

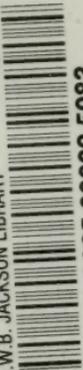
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SELF-HELP IN TEACHING



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SELF-HELP IN TEACHING

A Study of the Teacher-Learner
Partnership

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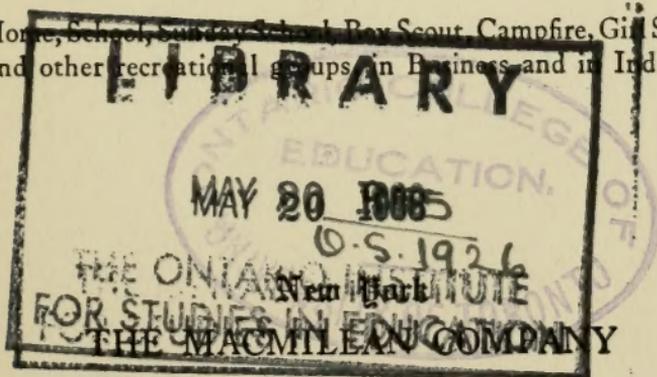
College Standards in

the U. S., etc.

FOR ALL WHO TEACH

IN

Home, School, Sunday School, Boy Scout, Campfire, Girl Scout
and other recreational groups, in Business and in Industry



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CHAPTER I

GENERAL NATURE OF MENTAL LIFE

1. Five Avenues for Reaching Others
2. Meaning
3. Attention—"Mind-Set"
4. Attention Given
5. Self-Activity

SELF HELP IN TEACHING

I

GENERAL NATURE OF MENTAL LIFE

Five Avenues For Reaching Others

ALL teaching is conditioned upon one individual being able to communicate with another. There are just five avenues through which one human personality may communicate with or influence another—sight, hearing, feeling, smell, and taste. An outside happening can influence an individual only through one or more of these five sets of nerve endings at the surface of the body. Light with its ether waves affects the retina of the eye; sound with its waves in the air or other media affects the hair cells of the inner ear; pressure, heat, and cold affect the corresponding nerve endings in the skin or muscles of the entire body; small particles of the object sensed make actual contact with the olfactory nerve endings in the nose; and similar contacts with the taste bulbs in the mouth. Our consciousness of things, therefore, results from little nervous currents (somewhat analogous to electricity) which flow from these five entrances on into the brain, recording themselves both there and en route. A teacher can

teach history or first aid or ethics only through the impression such nervous currents make on the boy as a result of stimulating his eyes, ears, nose, mouth, or skin. Nothing is more challenging in all the range of God's wonders than the ability to communicate ideas, meanings, desires, purposes, through interpreting these physical signs. While most of us do it and never think of it, to the thoughtful teacher the enormity and basic character of the problem will appeal with growing force.

Meaning

All these sense experiences come to have "meaning" to one. The smell of food reminds one of previous taste, hunger satisfaction, etc., etc. The sight or name of a friend calls up the whole complex of what he means to us. These meanings which we gradually acquire, we can signal through words or gestures to another, hoping that he will "get" the exact idea that we have. The day of sign language is by no means past. We are simply using mouth and ear signs more and perhaps hand and eye signs less than did primitive man. The essential problem remains the same. An idea is something essentially personal and private. Its nature is such that some sign is necessary to convey it to another. This, however, is exceedingly difficult as among average people the same word does not have exactly the same content or meaning. Differences often arise, because we are not thinking of just the same things or meanings. Among carefully educated people even, the same word involves vitally different content, *i. e.*, "blood-poisoning" means

something vitally different to two people—one having looked it up in the dictionary and another having had it. So at the very outset we must recognize the enormity of the problem of communicating with another personality. With a widened gap of years as between an adult and a child, the differences in meaning of even the common things of life make understanding or teaching very, very difficult.

Attention—"Mind-Set"

Mental life is fundamentally a sequence of responses to these outside knockings at the five windows of the soul. The nature of the nervous system is such that every experience which enters registers its influence, registers it chemically in the nerve cells and in the resistance at their branched end contacts. Every individual has (or is) a bundle of potential capacities and hereditary tendencies awaiting awakening, awaiting the chance for expression which shall build some of these tendencies into habits firmly set upon him—yet his life is largely made up of responses to outside stimuli which tend to either evoke or repress these natural tendencies. Just what will interest or attract a boy is at once the product of his hereditary tendencies, of the experiences and meanings he has already undergone and accumulated, plus the immediate setting or way it is presented. There therefore exists in the mind of any individual at any time a very definite "mind-set" for receiving certain things or against receiving certain others. This is quite analogous to a wireless receiving instrument adjusted so as to be "ready," receptive, awaiting a certain wave length message. This

"mind-set," this readiness to give attention to certain outside stimuli may be due to several causes.

1. Hereditary tendencies of which we may or may not be conscious.
2. Favorable or unfavorable experiences which we have had with the things in question.
3. The very sequence of events, as well as fatigue, or hunger, or disease, or sex may encourage or repress a stimulus, may cause one to be interested or not.
4. Attention may be deliberate, due to actual willing of the individual. Though this is fundamentally connected with 1 and 2, it may, under a strong emotional drive or urge, be something much more.

Attention Given

It should be kept clearly in mind that this "giving attention" is fundamentally personal. Attention is given by the individual himself. We, of course, may and must do things to "secure" his attention, but in the final analysis HE GIVES. Of course rewards and satisfactions of various kinds may and must be attached to attending to the things we want him to attend to—and, often dissatisfactions must be artificially coupled up with the competing things to handicap them. The former, the positive rewards, however, are the stronger. The more remote the material or activity is from the child's mind-set of the moment, the greater must therefore be the rewards, or the emotional urge to be created which shall motivate the child to give attention. Sight

should not, however, be lost of the fact, that action, activities, happenings, "things going on" in which he may participate may easily overcome the inertia of the child's lukewarm interest and actually pull him into "the game." Here, of course, may and should enter the alchemy of a teacher's skill and method.

Self-Activity

The mental life of the individual is a mosaic of self-activity—things he does, things he sees, things he experiences, things he wants, and the way these affect him.

We observe what he does but can only conjecture as to what he thinks—his mental life is his own. The central aim then of educational effort is to elicit or provoke or cause certain relatively permanent and desired types of response and self-activity in the individual.

CHAPTER II

**FUNDAMENTALS OF THE TEACHING
PROCESS**

- 1. The Teacher-Learner Partnership**
- 2. Class Groups and the Individual**
- 3. Discipline in Teaching**
- 4. Multiple Appeal**
- 5. Expression**
- 6. Morale**
- 7. The Social Inheritance**
- 8. The Five Elements**

II

FUNDAMENTALS OF THE TEACHING PROCESS

The Teacher-Learner Partnership

THE teaching process, on which old educational theory laid almost exclusive stress, is but one aspect of a partnership project. Teaching is one side—learning is the other. Teaching sends a message—but little has happened, however, unless that message (or part of it) has been received. If the Learner meets difficulty, the Teacher must know this and must help the Learner to help himself.

Teacher activity, then, is only significant as it stimulates or aids or leads to Learner activity. The consciousness of partnership and the spirit of co-operation must be actively present on both sides of the teacher-learner project. One of the large tasks of the teacher is to establish and maintain this relationship in which the teacher is the Senior partner.

Class Groups and the Individual

While class or mass groups are the common units of teaching, it is necessary to keep in mind that learning is a purely personal, private, and individual reaction. The group may provide competition, stimulus, or suggestion—but the individual has to

do the learning if any be done. Even if we attempt "forced feeding," still he must digest his own food.

The Laws of Individual differences show the class group to be a significant problem. Within an average-sized class group made up in the usual random way, there is present a wide range of vital differences in ability.

In most groups these differences tend to follow the general laws of variation—a few exceptionally strong individuals—a few exceptionally weak individuals—with the majority of the group distributed more or less evenly about a central tendency between these extremes. These facts make it all the more imperative that the effective teacher carefully heed the individual character of the learning process and to the greatest possible extent make the individual the teaching unit.

Discipline in Teaching

Artificial discipline has ceased to be a factor in good modern teaching. Keep a boy busy—provide things for him to do—appeal to his interests—give him something of personal companionship and in most cases the need for special control measures disappears.

Giving more active boys responsibility and providing them an opportunity to participate in real things will generally transform a "problem-boy" into a most valuable helper.

A class session unplanned in advance, without variety and interest, and moving slowly, invites boys to do other things—and some of them generally will.

However, when a teacher has permitted a situa-

tion to get beyond this indirect form of control, he should assert himself sharply but good naturedly—and thereafter keep order by keeping the group doing things. Gymnastic drills and marching tactics can often restore discipline, if ably done.

The teacher, however, must be of sufficiently strong personality to direct things without recourse to authority. Invoking it is a confession that it's gone. Boys and girls have a wholesome respect for a teacher on whom they can "put nothing over."

The teacher, however, must be fair, often very patient and good natured, but firm and never lose his temper in a "pinch."

Multiple Appeal

One fundamental of teaching anything to anyone is to appeal to him through as many channels as possible. If a boy reads something—one set of brain cells is involved; if he hears it, another set is involved; if he handles or uses the object, another set is involved; if he writes it, he involves the arm-hand muscle areas and he also sees it; if he speaks it, he involves yet another motor area and also hears it.

Sound instruction either of another, or one's self, involves the use of as many as possible of these ways in order to fix what is learned so that it will be retained.

Expression

Teaching is not a process of filling an empty or partly filled container with facts or figures.

It is, rather, a process of awakening, interesting,

helping the individual to get started and to do certain things.

Since its purpose is to elicit and provoke learner-activity, is it not sound sense to encourage and secure participation and expression at every possible point? This may and should entirely kill the passive attitude on the part of the learner. The moment he becomes active, expression enables the process of inside growth to proceed by leaps and bounds. Thus habits are builded. Thus initiative emerges.

We have all seen teachers who did all the talking and all the doing. Entertaining? Yes—if it was—but a poor way to prepare the class groups to take their places and do in the world.

The most skillful teaching gets the group to do the most desired things with the least theft of time by the teacher. Such a teacher even gets the group to point out their own mistakes.

Morale

To become conscious of the importance to teaching, of morale or spirit or attitude or state of mind—one has merely to think of the physical results of mental states.

The optimistic, joyous state of mind affects at once

1. The power and rate of heart action.
2. The capacity and rate of respiration.
3. The "tone" of the entire muscular system.
4. The flow of secretions that aid the digestive processes.
5. The important secretions of the various ductless glands and causes them to make their way into the system.

The opposite states of mind are said even to discharge active poisons into the system from the ductless glands.

One needs no physiologist to assure him of these effects. One's own experience recalls how physically sluggish one feels when dejected and unhappy, and what crisp muscular and bodily tone is ours when we feel "fit" in spirit.

So vital is this state of mind to the physical and mental health of individuals that no grouchy or temperamentally colorless person can be a constructive force in the life of others.

This state of mind has, however, an even more significant aspect to the teacher. Men are whipped or defeated in their minds—nowhere else. Defeat occurs there, not in the outside situations. The man or woman who does not in his mind "give up," cannot be defeated.

The joyous, the hopeful, the earnestly eager, the affirmative state of mind is, therefore, a physical, a personal, and a social necessity. Play and games, and a measure of freedom, recognition, and participation build morale. Teaching in home and church and school should give enhanced attention to the occurrence and maintenance of it.

The Social Inheritance

Modern Science assures us that traits or qualities acquired during the lifetime of parents are not transmitted to their children. A father who has learned everything about corporation law or wheat raising cannot transmit any of this acquired material to his child. The child will inherit the capacities of the

parent stock, but must start at the bottom and for himself acquire the experience and knowledge which the race has accumulated.

Someone must help him to get it. This passing along of the social inheritance is the most challenging fact and obligation of our associate life. Almost everything of value in our modern civilization—its devices, methods, relations, its science, its literature, its ideals, its worship—all these must be acquired by the new-born citizen from the social inheritance.

Without them his life would remain on a mere vegetative level. Home and Church and School are actively concerned with this teaching—this passing on of the Social Inheritance. It is probably the most basic single phase of human life.

The Five Elements

Every real teaching process involves five elements, adjudged important in the order named.

1. The Learner.
2. Some exact knowledge or experience to be acquired.
3. Some teacher to expedite and facilitate the learning process, to help the learner learn.
4. Certain methods or devices including some teacher-learner contact through which the joint process is effected.
5. Results, products, and by-products, else the time shall have been wasted.

CHAPTER III

THE LEARNER

1. His Interest
2. Why Interest the Educatee
3. His Share
4. His Self-Activity
5. His Values and Morale
6. How to Study
7. How Much Outside Study
8. His Physical Health
9. His Moral Health
10. His Time
11. His Recreation
12. His Future vs. His Present
13. His Study and Habits
14. His Life Work
15. His Potential Parenthood
16. His Thrift
17. His Citizenship Through Service

III

THE LEARNER

His Interest

SLOW though we have been to recognize it, the interest of the learner must somehow be mobilized. It is the magic key to action. With it, the most challenging and surprising things may be done—without it, the most elaborate efforts and programs are hollow. Without it—one end of the telephone is “out-of-order” and the teaching message cannot “arrive.” The teacher-learner project fails without the learner’s interest.

The source of interest (as in part indicated in Chapter I) is original nature and tendencies modified by the experience of the individual. Interest represents desire or “mind-set” of the moment. It is profoundly affected by the events which have preceded—may be modified by disease or digestion, pleasure or pain, “tone” or fatigue until it is far removed from original nature and habit.

Even interests, however, that have seemed established are subject to the temporarily altering influences of certain fundamental instincts such as that of curiosity, or that for general activity, the sex instinct, or the acquisitive instinct.

It is important to recognize that interest in youth

is more elastic than in adults—that the interests of the same boy under quite the same external conditions may vary widely due to internal conditions which are often unseen, generally unappreciated by adults.

Up to the point of fatigue, the learner generally responds to:

the new	in preference to	the old	
the unusual	“ “ “	the usual	
the strange	“ “ “	the accustomed	
the unexpected	“ “ “	the anticipated	
the mysterious	“ “ “	the obvious	
action	“ “ “	inaction	
self-activity	“ “ “	passivity	
(when work is to be done this is oft reversed)			
participation	in preference to	looking on	
responsibility	“ “ “	always following	
things boys do	“ “ “	things boys don't do	
some one he likes	“ “ “	some one he dislikes	
real companion- ship	“ “ “	anything else	
encouragement	“ “ “	nagging	
recognition and approval	“ “ “	criticism	
sympathy	“ “ “	sarcasm	
his standards of value	“ “ “	those of most others	
his group desire	“ “ “	adult leader desire	

Why Interest the Educatee?

Why should the learner be interested—why not discipline him? The “good old time” educational procedure prescribed a fixed curriculum and “put 'em through it.” Why the change? Three reasons: (1) Awakening to the fact that people are different;

(2) discoveries about the nature of learning; (3) fuller discernment of the objectives of democracy.

1. Awakening to the Fact that People Are Different:

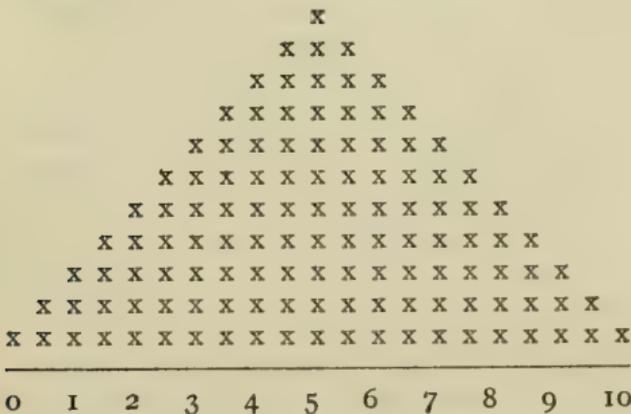
The immediate consequence of this discovery is the realization that they therefore cannot be handled alike. The individual becomes the unit. Things therefore must be done which reach the individual. To what will he give best (or any) response? What will interest him?

NOTE.—The laws of Individual Differences operate wherever variation is found; which is wherever life or the play of natural forces is possible. Individuals, animals, plants of a single species will be found to vary in accordance with a relatively fixed law.

1. If the individuals to be examined are taken as they run or occur.

2. If a sufficient number be examined.

With these limitations, except for very obvious and discernible distorting causes—the distribution of abilities or qualities tends to group quite symmetrically about a central tendency of the group. A few very superior, a few very inferior and the great mass of the cases clustered about the central tendency.



If we tossed ten pennies 100 times and counted the number of heads appearing each time we would secure a distribution very like the one above. The heights of 1,000 individuals selected at random would show a similar distribution. So would the chest measures of that many applicants for the navy. The number of grains in each head of a 1,000 heads of wheat selected at random would obey this same law of normal distribution. If, over a period of years, with ample cases, the marks of a teacher depart widely from such a distribution—either the teacher marks “high” or “low” or the pupils are for some reason “poor” or “exceptional,” or some factor of maladjustment has entered.

This distribution tends to follow the values of the coefficients of a binominal theorem expansion:

$$e.g. (a+b)^8 = a^8 + 8a^7b + 28a^6b^2 + 56a^5b^3 + 70a^4b^4 + 56a^3b^5 + 28a^2b^6 + 8ab^7 + b^8$$

These coefficients are:

$$1, 8, 28, 56, 70, 56, 28, 8, 1.$$

This, expressed graphically, follows the same general appearance as above.

For this reason Gauss's name is sometimes associated with the curve. By some it is called the curve of chance—as chance is itself subject to such law.

2. Discoveries About the Nature of Learning:

Modern investigations have revealed that

(a) Interest makes learning easier.

The nervous system offers to any experience, depending on whether it is welcome or not, actual encouragement or resistance from within. To do a thing when not in readiness causes displeasure. To do a thing when in readiness causes pleasure.

(b) Interest makes learning more rapid.

The result of making learning easier by

making it attractive is to make it more rapid. With no internal resistance and with no conflicting thoughts to arise, the student learns with greater speed.

- (c) Interest makes learning more permanent.

What has been learned can be recalled more effectually and can be used after the lapse of longer periods of time. The reasons are not far to seek. Associations made in learning where the whole personality was focused on the one thing, naturally are more permanently builded.

- (d) Interest builds habits.

What the learner actually does in response to teaching effort is vital because doing builds habits. Half-hearted, careless response cannot build complete habits. Inasmuch as habits result from exercise—interest must be operative to get these desired habits “started” by inducing the early repetitions whose end is a habit formed.

- (e) Interest affords motive.

Some motive—“mainspring like”—impels us to action. It is difficult to conceive of action without a motive. Interest is such an urge to do.

- (f) Interest must sometimes be modified.

All interests and all impulses to do are not socially or individually “good.” Some must be modified or altered or redirected. Substitution is the way to

get rid of an undesirable interest. Provide something quite as striking as a substitute. Make its exercise easy and connected with rewards and approvals. Try quietly to connect the old undesirable interest with unpleasurable things. Forcibly trying to suppress is poor strategy.

3. Fuller Discernment of the Objectives of Democracy:

A true democracy seeks the largest growth and fullest initiative of each of its individuals. This demands that heed be given to the individual and to his concerns.

An autocracy seeking only a docile "followship" needs to restrain initiative resolutely and put all through one mold.

Democracy seeks leadership and initiative and must therefore stimulate and encourage the individual to self-expression with its resultant growth. Its need for interesting the learner is obvious.¹

¹Interest as thus proposed does not imply the abdication of adult supervision or direction and the blind following after rainbow whims. It does, however, mean that activities shall be planned to utilize and not run counter to the tide of the child's interests. It does further insist that while restraints and redirecting of interests must occur in cases of important conflict of interest—yet that these be so managed that it may be surely known that some change of attitude has taken place inside the boy. Authority or discipline invoked without such change in the student's attitude are quite certain to breed resentment and estrangement.

His Share

To bring the learner to a recognition of the fact that the teacher-learner project is being operated for his benefit solely—is time well spent.

He must further be brought to realize that this educational process can make no progress without his actual, active help.

This may and should involve awakening in the learner a consciousness of his own need.

His Self-Activity

Education fundamentally is the result of self-activity. He thinks what thinking he does, he makes what mental associations are made, he builds what habits are builded. The responsibility of the learner is, therefore, clear cut. He must be active in the common tasks and efforts of the teacher-learner partnership.

Wise is that teacher who can enthuse his students to activity and who to that end provides opportunity and incentive for their full participation in the "game" of finding knowledge.

His Values and Morale

It is pedagogic suicide to hammer away at results without having awakened in the learner a consciousness of the value of what is being done. Adult valuation will not suffice, the subject must be justified in the mind of the learner if maximal results are to be anticipated.

This consciousness of value is closely related to the maintenance of morale—of sustained interest in

the matter in question. The learner must "stick," must "keep up steam" and effort, else no progress can be made with him. Therefore to elevate his experience out of the realm of sheer, colorless drudgery (and hence to guarantee his spiritedness) the learner expects properly that variety, activity, and intelligent care for his state of mind—shall be in evidence.

The learner further needs rewards, recognitions, encouragement, and consciousness of progress to stimulate his effort and interest.

He further expects an even-handed and impartial justice—a poise of temperament—and a cheerful air on the part of those who would really influence him.

How to Study

While learning must be done by the learner, he has been given scant help as to how to study. The teacher has not met his responsibility when a task has been assigned—far from it. Any adequate conception of his service involves helping the learner to learn. How he may learn is the first aid needed.

(a) Concentration is the first secret. Thirty minutes of concentrated, earnest, zestful effort outweighs hours of scattered, wandering, attention-divided time spent on a task. Relative quiet, bodily comfort (which includes all such items as lighting, ventilation, heating), freedom from interruption and the complete mobilization of attention are necessary.

The learner can readily invoke the aid of habit here.

Regularity of daily program conduces at once to better concentration. Spending the same time of the day on the same study activity will generally be found very helpful psychologically.

Incidentally it is sound administration as it measurably insures getting it done.

(b) Motive. The presence of a purpose, a motive, contributes vital power to the learner in his work. This involves the whole significance of vocation and aim. Testimony is abundant that undergraduates who intend to become medical students later, taking Biology, give it a different quality of effort from those merely taking Biology because it is a "required course" which the registrar "wished" on them.

(c) How. There are, however, specific aids in study method which the learner should know unless the learning is to be an unconscious by-product of otherwise appealing activities.

1. Doing in connection with learning aids learning because it connects the thing with motor brain areas as well as with sensory or receiving.

Hearing and seeing (which include being told and reading) are potentially passive—writing and speaking are active, they serve to awaken the individual.

These "doing" activities reinvolve seeing and hearing the thing again.

Where "handling" of the tools or the object or its actual use can be introduced we have feeling and muscular

(Kinæsthetic) sensation involved as well. These motor coordinations can be used in learning even the most abstruse and bookish material.

2. The greater the number of areas involved the surer the learning.

Given *e.g.* the vocabulary of a foreign language to learn.

- (a) Read the list thus involving visual areas and eye movements.
- (b) Cover the meanings and try to write them from memory—peeping at the original only when necessary.
- (c) Then reverse the process and with the meanings before you write the original word.
- (d) If alone speak aloud each word as written.

What has happened?

Reading—one visual brain area involved.

Writing—an arm motor area + another visual area; observing the writing.

Speaking—motor areas for speech + area for hearing what was spoken.

Five areas have been involved and doing has helped hold attention.

Then sixth, if some one will read the words to you and you give the meanings from that “start,” all these areas are quite completely involved.

Seventh—It remains only to “use” them in actual situations.

By applying this method to any subject, the

learner can, with the help of his teacher, formulate a truly scientific method of study which often trebles his learning efficiency.

How Much Outside Study

How much outside study the learner should do will vary with his age, the subject, and the general nature of the purposes involved on both sides. At the university level, where power of independent investigation is sought, the study and investigation are done largely outside, using the meeting time for troubles, and methods, and discussion.

In primary work or in the years below eight relatively little outside study is expected.

Again—a Sunday School class, meeting once a week, can probably not command very heavy outside preparation. There it is necessary for the teacher to teach largely through the actual class session.

Scout instruction (in some things self-instruction and imitation) is on a simpler footing because it involves learning to do certain things and the chance to try is made available.

Supervised study for the earlier years is full of possibilities for helping the learner develop right habits of learning. This procedure assumes, of course, that the teacher knows how to do this. Supervised study has the further virtue of making the individual student almost of necessity the teaching unit.

His Physical Health

The physical health of the learner is also a concern of both himself and the educator. Hygienic light,

air, water supply, sanitary toilets, recognition of fatigue, provision of space, time and encouragement, and companionship for play; interspersing sedentary work with active exercise or change; watching personal cleanliness; watching for contagious diseases or signs of strain—these must be part of the teacher's program and responsibility. The greater the number of hours of contact between teacher and learner each week, the greater care and supervision over health must be exercised. Scout teacher or day-school teacher, after getting into close contact with the home, shall urge the parents of the learner to have him undergo a periodic medical examination.

The scout plan of "hiking" into the open can with physical profit and benefit to morale be utilized with boy groups or girl groups. Regular hours, careful diet, can be quietly commended by any teacher.

His Moral Health

The more one thinks about the moral health of an individual, the more he is impressed with its close similarity to physical health. The same laws of regularity, of nutrition, of expression, of morally sanitary environment—obtain here. Moral health, like physical health, is not a gift—it is a result of the way one lives. The teacher is concerned with moral health, because the teacher is concerned with helping create a balanced product.

No individual's life can be said to be balanced except as religious and moral things find vital place in his life. Religious liberty in a democracy of course means that the teacher of a religiously hetero-

geneous group can only deal with general moral considerations common to all great faiths. However, activity is as vital in morals as elsewhere in child life. Companionship with one whose life is a good example will quietly effect the most surprising moral effects.

Train up a child in the way he should go, but go that way yourself—is sane counsel.

Encouraging the child to active identification with the child's own natural religious group certainly comes within the range of the teacher's moral obligation.

His Time

The day of an average schoolboy is worthy of very careful study. A third of it should be spent in sleep; one to two hours at meals; five or six hours in school, five days a week; perhaps he spends an hour or so daily in work; two hours a week probably covers his church contacts—this leaves five to ten hours a day of unorganized time.

What influences operate here?

The conscientious teacher might well in cooperation with parent or pastor survey or catalog what influences fill this unorganized time. The movie, the playground, the vacant lot, the swimming hole, the street—all these exert their influence.

The need for providing attractive, intrinsically valuable, organized companionship and leadership for these hours is obvious to anyone who respects facts.

Boys will do things. What they do determines their habits. Their habits fix their character.

Their leisure, therefore (to borrow a phrase from Dr. Sneath of Yale), must be "moralized."

No community, or church, or organization can expect a certain type of adult product to emerge except as heed is given to what is done by the learner during leisure hours. The educational theory here proposed urges that the teacher's responsibility (with close cooperation with home and church) be conceived as extending beyond the mere classroom hours to the unorganized time. If this be not done, the "unorganized" influences may easily eclipse the results of the shorter, often to-the-youth-less-attractive, organized time.

The unorganized time of the learner has two other significant possibilities. First, some of it may and should be turned to sound economic and thrift uses. Here may easily be laid the sound foundation of later wealth by earning and saving. Every youth should spend some time in production—though not enough to steal his recreation time. This could be done in time now wasted.

The other possibility is through the recognition that waste time purposefully applied can rapidly advance an individual in the world.

The hour on the train in the morning, for the adult, or the half-hour wait in the barber shop has great growth possibilities latent in it. The youth's life has similar wastes.

His Recreation

The need of every individual for recreation is a basic physiologic fact. Even the great locomotives are given periods of "rest," it is said, to reduce the

likelihood of crystallization of the metal as a result of hammering over the rails. The teacher, or the church, or the institution which provides recreation for its youth, holds thereby a strategic place in the esteem of those youths.

In an age of almost universally commercialized recreation, social institutions like schools and churches (and homes) should not overlook their great opportunity.

There are a few general principles about recreation which experience has revealed.

- (a) It must attract those participating in it. It is not sufficient that it appeal to the adult leader.
- (b) It must not be so much "supervised" as to lose spontaneity. The group should participate in planning.
- (c) The group should be relatively homogeneous as to size, or sex, or activity, or age, or interests.
- (d) Weather permitting, the out-of-doors has a potent appeal and benefit.
- (e) It should embody the principle of the maximum number of participants and the minimum number as mere onlookers.
- (f) While sheer fun and physical activity should never be ruled out, a recreational program can embody important educational benefits as by-products, *e.g.*, the educational "hike" to some "zoo" or industrial plant.
- (g) Recreation should avoid being negative—it should leave the individual with a "plus"

of physical, mental, and moral energy. He should not be exhausted by it.

The morning-after sort of recreation is not recreation, but a heavy expenditure of previously accumulated energy.

- (h) Recreation should take careful recognition of what its group does normally so as to meet their needs.
- (i) It need not, usually should not, involve money cost.

His Future vs. His Present

While it is true that most educational efforts have in mind the future of the child, it is both proper and essential to recognize that the child will not wait until the future to live, but that he is living now as well. The effort to have a child enjoy his future may be pressed with such vigor that his stunted present will afford no foundation for the rosy future. To-day is life as truly as to-morrow can be. While we shall be older to-morrow and shall have somewhat modified interests, yet to-morrow's life and its problems, joys, and sorrows are no more real than to-day's. One year's life is no more significant than another except as we make it so.

His Study and Habits

While the old theory of a generalized training good for anything "in a pinch," is no longer accepted, yet it is true that there are certain habits of attention and of method which are undoubtedly established.

The teacher, therefore, who accepts careless work and who does not demand promptness, for example

—is party to the building of habits of work which may mar character.

His Life Work

Every child is faced, at least potentially, with three big problems.

- (a) Mastery of his powers and capacities and a degree of mastery over nature.
- (b) Development of right working relationships with others.
- (c) A vocation—he must select and prepare to meet some human need which shall be his life's work.

It is not sufficient that his education should teach him about Julius Cæsar, or the wanderings of Æneas, the binomial theorem or amoeboid life—the learner has a right to expect that some of the various teaching which society aims at him, shall be related to these three big problems he must meet.

Inasmuch as vocation depends on self-mastery and relationship with others, the comprehensive teaching program of church or home or school should interest itself in aiding therein. Activities or things to do facilitate self-mastery; while group projects exercise social qualities or tendencies.

It still remains for some teacher in church or school or home to further the child's vocational interests.

- (a) Perhaps the first thing to do is to keep the question alive, reminding the learner that he must make such a choice.
- (b) Vocational information (by reading, by excursions, by acquaintance with men in

- various callings, by special vocational "talks," by personal investigation) should be available for every individual.
- (c) While vocational tests are not yet perfected to the point of unfailing prediction, yet, if available, they are of service.
 - (d) Hobbies, avocations, Boy Scout Merit Badges, Camp Fire Girls' "achievement beads," these, any or all, may be of value alike to educator and student.
 - (e) Where alternative elective courses are available, selection should be made in terms of vocational purpose. With older students care should be taken to see that the learner meets the requirements for entrance to the next institution he will attend.

NOTE.—The College Blue Book, Hurt, Chicago, makes such data available.

His Potential Parenthood

Among the responsibilities which are normally to be faced by adults are the duties of parenthood. While not conspicuous as an element in most courses of instruction, would it not seem sound sense to provide each boy or girl with some definite information and instruction regarding these duties?

Not alone about personal hygiene, prevalent as is its non-observance—but information and instruction should be given about the larger social responsibility of those who are the stewards of the race's heredity. Even more—and what is more easily done—information about the care of children, their

nature and the trends of their development, and something about the economic problems of establishing and maintaining a home.

Church or home or school should somewhere meet this need and not leave such important matters to unweighted chance.

His Thrift

The adult who has achieved a competence, who has earned and saved to guarantee his solvency for old age or for the "rainy day"—must sometime have begun to be thrifty.

The sooner the learner is encouraged to begin saving—the sooner he can reap the benefits.

Simple living, avoidance of competitive "show" in clothes, avoidance of personal waste, temperance in the use of luxuries (for the production of luxuries takes men and material from necessities), saving, and paying as you go—such sound business virtues cannot be started at too early an age. The following table indicates the need of such effort in the United States:¹

¹ While the per capita savings of the United States increased from \$89.11 in 1914, to \$113.45 in 1918—yet prior to the war we were not a nation of savers, as shown by the following table of

THE NUMBER OF BANK DEPOSITORS PER 1,000 OF POPULATION

Switzerland....	552	Denmark....	468	New Zealand....	455
Norway.....	426	Belgium.....	404	Australia.....	400
Japan.....	394	Sweden.....	391	France.....	362
Germany.....	346	Holland.....	333	England.....	320
Italy.....	232	U. S. A.....	115		

His Citizenship Through Service

Citizenship is fundamentally a matter of attitude toward the common good. It involves a readiness to think of and serve others as well as self. It implies the earnest desire to obey the laws and conscientiously protect the interests of the social order.

Such attitudes and readiesses and desires are not accidental happenings—they are the results of meeting such actual situations and of forming habits of meeting them in the spirit cited.

Service to the community and its members and participation in its life is the safest, sanest form of citizenship training. It is based on deeds, not on words; on habits, not on precepts.

CHAPTER IV

THE BODY OF KNOWLEDGE OR SUBJECT-MATTER

1. Its Sources
2. Its Appeal
3. Its Organization



IV

THE BODY OF KNOWLEDGE OR SUBJECT-MATTER

Its Sources

THE subject-matter of instruction is some part of the social inheritance—some old or new part of the experience of the race. In primitive life this was stored in the minds of the adults and was imparted by word of mouth. To-day, it is further stored in books, in libraries, court records, museums, newspapers, pictures, telegrams, films, in institutions, in buildings, in works of art and engineering.

The learner has, then, two sources of knowledge—his own experience and this experience of others. Instruction seeks to make available the experience of others with the least waste of time. Substantially anything on which the eye may fall represents actual or potential experience.

So multiple and interrelated are these sources of human experience that no one library or book can be a sole source even for a special topic. The effective teacher of nature study must, therefore, look for material beyond the textbook into the out-of-doors; the teacher of science, beyond the book theory to the practical applications; the Sunday School or religious educationist, beyond his sacred text into human life.

Each is forced soon to see that the most he can do is to "introduce" the novice to certain aspects of the subject in question. The wise teacher has himself recognized that there are no limits to "more knowledge" on any subject. There are, however, many types of knowledge which have to be experienced, not merely read about. Instruction deals with how to do certain things in gardening, for example—yet actual gardening experience and practice are necessary to really acquire the "experience" of others. Substantially all skills and active types of "experience" are best acquired through activity. Indeed, as between active and passive sources of "experience," a normal boy's choice is, in general, not difficult to predict. The "active" are a safe choice.

Its Appeal

The Body of Knowledge or Experience or the unexplored field must make some appeal to the learner. It is not sufficient that the adults account it to be of real value; the novice must value it. It must either

- (a) be intrinsically attractive;
- (b) or involve an attractive method;
- (c) or be associated with a magnetic personality;
- (d) or be consciously useful;
- (e) or involve immediate, or remoter rewards, natural or artificial.

The more formal and bookish the material, the more remote it is from the immediate life interests of the learner, the greater the necessity for its careful organization. If the subject-matter itself does not

intrinsically appeal, then there must be attractive methods, magnetic personalities, and more immediate rewards.

Its Organization

Subject-matter should be organized, not so much on a logical basis as on a receptive basis. The logical interrelations of the material, while pleasing for adult contemplation, concern the material alone, and do not necessarily take any heed of the learner. A body of knowledge properly organized for impartation seeks to begin where the student is.

Details must be subordinated to the general purpose involved. While they may be accurate and related, so much of detail is sometimes brought in as to eclipse the main topic—the forest cannot be seen for the trees.

The material must be organized in terms of the daily dosage. The time available will determine how fully one can “go into” the subject. This will be further conditioned by the teacher’s motive in the course and also by the learner’s motive in taking it.

A book, presenting as it does a page unit—with so many days and so many pages in the book—easily invites a teacher to a mechanical selection and organization of the day’s work. An interest unit—a functional unit is of course to be sought. This demands topical organization, which makes the unit of assignment or discussion or activity one related whole. This is sound, as association in the mind (which is the basis of memory) is not by pages, but by ideas that are related to other ideas and to one’s experience. Subject-matter thus related is more

readily grasped—in a measure “predigested.” Organizing the matter within an individual topic so schematically that its main thread of ideas, its contrasts and sequences stand out in outline form, is of further aid to the learner.

This functional unit demands further the use of “project” units. These carry the topical idea beyond the book treatment and from any and all sources follow the lead of the unit chosen toward a relatively full grasp of the topic in all its bearings.

The project is a self-activity method. The child becomes the investigator, *e.g.* of what is bread made? Wheat, yeast, etc. Whence come these? And so on and on.

For the average individual, the appeal to the eye is the quickest appeal especially with a picture, a scene, where the whole thing is presented at once. These have an interest appeal, far beyond translating the black marks of print on white paper into an imagining of such a situation. Visualizing statistics, illustrating books, using slides, movies, etc.—all these are ways of so organizing the subject-matter as to make it more easily available and more welcome.

Where possible it seems sane counsel to try so to organize subject-matter as to afford alternatives which may recognize the differences within your group, the individual difference in ability, and in interest and in motive as well.

The organization of subject-matter passes quickly into the field of method which is treated in Chapter VI

CHAPTER V
THE TEACHER

1. Experience a Costly Teacher
2. Self-Instruction
3. In Absentia Teaching
4. The Personal Touch
5. The Teacher's Fallacy
6. The Teacher's Character
7. The Teacher's Ideals
8. The Teacher's Temperament
9. The Teacher's Voice
10. The Teacher's Manner and Appearance
11. The Teacher's Growth
12. The Teacher's Recreation
13. The Teacher's Citizenship
14. The Professional Teacher
15. The Volunteer Teacher
16. The Teacher's Program



V

THE TEACHER

Experience a Costly Teacher

As already implied, there are just two sources of knowledge—one's own experience and the experience of others.

One can learn by experience not to expose himself to smallpox—or not to eat tainted food—or not to leap from a sixteen-story building, and so on, but the experience may cost one's life.

Society, therefore, seeks to impart the experience of others through some teaching medium, where such experience itself would involve either danger or unnecessary loss of time for the learner.

Anything which can "convey" information or knowledge is potentially a teaching force. Newspapers, signs on roads, streets, stores, numbers on houses, books, pictures, movies, lectures and addresses, games and play, work, conversation (sometimes)—all these may "teach" one.

The mother, the members of the household and experience are one's first teachers.

School and church and various social officers, continue the effort. Boys teach other boys, and adults do the same. In ancient Sparta, this was developed to that point that each Spartan helped

teach the boys through the games. There is, however, one very vital limitation and real danger to such "promiscuous" education.

A boy may be taught that the earth is flat or he may be given perverted personal notions—the teaching has not been accurate.

As Josh Billings phrased it:

Better not to know so much as to know so much that ain't so.

Teaching, therefore, to be of value must have the authority of truth, of accuracy, of thorough knowledge of what is being done—else it is a case of "the blind leading the blind."

Self-Instruction

Books have made possible self-instruction—although all that the individual really does is to mechanically assign himself tasks and see that they are accomplished.

In Absentia Teaching

In reality the writer of the book is the teacher. In literature, in science, one is learning from the great minds of the past through "in absentia" teaching.

A step nearer efficiency, however, is the correspondence course which, while "in absentia," yet does maintain correspondence relations and discussions of difficulties and checking of work.

The Personal Touch

Yet when all is said none of these "makeshift" transfers of experience can have the power possessed

by a real, magnetic, strong, yet sympathetic personality involved in helping the learner learn.

A vivid personal narration of a battle charge "over the top" amid the thunder of a barrage is vitally different from even a vividly written description of it. It is one step nearer reality, or at least seems so, because of the presence of the one who had the experience.

How different are Cicero's orations stutteringly translated by lines or words—how different from the fierce invective which made him feared on the floor of the Senate. The teacher then can, through his own personal contact and experience with the material, make the knowledge more real and vibrant with life.

That teacher who enables the learner to come no nearer to really seeing or experiencing the thing in question, has really contributed little beyond what the book provides to-day.

The Teacher's Fallacy

The fundamental fallacy of most teaching is the smug confidence that it is "going over"; that it is really reaching the learner. A quiet youth facing the teacher with seeming attentiveness, may be wondering if "teacher" dyes her hair or may be thinking of "camp" and the old swimming hole.

The assumption of interest and attention, and the consequent dropping of means to effect both naturally, constitutes the gravest danger in teaching next to sheer ignorance and colorless personality.

The Teacher's Character

One is disposed to affirm that character is the most important element in a teacher. However, the make-up of the effective teacher must be balanced. Excellent character with neither knowledge nor skill is no more to be encouraged than is training and erudition without character.

Consecrated ignorance and trained obliquity both fall short.

Certain it is that no one should be permitted to teach youth unless their conscious and unconscious influence is sound and unmistakably for good.

The Teacher's Ideals

A teacher cannot safely be merely negatively "good" in the sense of doing no wrong. He must be actively moral. He must have vital moral convictions, and dynamic ideals—else what he is will speak louder than what he says.

Since character is caught, not taught; since it is habit and doing rather than precept and believing—the teacher must be a person of high dynamic ideals.

The Teacher's Temperament

The temperament of the teacher must be buoyant, his spirit must be optimistic and the general tone of his personality must be affirmative.

Temperament may be defined as mood which has become habitual. Recognizing that one's temperament is no single, big, heavy, mysterious thing, but rather is a group of social habits, one must recognize that temperament is not hopeless. Like any habits

they may be replaced by other habits, provided the new things are done. After a time these new things, at first done deliberately, become easier and easier and finally quite natural. Among myriad social qualities which a teacher needs—the following list should certainly find place:

Optimism, hopefulness.	Appreciativeness.
Good nature	Sympathy.
A sense of humor.	Consideration.
Tolerance.	Reverence.

Justice.

The teacher dare not be “egocentric,” but must have a deep interest in and time for things that his students enjoy doing. He must be ever ready to serve and to help others help themselves.

The Teacher's Voice

The voice is the chief vehicle for communicating with others. Indeed, with the exception of writing and of various facial and other gestures, modern communication depends conventionally upon the voice.

The quality of the voice, its tone, its loudness can awaken resentment or sympathy or fear or distrust or confidence.

A high-pitched or nasal or loud or rasping voice makes others restless. A little, weak, forceless, unheard voice, fails to reach and thus falls short of its necessary control of the situation.

The teacher's voice should be elastic; it should be mellow and musical; it should quite readily reflect enthusiasm or serenity, joy or sorrow; it should indicate good-natured yet resolute reserve power;

it should speak with sufficient speed to hold interest, yet not so rapidly as to fail to reach; it should be so handled that clear enunciation results. A quiet but adequate voice tends to make things clear—a loud voice makes them vivid or eclipses them entirely.

It is scientifically possible for any teacher thus to improve his voice and make of it a vital asset.

The Teacher's Manner and Appearance

Quietness of manner and inconspicuous dress well become the teacher, or any other well-bred person. There is the soundest psychological ground for such simplicity and moderation, though artistic elements and individuality need by no means be sacrificed. Show or extremes or egotism tend to distract attention from the topic to the teacher and are therefore taboo.

Courtesy is so valuable a tool or weapon or defense that it should never be relinquished even when disciplining an overt wrongdoer. It begets its like.

Poise, even-temperedness, and other evidences of self-control and self-mastery are towers of strength in all human situations and especially so for the teacher. When things "go wrong" one does not have to "go with them." The individual who courteously "keeps his head" always has the advantage.

The Teacher's Growth

In life there is no "standing still." One must move either forward or backward. Events and problems move with such speed that failure to grow, in itself means falling behind.

Growth is the natural law. It is a social obligation. The desirable citizen does not hide his talents in a napkin, but develops them for use. The child experience is growing by leaps and bounds; so is the environing world:—only a growing teacher can sympathetically inspire. The sound educational philosophy of Dr. W. H. Kilpatrick affirms that “activity should lead to further activity,” which means growing on and on toward perfection.

Perfection is relative, and the possession of potential abilities is an obligation to get them “into the game.” The late William James estimated that ninety per cent of us never realize more than one-fifth of our possibilities—or, expressed in other words—ten cylinders, two working; ten fingers, using just the thumbs; five rooms in the house, four closed up tightly.

Growth for a teacher means reading; means encountering new ideas, new people, new situations; means study; means service in the community. Such active open-mindedness is a guaranty of keeping the spontaneity and joy of living and learning and doing, and will keep one out of the rut.

The Teacher's Recreation

Recreation or at least change of activity is a periodic physiologic necessity. Only thus can the wastage of body tissue be replaced.

The principles of recreation affirmed in Chapter III in the main apply here. It does seem intelligent, however, to urge that the teacher's recreation may well keep close to the kind of recreation his students like. The teacher's recreation can thus be a means

toward bridging the gap of years between himself and the child. This is especially true when the teacher can find some of his recreation through careful companionship with youth. Because of the usual "indoor" quality of teaching—active games, outdoor projects, hikes, etc., have health as well as recreative value for the teacher.

The Teacher's Citizenship

Because one is a teacher in a community is no justification for his becoming a hermit, a sort of social island. Church, various social groups, community citizenship and service projects, indeed good movements generally, have an inherent claim upon his support.

Experience has revealed, however, that it is important that the teacher of non-homogeneous groups shall bring to his various community relationships a spirit of broad tolerance toward competing organizations rather than a spirit of inelastic partisanship. The latter spells ultimate conflict.

Back of all such community contacts, the teacher must have a broad, tolerant respect for others. He dare not be disloyal to his ideals, but he dare not follow the traditional "Orthodoxy is my-doxy, heterodoxy is your-doxy." Scouting sets a sound standard of respect for the convictions of others in matters of custom and religion.

The dynamic desire to serve modestly yet effectively the common good (rather than be served) through these community contacts will tend to steady one from the dangers of partisanship.

The Professional Teacher

In terms of averages, the professional teacher does not exist, as investigations have indicated that the average time of service of teachers was five years.

While this is true, there yet remains a very considerable body of men and women who have deliberately selected this as their life's service and in spite of inadequate salaries and shifting tenures of office, still serve the nation through its youth.

The post-war conditions are such that the demand greatly exceeds the supply of trained, experienced teachers. This has naturally and will continue to react favorably on the salary situation.

The sentiment in favor of a national Secretary of Education with a place in the President's Cabinet is bound to enhance further the position of the educator. The offerings of commerce and industry have so greatly exceeded the paltry offerings of many communities that the exodus from the profession has become critical.

Meanwhile the readjustments of teachers' salaries, though tardy, have been widespread.

Whether or not the teachers should combine and coerce society into paying adequate wages remains, however, a divided issue. Many regard this as beneath the dignity of Social Workers of the grade represented by the teachers.

From the viewpoint of the individual teacher, the solution of his problem lies in his own further training, until the service he renders comes to be as distinctively technical and professional and expert as that of a good physician or oculist. While

such graduate training costs much of time and treasure, it is the master-key to enhanced efficiency and, therefore, to potential advancement.

Service of such quality will increase the joy in the work and the educator's self-respect at once.

Those who find it impossible to go to the centers for such professional training can secure surprising quantities of it from reading and home study, correspondence and other forms of university extension.

The Volunteer Teacher

A surprisingly large and significant part of the world's teaching is done by volunteer or non-professional teachers. Indeed, most of the home teaching, covering life's most impressionable years, is done by individuals only a very negligible percentage of whom could be said to have had professional training.

To face facts fairly one must recognize that thousands of those hopeful young women, who annually pass from High School into rural and even "town" teaching could not be accused of having had professional training in how to teach.

A large percentage of those starting to teach music, dancing, art, expression, dramatics, athletics, etc., are not professionally trained in the science or technique of teaching.

These, however, are classed in the "professional" group as they follow their teaching as a calling. They have an economic motive for becoming efficient. The relatively untrained teachers in the home find teaching one vital aspect of parent-

hood which should impel them to become more efficient.

The truly volunteer teacher, however, is one who follows some other calling and who teaches during leisure time and without compensation.

The Sunday School teachers of Protestant denominations, the "Scoutmasters" and special teachers of the Boy Scouts of America, the "Guardians" of the Camp Fire Girls, the "Captains" of the Girl Scouts—these represent true volunteer groups, who render truly significant service to the social order during their leisure time.

Their training and insight into the nature of the "teacher-learner project" is problematic. They have little time (or so believe) and many of them are doing their work under the resultant protest.

The organizations mentioned have instituted training courses, but these are short and not always fully attended. There is oftentimes a heavy turnover in personnel, so that the training problem is perennial.

The thought is urged here that a very sound way to hold a man's interest in such teaching is to give him all possible understanding of its basic problems and of how to maintain the interest of the learner.

The volunteer teacher who has endeared himself to a group of student comrades can often be held by their appeal.

Probably the greatest need of these volunteer teachers (as of all who try to teach) is knowledge of the needs, attitudes, interests, and "boundaries" of the learner. Brief volumes, such as this one, which seek to meet that need—should prove helpful.

The Teacher's Program

There are certain scientific phases of the teacher's program which concern any who seek to teach.

1. The obligation to know something of the individual student, his antecedents, his present status, and something of his desired future.
2. A definite knowledge or decision of what the teaching seeks to accomplish or, in other words, what the objectives are.
3. A Plan or Program for accomplishing these and seeing that this is expedited.
4. Means of checking outcomes or results of the teaching to see what has happened and also to see how improvements can be made. By-products are often as significant as the direct results.

NOTE.—The careful teacher will never expect a continuous and uniform rate of learning even within one individual.

Learning seems to go by leaps and then to run along on a dead level for a time—followed by other spurts and other level plateaus.

The effecting of the necessary associations in the mind are indeed roughly analogous to digestion. Time is essential.

Then, too, when a boy is growing two inches in six months, we can, perhaps, be patient if he does not effect an equal growth in his studies.

CHAPTER VI

METHODS

1. Vital Modern Educational Principles
2. Conflicting Problems of Method
3. The Thermometer of Teaching Methods
4. Play
5. Competition
6. Dramatization
7. Project
8. Apprentice
9. Experiment
10. Observation
11. Demonstration
12. Recitation
13. Lecture
14. Book Study
15. Scout Instruction
16. Religious Instruction
17. Business Instruction
18. Industrial Instruction
19. Political Instruction
20. Civic Responsibility



VI

METHODS

Vital Modern Educational Principles

SUCCESSFUL methods are conditioned upon the facts and principles of mental life. Modern Science has established certain basic facts which vitally effect teaching method. Among these are the following:

1. **Adult Aims Differ from Child Aims and Interests.**

The experiences of the two have been so different that this is inevitable. The adult alone can bridge the gap of the years between himself and the child by retracing his way back to the interests of the child. The child cannot go far beyond his own experience without help.

2. **Learning Is the Vital Part of Teaching.**

Learning is not a passive but an active process. It is self-activity, and expression, not repression, is the key to growth. The learner must participate in the actual activities he would master. Learning is so vital a part of the teaching process that unless it be present there has been no real teaching.

3. **Learning Is Best Done Under Conditions Most Lifelike.**

Learning by doing, activities, applications

of theory, living of ideals and precepts—all these functional methods are superior.

4. Interest Makes Learning Easier, More Rapid, and More Permanent.

What one wants to do is made easier because of the actual readiness and expectancy of the nervous system itself. Motivation is, therefore, basic to activity.

5. Individual Differences Demand Different Treatment.

Quick and slow, bright and dull, cannot justly be treated alike. Therefore homogeneous groups simplify the problems of instruction and reduce waste. They further make the problem of interest easier.

6. The Things We Do Build the Habits Which Fix Our Lives.

Pleasurable activities tend to be welcomed and repeated and hence to be fixed. Habits, however, weaken through disuse, and if found unpleasant (or made so) are avoided and replaced by others.

7. Group Motivation, Group Loyalty, Social Spirit, Citizenship, can only come as the result of activities demanding the exercise of such group qualities.

Modern education is quite largely individual and only incidentally or accidentally social.

8. Education Seeks to Modify and Change the Individual and to Give Him Something New.

This can only be intelligently done if the student be carefully inventoried before and after.

It is as important to know what one starts with as it is to know what one purposes to do, and both are essential if one is interested in checking up what the results may have been.

9. A Democratic Concept of Education demands a chance for individual self-realization.

This means stopping attempts to grind out all alike—accepting only the one, the teacher's, as the best method. It means the actual encouragement of initiative and growth of latent capacities. The aim must be "The growth of Everybody, helped by Everybody, for the good of Everybody."

Conflicting Problems of Method

There are certain conflicting problems of method between which the teacher must effect a balance in the planning of his work.

1. Thoroughness *vs.* Speed.

Too great stress on either means loss in the other.

2. Interest Projects *vs.* Fixed Course of Study.

If the lines of the student's interests are solely followed, what of the objectives to be attained, and vice versa? This present conflict may lead ultimately to an elastic and individualized course of instruction which seeks growth, whether by the mastery of set curricular facts or not.

3. Initiative *vs.* Direction.

A balance must be established between the teacher's direction; his seeing that it is done just "so" as to method and the free sponta-

neous initiative of the learner. The latter must doubtless be much more encouraged than in the past, though the suggestive help of the teacher's experience has place.

4. The Present *vs.* The Future.

The teacher thinks in terms of to-morrow's man; the boy thinks, probably first, of to-day's pleasure. Neither can "get anywhere" without recognizing the other's interest.

5. Play *vs.* Work.

In effecting this balance, it is of value to remember that oftentimes the line between play or work is how we feel about it! While it has been suggested that ideally each should include the maximum of the other, there is sound physiologic ground for insisting on ample play activities as such. In work, the morale element mentioned is the key to output.

6. Theory *vs.* Practice.

The traditional danger of the schools has been the emphasis of theory, often to the exclusion of practice. Each must, however, supplement the other in any balanced effort.

7. The Cultural *vs.* The Vocational.

This once serious conflict is less intense, with the recognition that vocational preparation is itself cultural and that in the broad sense anything truly cultural or truly "growth-looking" must have vocational value, for it helps develop a stronger individual.

8. Drill *vs.* Growth.

The traditional practice of school "drill" is being tempered with the concept of growth

with its consequent greater freedom to the learner.

Here again, sane balance will avoid the danger of either extreme.

9. Actual Content *vs.* Verbal Form.

Ideas without grammar may seem preferable to grammar without ideas—neither is effective—neither is necessary.

Form is necessary to give content currency.

Live teaching insists on both in balanced measure.

10. The Serious *vs.* The Humorous.

Both have valid place. An excess of either kills interest. A sense of humor and not taking one's own self too seriously is an asset to any man. Probably the safest balance is to mix them tactfully as lean and fat, then lean and fat.

The danger in either lies in the "overdose."

11. Active *vs.* Passive.

In practically all learning active methods involving things to do are superior to the passive.

Here, however, the fatigue point must be carefully watched.

12. Suggestions *vs.* Orders.

The same fundamental conflict of teacher-direction or self-direction and initiative enters here. While prompt obedience to orders or commands is desirable if not essential, yet, suggestion is to be encouraged as operating more largely from within. Encouragement and criticism offer the same problems, one is

formal, direct, potentially disheartening—the other, while indirect, is yet productive of natural enthusiasm which can then be used to effect needed changes.

The Thermometer of Teaching Methods

In the light of the influence of interest upon learning different methods of teaching may very properly

be rated in terms of their interest value to the learner.

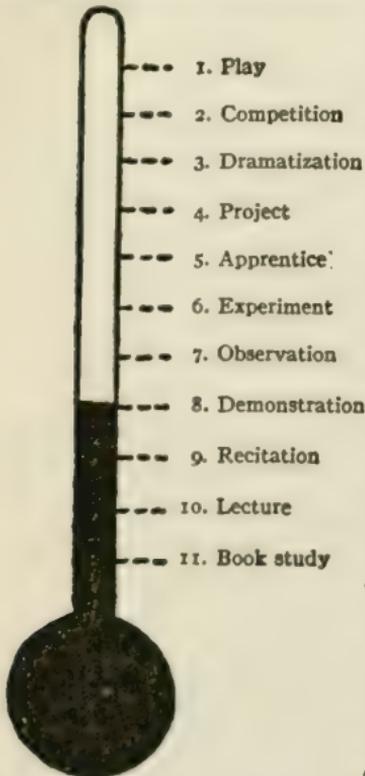
Such a rating would include (See illustration)

In any such rating the verbal, formal bookish methods naturally will occupy the bottom and the spontaneous, the active methods will be at the top.

Indeed, such a scale constitutes a methods thermometer for the individual teacher to evaluate his own teaching. Play will head the list and books bravely bring up the rear.

It is significant for the teacher to note how rapidly the action fades out toward the lower half of the scale.

Nevertheless, each method has its own particular values and limitations; probably no one method can safely be used in all kinds of situations.



1. Play

The "play-way" of teaching has developed in response to the recognition of the part of morale, or spirit, or interest in getting children to do things. Since the vital line between work and play is the way one feels about it, the "play-way" is sound.

The possibilities of original use of this method are almost unlimited, as almost any game may be adapted to educational uses by varying its content so as to involve numbers, geographic relationships, facts of biblical or other history, etc. The game of authors does this for literature and may itself be varied to use other contents.

Games truly educational are those which, while playing some game, involve the practice or application of the knowledge or skill in question, as for example, "Hare and Hounds" involves the scout subject of Tracking.

Scout baseball may be adapted to any content whatever and in fact is a "play-way" of recitation. It is played with two teams of nine (more or less) and an umpire. The pitcher, instead of "pitching a ball," pitches a question, and if the umpire decides that the batter fails he is "out"—three such "outs" retiring the side. If the umpire decides the question to have been answered by the "batter," he goes to "first base." He is "advanced" to "second base" by the next "batter" who reaches "first," scores being "forced" "home."

Concerning the "play-way" it is generally true that its effectiveness decreases with student's age.

With younger pupils and the traditional methods

of instruction, actual play intervals often counteract fatigue and benefit the "program," provided the play does not deviate so widely from the topic of the following period, that undue time is spent getting back "on the track."

The "play-way" spirit is often made nearly unavailable by the unwillingness (or inability) of the teacher to recognize the little lateral mental excursions which the lively child-mind makes.

The gruff (or worse, the sarcastic) rebuke to "stick to the subject" often so alienates the child that he has no desire whatever either to stick to the subject or to please his teacher.

It is perhaps fair to urge that unless the attitude of the teacher be warmly sympathetic and party to child interests, no games or devices can maintain child spontaneity.

2. Competition

Competitions have an almost universal appeal. To measure brains or skill or strength with another attracts almost all normal boys and a large percentage of girls.

Individual competitions with others or against one's own or some other "records," group competitions with their potential social values so well used in Scouting—all these may be introduced into nearly every type of teaching situation. The old-time "spelling match" merely represented the element of individual and group competition introduced into a simple spelling recitation. Similar results may be obtained in other subjects.

3. *Dramatization*

Too little educational capital has been made of the keen imaginative activeness of children.

Anyone who has been with children much has found them "playing house," "playing" animals, "playing" school, church, concerts—"playing" the things they have seen in adult life. In elementary education a lesson may be dramatized—or a song; in Scout first aid "carrying and bandaging" may be made more real if the results of a "play-real" situation are described and the patients then treated; in Sunday School a pageant brings home the historical facts in question. Even old folks frequently enjoy the "play."

In dramatization, however, the principle of as many as possible as participants is sound.

4. *Project*

The "project" method departs from page units to interest units. The subject-steps, even the subjects themselves, are suggested from within the class group itself, rather than being "handed down" by the teacher.

With younger pupils, for example, a "self-propelling" line of reasoning can be easily started by some such query as to what constituted the breakfast menu, and then as individual but related projects, the students will "look up" and make inquiries as to where and how oranges are grown and how they are transported, etc., etc.

In such "projects" the child is pursuing knowl-

edge on his own initiative and developing qualities of independent investigation at an early age.

Graduate research in the university is the same inherent method.

5. *Apprentice*

The apprentice method of teaching while under a certain industrial onus is in reality a very effective method of learning by imitation while actually participating in the actual life situation.

Its chief industrial danger lies in the fact that it easily ceases to be a means of education and may become a form of industrial exploitation. Teachers in England, many Scoutmasters in America, mechanics in Germany, opera "understudies" in France or Italy, learn through apprenticeship relations.

Dean Schneider's Cincinnati "part-time" plan is an educational utilization of this method of actual imitative learning. The two weeks in school followed by two weeks in active service has been found to bring a valuable balance of results.

6. *Experiment*

Reading books about firebuilding, or craftsmanship, or typewriting would never establish the nervous connections necessary to actually do the things in question. These can only be builded by actually doing the thing in question. Reading the statement that sulphuretted hydrogen gas introduced into a solution of copper nitrate would produce a heavy precipitation of dark blue copper sulphide is a pretty large verbal load and perhaps somewhat difficult to

remember. However, when a lad has tried it in the laboratory he is much more certain to remember what happens.

He further learns how to use the materials in question and thus comes to be better "prepared." Experiment attracts the boy, for example, because he has a chance to manipulate and do things—a girl experimenting with her first cake has the same opportunity. Experiment is learning by doing generally under conditions that can be relatively controlled.

7. Observation

The secret of the great teaching value of travel lies in its opportunities for observation. Tree hikes, flower hikes, bird hikes, are definite little tours of specialized observation.

Observation is at present about the sole means of arriving at any knowledge of how to deal with men. The salesman, for example, observes how certain men react to his advances and thus learns how to deal with men.

Various kinds of educational excursions enable one to "observe" what is going on there. Observation is the learner aspect of demonstration and is a fundamentally active process depending upon the learner's interest.

8. Demonstration

Where realities in real setting cannot be "observed," demonstrations may be "staged" which simulate such reality. From the viewpoint of the learner these offer much relief. A talk on

China is much more interesting if the actual Chinese costumes are demonstrated or exhibited. A life-saving demonstration may well be a first step toward experiment with the "carrys," which, after criticisms and imitation and practice, may achieve the desired technique.

9. Recitation

Although the function of the class session or the teacher-learner-meeting has broadened beyond that of recitation—the name still persists.

What should be the purpose of this "meeting together"? Merely to have students recite to see if they have performed assigned tasks?

Certainly "Not," though in practice too often "Yes" is the reply. The class session should provide opportunity for the discussion of difficulties, different methods, implications, for the correction of faulty notions; for suggesting how to do things; for demonstrations; for practice; for helping others; for competition as well as for recitation.

As already suggested, play, competition, project, imitation, demonstration, observation—any or all may enter into the recitation period.

Successful teachers have found that the laws of interest demand a varied program or sequence of events. However, this daily program or "lay-out" should include the following elements among others:

1. Some device or activity to enlist a concentrated attention—such as a story, choosing up sides, some outside contribution, some activity in which all may participate more or less.

2. A brief review not of details, but of significant "high points."
3. Periods where the learner is the questioner as well as the answerer. Here difficulties may be elicited and cleared up.
4. Inductive student summaries of important items.
5. How different ones prepared their lessons.
6. Assignment of next day's work, with sufficient time to point a trail into it and suggest avoidance of difficulties.
7. The concept of discussion should be grafted on to our old idea of recitation.

10. Lecture

Where time is limited or information is scanty, or no outside study is done, or where inspiration is the objective, or where an argument must be presented—then the lecture system may be used with justification—provided certain things are done.

Many people are more "eye-minded" than "ear-minded," that is, they grasp more quickly through the former channel. It is, therefore, sane counsel for lecture courses to give the students mimeographed copies of what the lecturer desires to "put over."

Also opportunities for questions and brief discussion should be offered, provided they are within reason as to time or content. The smart, advertising, long-winded questioner should be accorded a reasonably quick and relatively painless "squelching," but he should not be permitted to destroy the practice. The lecture is being given not to amuse

the lecturer, but to teach certain things to the audience—their reaction, therefore, should be encouraged. Lecture courses are more meaningful if references for outside reading can have been done in advance—as this makes for homogeneity in the class group.

II. Book Study

While placed at the foot of the interest list as a method of instruction, Book Study is at once the most accessible and universal method of self-instruction.

The printed page, a permanent record, inexpensive, available for use almost anywhere at any time by anybody, makes it possible for one to have as “in absentia” teachers the great minds of all time.

Regular systematic reading of one book a month will open to the reader personal growth, and new broadening vistas of ideas and of inspiration from the use of a small amount of time daily—time usually wasted.

No growing man or woman can afford to miss such vital personal growth values.

Professionally, one can never hope to keep abreast of the progress in his field except through systematic contact with the professional periodicals or magazines as well as with new books. A public (or traveling library if used for rural districts) library card is a ticket of admission to a larger world.

Scout Instruction

The genius of Scouting has been in part its use of activity methods. Learning through doing has

given the Scout novice the chance to utilize the tides of his own instincts and interests. Activities, therefore, of personal and social worth, intrinsically attractive to the boy, are also the means of building vital social habits.

Companionship with picked adults is the key to character influencing with youth—and companionship at their interest level.

Because of the extended use of volunteer Scout teachers and leaders, there is grave danger always that these may fall into the error of formalizing Scout instruction along the lines of traditional school method. Scout literature and leader's training have tried to guard against such error.

The influence needs to flow in the reverse direction, as Dean James E. Russell of Teachers College, Columbia University, has so well pointed out that "*it is my honest conviction that our schools in America, supported by the public for the public good, will not be equal to the task of the next generation, unless we incorporate into them so much as is possible of the scouting spirit and the scouting method, and in addition to that, fill up just as many as possible of the leisure hours of the boy with the out and out program of scouting.*"

Scouting is significant as an interest program nationally developed (indeed, internationally utilized), federally protected, and locally available for use by local men for local boys.

A careful reading of its constitution makes clear that scouting, while basically and fundamentally religious in its tone, definitely delegates to the parent church for a homogeneous troop the actual giving of religious instruction. It is used alike by Catholic,

Hebrew, and Protestant religious bodies as an interest program for holding their boys to the church during the critical adjustment years of the "teens."

In troops with such varied religious membership, religious instruction is given by the home and by the church of the boys' natural relationship.

Careful emphasis is laid on the scout giving tolerant "respect to others in the matter of custom and religion."

Religious Instruction

While one does not have to spend much time with youth to discover that normal youth have deep religious tendencies if opportunely exercised—yet religious instruction of the traditional type labored under the handicap of being weak in its interest appeal to the "teens."

Methods traditionally used by the volunteer teachers, many of whom were young and ill-trained, did much to smother the real interest material in which religious education abounds; for religious education is concerned with life, than which we have no more interesting topic.

The methods have been too largely formal recitation with inadequate activities, applications, discussions—things for the student to do.

While precepts are valuable they do not build habits. Actual action or doing is necessary to establish a habit's nervous connections.

Sunday Schools, therefore, need service programs, Scout "Good Turns," things to do for others, for the church, for the community, for the nation, for the world, and hence for good and God.

That Sunday School teacher who can provide his students with such "things to do" will find his interest problem largely solved.

Then, too, a Sunday School Class, meeting once a week on Sunday remains an artificial group and its internal bonds are weak.

The class needs to be relatively homogeneous as to age or interests and should play together and be a real unit in week-day life. This is precisely one benefit of "Boy Scout," "Camp Fire," "Girl Scout," "Woodcraft," "Boy's Club," and other companionship unit programs—they tend to create a natural group for the Sunday School or church to use for instruction or service. Some one has observed that practically every great movement in history has been tied to a great personality. Youth are no exception to the interest in persons which that statement implies. An abstract principle of religion or a character element or virtue has its impact upon youth multiplied many fold by its vital connection with a historical or, better still, a living personality.

Nothing is probably so potent in the minds of youth as the to-them-often-unconscious influence of example. This is especially potent if found in men of action. The indirect moral influences upon a boy, of a great general, of a leading captain of industry, of a great inventor, or a flying parson or a baseball "home-run hitter" is incalculable. The sermon of fine, unmistakable, moral quality linked with great "doing" ability is quite irresistible.

Companionship with a right-hearted, red-blooded, successfully-doing adult is a quite certain method of

“catching” character—for as some one has said, “character is caught, not taught.”

Religious education in certain Protestant bodies is developing into a new profession with courses of instruction in preparation. Skilled laymen, or ministers with special preparation, are being sought to head the religious education program of these churches.

This is certainly to be welcomed as marking the growth of the policy of relating the church in every way to life. Indeed, the educational program of the modern church is a finely staffed and diversified seven-day educational rendering of service.

This widening of the active contacts of the church in the community may save its sometimes waning influence. Churches, as we have said of Sunday Schools, need things worthy and attractive and socially challenging for their members to do.

Business Instruction

While there have been Commercial Schools (even at the graduate level), yet the great mass of “learning” in the business world has been the “trial-and-error,” experience method—learning the business by “working up” through it.

That such a method is wasteful is obvious and further attested by a heavy labor “turnover.”

Correspondence Courses have in recent years come to be very significant ways of giving an individual a foundation for advancement. Recent developments take the business training courses to the corporation offices and plant, and give its benefits on the time and at the expense of the employer.

Special training for foremen, for salesmen, for export, for transportation, etc., are among the types of technical subjects, with material bearing on human engineering as well.

Many concerns have felt it necessary to organize their own schools for their own employees.

In recent years the position of Educational Director has been created to handle such "up grading" efforts.

This recognizes clearly that the employer is (or some one under him must be) fundamentally a teacher of his staff, if learning is to be rescued from the realm of costly "trial-and-error" experience.

Industrial Instruction

The handling of machines and the achievement of production are vitally technical things. "Piece production" also places heavy demands on exact following of specifications and on close co-operative endeavor. The industrial worker must be trained as to quality of output and as to labor-saving methods to meet the quantity output which is needed to make production solvent.

The foreman, therefore, is fundamentally a teacher—or should be. In more primitive stages of our industry he was more of a boss—often gruff and "two-fisted."

With the enormous war-time turnover of 250 per cent annually which characterized our American industries (two and one-half men in each job yearly), and with a \$100-\$200 cost of training each man, the teaching demands on the foreman become apparent.

Not only must he be a real leader of men, but he must be a real teacher as well. The need for instruction in the industrial field is, however, by no means limited to foremen or to apprentices. Employers and employees need instruction or information or both as to their mutual relations and interests. The "employer-employee relationship" is a partnership project just as truly as is the "teacher-learner project." False economic propaganda have been circulated and often accepted as plausible until the basic economic structure has become so misunderstood as to imperil the stability of industrial relations.

There are several significant systems of "industrial publicity" now aimed at "instructing" both employer and employee, to the end of bringing them closer together toward needed co-operation in increased production.

Suffice it to say, that little progress toward that goal can be made until the "minds" of the workers are influenced. How they "feel" determines in large measure the industrial unrest, the decreased production, increased waste, greater number of strikes, etc., etc. Employers are becoming more and more alert to the welfare of their employees. Their "minds" toward their workers must undergo change which shall guarantee workers just treatment everywhere.

Education is therefore the only method of making progress toward industrial peace. When facts are sought—when each party to the productive process understands the whole and his relation thereto—then

COULD I BUT KNOW

Could I but know

The thoughts that pulsate—vibrate—strong
Within the mind of one who seems to me all wrong;

Could I but feel

With him, his facts—relationships—desires,
The purpose high toward which his struggling soul aspires;

Could I but feel

His sorrows surge—his joy—his thrills of hope
With which in hidden depths, alone—his self must cope;

Could I but understand

His thought—his life—his noble self and true,
Could I, unselfish, even get his "point of view";

Could I ('tis possible), why then

We'd understand—and Peace and Brotherhood
Made real—we'd see at once the Common Good.

Political Instruction

In general the press does not present both sides of issues alike. This has led to the suggestion of an endowed press which would impartially present facts rather than partisan propaganda. Some such independent educative force is much needed, especially in these days when myriad new voters face the ballot and need and want facts about both sides of issues.

The question of pre-voting-age citizenship instruction for youth must receive active consideration sooner or later, as must some ceremony to mark the voter's transit to his new estate. Even primitive savage tribes did not so ignore boy instincts and interests—they had definite tribal ceremony of

induction into citizenship. The Athenian youth took the following oath to serve and protect his city:

I will never bring disgrace to this, my city, by any act of dishonesty or cowardice, nor ever desert my suffering comrades in the ranks.

I will fight for the ideals and sacred things of this, my city, either alone or with others.

I will revere and obey my city's laws, and do my best to incite a like respect and reverence in those above me who are prone to annul or to set them at naught.

I will strive unceasingly to quicken the public sense of civic duty.

Thus in all these ways I will transmit this, my city, not only not less, but greater better and more beautiful than it was transmitted to me.

The American Boy Scout Oath involves similar social values.

On My Honor I will do my best:

1. To do my duty to God and my country, and to obey the Scout Law;
2. To help other people at all times;
3. To keep myself physically strong, mentally awake, and morally straight.

Perhaps the greatest need for instruction in the field of politics and government is in the instruction of newly elected officeholders—who have had neither specific training nor experience.

The periodic "peaceful revolution" which brings new officials into power is such that it would be highly difficult and undemocratic to limit candidacy to possessors of certain qualifications, desirable as that might be.

Society, therefore, must train these men after

they have been selected. The University of any state could easily offer, *e.g.*, a short training course for newly elected country treasurers which would greatly enhance their efficiency. In Bavaria state schools for state service have been operated, but short tenure of office makes such schools less practical here.

Civic Responsibility

How may the individual citizen be brought to an active sense of his civic responsibility?

How may he be helped to feel that it is HIS government, not the government of the administration?

While home and church and school can help "set-up" certain ideals and can reward certain loyalties—yet nothing is probably so effective a method to accomplish these ends as PARTICIPATION.

Whether it be a boy or a man, if he participates actively in the thing in question, it is HIS. The sense of civic responsibility, then, can be most surely developed, like any other human quality, through its EXERCISE.



CHAPTER VII
"CHECKING UP" RESULTS

1. Results
2. How to Measure Results
3. Conclusion



VII

"CHECKING UP" RESULTS

Results

RESULTS are the measure of effort. Efficiency is the ratio between effort and results. Unless time, energy, materials give fruitage in results they have probably been wasted.

Results, then, not only indicate what had happened, but such knowledge becomes the basis for subsequent effort. Mistakes and successes thus detected may and should profoundly influence future action.

The results of instruction are so subtle, so varied, often so indirect or deferred, that their detection becomes a difficult scientific problem.

How to Measure Results

The results of teaching can never be measured unless the condition of the learner previous to the teaching is known. Both before and after "taking" must be known. The first step, therefore, in any such effort to measure results, is to secure the fullest possible advance inventory of the student.

Comparison of this with a parallel final inventory will reveal certain of the outcomes of the instruction.

The actual detail of methods of measuring results

must, of course, vary widely with the objectives and purposes and content of the teaching.

- (a) Where skills, or the ability to do certain things has been the objective of teaching, such actual doing shows the direct results. Various crafts in wood, metal, leather, etc.—driving or adjusting machines—singing, typing, playing baseball, painting, etc., can be objectively tested by output.
- (b) Where acquiring information or facts is the object in view, the old-fashioned (and often unfair) examination methods would reveal whether or not such information or facts could be reproduced at the time in question. One testing may easily be a very unfair measure of the individual—as nervousness, ill health, fatigue, sex, worry, and multiplied other hidden factors may easily mar the value of the test. The nature of the questions may also vitiate any interpretation of the answers.

Standardized tests and methods are less open to such challenge. The recently developed “standard” school tests in writing, in reading, in arithmetic, etc., are carefully graduated in difficulty and also now involve *norms* of what a person of certain school “grade” should do on the average. These have been ascertained by testing thousands of cases.

The periodic use of such tests robs them of their terror and they give truer pictures. They are also so worked out that poor

teaching of any part of the subject would be indicated.

- (c) When habit formation or character enrichment or cultural or moral results are desired—the evaluation is difficult.

Conduct is of course the natural revealer of “inside” conditions and he who would measure these subtle outcomes must study conduct—immediate, or deferred, or under experimental conditions. It is of course very desirable that tests as nearly objective as possible be secured so as to limit human judgment, which, like individual standards, will even differ from themselves.

Relatively little work has been done in the field of advance testing in the moral field. Here resultant conduct has largely been our measure.

Certain completion tests may be developed (*e.g.*, The most vital quality of a man’s life is his ——. No — can — others, etc.); certain arrangements in the order of importance (*e.g.*, rate the following in the order of their heinousness: using one’s employer’s time for personal things; stealing a ten-dollar bill from some one; stealing money from a blind man’s cup; keeping an excess of change returned; riding on a street car and not paying fare—any comment you wish to make, make here——
—————)and

similar tests may be used.

The trustworthiness of boys with and without

Scout training was recently tested by Dr. P. F. Voelker at Teachers College of Columbia University, where tests were devised which gave the boy a clear chance to be untrustworthy and apparently "get away with it." These tests gave approximately 20 per cent improvement under Scout experience as the result.

All of which contains the heartening evidence that even moral outcomes may be measured in part.

It seems fair to affirm that in general—

1. The ability to use the material of instruction and to apply it to new situations represents a higher form of instructional outcome than mere perfect memory—for, after all, life has to be lived as well as thought about. Such tests, therefore, are more significant than the traditional "repeat," "tell-what-the author-says-about" sort of questions. Doing is more significant than "telling" or talking.
2. "Going on" represents a higher form of instructional outcome than mere perfect doing of the immediate tasks.
3. Unselfish service to common good and the really social attitude represent a higher form of instructional outcome than mere egocentric use of abilities developed.
4. *The subtle but certain personal influence of the teacher upon the taught is even more significant than curriculum.*
5. All instruction should seek as by-products to

strengthen our basic institutions—home, church, and state.

6. Teacher and taught should unfailingly practice the human qualities of courtesy, sense of humor, sympathy, etc.—which practice unconsciously gives fruitage in habits.
7. Every teacher should constantly check his work in terms not only of outcomes which are often difficult of isolation—but also in terms of its immediate interest value. Such checks include
 - (a) Attendance
 - (b) Dropping out—how much and why?
 - (c) Apparent interest.
 - (d) Enthusiasm, morale.
 - (e) Cooperation, participation.
 - (f) Educatee's own suggestion as to benefits derived (or weaknesses noted).
 - (g) Parent's suggestion as to benefits derived or changes proposed.
 - (h) Progress of student if checked with his ability and side interests.
 - (i) Etc
8. "Time is the master interpreter" and will quite unfailingly reveal strength or weakness later when the actual situations of life must be met.

Conclusion

Teachers prepare and teach; curricula are developed; buildings are erected and why? That the student may learn, may acquire the race's social inheritance.

Consciousness, therefore, of what we are trying to help him do and of whether it is being done are sorely needed.

Traditional educational procedure was indeed the parable of a gun—finely polished and cared for and regularly fired by its educational gunners who knew both the gun and the gun drill more or less perfectly.

No one worried particularly about the target—yet while for seemingly long hours daily the target was in the room directly facing the gun and gunner, yet his real self was out of sight and, like his interests, often out of range—the gun shot much over his head. The smoke and the noise, however, seemed real to the gunner; things were going well. Little heed was given to whether the “ammunition” or the “charge” were suited to effect their purpose or whether the individual shots hit or not—except that annually or semi-annually or monthly the target was questioned as to his memory of any “hits” made.

The moral is clear—no matter how excellent the message or how well sent—the whole thing hinges on: Was it received? And answered? Modern psychology and scientific education shift, therefore, its emphasis from teachings or teacher to the taught.

He is really the limiting, the determining factor—without his part teaching effort has borne no fruitage.

This new emphasis is very sorely needed. In the past we have built curricula and have trained teachers therein. Our new and pressing need is to add thereto sympathetic scientific study of the learner.

Morale, interest devices, ways to secure partici-

pation and "doing" and cooperation—watching him and his reactions to ascertain what he "gets" and what he relishes—these are among the things we must know next.

Indeed the big problem of teaching is that of all human relations—getting the other person's point of view.



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