, as may be seen, is divided into two general fields; that of teaching and that of the teacher. Teaching is further divided into three parts; the background or workshop, the work, and the child. These divisions are simple, logical, and useful from today's viewpoint of cooperative effort between the teacher and supervisor.

An excellent illustration of objective items to observe and also of the activity check-lists is found in Piek's "Objective Analysis and Evaluation of Recitations and Units." In the foreword of his manual he makes his purpose in presenting the list quite clear (39, p.1).

The Check Sheet for the objective analysis and evaluation of recitations and units was originally used by the author at the University of Minnesota in a course in practical supervision, in a course on the technique of instruction, and in the evaluation of student teaching. Its helpfulness as an objective, analytical instrument for detailed recitation study has suggested the desirability of making it available to others who observe and evaluate classroom activities in public schools and in teacher education institutions... The MANUAL covers practically every general feature of a recitation or classroom activity except teacher personality evaluation.

The check sheet covers the following topics; (1) unit of instruction - time factor, (2) unit of instruction - type, (3) organization of the class, (4) leadership of the class, (5) instructional stages included, (6) sources of instructional content used, (7) general types of pupil activity used, (8) criteria of a good class situation, (9) general educational outcomes promoted (information and knowledge, habits and skills, also desirable ideals, appreciations, and attitudes), (10) general educational objectives to which the situation made positive contributions, and (11) educational point of

COLLEGE EFFICIENCY—OF—INSTRUCTION INDEX

By

R. J. CLINTON, Ed. D.

Professor of Education

Oregon State College

Student's No.

Instructor's No.

Last Name		First Name	Initial	Fr.	Soph.	Jr.	Sr.	Gr.
				Circle One				
School Enrolled in				Subject or Field of Greatest Interest				
Name of This Course				Course No.		No. Meetings Per Week		
Instructor's Name				Last Name		Title (as Professor)		

Directions to the Student:

This INDEX is given to you with the direction that you conscientiously answer each question in the light of this course and the instructor handling this course. You are not posing, when doing so, as an expert upon college curriculum construction, college teaching methods and an authority upon outstanding traits of teachers, but you have formulated certain conclusions to which you are asked to give serious consideration.

The instructor has asked that this project be carried on in his classes in the hope that he may be able to profit by the information which will be accumulated from your combined ratings. He is interested in the combined judgement of his classes. Often there is a feeling of restraint between instructors and students and thus students do not feel free to discuss their beliefs with their instructors. Your instructor wishes you to be fair and honest in your expressions, and not be influenced by your standing in the course, whether it be high or low. Frank and accurate statements will be appreciated by your instructor.

Answer each question as you come to it, and try to prevent yourself from being influenced by questions previously answered.

You are to rate the instructor in this particular course and do not allow yourself to be influenced by other courses you have had.

IF YOUR NAME IS PLACED ON THIS INDEX, LET US ASSURE YOU THAT IT WILL BE HELD IN STRICTEST CONFIDENCE.

TURN THE PAGE AND FOLD THE BOOKLET

Note to the Instructor or Director of Instruction:

The four questions below will not be filled out by the students unless you have their names on the title page of the INDEX. If you care to use the information to determine possible influencing factors, it will be necessary to have the students' names and necessary to use a numbering system.

Directions:

Underline and put the number of the response you choose in the parentheses at the right margin.

1. I took this course because it was, 1. required in my curriculum by authority, 2. recommended in my curriculum by authority, 3. recommended to me by a student or students ()
2. I spent on an average on each preparation in this course, 1. no time, 2. one to two hours, 3. three or more hours ()
3. I estimate my grade in this course at present time to be, 1. a grade of A or equivalent (upper 10%), 2. a grade of B or equivalent (next 20%), 3. a grade of C (middle 40%), 4. a grade of D or equivalent (next 20% below the middle), 5. a grade of F or equivalent (lowest 10%) ()
4. I rate this course among the, 1. best courses I have had, 2. average among the courses I have had, 3. poorest among the courses I have had ()

Student's No.

DIRECTIONS: This is a rating blank for instructors. Five columns are provided for checking. Place an X in the proper column. A "D" column is provided so that you may check in that column the questions "you don't know" and those "on which you don't have sufficient information." O indicates absence of trait or practice; 1 indicates very low rating; 3 means average rating; and 5 means very high rating. Ask yourself this question before checking any questions: TO WHAT EXTENT?

Sample:

TO WHAT EXTENT

D O 1 3 5

0. Is the instructor tactful in handling students					X
TO WHAT EXTENT					
1. Does the instructor bring about a natural attitude in the classroom?					
2. Does the instructor make an effort to get acquainted with the students?					
3. Is the instructor always kind and courteous outside of class?					
4. Does the instructor try to prevent pupil embarrassment in classroom work?					
5. Does the instructor treat you in a democratic spirit in the classroom and outside the class?					
6. Does the instructor refrain from making you feel a sense of inferiority in the classroom?					
7. Does the instructor refrain from showing partiality in conducting his class work?					
8. Does he sympathize with, and appreciate your effort in his class?					
9. Is he tolerant with other expressed points-of-view than his own					
10. Does the instructor try to get the students to express their points-of-view?					
11. Does the instructor try to be a good influence in your school life?					
12. Does he recognize poor recitations and try to make them better?					
13. Does he have a good personality and make that personality radiate in class work?					
14. Does the instructor possess a well-controlled temper in class and out?					
15. Is he available and approachable outside of class to aid you in your difficulties?					
16. Is he self-reliant and confident in his classroom behavior?					
17. Does the instructor speak clearly and distinctly enough to be heard well?					
18. Does he prevent his classroom actions from interfering with the classroom work?					

Go on to page 2

TO WHAT EXTENT

44. Does the instructor take time to point out the important things to look for in the assignments?
45. Does the instructor aid in the interpretation of sources and materials of the assignment?
46. Does the instructor make his assignments in such a way as to aid in the study methods?
47. Does he succeed in making his outside readings broad enough to give students a choice of readings in making preparation?
48. Does the instructor see that there are a sufficient number of books in the library before making an assignment?
49. Does the instructor prevent himself or the class from frequently wandering from the point under consideration?
50. Does he avoid giving indefinite answers to students' serious questions?
51. Does he admit weaknesses on certain points instead of taking an assumed authoritative attitude?
52. Does he seem willing to accept contributions on points where his preparation is inadequate?
53. Does he succeed in holding your interest during the class period?
54. Does he stimulate your interest in the course so that you would desire to take additional work?
55. Does he stimulate an interest in the general field with the subject matter of this course?
56. Does he stimulate students to do independent thinking?
57. Does the instructor fire the student with a desire to do more than is required in the course?
58. Does the instructor encourage the asking of critical questions on the subject-matter of the course?
59. Does he encourage self-initiated, spontaneous student participation in discussions?
60. Does he welcome student questions and tolerate interruption for such questions?
61. Does the instructor give you sympathetic assistance on problem work outside of class?
62. Does the instructor use good English in his classroom presentation?
63. Does the textbook seem adequate for this course?
64. Does the instructor seem to refrain from merely "parrot-ing" the text book?
65. Does it seem that the instructor gets a correct proportion of materials from sources aside from the text?
66. Does the instructor employ effective methods in the classroom?
67. Does he succeed in giving part of the class period over to lecture and part to discussion?
68. Does the instructor give an interesting presentation of the work?

[illegible]

TO WHAT EXTENT

	D	O	1	3	5
94. Do you feel that this course contributed to your general education?					
95. Did this course accomplish its specific purpose in your college preparation?					
96. Did this course compare favorably in general improvement with other courses you have had?					
97. Was the course well-balanced between the amount of information learned, skills developed, and ideals acquired?.....					
98. Do you have special interest in this course?					
99. Does the instructor prevent overlapping of this course with other courses?					
100. Does the instructor correlate or relate the subject-matter of this course with life situations?					
Total number of check marks					
Value of each column of cells					
Total value of each column of cells					
Total of all cells					
Number of questions answered					
Possible score on questions answered (5 times No.) ..					
Efficiency index expressed in percentage					

view implied (subject matter centered, teacher centered, child centered, activity centered, any combination). The items were then summarized on an objective chart which was to be the basis for study and conference.

This check-list, published in 1935, was one of the best of its type. It serves well as a starting point for study of the situation to which it is applied.

As an illustration of the standardized criteria for evaluating efficiency of teaching as expressed in terms of principles of learning and teaching, Clinton's "College Efficiency-of-Instruction Index" was chosen. In "The 1940 Mental Measurements Yearbook" by Buros (14, No. 1496) this test is the only one shown which purports to deal directly with the problem of determining the percentage of efficiency shown by an instructor. Of particular interest is the fact that these ratings are from the students in the classes of the instructors so rated. There is provision for anonymity of the students doing the rating. While much of the index is subjective the coefficient of reliability, found by giving it (20, p.2) "...a second time, after an elapse of time, to the same groups of students on the same instructors," was determined to be .94. This would indicate that the Index is consistent in its measurement.

The mechanical measuring and recording devices are yet in a very experimental stage but their use holds much promise in the elimination of subjectiveness. One must remember, however, that there is a possibility of being deceived into believing that even such an

objective device as a sound motion picture medium could record anything but that which may be seen and heard. It will make no direct record of the psychological and spiritual actions and reactions which are the very core of that which is sought.

Written records of various sorts, such as stenographic reports, diary records, and written samples of the teacher's work are all materials which peculiarly well lend themselves to another development in the study of teaching efficiency which will be taken up later in this paper - the cumulative record.

The criteria of change in the pupil. It is recognized that thinking beings are always undergoing changes. Many changes are haphazard and unpredictable but, through education, attempts are being made to bring about, in all members of society, improvements which are, from some standpoint, desirable.

Necessarily the first consideration is to determine what goals are preferable. Even yet there is agreement only generally as to the material which should be presented to pupils. There is wide variance as to specific subject matter and even where there is coincidence of views by authorities there is no general agreement as to how the subjects are to be taught.

If any general concurrence had been so far achieved it would then be necessary to set up criteria which would be reliable, valid, and objective. At present the Accomplishment Quotient, the Educational Quotient, and the Educational Age and some others are little more than idealistic concepts. There are too many variables involved.

If it is planned to use gain scores to determine teaching efficiency then, according to Barr, Burton, and Brueckner (10: p.474) "...all comparison must be made between comparable groups working under comparable conditions, at similar points on the learning curve." Otherwise conclusions are apt to be quite unreliable, invalid, and subjective. They comment further:

Whether or not a sufficient number of such tests can be put together in batteries to produce a valid general evaluation of teaching efficiency remains to be seen. (10, p.471) ...We possess at the present time adequate measures of the major changes produced in pupils. Excellent progress have [sic] been made in the development of tests but in no sense can the measuring instruments now available in this field be said to be adequate (10, p.472) ...The use of test scores for evaluating the efficiency of teachers is an exceedingly delicate process. Although the method is theoretically sound all told, more harm may be done than good, except as the method is applied with great care (10, p.473).

These tests can be of great assistance to the teacher, or to the teacher and supervisor, in making an evaluation of the teacher's work for cooperative improvement. This again points to the cumulative record which will be taken up later.

Russell and Judd (45, p.554) say, "In the American educational system tests of the achievement of pupils are not often used to evaluate the effectiveness of individual teachers. Indeed, it is sometimes contended that inasmuch as teachers do not determine the curriculum and do not select the pupils whom they instruct, they should not be held altogether responsible for the outcome of their efforts." And Barr, in the Encyclopedia of Educational Research (35, p.1281) says, "...the ultimate measure of teacher effectiveness,

particularly in his teacher-pupil relationships, will be found in the changes produced in the pupil under his direction. Hence it seems sound to attempt the evaluation of teaching efficiency on the basis of pupil growth, but a practical procedure has not yet been developed." The same author adds to this, at another time, this comment (4, p.206):

Whatever their (supervisory ratings) value it is quite evident from the data here provided that they measure something quite different from pupil change.

Thus it may again be seen that supervisory people must reorient their thinking and actions.

In a very comprehensive study of teaching ability as related to pupil gain conducted, under Barr's direction, in the 7th and 8th grades of a large number of rural Wisconsin schools, it was hoped (8, p.1) to determine (1) the prerequisites to teaching efficiency in the social studies, (2) "how valid and reliable are certain of the instruments commonly employed in measuring teacher efficiency and its prerequisites....," and (3) "...How do the prerequisites to teaching efficiency, as measured in this investigation, seem to be interrelated?"

These studies were sequential and each subsequent one depended for guidance in purpose and search for findings on the preceeding one. The groups covered were as follows (8, p.2): 24 teachers and 342 pupils, 47 teachers and 338 pupils, and 31 teachers and 181 pupils. There was an additional group of 24 teachers and 191 pupils which were studied for a two year period. This study was conducted in 1936-1938 but was not reported until 1945.

Rostker (44, p.6), in the first study, applied 18 tests to the teachers and 11 to the students and in reporting (44, p.50) stated:

The purpose of this study is to determine the relationship between certain teacher measures and measurable pupil changes.... The results of this study indicate that: ...The intelligence of the teacher is the highest single factor conditioning teaching ability and remains so even when in combination with other teacher measures.

Rostker also found low, though statistically significant, correlations between teaching ability and the following (Ibid.); social attitudes, attitudes toward teaching, knowledge of subject matter, ability to diagnose and correct pupil mental maladjustment, and supervisors' ratings of teachers. "Personality (Ibid.), as here defined and measured, shows no significant relationship to teaching ability." He further states (144, p.51) that the findings of this study place a definite emphasis upon qualities associated with teaching ability due to the fact that the criteria by which judgement was made was pupil change objectively measured.

In the second follow-up study, which was conducted because of the promising results of the first, Rolfe worked in approximately the same learning situation. A total of 8 tests, plus re-tests, were used on the pupils and 30 measures applied to the teachers. The intercorrelations were all computed as well as those of the re-tests of the pupils. It was a very complete study and carefully done. He drew thirteen conclusions which are here briefly presented. He found (43, p.73-74) positive correlations (ranging from .43 to .22) between teaching ability and pupil gain for personality, supervisors' rating scales, social attitudes, size of the school, teacher-pupil relationships, and attitudes towards teachers and the teaching

profession. The following showed little relationship to pupil gain: Bernreuter (Bn) neurotic tendencies, Bernreuter (d) dominance, social adjustment, age and experience, and leadership.

The third of the series of studies was conducted by LaDuke. This study, while relatively short, was quite involved statistically. The purpose was the same as the others in the series: to determine the validity of certain teacher tests and rating scales as measures of teaching efficiency when pupil change is employed as the criterion. The conclusions were of such interest that they are, though somewhat long, quoted here in part.

1. Valid criteria of teaching efficiency based on objectively determined pupil change in different aspects of various subject areas, may be determined only with difficulty. The validity of the criteria will be limited by the validity and reliability of the pupil tests used. As better instruments for measuring pupil change are constructed, including reactions other than those that may be registered through paper and pencil tests, better measurement of teaching may result...
2. Intelligence of teachers as measured by the total score and part scores on the American Council Psychological Examination is significantly related to teaching efficiency as measured here...
3. Professional knowledge of the theory and practice of mental hygiene is positively but not significantly related to teaching efficiency...
4. ...there is a tendency for the efficient teacher to be conservative in her teaching methods.
7. Ratings of teaching efficiency by superintendents and supervising teachers do not agree with the criterion of pupil gain.
8. The use of different rating scales by the same rater on the same teachers results in considerable difference in the teacher ranking (All above 33, p.100).

LaDuke's recommendations were as follows (Ibid.):

The outcomes of this study make the general problem of the measurement of teaching efficiency more challenging than before. The technique of securing pupil change attributable to the teacher has been somewhat clarified and simplified. The principal weakness of the study lay in the fact that pupil change, and therefore teaching efficiency was determined for but a small part of the complete experience of the pupils. (Ibid.)

The reports of the foregoing three studies were made in September of 1945. In December Barr, in presenting his impressions of this work had, in part, this to say (4, p.202):

Theoretically, the criterion of pupil change seems sound. Actually, its use presents many very real difficulties, such as: How is one to know what the goals of teaching and learning should be? How may one measure the outcomes of learning and teaching adequately? And, how may one treat the data to secure reliable results?

There are specific answers so far discovered to this problem of teaching efficiency, but it seems that all of the answers are hedged about with such limiting restrictions in their applications and interpretations that they have little practical use. The compounding of studies has so far brought no broad answers to the main question.

If the foregoing several quotations and studies are fitted together, it may be deduced from them that the ideal way in which teaching efficiency should be determined would be through changes produced in the pupil but that so far no single instrument, nor possibly even a combination of educational instruments, could be used to give an accurate assessive value. These quotations, by discovery of their composite trend seem to imply that a combination of methods could be used

to compile useful information on teaching efficiency but that, due to the practice of having unselected or but crudely selected classes and due to the number of variable factors involved, it would be fallacious to assume that conclusions as to teaching efficiency can be determined with validity or reliability. These conclusions can serve a very important function; however, that of being the basis for cooperative action and decisions by the teacher and the supervising authority. This procedure again points to the wisdom of maintaining some sort of cumulative pertinent-information gathering device.

A Cooperative Supervisor-Teacher Effort. The old "I am the law!" attitude which was implanted in so many supervisory officers was distinctly detrimental to the teacher in her work. Authority (42, p.812-813) speaks of the whimsical, capricious, or invalid rating of teachers as the ... "traditional methods of rating which rested so largely on the superior officer's likes and dislikes, sometimes with respect to traits which are unimportant or irrelevant." Jacobs felt (29, p.86) that the best criterion of teaching efficiency was the personal opinion of the best qualified administrative person intimately associated with the teacher; this, is, or should be, the principal. To this there might be added that this officer should have a comprehensive, factual guide by which the valid areas, wherein judgement must be performed, are clearly, objectively, and mandatorily set forth.

Along this line of thought let us here clarify the mechanics of supervision by recalling the necessity of getting the facts. There

should be (9, p.114-115) (1) ample time allowed, (2) ability to recognize the facts, and (3) accurate analysis of the facts. This comprises diagnostic supervision. Unless there is a justifiable basis for evaluation it should not be done for "...obviously if the criterion is faulty, that which follows is inconsequential. Whether supervisory ratings can be justified remains yet to be determined" (4, p.206). This was Barr's opinion as late as 1945. Some of the dangers of supervisory rating are listed by Rivlin and Schueler (42, p.782) as lying in a very limited concept of what the term "best teacher" means; that they are deceptive in that they are still opinions, or subjective material; that they are incapable of indicating spiritual traits, values, and inspirations. Burton, as early as 1927, pleaded that (16, p349):

Ratings are bad because: (1) They prevent teaching from becoming a profession. (2) They differ with the individuals operating the scheme and therefore cannot be fair. They should not, therefore, determine salary. (3) Rating is open to abuse and unfair discrimination. (4) It forces the teacher to stress what the supervisor wishes and prohibits teaching what the children really need.

These are complaints against abuses but rating schemes may assist the teacher to realize the need for continual growth and improvement. Part of the cure for such abuse lies in insistence on better training and selection of supervisory officers and upon composite ratings arrived at in a cooperative manner. Burton further stresses (16, p353-354) that cooperative formulation of rating schemes used solely for the improvement of teachers in service is good practice and says further

(16, p.362-363) that there might well be self-rating and comparison with the supervisor's rating, that there must be mutual understanding and confidence, that the entire file must be open to inspection by the teacher, and finally that the teacher must have an unchallenged "...right to question and ask for further information on any rating given her." Two other authorities (9, p.486) feel that the principal purpose of a rating scheme should be to stimulate the teacher to an intelligent self-criticism of her work.

There have been two very recent contributions to self-evaluation devices which are rather interesting and which merit brief description.

The first was presented by Horrocks and Schoonover (28, 83-90). These two introduce the subject by speaking of the resistance or reluctance of the teacher to being rated as stemming, in part at least, from a feeling of insecurity regarding performance and more especially from lack of confidence in its ultimate use. It was said further that most members of the teaching profession are interested in self-improvement, that they are quite willing to undergo evaluation providing that it is not punitive and that the results will be used to help them improve professionally. In March 1950 their questionnaire was presented and described. It (27, p.150-166) is designed to assist a teacher to discover his or her own strength and weaknesses in seven areas: (1) teaching satisfactions, (2) relationships with students, (3) professional points of view, (4) community relationships, (5) professional relationships, (6) recreational activities, and (7) physical well-being. There are, varying with each of the seven topics,

a large number of responses which make the instrument a very versatile device for self-appraisal.

The second was the Kauffman self-test which appeared even more recently and also has more than recency to recommend it. It is relatively brief and covers much the same areas that the previous device mentioned does but in simpler form. The test is titled (31, p.286) "How Professional Am I?" and covers six areas with from three to thirteen items in each area. They are: (1) teacher-pupil relationships, (2) teacher-teacher relationships, (3) teacher-administrator relationships, (4) teacher-board of education relationships, (5) teacher-public relationships, and (6) teacher-professional relationships.

These two instruments are merely suggestive of many means for commonality of operating bases for supervisorial-teacher relations aimed at improving teaching. Another aspect regarding such mutuality is propounded in the following (42, p.782):

In recent years there has developed a more democratic and cooperative interpretation of supervision in which the supervisors and teachers work together on problems of learning. Supervisors do not intrude upon the actual work of the classroom but look upon themselves as consultants to be called on by the teacher when aid is needed and as leaders to stimulate self-direction on the part of the teachers through cooperative study groups and individual conferences.

This latter suggestion leads directly into another matter, that of the next logical step; the workshop as a cooperative supervisor-teacher-administrator agency.

In this paper it is not necessary to more than observe the

the phenomena of the development of the workshop and to briefly comment on it. The most terse indication of growth can be gained by counting the number of articles concerning it in the Educational Index (17).

Period	No. articles listed
'35 - '38	0
'38 - '41	31
'41 - '44	126
'44 - '47	122
'47 - '50	136 (May and June not available)

This serves to indicate the manner in which a democratically participating, prestige enhancing, morale building, and self-developmental medium for professional activity will become operative. When there is an opportunity for service-minded people to improve themselves, their teaching, and to pass on to others their own contributions then that is a beginning for democratic professional action in the schools.

Referring again to ratings in order to consolidate this section of the paper, it is found in the writings of a number of authors that ratings of educational personnel are given decreasing importance as single determinants of teaching effectiveness. Cooke comments on this subject thus (42, p.813):

On the whole, any system of teacher ratings is more effective when it is used as a part of a larger program for teacher improvement than when it is used solely as a basis for classifying or grading teachers with respect to their ability.

The evidence continues to increase the realization that there must be wholehearted, progressive, professional, cooperative, and impersonally critical integrity governing the whole interrelationship. When this

inspired procedure is thoroughly operative then a cumulative record of professional progress will be logically inescapable.

A final and relevant thought on this matter of teacher-supervisory relationships is that the Biblical behest, "Judge not lest ye be judged," is extremely pertinent to this whole matter. Too many times have school authorities been sociological charlatans in their treatment of their staffs and have been "judged" in their efforts toward improvement of their schools by having developed, unwittingly, a demoralized, bitter, and distrusting group of teachers.

The cumulative record. A very brief review, for purposes of orientation, of the several methods of teacher appraisal would be proper at this time. The best of several statements of these methods was prepared by Reavis and Cooper in their "Appraisal of Methods of Teacher Evaluation." There is some duplication in the list but it simply serves to emphasize the different uses of the several methods. They are as follows (40, p.78-79):

I. Rating instruments

A. Classified by form

1. Check scale
2. Characterization report
3. Ranking report
4. Guided comment report
5. Descriptive report
6. Man-to-man comparison scale
7. Observation scale
8. Quality scale

B. Classified in terms of the rater

1. Administrator
2. Supervisor
3. Self
4. Pupil
5. Associate teacher

- II. Teacher examination
 - A. Of subject matter and professional knowledge.
 - B. Of personal characteristics (intelligence, leadership, etc.)
- III. Measures of prerequisites to successful teaching
 - A. Preparation
 - B. Experience
 - C. Intelligence
 - D. Health
 - E. Certification
 - F. Scholarship
- IV. Evidence of growth and maintenance of professional competence
 - A. Health
 - 1. Attendance
 - B. In-service-training
- V. Evidences of productivity in pupil results
 - A. Class promotion
 - B. Raw achievement
 - C. Accomplishment quotients and pupil progress indices
 - D. Deviation from normal growth curve
 - E. Attention score
 - F. Memory and reasoning ability
 - G. Marks and interest in later courses
- VI. Other evidences of productivity
 - A. School-wide service
 - B. Community service
- VII. Composite systems - The Cumulative Personal Record.

This list places an entirely different emphasis on rating methods than any other material either quoted or referred to so far in this paper and is a proper introduction to the logical development of this paper. It has been shown many times herein that the single, or even severally combined, instrument does not give either a true or trustworthy report in regard to teacher efficiency. Barr has quite recently said (5, p.225):

More adequate record systems are needed. To learn more about our various programs of action more information is needed about them and their effectiveness. Adequate personnel records are also needed giving precise information relative to the experience record and personal characteristics of individuals preparing to teach or now in service.

Herein he simply verifies the findings of the numerous studies and reports so far referred to in this paper.

Several writers have suggested that, due to the great, amorphous mass of material in this field that the most logical tentative procedure would be to gather as much pertinent material concerning each teacher as would be practically possible. This material would comprise a file and should be cumulative. Its contents should be gathered according to some definite plan and should not be accidental nor incidental but should be the responsibility of some person or agency so advised as to handle the matter properly. The teacher's own contributions should be included in the file.

The most recent large scale plan of studying teacher effectiveness wherein the cumulative record is used is in New York State where, under Governor Dewey's direction and with no opportunity for discussion, the so-called 1947 Teachers' Salary Law was put into effect. Among several provisions of this law there is one which is of particular interest here.

The teacher's cumulative record must contain evidence of the rendering of special services of merit in any one (or in more than one) of the following areas:

- 'a. Exceptional service to pupils....'
- 'b. Exceptional service to the community....'
- 'c. Substantial increase in the value of service rendered to pupils through the teacher's participation in non-school activities,'
- 'd. Substantial increase in the value of service rendered to pupils as a result of education beyond the level of the master's degree....'

(a, b, c, and d above excerpts from Chapter 778, New York Laws of 1947 (47, p.33-37)).

These records are the responsibility of a committee comprised of the administrator or representative and teachers. They are wholly autonomous in choice of criteria by which contributions in these areas are judged. The most often heard criticism regarding this part of the salary increments section of the law are that there is no appeal from the final decisions of the administrator and that he, at no time, has to take the recommendations of the committee as mandatory. At best, the committee is advisory. With all of the faults which have been discovered in the law, it is a definite move in the right direction; that of gathering factual material in certain general and specific areas, for whatever purpose for determining teacher efficiency.

The problem of teaching efficiency. Little order has been brought about concerning the problem of teaching efficiency. There seems to be much confusion as to the aims of the various studies and their results point only toward minute gains. Nelson has stated the problem well in a recent issue of the Journal of Educational Research (37, p.713-714):

Some sporadic attempts have been made to find answers to the first question (What is a good teacher?). One is tempted to say that these attempts have not been very numerous.

Yet in a recent issue of the Journal of Experimental Education, Barr [6] was able to list more than 140 studies bearing on teaching competence. That they have not been more effective in supplying an answer to the questions, seems to be due not only to the admitted elusiveness of the problem but also to the fact that each of the studies has been able to deal with only a segment or a fragment of the answer. We find ourselves in complete agreement with the statement of David Ryans [40] in this issue, that 'until we are able to establish adequate criteria of teaching competency, our whole system of teacher training, appointment, promotion, and tenure fundamentally is on shaky ground.'

Barr becomes more specific when he says (5, p.226): "Teaching efficiency is the product of many things. No one (study) may contribute much but taken together they constitute teaching efficiency." Then the viewpoint of the rater is expressed in the following (10, p.411): "Few persons who have not attempted to make studies of teaching have any appreciation of its complexity and elusiveness." Barr and Burton, however, have made fundamental suggestions on this subject in that (9, p.481) teaching and not teachers be rated, that teaching should be rated in terms of pupil activity, and that pupil activity be judged in relation to that which is desirable for them to do. This is a good basic start in the right direction but teaching is done by teachers and (36, p.74) -"there is no satisfactory, universally accepted definition of the competent, professionally prepared teacher." Still another viewpoint is that of the administrator who, being responsible for the welfare of the students and the effectiveness of his school, must see that teaching is done in a productive manner.

The whole matter of the search for meaning in this subject of teaching efficiency can be expressed by a similitude.

The sole responsibility of fruit pickers is to judiciously pick fruit; so it is the responsibility of raters to judiciously rate. Both are subject to limiting factors; with the fruit picker it is demand for fruit, with the rater it is need for rating certain situations. We are most concerned, or should be, not with these mechanistic matters, for they are such, but with elementary considerations.

The decision must be made as to what should be taught to the individual to promote his greatest growth, to enable him to make his greatest possible contribution to our free society, and to assist him to become the sort of person who can gain the most from that society. When this decision is made we then must call the finest people, intellectually, socially, morally, and spiritually, that our country can produce for teaching. If we do not fulfill this foundational need then we are in the same position as the man who hired his fruit pickers before he even had an orchard.

CHAPTER III

CONCLUSIONS AS TO TECHNIQUES

The objectives of techniques. The basic objective of any evaluation regarding any educational situation is to improve pupil gain. Any other purpose is indefensible. Yet it seems that the welter of detail and minutiae in an administrator's life tend to cause the basic reason for the existence of his school to be dimmed in his thinking. Barr and Burton propose several broad general reasons for securing ratings both for the administrator and supervisor (9, p.499-450):

Administrative

- a. To secure data upon which to base promotion, transfer, or dismissal of teachers.
- b. To secure data upon which to base and operate a merit system of salary increases.
- c. To secure data to show that adequate return is being secured for money spent in teachers' salaries.

Supervisory

- a. To improve the teacher in service.
- b. To stimulate self-analysis, self-criticism, and self-improvement.
- c. To raise professional standards.
- d. To provide supervisors and principals with uniform standards with which to judge teachers, analyze their work, and stimulate improvement.
- e. To provide teachers with a statement of the standards by which they are being judged, toward which they should devote their efforts to improve.

There is nothing to criticize in any of these statements and the inexperienced or incautious person might wonder why these are not more wholly or more generally followed as guides, but the entire recitation of rating attempts so far covered in this paper, the increasingly

cautious statements regarding the use of devices, and even more, the use of the results is enough to make even the most imprudent school officer hesitate in their extensive use.

A somewhat different approach is shown in the classification of objectives of teaching efficiency by Reavis and Cooper. They speak of evaluation solely from the point of its effect upon the teacher. Though they have given much detailed thought to each of the objectives only the topic headings will be here reported. They are (40, p.2-11): for determining tenure, salary schedules, promotions, teacher growth, teacher protection, for reporting, and to assure pupil welfare. Farther on in their monograph they hold that any system of teacher evaluation should (40, p.¹¹⁰~~110~~-120) aim at discovering the teacher's productivity, prestige, and professional maintenance and improvement. Again these are good and represent fundamental thinking. These are the starting points for any administrator in the establishment of an evaluation program.

Finally we ask: What are the objectives of evaluation? The general statements here presented will have to act as guides but the specific objectives will have to be determined by whatever educational unit is planning on a program of evaluation.

Techniques and the principles of education. There are many statements in educational literature concerning principles of education. It is recognized that any good work must be founded upon principle. Therefore the statement of the principles underlying educational aims is vital to any successful program of whatever nature. Techniques,

then, should be deduced from an interpretation of the principles concerned. Barr (7, p.48) has defined principle as "...a verbalized statement of an observed uniformity relative to some class of objects." So at the very beginning there is a confusion in interpretation; Barr speaks of principle as rule or law whereas the definition in terms of theory, conviction, or precept, inferred in the first of this discussion, is possibly more warranted from a philosophical standpoint.

If one should take the Seven Objectives of Education (50, p.11-15) and even an outstanding interpretation of them (19, p. 1-32) one falters in rushing toward their application if reminded of the comment in this regard found in "Supervision" (10, p.432):

The literature of psychology and education contains many principles.... Though principles of this sort should be of real value to supervisors and teachers it is an exceedingly difficult task to get them formulated in terminology that is meaningful and capable of objective interpretations. The fact that a principle is valid does by no means render it either meaningful or objective to those who must use it. In general, as has already been said, the appropriate applications of principles will need to be most carefully defined, if erroneous conclusions are not to be drawn relative to their application.

This does not infer that principles are confusing things but it does teach us caution in their use and formulation.

The same authors point out that the move should be made away from matters which will hinder the best development of the teacher and (10, p.35) "...toward the constant stimulation of the teacher to the understanding of principles and their use in guiding behavior. The

teacher of the future should be a free, ingenious individual..." through "...intelligent use of principles." Misner points to a serious matter in this regard, though, in these terms (34, p.58-60):

Some rather serious injustices have been inflicted upon teachers in this area of personnel management. Conventional rating schemes have been totally inadequate. They have been used in a highly subjective and unscientific manner. Intentionally or unintentionally the use of these conventional rating schemes has tended to encourage conformity and submissiveness and to penalize creativeness and aggressiveness among teachers..."

So it is realized that great care must be exercised to see that supervision, necessary though it is, must never enclose in any manner but guide teachers and, if certain techniques do harmfully circumscribe the teacher, then these same techniques must be abandoned or modified.

As evidence is gathered a structure slowly and logically assumes its inherent form. Principle is unchangeable but equitable interpretations are mutable, or properly variable, according to the timely or local need. This need, intelligently construed, will indicate to the supervised technician the proper devices and the manner in which they should be used.

Democracy in action. Barr, Burton, and Brueckner in their book, "Supervision" (10), again and again stress the need for the practice of democratic principles in all phases of educational work. It is certainly self-evident that an increasingly cooperative spirit, instead of the many times hypercritical one so often evident, is essential between the community, the administrator, and the teachers.

The fact that a continually increasing number of school systems (42, p.782) use teachers in curriculum studies, interclass visitation, construction and applying rating scales of teaching effectiveness, and inauguration of workshops for in-service education is an indication that teachers have the opportunity to act more democratically than ever before.

These specific activities will have no meaning if the basic principles are not cognized. John Dewey has said (23, p.301-302), "The most specific thing that educators can first do is something general." Thus the first thing to do in regard to this section on democracy is to determine generally its relationship to education. The Harvard Committee has given some excellent comments on this subject in the report, "General Education in a Free Society." They are worth serious thought.

General education, we repeat, must consciously aim at these abilities: at effective thinking, communication, the making of relevant judgements, and the discrimination of values. (41, p.73)

It is important to realize that the ideal of a free society involves a two-fold value, the value of society, and the value of freedom. Democracy is a community of free men. (41, p.76)

Education must look to the whole man. It has been wisely said that education aims at the good man, the good citizen, and the useful man. (41, p.74)

These are fundamental matters to consider when coming to decisions regarding, not only evaluation in education, but all phases of educational effort.

Decisions in education may be made on the basis of tradition, whim, or personal interest,

or on the basis of something more intelligent. The yearbook committee believes that there are three fundamental sources to guide teachers in making educational decisions. These three sources are:

Democratic values to which America is committed.

Realities of the physical and political world, which highlight the needs of individuals and groups in our society.

Facts of learning and growth, which also highlight human needs and point to effective ways of meeting them. (2, p.1).

The next step would be for the faculty involved to draw from the foregoing such conclusions as suit the local need but (1, p.129) "adequate preparation involves research. Before any school revises its work the faculty should study the community the school serves and the needs of youth in that community." Aikin (*Ibid.*) also says that the faculty should re-examine, clarify, and interpret the democratic tradition and make applications to the school. The logical development from this is shown by the same author in the following (1, p.130):

Experience has taught...that no school is ready to advance until teachers have a sure sense of security in adventure. They are safe in following tradition; they must be sure that they will be equally secure in departing from tradition. Only then can they maintain their personal and professional integrity and grow into the fullness of their stature as teachers and personalities.

This is further indication of the necessity for full cooperation between all who are concerned with the schools; not only cooperation but confidence, mutual and self respect, and integrity.

With, and only with, the foregoing as a foundation is a faculty ready to commence to establish any program of evaluation for (48, p.368):

...evaluation, to achieve its purpose, must be so conducted that confidence in the results is built up and readiness to change is fostered. Participation, making evaluation a genuine group enterprise, is one effective means of assuring that results will be put to good use.

Thus it is shown that successful and meaningful evaluation can have only a democratic basis and not an authoritarian one. Having determined this matter it would now be in order to turn to authority to ascertain (1) the professional needs of teachers, and (2) the qualities of a good teacher.

The professional needs of teachers are well stated in the recent publication of the Council of State Governments, "The Forty-eight State School Systems." Even though the list was stated as referring to the needs of teachers of young children, the statement is so factual that it is here presented (22, p.67-68):

1. An understanding of human nature and child development that requires grounding in such sciences as biology and psychology.
2. An insight into social institutions based on the knowledge of sociological principles, with emphasis on family and community living.
3. An understanding and appreciation of our free institutions founded on a knowledge of history.
4. An appreciation of our cultural heritage and of the best being produced today in literature, music, and art.

5. An understanding of the role of science and technology in man's continuing conquest of nature.
6. A knowledge of the best procedures and of difficulties encountered in learning to read, use numbers, and express ideas through speech, writing, and otherwise.
7. A mastery of the skills of working with children so as to motivate their best efforts and develop their highest abilities.

A present day concept of the qualities of a good teacher were brought out as the result of 1948 meeting at Bowling Green, Ohio, of the National Commission on Teacher Education and Professional Standards of the National Education Association. This list, prepared under the direction of Peik, states that a good teacher should (25, p.37-38):

1. Possess human qualities - love of children, sympathetic understanding for all, fairness, patience, humor, and a sense of justice.
2. have emotional stability and adjustment.
3. Possess outstanding native ability together with adequate professional training (five years suggested as a minimum) and should like to teach.
4. Be intellectually alert and curious.
5. Having pleasing personality and appearance - enthusiasm, vigor, vitality, poise, and charm.
6. Be able to develop love for the democratic way of life and be a full participating member of the democratic society.
7. Have the ability to think critically and objectively.

8. Have a healthy physical and mental outlook on life, with well-rounded interests.
9. Keep up to date with modern educational trends and philosophies and participate in professional affairs.
10. Understand the importance of developing world citizenship and better human relationships.

There will be no attempt here to add the foregoing provocative quotations and get a sum, a mean, or even a totally new answer. They represent both tools and materials through which a democratically productive educational program can be instituted; one wherein evaluation will be solidly founded and from which the logical answers can be fearlessly and profitably applied.

Much of the foregoing can be summed up very briefly by the following requirements of those who would teach:

Integrity

This above all: to thine own self be true,
and it must follow, as the night the day,
Thou canst not then be false to any man.
(52, p.739)

Spirituality

Where there is no vision the people perish;
but he that keepeth the law, happy is he.
Prov. 29:18 (12)

Motivation

-Henceforth educated people must labor.
Otherwise education itself becomes a
positive and intolerable evil. No nation
can sustain in idleness more than a small
percentage of its numbers. The great
majority must labor at something product-
ive. From these premises the problem
springs, 'How can labor and education be

the most satisfactorily combined?"

Abraham Lincoln (50, p.80-81)

Techniques are transitory devices which are tools for ascertaining the degree of attainment toward principles. As such many types should be developed, used, and abandoned in favor of the newer developments which follow the clearer vision.

CHAPTER IV

SUMMARY AND PROPOSALS

Summary: This section is not intended to list the devices used today. They are too numerous. Also it has been shown the choice of instruments must be made according to the peculiar needs in each situation. Therefore a very brief list of the general methods used in attempting the determination of teaching efficiency will be here shown. They are:

1. Rating instruments
2. Teacher examinations
3. Measures of prerequisites to successful teaching
4. Evidences of growth and maintenance of professional competence
5. Evidences of productivity in pupil results
6. Other evidences of productivity
7. Composite or cumulative record systems
(40, p.79)

As has been shown repeatedly no single device or even combination of devices has thorough reliability or validity in this area. It has also been shown that there is general agreement that the criteria of pupil gain is the most justifiable of all so far proposed. It is therefore reasonable to expect that each of the foregoing fields of inquiry may yield some pertinent evidence but that the evidences of productivity in pupil results are most important of all.

These evidences indicate the logic of their accumulation and the cumulative record is a necessary development. Several writers, not here identified, have written directly or in a casual manner concerning

the amount of value to be given the results of the efforts toward determining teaching efficiency. Their general thought was that professional decisions concerning individual teachers should not be weighted more than ten to twenty-five per cent by the results of rating instruments. There seemed to be a general acceptance of the necessity for gathering all possible evidence concerning a teacher before a higher percentage of weighting could be given justifiably.

Proposals. From that which has gone before the following proposals may be deduced that: (1) negativism is regressive; therefore much can be gained through cultivation, by any legitimate means, of each teacher's evidenced positive qualities, (2) democratic, intelligent efforts toward increasing pupil gain will, by that very dynamism, bring positive results, (3) much ineffective teaching is caused by obscurity of educational purposes and the solution must be found in clarification of (a) principles, and (b) long and short term goals, and (4) a cumulative record be kept.

This cumulative record would ideally contain as much objective, unbiased evidence as would yield the optimum value. It should contain evidence as to (1) productivity relating to pupil gain, service to pupils, the profession, and the community, (2) prestige in the profession, with pupils, and in the community, and (3) professional maintenance and improvement through professional academic work, reading, and experimentation.

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