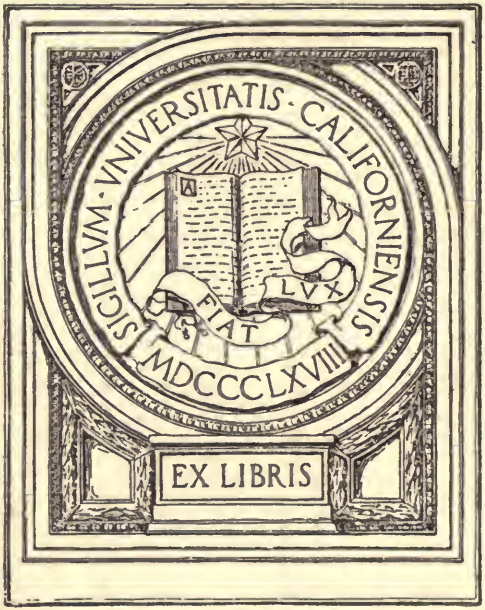

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THE OBSERVATION OF TEACHING

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EDITOR'S INTRODUCTION

A SMALL manual on the observation of teaching will be welcomed by all those in the profession of education who are responsible for the inspection and the improvement of the teacher's classroom work. Superintendents, special supervisors, principals, and training-school teachers will be glad to have a convenient treatise which will offer some direct aid to the conscious appreciation of good and poor teaching.

As things are at present, the observation of teaching is an activity pursued without much system. It is conducted without adequate preliminary or immediate intelligence, and the judgments to which it leads are not subsequently subjected to much critical thought. All this carelessness must be corrected if we are to have a stable method of improving the practice of teaching, one free from dependence on personal intuitions and chance impressions.

Of late we have made some very conspicuous scientific advances within the field of supervision. The profession has evolved standard tests of

efficiency in many subjects, and developed more or less accurate statistical means of measuring student achievement under given forms of instruction. Yet no amount of zeal for scientific educational judgments can blind us to the fact that practically all these recent contributions to the science of ascertaining efficiency are long-range methods. However accurate these may be within the restricted fields they reveal, they are never an adequate substitute for the intimate personal observations of a competent supervisor who lives in the classroom and scans the whole of the educative life found there. Indeed, our contemporaneous measurements reveal inefficiency pointedly and accurately, but seldom do they diagnose the causes and suggest the remedies. They require supplementation on the part of the wholesome and sane supervisor.

Classroom observation must be systematic rather than impressionistic if it is to be valuable. Even educational officers of unusual power rely too largely upon what they may happen to see in the classroom, and what they may happen to see is determined in very great degree by the particular educational doctrines and interests they may happen to have in mind at the moment. The antidote is to be found in an increase of thought-

fulness preliminary to the actual visiting of classrooms, in the use of comprehensive classifications of facts to be observed, and in the development of a critique of observations.

The need of an adequate preliminary theory of observation is clearly brought out the first time that a normal school student is sent to observe a lesson in the demonstration school. He scarcely knows upon what to focus his attention. He returns to the class in theory with a mind confused with detail, and he has no method of telling what he has observed save that of ordinary narration and description. In consequence, what he recites is without pedagogical significance. Too frequently such a condition remains uncorrected for a long period, and the time given to observation is practically wasted. The presentation of an outline of facts to be observed, with some discussion of the same, at once gives definiteness to subsequent observations. If the instructor shows the additional wisdom of restricting the beginner to a small number of factors, the observations of the student observer begin to be valuable.

Even the mature and experienced school principal finds that a systematic plan of inspecting his school has great advantages. Ordinarily he is a

casual visitor. His moments of freedom from office duties are likely to cover the same periods of each day. The classrooms nearest his office are likewise favored. He scarcely realizes that he is not covering all the ground. In addition, like every other mortal, he thinks of certain considerations more often than others; these he watches, the others he fails to stress. A half-hour's review of a chart or outline of factors to be observed at once redeems him from one-sidedness. He proceeds to watch ventilation, the voice of the teacher, or the social spirit of the classroom — items which he has overlooked for a month.

His work will be improved still more if he resolves to specialize on certain phases for a given period, passing on to others in turn. His inspection may be made by subjects for a time, then by grades, later by aspects not ordinarily suggested by grade and subject classifications. He will be surprised to note how much keener he becomes in his casual observations once he has followed some systematic and specialized method of observation.

The manual here presented will suggest in a comprehensive way the factors which are to be observed in the classroom. It affords the basis for much careful and systematic work useful

alike to both experienced and inexperienced observers. Its written aids to observation which follow the more detailed chapters will be a concrete and direct help, particularly to beginners.

PREFACE

OBSERVATION of teaching is considered an integral part of the professional work in most training-schools for teachers. Few definite outlines on the subject are available, consequently the work varies from carefully organized courses to desultory observation by students who are without specific plans or purposes.

This manual has been an outgrowth of the work in a course in observation of teaching, and while in no way exhaustive, the outline aims to present in a very brief form the most pertinent problems. The manual is designed for the use of students in training, for the use of teachers who are desirous of analyzing the various elements in the teaching process, and for the use of other persons who are interested in the observation of teachers at work.

C. R. M.

WHITEWATER WISCONSIN
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THE OBSERVATION OF TEACHING

I

THE NATURE OF THE PROBLEM

MUCH of our knowledge rests on observation. It is one of the necessary elements in the study of any science, and it is also a requisite in the preliminary preparation for the practice of an art. Its value in the study of the natural sciences has long been recognized, and its use is beginning to be extended in the investigation of the sciences of the mind. We appreciate the dangers of relying on the testimony of the senses, but this error is usually caused by lack of skill on the part of the observer, by carelessness in considering the essential elements, or through failure to realize how fallacies may arise.

Skill in observation, as in any art, is acquired by practice. Observation of mental phenomena, to be of value, must be exact and accurate. It requires patient endeavor on the part of a student to understand the means employed by a skillful

teacher to realize the ends he wishes to attain in any class exercise. The observation of children, in order to note their reaction to mental stimuli, is valuable to one who is to enter upon the work of teaching. The opportunity offered for observation of children in the institutions devoted to the training of teachers indicates the importance of the problem.

In an investigation of the professional work that is given in the normal schools of this country, the writer finds that courses in what is commonly called pedagogy have two aspects; one, the theoretical and the other the practical. The former is called by many different names owing to the lack of a definite and consistent terminology in our discussion of educational topics. It is given under the guise of Theory of Education, Principles of Education or of Teaching, General Methods, etc. No doubt the subject-matter, method of approach, and the point of view may be quite the same in each, but the names are not indicative of this fact. Again, the subject-matter of two courses called by the same name may be found to be quite different in their nature. The other aspect, the practical, seems to be more definite in its terminology, as when we speak of observation and practice teaching we have defi-

nitely in mind what is being attempted, although the means utilized for this attempt may be somewhat different.

Of these two elements, practice teaching is more nearly standardized than is observation, but even here a great variation exists in methods of carrying on the work. The general plan, however, is to have a small group of children taught by a student in one subject, under the close supervision of a critic teacher. The length of time that a student teaches varies from ten weeks to one year.

The results of this investigation show considerable agreement as to aims and purposes of observation; the methods utilized for realizing them vary greatly. In some cases observation is conducted in organized classes following a definitely outlined plan, while in others it is promiscuous and desultory observation by individual students, following no definite outline. The first type of observation furnishes an opportunity for a student to become acquainted with the type of work he is preparing to do. It presents to him the situation in which he may see pedagogical principles applied, and it furnishes an ideal that may be reached by thoroughly trained, experienced persons; that is, if the right type of teach-

ing obtains in the classrooms observed. The second type of observation should have little place in any institution. The student who visits a class without a definite problem conscious in his mind rarely sees what it is hoped that he may. Often his attention is focused on the relatively unimportant and thus his observation may be a hindrance rather than a help. If the work has not sufficient content to be organized or outlined as are other subjects of study, it should be relegated to the scrap-heap with other obsolete subjects.

Observation must justify its place in the curriculum of the professional school because it meets a particular need, because it fills a real want, because it makes a contribution to the training of teachers. Unorganized observation holds the place in educational theory that excursions occupied a few years ago in the teaching of geography and nature-study. It was popular to take classes on excursions to factories and manufacturing plants, or on field trips, to see land and water formations, birds and trees, in the hope that something might be assimilated that would be of educational value. When a justification other than a pleasure jaunt was demanded, the advocates found themselves in a predicament. The result has been that we are conducting ex-

cursions to-day, but before we embark on them, we realize that our plans must be definite, concrete, and worthy.

Before entering upon practice teaching, the student should be equipped with all the knowledge, both theoretical and practical, that is at the command of the institution in which he is trained. In practice teaching the student will tend to acquire the tone of voice, the poise, the habits of action in conducting the routine of the school, that will persist in his later work. We should strive, therefore, to inculcate the desirable habits at the very beginning of the work. It is a well-known fact that teachers trained along theoretical lines may be cognizant of the principles underlying effective teaching, but yet revert to methods employed by teachers under whom they acquired the knowledge of the subjects they themselves are attempting to teach. Our problem is to relate theory to practice so that theory will function in controlling and guiding practice.

A teacher in training usually has courses in psychology, methods, child-study, which treat of the instincts and interests of children, and the characteristics of mental and physical development. These courses make a study of children and of subject-matter from a theoretical stand-

point. The fundamental facts that are common to all children can well be given in this way, but a theoretical and abstract discussion of child nature will not present concretely to the prospective teacher, the living, virile, red-blooded, energetic, resourceful child, that we know and love. Children are the material with which the teacher lives, and to understand and appreciate them, he must view them at first hand. Froebel gained his knowledge of the sacredness of child life, not from treatises about children, but by living with them. We no longer give textbook courses in science. A school that would teach physics, chemistry, or biology from a textbook without making use of the laboratory to explain and make real the phenomena that classes are studying, would soon fail to get support from the public. In our schoolrooms, we have available the best type of laboratory, and it should be as important an adjunct to our courses in educational theory as is the physics laboratory to the lecture-room in that subject. This is a place where the arguments of economy cannot be offered as an excuse for its absence. Separation of educational theory and schoolroom procedure has existed because the people who have exploited theory have had, in many cases, little knowledge of child life,

and the teachers of children have had no fundamental theories in regard to their work.

The apprenticeship system is faulty in that it does not give and develop principles that may be applied in changing situations, as there is little attempt to analyze the process. It is efficient in that it demonstrates, objectively, what is to be done and how to do it. To overcome the evils and to retain the good of this system, we are beginning to appreciate, both in the trades and in the professions, that it is desirable to learn the theory of the art or craft before entering upon independent practice.

The teacher needs theory that establishes an ideal. He needs to observe a skilled teacher to appreciate the relation of the ideal to the practical, and finally, when both aspects of the principles are clearly in the consciousness of the prospective teacher, he is ready to take charge of a school. If he is unable to make the adjustment, if his theory does not function in his teaching, if he cannot think through the subject-matter in terms of the students he is to teach, a further apprenticeship in observation of a skilled teacher is needed before independent practice should be permitted.

In his preparation for surgery, the student is

given an opportunity and required to attend many clinics where he observes the skilled operator. To supplement his training in the medical school, the young surgeon joins the staff of the hospital in order that he may have further advantages in observation before practicing his art independently. He serves his apprenticeship in observing those skilled in the art he wishes to practice, so that the physical life of his patients may not be jeopardized. Is it not just as essential that the mental life be given as much consideration as the physical? If so, it would seem that a carefully outlined course in observation should be an integral part of a teacher's training.

II

THE PURPOSE OF OBSERVATION

We observe the performance of an act, either to appreciate the skill of the performer, or to gain a more complete understanding of his methods in order that we may be able to use them ourselves. Our pleasure in observing the skilled acrobat, professional baseball pitcher, or sleight-of-hand performer, is due to the satisfaction we derive from seeing one who is master of the technique of the art he practices. Our attitude toward an exhibition of one of these arts just mentioned is quite different from that of a person who is endeavoring to become proficient in this art himself. We are interested in the act itself, and not in the means by which the actor has been able to accomplish his end or act. The novice in the art gives his attention to every movement of the skilled performer, endeavoring to discover the exact relation that one part bears to another, the value of each part in the total act, and the conservation of energy in the whole process. On the other hand, he is keenly observant of the loss of

energy due to utilizing means that do not assist in the performance.

There is the same pleasure in watching a skillful teacher at work that there is in observing a skillful performer in any walk of life. Owing to the organization of our schools, their isolation and the few really great teachers that we have, one rarely thinks of the school as a place where skilled craftsmen are at work. Because of the nature of the work, and the detrimental influence on the pupils, the school will never be a suitable place for enjoying the exhibition of the art of a skilled workman, any more than will the great surgical clinics. The work of the teacher will be observed for the purpose of showing the novice in a concrete way desirable ideals in the practice of his art.

The skill of the teacher must be even greater than the skill of the worker in other vocations. The worker in all crafts is reasonably sure of the response he will receive, as the material on which he works is incapable of assuming a variety of forms. The problem of the teacher is much more complex, as he is confronted by a group of children whose mental content is anything but uniform. Here we find the precocious child, the indifferent, the indolent, the slow, the deficient,

the products of diverse hereditary influences and environmental conditions. It requires a master mind to analyze the elements in such a situation and to anticipate the manifold possible responses. Fortunately, children have more common experiences, and the range in their ability is more nearly the same than a cursory glance would indicate, otherwise the task of teaching children in classes would be well-nigh hopeless.

The attitude of an observer toward a teacher's work is affected by his purpose. One may visit a school to judge the effectiveness of the procedure, to commend the desirable characteristics, to criticize and suggest means that would be more effective, to endeavor to find in the conduct of the work ideas that could be utilized elsewhere, or to see the mode of activity and the methods employed by a skillful teacher. These different attitudes are assumed by superintendents, principals, supervisors, teachers, and students in training. Superintendents, when not acting as supervisors, usually visit a school with the attitude of a judge to estimate the worth of the teaching. Principals and supervisors should view the work with the attitude of a helpful adviser who sees the situation in its wider relationship. The teacher who visits another should do so with an

open mind, endeavoring to find suggestions that will be helpful, and the student in training should have consciously in mind the relation between theory and practice. Each group is on the alert to see skillful teaching, and the questions they ask themselves as to the effectiveness of the instruction should be practically the same.

The first group,—the supervisor, the superintendent, or the principal,—visits a class to see wherein a teacher is teaching in accordance with correct pedagogical principles, to note wherein he is sincere, enthusiastic, well prepared, considerate of the children, sympathetic, well poised, firm. He notes the points in which that teacher is strong, where the source of his greatest possibilities lies, what his undeveloped potentialities are, and he considers ways and means whereby the teacher's ambition and aspirations may be aroused to realize his possibilities. The supervisor must be judged by his ability to develop and inspire his teachers and not merely by his knowledge of the factors that are involved in good teaching. The supervisor's function as an inspector has been emphasized to such a degree that many supervisors are content to be inspectors of the teachers and classes they have in charge. They are satisfied with their labors when

they have passed judgment as to whether or not the teaching meets with the standards they have established. The investigations that have been made of the work of such school officials lead one to question the general prevalence of any standards for measuring the efficiency of teachers, but taking for granted that norms are used in measuring efficiency, the teacher's work is not improved by inspection.

The manager of a department store does not dismiss a salesman even though his sales are not what it has been anticipated they would be in that department, until he suggests ways and means whereby that clerk may be made more efficient. The building contractor does not discharge his masons because they have not laid their bricks with sufficient rapidity, but rather he suggests ways and means by which more may be accomplished with the same expenditure of energy. If his workmen are unable to act on suggestions to secure the desired results, then, and not until then, does he seek others. Should not the administrative officers in our schools be as anxious to bring to the attention of their teachers the principles of scientific management as have been the administrative officers in other lines of endeavor? The supervisor should have a definite

idea of the purpose of education, he should have a clear conception of the purpose of the school under his charge, and he should have distinctly in mind the essential elements that he ought to find in each recitation he visits. Supervisors under these conditions are a help to their teachers, because they are in a position to point out both the excellent and the poor qualities in the recitation. The teacher in such a situation will be able to use this criticism in improving his work, for he can be made to see that his efforts have been at variance with the standards of the system of which he is a part. Unfortunately, teachers are frequently either complimented or criticized without being given the basis for either judgment. Teachers desire their work analyzed and welcome a frank discussion with one who is prepared to assist them in their work.

The second group interested in observation are teachers in the field. They feel they can gain inspiration and assistance from observing their fellow teachers who are confronted by the same problems that beset them. The fact that a teacher may be benefited by such visits, is recognized both by school officials and by laymen. Consequently, we find many cities granting teachers a certain number of days each year for

the purpose of visiting schools. The teacher is granted his salary for these days, and they are usually called "Visitation Days." The teacher is benefited, no doubt, for he has had a change of scene, he has met new people, and the social intercourse has been stimulating, but the amount of good that accrues to the system of which he is a part, and to the children in his charge, is questionable. If he is a teacher capable of outlining the problems he wishes to investigate, and if he uses his initiative in adapting results to his own use, such a visit will be profitable. However, if much good is to accrue to a teacher from visiting other teachers, and observing their work, he must, previous to such visits, have definitely in mind points upon which he needs assistance.

In observing a lesson, one must not be satisfied in getting an impression of the lesson as a whole, nor be content until every part of the lesson has been analyzed, to see whether or not it measures up to standards in accordance with correct pedagogical principles. A teacher who lacks this latter qualification may see devices that appeal because of apparent results when they are incorrect in principle, and the apparent results may be inadequate. Many fads in education are due primarily to the lack of a critical attitude of school

officials and teachers. The vertical system of handwriting and the spiral treatment of arithmetic are examples of undigested thinking on the part of school people.

The third group of observers — that is, teachers in training — is the most important. The child is the hope of our civilization, and if we can train his teacher aright, we are tapping the stream at its source. This group observes a teacher to see theory made real or vital. Teachers in training should see model lessons taught by exceptionally strong, resourceful teachers; they should appreciate essential elements in good teaching because of their courses in psychology and education. Such model lessons observed should be measured by the standards evolved in these basic subjects. A student is better able to apply a principle of psychology in his own teaching if he has seen it function in the work of a teacher he observes. The young surgeon receives theoretical instruction in ligaturing an artery, but it is not considered that this instruction is adequate. It is necessary for him to see competent surgeons perform the act before he is expected to do it himself. In the profession of teaching we are too prone to take for granted, if we tell a novice how a class should be handled,

that he will be able to execute in accordance with our ideal. We forget the gap between theory and practice, between the ideal and the end accomplished, between thinking how and doing. This class of observers, like the other two classes discussed, needs a carefully outlined plan with definite, specific questions that are to be asked and answered about the recitation. It is the part of the teacher to get the right perspective, to be cognizant of relative values, to become conscious of the great field of opportunity open to him.

The previous discussion has been based upon the hypothesis that observation is one of the essential factors in the process of teaching. The position has been taken that a teacher's work is observed by his superiors in order that helpful suggestions may be given, in order that he may be able to render more efficient service. We have assumed that teachers observe the work of fellow teachers to get suggestions and to see devices that may be adopted and modified to improve their own work. It has been taken for granted that students in training-schools should be required to observe skillful teachers so that theory may be exemplified in practice. The person who observes for the purpose of getting suggestions needs an insight that can recognize the vital elements, the

relative worth, the originality, the initiative, and the sympathetic coöperation between teachers and pupils in every phase of school life. The teacher who observes fellow craftsmen needs the insight that enables him to accept, adapt, and adjust the correct principles that will furnish aid in solving new problems. The student in training needs the insight that will enable him to acquire such knowledge as will give command of the technique of class instruction.

III

THE VALUE OF OBSERVATION

THE worth of observation of fellow craftsmen to one who is to practice an art must be judged by its influence on his attitude, ideals, and activity. For an adequate appreciation of the problem confronting him, it is necessary to analyze the important basic elements of a craft, to investigate whether or not these elements can be seen, and whether they can be viewed in a perspective that will furnish a means for employing this experience in his own practice. The value of observation to the teacher will depend on his ability to utilize in his own teaching the essential factors that he has witnessed elsewhere. If we take for granted such ability, it is only necessary to point out the indispensable principles available to justify its worth.

To present the teacher with the actual situation he will meet upon entering the service of the public schools, we shall need to have him observe the typical schoolroom, which will be something like the following: A group of about forty chil-

dren is divided into two classes taught by one teacher, usually a woman; the physical features, seating, lighting, heating, and ventilation, are passable; considerable blackboard space is available, and illustrative material, maps, globes, charts, etc., is provided; while one class recites, the other prepares the lesson to be recited immediately; sometimes, between recitation periods, the teacher spends a few moments answering desultory questions. This, in brief, is the general type of situation in which our prospective teachers will be placed. In many instances, the conditions mentioned would be rather ideal. In a few instances one will find them even better. These conditions are not ideal, nor do they present the right model that we should wish imitated by our teachers; but they are facts that cannot be ignored by institutions that are training teachers for service in public schools. The teacher needs to understand and appreciate the conditions that he will meet in his first contact with his life-work, and he is improperly and inefficiently trained if all his observation has been of models that are in no way a replica of existing situations. Many training-schools are guilty of presenting to their students a hollow imitation of the actual thing, impressing upon them its forms without realizing

that the aid they are receiving will be as serviceable as an evening gown in a berry patch. Some of our schools, realizing the futility of such training as has been given in the past, are now providing facilities that one finds in a good public school. In this way students meet a typical environment that will be of assistance to them in interpreting public school conditions.

A course in observation that is an integral part of a teacher's training furnishes a standard of excellent work in an objective way. A model is then available that may be used by a teacher in measuring his own work. The importance of a model to imitate is appreciated in all phases of mental life. The child instinctively tends to perform the acts he has observed performed by another. The acts that are novel attract his attention, and these are the ones he first endeavors to make his own. The problem in training children is to get the child to copy and emulate the model that furnishes the desired ideal. It may seem a narrow conception of education to hold that teachers should acquire a part of the technique of teaching through imitation, and it would be a hopeless outlook for the future generations if a large amount of educational theory should be formulated in this way. Neverthe-

less, certain ideals will be better impressed on most pupils by observing correct models. We know that teachers without professional training invariably teach as they were taught. The model imitated is usually the last or the most popular instructor. Sometimes it is a teacher who had a personality that appealed strongly to the student without any reference to his skill as a teacher. It is a well-known fact that teachers with professional training revert, at times, to methods used in their earlier instruction, which violated correct pedagogical procedure. This fact is an indication that example is a powerful influence in shaping or moulding the work of a teacher. It points to the fact that observation of schoolroom work on the part of students in training should not be haphazard, but should be continued for a sufficiently long period so that correct models will be interpreted in the light of educational principles.

The craftsman in other lines of human endeavor in his period of apprenticeship studies the work of the masters of the art which he hopes to practice. The great painters who have taught the technique of their art have first presented the fundamental principles, but before the series of lessons was closed, the student saw many demonstrations of the artist's work. The sculptor dem-

onstrates in his studio the method by which he secures his results. In the practical arts based upon a minimum of theory, the student is trained through doing, having first observed how the thing is done. Since observation is an important factor in most arts, should it be made an exception in teaching? It is sometimes held that preparation for teaching does not require training in observation as every aspirant for a teacher's position has been taught, and he needs merely to recall the procedure of his early experience. It would be just as plausible to say that because a boy has run races during his childhood, he is prepared to take part in a Marathon race.

The model classes that a teacher will see during his period of training will be the standard by which he will judge his own work. A model lesson is theory objectified. It is just as important for a young teacher to see the theories, which have been presented to him, objectified, as it is for the child in the primary grades to have objects available when he is being taught the fundamental facts in arithmetic. The model lessons, which the student sees taught by experienced and skillful teachers, are ideal in that they are beyond the accomplishment of the novice, but valuable for the reason that they represent a standard capable

of accomplishment by an ambitious teacher. This will mean that the teacher who conducts classes for the purpose of demonstrating methods of presenting subject-matter must be both skillful and resourceful — skillful because the technique is being taken as a model which will be influential in forming the habits of his class, and resourceful in that he must be able to take advantage of new and unexpected situations that cannot be anticipated.

One of the problems that confronts the teacher is the proper organization of subject-matter, and the observation of a teacher skillful along this line should be of great value to a novice. Teachers trained in the higher institutions of learning tend to teach children subject-matter organized in the manner in which it was taught to them. The inexperienced teachers in our high schools, fresh from the university, are teaching courses in English, history, etc., with the same organization that was used in these courses in their university. Our elementary schools are not affected in this respect to such a degree, but even here instances are not rare where the material taught is not adapted to the needs and abilities of the child. The organization of subject-matter is relative to the child that we are to teach. We have the sci-

entific or logical organization that does not take into consideration the experience of the learner. McMurry indicates the place of logical organization of subject-matter by saying: "Attention is called to these facts here in order to suggest that, while the scientific and logical bases of organization are in common use, neither of them is adequate as the main basis of organization for a young student who is studying a subject for the first time. . . . It must be admitted that they are of great assistance in securing thoroughness of comprehension by their revelation of the relations existing among facts, and also that they classify facts in a convenient way for finding them later; but they are of greatest use to the advanced student who is already supplied with motive and with standards for judging worth and who has proper habits of study already formed; they can well follow, but they should not supplant the psychological basis." [1]

Owing to lack of experience with children, most young teachers follow the scientific or logical organization of subject-matter. It is necessary that a teacher have his material organized before he attempts to teach it. One of the prerequisites for students in professional schools for teachers

[1] *How to Study*, p. 97.

preliminary to teaching should be to have definite problems assigned in arranging subject-matter suitable for children. The student needs to observe children both in and out of school, to note their interests, capacities, and needs. The teacher gets the child's point of view by reviewing in retrospect his own childhood and by studying the children under his charge. The teacher who observes children closely will say that they are pragmatic in their attitude toward knowledge. The child will study our shade trees from the standpoint of the enjoyment and value they are to us in the summer time, but he is not interested in the structure, the relation of various parts to each other, that is, the scientific classifications. In geography the child is not so much interested in man's response to his physical environment as he is in comparing his life with the life of the people, particularly that of children in other lands. The organization of the subject-matter that appeals to him and holds his interest will not be the organization of the scientific geographer, but it will meet the needs of the undeveloped child. The subjects that are dominantly content subjects lend themselves readily to organization that appeals to children in their immaturity. The formal subjects also give a teacher an op-

portunity to consider constructive organization from the standpoint of motive. The teacher who appreciates the importance of the proper organization of subject-matter has a conception that will be an invaluable aid to him in his work. This means, however, that he will know the type of material that best lends itself to development; the portion that he must emphasize, in order that its relationship to other fields of knowledge may be seen; the phase of the work that will help children to enjoy the beautiful in nature and in art; and he will need to make provision for that part of the subject, which to be useful must be habituated. If the children grasp the significance of the material, note the essential points, see its relationship to other facts, and realize that when organized and classified it is of future service, then we can feel that we have succeeded in our aim. Are teachers considering the importance of leaving with the pupils in their charge a body of organized knowledge, classified according to relative values, specific aims, and present and future needs?

The classroom is the best and only place for the teacher to study the responses of children when they are being taught. Owing to the faulty organization of our schools, we may not see the

free, spontaneous, joyful expression of child life that we see in other environments, but we see here organized activities that represent the will and purpose of the school. This is the plane on which the children will be met later and, therefore, most attention will be given to studying them in this environment. The normal classroom is also the best place to study the different types of children. In a random distribution such as we have in our public schools, we shall find the dull and the bright, the slow and the quick, the backward and the precocious, the strong and the weak, the retarded and the accelerated. The novice needs to see the slow child in the class to appreciate his needs: a theoretical treatise on the topic does not do justice to the problem. Again, the novice is often surprised to note how a skillful teacher adapts the subject-matter to the majority of the class. It is necessary, however, to call attention to the fact that a few members of the class are capable of assimilating more than is expected of the majority of their fellows, and that about an equal percentage will need special attention if they are to comprehend fully the significance of the lesson. It is important for the observer to note what methods the teacher employs with these two groups, in order that they may be

given proper consideration. Elimination of waste in education will mean that the groups at both ends of the normal distribution will be provided for in separate classes, but we need to realize that there is no hard and fast line of demarcation between any of these classifications. The dull and the bright pupils grade insensibly into each other. The scales that are being tested and used will be of service, in that we shall have norms that represent standards of accomplishment. In this way, we shall be able to note what differences exist in a definite ratio.

A classroom presents the opportunity to see theoretical principles made real and vital. Much of our teaching is abstract, lacking realness and hence not serviceable in controlling values. We state that the interest of all pupils should be aroused in the lesson under consideration. If this interest is not immediate, we should secure it by relating the facts to some value or need which the children feel. We may see that such an interest may be fostered in the number facts in arithmetic through the use of number in plays and games, that spelling may be motivated by utilizing the desire that the children may have to spell correctly the words they wish to use in writing a letter to a friend, that correct forms in language

may be inculcated by making use of the desire the pupils may have to emulate the standard set by the teacher. The way in which such illustrations can be made real, concrete, and objective is to see a teacher work them out with a class. They will then become significant in the experience of the observer. It may not be possible for the novice to execute a similar plan, but he will have in mind a much clearer ideal of a process that has been demonstrated. Again, consider the principle that all pupils shall be active in the recitation. How can the manner of accomplishing this aim be better emphasized than by watching a skillful teacher? In many of the professional courses which teachers pursue, the method of presentation is mostly by lecture, and while the instructor is active the students are for the most part in a passive attitude, taking notes in a desultory way. To counteract such an influence, stimulating models where pupils are thinking vigorously all the time are needed as a corrective to insure effective teaching later.

We are beginning to give more attention to the social aspect of the school. Professor Dewey has made the school conscious of its functions; conscious that it is not an isolated portion of experience, but that it represents a real life situation.

THE VALUE OF OBSERVATION

The classroom is a good index of the social life of the school. If the teacher is a dictator governing his class by the authority vested in him as a teacher, it will manifest itself in the mechanical responses in the classroom. On the other hand, if the teacher is an integral part of the group, working with the children toward a common end and considered by them as an inspiring leader, the responses will be spontaneously made, childlike expressions. Under the former ideal of the school, where the teacher was the autocratic ruler, individuality was repressed, initiative was destroyed, and independent thinking was a crime. The model pupil was not the one who conformed to the conscience of the group, but the one who could and would obey without question the mandates of the teacher. Under the newer conception of the school the pupil is guided by motives that find their meaning in the social conscience of the entire group. Is it necessary for us to ask which type of training best fits the pupil to take his place in the wider social environment outside the school?

Observation of teaching will present many problems of significance both to the novice and to the one who has practiced the art. To both, it will give an opportunity to view the organization

of the content of the whole school curriculum. It will furnish the means for discovering the adaptation of subject-matter which a skillful instructor makes to meet the needs of the undeveloped student. It will demonstrate in a concrete way the conception of the relation between theory and practice. It will, when administered adequately, give a true picture of what is possible of accomplishment in a good schoolroom.

IV

THE TEACHER

THE tribute which Garfield paid to Mark Hopkins is a conspicuous illustration of the influence of a powerful personality. Our continued emphasis on methods and devices that will be a panacea for all our educational ills sometimes blinds us to the importance of the teacher as the most potent factor in the educational process. "Personality" is an illusive term, and it connotes different ideas to different people. One may say that Miss B has a pleasing personality and he may mean several different things. However, in any case, he means certain attributes that are applicable to the person in question, but they are usually complex. He may mean that Miss B has a sweet, winsome face, that her features are cast in such a mould that she presents a pleasing appearance, that she has good manners, is refined and cultivated, that her voice is soft, low, and sweet, her enthusiasm contagious, that she is sincere and wholesome, that her character is such that makes an appeal, or that her general appear-

ance attracts and holds the attention of any one who sees her. One may mean all these things and more. Or he may mean only one certain aspect in making the statement that her personality is pleasing. Probably to most people personality means merely good looks, beauty of form and feature, and the unfortunate condition in the teaching profession is that many teachers are selected on this basis alone. An attractive face may hold the attention for a moment, but if there is not a sterling character underneath, the attractiveness is no great asset.

The test of the personality of the teacher is his influence on the children he teaches. If he inspires the children so that they will perform their school tasks cheerfully and well, live in happy association with their fellows, and feel that school is a place where they may express themselves in a natural manner, then his score in personality should be high. Any teacher who wins the affection of the child is beautiful to that child. We may be biased in our judgment of a person in meeting him casually, depending somewhat on our attitude at that time. It is impossible to tell the true character of a person by casual acquaintance. We can learn by observing the influence of a teacher on a group of children, and children are

as sensitive as an adult. They readily detect insincerity, carelessness, timidity, egotism, affectation, lack of sympathy, and inefficiency in their teachers. The teacher who can impress the positive virtues on the children so that they will be manifested in life outside of the schoolroom is the teacher who should be scored highest in personality. In judging the personality of the teacher we observe, we should note the relation between the teacher and pupils, the respect they have for each other, their coöperation, their unity of aim, and the mastery of the tasks they have undertaken together.

"The outward and visible sign of an inward and spiritual grace" is manifested through the teacher's appearance, voice, and manner. To have the right influence, he should be possessed of good physique, in good health, without any noticeable deformity, should be businesslike, and dressed in appropriate taste, and not in the garb that fashion might require of its devotees, but in the dress that the conventional American feels is suitable for business hours.

A teacher with a pleasing, clear-toned, well-modulated voice possesses an invaluable instrument of control. I recall a teacher who could always bring his class to immediate attention

merely through the modulation of his voice, and the testimony of his pupils was that they enjoyed not the substance of what was said, but the music of his speech. A harsh, strident, high voice has a tendency to upset a class, making the keenly sensitive children irritable, noisy, and disorderly. Our training schools for teachers place too little emphasis upon voice culture.

The manner of a person is usually an index of his station in life, and the teacher expresses in an outward way his opinion of himself. His attitude toward his work tends to beget a like attitude on the part of his class. The vigorous, well-poised, enthusiastic, confident teacher gains the respect and confidence of those he teaches, whereas the teacher who is timid, vacillating, and nervous usually fails to get active coöperation. Sometimes the casual observer may be misled by considering bluster as vigor, egotism as resourcefulness, and stolidity as self-control. The list of adjectives under manner are suggestive, and the observer should note others that would be suitable in describing a person.

Many people think that the teacher's personality is the sole factor in determining his worth to the community. As has been said, this is a very illusive term, and after the personal characteris-

tics have been considered, we should proceed to an analysis of the work to see what factors contribute to success. The personal characteristics may be wholly desirable, but if there is no dynamic force, if the teaching efficiency is low, the person would fail to become a vital factor either in the school or community and hence not be desirable as an instructor. The great influence of a teacher is in his work in the classroom as this, after all, is his particular sphere, and it is for his skill in this position that he is employed. There are prerequisites that the profession should demand for those entering it, such as a good character, intellectual capacity, preliminary training, etc. They should be considered fundamental, but beyond these the most important is skill in the classroom. The teacher needs to be an aggressive force in any class he teaches whether it be in the primary grades, in the university, or in any of the intermediary groups. Some teachers interpret aggressiveness as meaning to take the initiative on all occasions, repressing the pupils whenever originality manifests itself. The teacher of power is quick to seize any evidences of originality and direct them to constructive educational ends. We have little respect for the person who is unable to perform the task for which he purports to

be prepared. This is as true of teaching as of the performance of an acrobat.

Unfortunately, there is a type of teacher in the schools, that follows the line of least resistance, that does what he finds easiest to do, that follows mechanical routine, that could not deviate from this fixed orbit any more than could the mechanical toy. The springs of his being seem to be cast in an inflexible mould as is the spring that controls the motions of the toy. He teaches as well this year as last, but will teach no better next year than he did two years ago; in fact, he gradually deteriorates with age as he does not have within himself the power to be rejuvenated. It is this static teacher who is the millstone about the neck of our educational system. These are the people who should be discovered in our training school, and guided into some other profession, where their talents will be of more service to the State. In analyzing our teachers in respect to their teaching power, we find a larger group neither among the dynamic nor static group, but among a group that, for lack of a better term, we may call mediocre. If carefully supervised and directed, these teachers get fair results. When problems are suggested they see their significance; when a new situation presents itself they

are able to recognize familiar factors, and to meet it by relating it to previous experience. They are not people we would choose to furnish an ideal solution to a problem, but we are, nevertheless, assured that they will not go very far astray. They do not see new problems that require great initiative, that require great resourcefulness, or that require independence in thinking, but they are able to aid in working out theories which are elaborated by other people with greater constructive ability. This is the type that we need to reckon with as the predominating element in our schools, as in all phases of life they comprise by far the largest group. Our aim should be to increase the number in the higher mode, to eliminate all in the lower. It is desirable to do this in all phases of our civilization, but it is especially necessary in the group that is differentiated to take charge of the training of our future citizens. The caliber of our teachers is, however, much in advance of our ideals of social service, and our opportunity for a superior product in the profession will come only through raising our general ideas of social efficiency.

The importance of the school as a social institution is coming to be realized. With an increasing emphasis on this phase of the school's duty,

the teacher's problems of necessity increase in importance. His influence both on his pupils and in the community must be investigated in order to give a just estimate of the worth of his services. If the school is to exert the most desirable influence on its students, a spirit of coöperation must exist. The students must feel that the school exists for the development of the social group. They must have respect for authority, but this authority must be the will of the social group rather than the arbitrary wish of an individual. Discipline will be administered from this standpoint. A person who does not conform to the group consciousness must be made to feel that he is out of harmony with the purpose that prevails. The ideals should be those of social service, and he is of greatest service who makes the greatest contribution. This does not preclude the ideal of personal efficiency, as personal efficiency finds its interpretation only through participation with the others of his group. The relation of the parents to the school will reflect to a great degree the ideals of the teachers in service. Again, the attitude of the parents will be reflected in the work in the schools. The teacher should endeavor to have the patrons feel that the school and home are institutions in a larger social

whole; that each has its specific tasks to perform; that each must be conscious of its relation to the other, and that through this relation both gain added meaning. This will mean that the school will be interested in all civic movements; that it is not always to be a follower or leader, but that it plays its own part and takes its place in all active movement for social betterment. This conception of the teacher's duty is from the idealistic standpoint, yet our schools will never exert their just influence until teachers are conscious of the problem. The efficiency of the teacher should be judged from this point of view as well as from the standpoint of personality or teaching power.

OUTLINE AID TO OBSERVATION

THE TEACHER

I. Personal Characteristics.
   1. Appearance.
      a. Dress: appropriate, neat, attractive.
      b. Businesslike.
      c. Facial characteristics.
      d. Physique: deformities.
   2. Voice.
      a. Pleasing.
      b. Well modulated.

c. Harsh, strident, high.
d. Distinct, clear.
e. Commands respect.

3. Manner.
   a. Vigorous.
   b. Well poised.
   c. Confident.
   d. Enthusiastic.
   e. Self-control.
   f. Sympathetic.
   g. Tactful.
   h. Quiet.
   i. Resourceful.
4. Health.
   a. Robust.
   b. Poor as evidenced by: —
      (1) Nervousness.
      (2) Lack of energy.
      (3) Indifference.

III. Teaching Ability.

1. Mastery of subject-matter.
2. Selection of subject-matter.
3. Analysis of subject-matter.
4. Skill in arousing thought.
5. Skill in formation of habits.
6. Skill in assignment.
7. Skill in questioning.
8. Discipline.
9. Careful planning.
10. Sufficient preparation.
11. Attention to language.
12. Attention to individual differences of pupils.
13. Results.

III. Social Efficiency.
   1. Influence on pupils.
      a. Spirit of coöperation, consideration.
      b. Order, how secured?
      c. Ideals.
   2. Influence in community.
      a. Relation to parents.
      b. Relation to civic movements.

IV. Professional Attitude.
   1. Interest in work.
   2. Interest in pupils.
   3. Coöperation with colleagues.
   4. Ability to make use of criticism.

V

THE PUPILS

In our preliminary discussion we mentioned the importance of seeing children at work. By studying them at first hand, one appreciates their abilities, attitudes, and interests more clearly than when he considers these traits in an abstract way. Many elements influence the work and conduct of a group of students, and we need to consider specific points upon which attention should be focused in visiting a classroom.

A study of the psychology of childhood will show that children of different ages must be appealed to in different ways. Translated to the classroom this means that the problem of teaching children changes with their advancement in school. An obvious question will be whether or not methods employed are suitable for a particular grade. In the primary grades, the children are confiding, impulsive, and lacking in social restraint; their attention fluctuates easily, and they soon become fatigued. As they advance in the grades, the power of self-direction should in-

crease. Concentration on a problem for a longer period of time should be expected, greater power of self-restraint should be demanded, increased ability to work with abstract ideas should be anticipated, and less emphasis should be placed on sense material. A dogmatic attitude is out of place with the child at any age. Appeal should be made at all times to the rational nature.

A casual observer frequently is unduly influenced by the appearance of a class. It cannot be used as a basis for conclusions that are valid. However, appearance indicates, to a great extent, social status, nativity, age, etc. In extreme cases it is an index of intellectual caliber. Racial characteristics condition to a certain degree the response that one may exact from a group. The response that one gets from a vivacious type from southern Europe will be quite different from that of the well-poised American child. The appearance of the individuals in the group will need to be considered by one who observes a recitation; he needs to be careful that he is not making inferences that would not be justified by a careful study.

The number in a class has a marked influence on the effectiveness of the teaching. A class of fifteen or twenty presents possibilities impos-

sible of accomplishments with one three times as large. In topical work only a limited number of students will be able to make contributions to the class recitation, and even if the mode of procedure is by question and answer it will be impossible to call on all members of a large class. The problem of holding all pupils responsible for the material presented in a large class requires careful planning. To large classes, teachers are prone to present subject-matter in lecture form, and this method is not conducive to the best thought on the part of the members of a class. It is also more difficult to create an ideal social situation when the class is large. If to take an active part is an essential element in securing the best results, a small class has the advantage. It is the give and take among students that makes class teaching more profitable. We do not know the size of a class which presents ideal conditions for the highest development of each member; the best opinion would seem to hold that fewer than twelve or more than twenty-five students in a class is undesirable for each to receive the attention that he should. This is a problem for experimental study, and until we have such data teachers must adjust themselves as best they may to situations in which they are placed.

A close examination of a class is required if one is to discover the sub- or super-normal. The average teacher is able to discover those individuals at both extremes; he is unable to make a valid judgment of the individuals near the border line. The present-day trend in educational progress indicates that we may hope for definite intelligence tests that will be of value to teachers, but the tests that have thus far been elaborated are imperfect, and much more constructive work will be necessary before the results of such tests can be considered as final evidence in the majority of cases. At the present time, the results in conventional school work are used as a means for testing the intelligence of the individuals in a class, however faulty this method may be.

Many cities are attacking the problem through the ungraded room, but the basis of selection is so unscientific that the achievements are much less than they would be if the plan could be better administered. The movement is valuable, because it has aroused the public to an appreciation of the problem of giving to the child who is not normal a type of education that will be conducive to his highest development.

The response that one finds in a classroom furnishes one of the best means of judging the

efficacy of the methods of instruction. These responses show also, to a large degree, the mental characteristics of the class. We can observe the slow, the weak, and the strong; those students who are working independently of the teacher in advance of the class; those who are finding the work difficult; those who are hopelessly in the rear; those who are following, through their ability to lean upon others; and those who have ability but who are indifferent to the work of the class. The alert teacher diagnoses these cases and gives the best remedy in her power. For many, it means the repetition of the work; it should mean, in most instances, a special class. The problem of retardation is receiving considerable attention in most school systems, and the ungraded room is the means most frequently utilized to cope with the problem. A class may be composed of normal children but, due to faulty teaching, only a limited number are taking part. A teacher who is working to secure independence from her class will not be satisfied unless practically all members are actually interested in the subject under discussion. The successful teacher will be alert to discover whether the child is taking part to clarify his own thinking or to satisfy the demands of the teacher. The whole class will

be taught that the fundamental problems should be to clarify and enlarge their knowledge of any topic under discussion.

The attitude of the class toward the teacher is a good index of the social efficiency of the school. Children may show a spirit of insubordination if the teacher has an individualistic attitude toward his work; yet a teacher who has a fund of sympathy, tact, and broad understanding of child life will secure obedience, respect, and goodwill even from a class of children who have the influence of a bad environment outside the institution. The attitude of the children in the room and on the school grounds will give a casual observer a fairly good basis for drawing conclusions as to the social atmosphere that prevails. Both the teacher and the community should be conscious of this fact.

OUTLINE AID TO OBSERVATION

THE PUPILS

I. Grade.

II. Number in Class.

III. Appearance.
   1. Nativity.
   2. Apparent age.

3. Well clothed.
4. Well nourished.
5. Neat or unkempt.

IV. Types.
1. Number apparently normal.
2. Number apparently above average ability.
3. Number sub-normal.

V. Responses.
1. Characteristics.
   a. Slow.
   b. Weak.
   c. Strong.
   d. Impulsive.
2. Number apparently interested.
3. Number actively interested.
4. Number the teacher questioned.
5. Number asking questions.
6. Number participating of their own volition.
7. Number taking no part.
8. Purpose.
   a. To satisfy teacher.
   b. To clarify own thinking.

VI. Attitude.
1. Well mannered.
2. Obedient, quiet.
3. Disorderly, disobedient, noisy, rude.
4. Individualistic.
5. Social spirit.

VI

THE LESSON PROCEDURE

Both laymen and teachers think of each day's work in the schoolroom in terms of lessons. The emphasis of the word "lesson" restricts and confines our thinking in regard to the broader aspect of the function of the school. We shall use it, however, in this discussion as it connotes a definite mode of procedure in the minds of people when we are discussing the work of the school. We shall think of it as the series of reactions that one witnesses when he visits a class. On the one hand we have in mind the teacher and on the other, the pupils and their relation both to the teacher and to each other in getting control of the new experience that is being considered. This procedure will be analyzed from the standpoint of purpose, the means employed in reaching the desired goal, and the results obtained.

In our teaching we wish either to broaden the student's outlook through the presentation of new material, to habituate knowledge already presented, to reorganize knowledge or experience

from a new point of view or in larger wholes, or to arouse desirable emotional reactions. Each type of lesson has a certain technique that demands consideration in a critical investigation of the teaching process. In a lesson period one may find more than one type, but the lesson as a whole should be dominated by a conscious purpose. For example, the purpose of a lesson in arithmetic may be the development of the meaning of per cent and yet a part of the day's work may well be a drill on fractional equivalents. Again, one may wish to teach the appreciation of the poem "The Night before Christmas" to a second-grade class, and the plan of presentation will be the development of the broader conception here presented with the child's previous experience of Christmas and his idea of Santa Claus.

Lessons should be analyzed first as to purpose, second as to the type made use of to gain control of this particular subject-matter, and third as to the elements that we should find in a properly presented lesson of the given type, the particular points of excellence, the place wherein it was inadequate, and the means that could have been employed to make it more efficacious. This last point needs especial emphasis, as too little attention is given to a constructive view of lessons

observed. A student who has been trained to make constructive criticisms is in a better position to consider his own work with the same attitude of mind.

The lesson types are analyzed in slightly different ways by writers on this subject; it would seem that practically all types of instruction are formulated when we consider development, inductive, deductive, informal; drill; appreciation; and review. Several writers include the recitation and study lesson as distinct types, but if we analyze the process carefully, we shall find that these two are rather, as Bagley says, "exercises involved in the technique of using textbooks."

In all recitations the teacher who secures results in the day's work is guided by a conscious aim, a specific purpose that serves to unify and concentrate the effort of the class. It would seem that this point is so obvious that it would scarcely be necessary to mention it; after one has observed much teaching, noting the aimless procedure of much of it, he will find that constant reiteration of this point is in order.

The teacher needs not only to have the specific purpose of the lesson in the foreground of his own consciousness, but he must also view it from the standpoint of the class. He must put himself, for

the time being, in the position of the learner who is confronted by the conditions of the present situation. It is not always the person with the broadest understanding of a certain field of knowledge who is the most efficient teacher in this field, as oftentimes this may be a handicap. It is the teacher who has himself met the problems in securing control of knowledge that best appreciates the point of view of the one who first approaches that field. We realize that a teacher who has struggled to acquire a language at the age of the people whom he is teaching, other things being equal, will be the most proficient teacher of languages. Many times the teacher may have a clearly conscious purpose and fail to realize it because this purpose is not conscious to his class. They may be running in the dark, striking unforeseen obstacles, for the lack of sufficient light.

A clear, definite, concrete aim serves as a focus for holding attention, as a standard for the selection and rejection of pertinent subject-matter, as a check for evaluating results. In observing a lesson, no matter what its purpose, the observer should be cognizant of the teacher's purpose, as exemplified either through an explicit statement or through a procedure which shows without a doubt a clear, consistent aim.

THE LESSON PROCEDURE

One's success in teaching is conditioned by his preparation. Occasionally there is a person who seems to see a situation intuitively; the great mass of mankind achieves through patient, arduous effort. A teacher must plan carefully, seeing all difficulties that confront the learner. He must view them with the attitude of the one who first approaches the new obstacles. He must devise the most economical means of overcoming the handicap that confronts the layman. No matter what the type of lesson is being taught, a suitable approach is necessary. The approach or preparation will depend upon the teacher's purpose, and we need to be cognizant of this fact, in observing the teacher at work. This will be mentioned under different types of lessons, but it is so important that it should be considered as a factor in every recitation.

The basis for presenting new experiences, habituating facts, or securing emotional reaction is found in the relation that they bear to other modes of experiences. The need for the control of this new material must be felt if the desired results are to accrue. The elements that will be of assistance in interpreting the new experiences should be analyzed so that aimless effort is not expended. The preparation must be adequate and

enough amplification of the related matter must be made to intelligently understand the relationship. Much of the work in preparation is done haphazardly, but if the lesson is to be seen as a unified whole, it is just as necessary that the work be logically done in the approach as in the presentation.

The presentation, like the approach, will be conditioned by the purpose of the teacher. A drill lesson needs to be presented quite differently from a lesson for appreciation; the development lesson quite differently from a lesson for review. A teacher may be an excellent person to habituate facts, but inefficient in arousing the necessary emotional tone in properly presenting a lesson for appreciation. Teachers do not always realize their shortcomings in this respect, and it is the duty of the supervisor to discuss and point them out.

The approach should provide for motive that will function in the presentation, but the teacher should be conscious as to whether or not it is functioning throughout the lesson. The importance of motive on the part of the pupils is recognized by most teachers. Dr. Frank McMurry has dignified motive by including it as one of the four standards he used in evaluating the quality

of instruction in his investigation of the New York City schools. He made the following statement: "Instruction cannot, therefore, rest satisfied with cold facts alone. Its quality is to be measured partly by its provision for growth in motive. One object of teaching a pupil how to keep the skin healthy should be to arouse in him a desire to obey the laws of health. One object of teaching him to play games should be to make him want to learn more games, even throughout life." [1] A teacher should investigate his work to find whether or not his pupils have this attitude toward school work.

Instruction that does not call forth the independence of pupils fails in its purpose if self-direction is considered a desirable outcome of school procedure. Teachers are oftentimes prone to feel that so long as authority and responsibility for results rest with them, the class is the passive agent to be moulded as they desire. If we believe that the mind develops through its own activity, the opportunity for self-expression must be given. One of the best classes the writer ever visited was one where the teacher was acting in the capacity of referee and the class felt the responsibility for carrying on the work. Recently a student re-

[1] *Standards for Instruction*, p. 2.

marked, "I get the most out of Miss A.'s class because she takes for granted that we have the ability to carry on the work ourselves." This is the goal toward which we should constantly strive.

Presentation without attention is a labor of Sisyphus. Attention of a class does not necessarily mean a desirable presentation, but unless it is secured we may be certain that one of the essential requisites is lacking. The methods of securing the attention should be noted; the means employed in holding it should be investigated; and the educational influence should be evaluated. The failure to secure it should be discovered, and the ways that this lack could have been remedied should be ascertained.

Children enjoy working their own problems. The two-year-old child prefers to build his own block house rather than have it done for him. He will ask you not to supply the word in the nursery rhyme that he has forgotten temporarily, yet how few teachers act on the assumption that children are capable of, or delight in, exercising this power. Many times when they do, they fail to give problems that are within the experience of the children they are teaching. The recitation should offer opportunities for clear thinking; the

problem must of necessity be within the experience of those taught.

Logically organized material is often presented, but it lacks significance because it does not make the right appeal. Again, results are left in an unorganized mass because no specific purpose dominates the procedure or because the importance of organization is not understood. Material that is presented demands organization, not necessarily the organization of the trained scientist, but from the point of view of meeting the needs of a particular class. The organization of material on the maple tree would not be the same in a class in nature-study in the normal school that one would find in a fourth-grade class; each organization will be equally valuable if adapted to the development of the topic in accordance with the needs of each class.

A consideration of relative values bears a close relation to organization. If we are not interested in arranging facts, ideas, or principles, in accordance with definite standards, all material will be on the same level. If we aim to classify our knowledge in a proper sequence, we must give attention to values. Some of the subject-matter in each recitation is vital because of its broad significance and representative character, while

much is merely detail. In life situations it is necessary to be constantly cognizant of relative worth, and the ability to recognize it is a desirable trait that should be fostered.

Many opportunities are given in the conduct of a recitation to make the work clearer through the use of illustrative material. This may be supplementing the material with some other of a like nature which is more representative; it may mean the use of experience from other sources which will make clearer the point at issue; or it may mean the use of concrete material which brings out in a striking way qualities that cannot be grasped through an abstract presentation. Practically all schoolrooms are equipped with blackboards, sand tables, maps, objects, etc.; rarely are they used to best advantage. In most instances a wide enough use is not made of these valuable adjuncts, while in other cases their use adds to the dependence of the class. In observing the presentation of a lesson, the use of this material should be carefully investigated and any criticisms noted.

When the presentation of a lesson is finished, one should trace the entire course, noting wherein the preparation was adequate, in what respects faulty, in what ways it lacked definiteness, and

what provision was made for a proper motive; how the pupils' desire for self-direction was utilized; what means were employed for holding attention and what point of view was the basis for the organization of the material; how material was classified as to relative values and what means were employed to make it concrete.

The assignment is one of the most neglected factors in instruction, due largely to the failure on the part of the teachers to appreciate its significance. It has been the tendency for so long a time to view the recitation as a place where knowledge is tested that the assignment has meant merely telling the student his task. The newer conception of the study recitation has brought into greater prominence the importance of proper analysis of the work to be done. From this point of view a typical assignment, "Take the next four pages, read from the middle of page thirty-five to the top of page forty, work all the examples on the next two pages," would have no place. The assignment ought, first, to present the problem that is next to receive attention; second, to furnish the motive for pursuing the task; third, to clarify the insurmountable difficulties pertaining thereto; and fourth, to show continuity of the plan in the subject under consideration.

If we accept the purpose of the assignment, we should grant that it ought to be an organic part of the day's lesson. It is this relation that gives it meaning. The proper time to make the assignment will depend upon the nature of the subject; at times it may be well to give it either at the beginning or the close of the recitation, but the most vital assignments usually come through the problems that are raised during the development of the lesson, and then a few moments are taken at the close to summarize the problems which need further investigation. The amount of time in relation to the whole lesson will be governed by its nature. No arbitrary time limit can be fixed. Enough time, however, should be given to bring clearly to the consciousness of the class the essential elements that require further investigation. The assignment that is confined wholly to the textbook rarely provides a live, vital motive. This does not mean the textbook should be discarded, but rather that a judicious use of it must be made. It is the teacher's duty to impart the assignment so that it will be understood by the whole class. The test of the understanding cannot be made by the observer whose visits are not consecutive, as the development of the lesson from the assignment will contain the proof of its adequacy.

OUTLINE AID TO OBSERVATION

THE LESSON PROCEDURE

I. Types of Lessons.
   1. Development.
   2. Drill.
   3. Review.
   4. Appreciation.

II. Aim.
   1. Teacher's.
      a. Suitable for this subject and for this particular class of pupils.
      b. Clear and definite.
      c. Lesson an outgrowth.
      d. Realized.
   2. Pupils'.
      a. Appreciation of teacher's aim by pupils as it applied to their own situation.
      b. Represent a vital problem.
      c. Secure their attention.
      d. Hold their attention.

III. Approach.
   1. Related to the previous lesson.
   2. Revival of past experience.
   3. Furnish the setting for new material.
   4. Purposeful, definite, logical.
   5. Good proportion to rest of lesson.

IV. Presentation.
   1. Justifiable for type of lesson taught.
   2. Require initiative on part of members of class.

3. Hold the attention.
4. Appeal to instinctive tendencies.
5. Pupils respond.
6. Members of class required to think.
7. Teaching formal, or mechanical, and did it clear up difficulties.
8. Appreciation of relative values.
9. Use of the material in future situations implied.
10. Individual or group work.
11. Attention to individual differences.
12. Motive.
    a. Intrinsic or derived.
    b. Real or artificial.
    c. Function throughout the entire period.
13. Material organized.
    a. In relation to the preparation.
    b. Final summary.
14. Use made of illustrative material, such as material brought in by pupils, museum specimens, etc.
15. Use made of the blackboard, sand table, and the children's constructive impulses.

V. ASSIGNMENT.
1. The relation to the day's lesson.
2. Time given.
3. When given.
    a. At the beginning.
    b. At the close.
    c. Or an outgrowth of the recitation as it proceeded.
4. Textbook or problem assignment.
5. Adequate for pupils to work independently.

6. Understood by the members of the class.
7. Evidence in class that previous assignments had not been understood.
8. Inculcation of good habits of study.

VII

THE DEVELOPMENT LESSON

THE development lesson has received more consideration from writers on methods of teaching than has any other type of teaching exercise. The writers on education who were influenced by the educational theories of Herbart made a great contribution to educational practice by making conscious the value of developmental instruction. These theories made the inductive type of development prominent and the implication of this idea failed to be understood. Hence many errors were made in the name of logical development. A reaction from the extreme position that everything should be developed inductively combined with a keener analysis of the teaching process has placed the development lesson in its true relationship. The formal steps of the inductive method while improving teaching have in many cases tended to make it more narrow. One of the best statements we have of the place of the formal steps is given by Dewey: "It may be said that just because the order is logical, it represents the

survey of subject-matter made by one who already understands it, not the path of progress followed by a mind that is learning. The former may describe a uniform, straight-away course, the latter must be a series of tacks of zigzag movements back and forth. In short, the formal steps indicate the points that should be covered by the teacher in preparing to conduct a recitation, but should not prescribe the actual course of teaching." [1]

The teacher's skill in outlining effective tools in instruction will be demonstrated by the methods used in developing particular lessons. A certain lesson in geography may be treated inductively while in another lesson in this same subject, the procedure should be deductive. For example, in the study of wheat in the United States, it may be economical to develop the factor essential to its growth inductively, but when the production of wheat in Russia is considered, the principles already developed in the study of wheat in the United States will be the most economical mode of treatment.

In the inductive lesson the problem needs careful statement. The pupil needs to know the situation that concerns him. His experiences that

[1] *How We Think*, p. 204.

would bear upon it need to be aroused. He should feel that the solution will be worth while, of some value when the result is obtained. The data used must be representative and adequate. The teacher must guard against presenting data that require little thought on the part of the pupil, and again, must be alert to see that sufficient material is given to furnish an incentive for continued effort. This is the point where developmental teaching presents the most difficulties. A teacher who has consciously in mind the development of a generalization may tend to present material that requires too little initiative on the part of the class, while the teacher who has thought of the development of independence on the part of the class may err in failing to give sufficient data to reach a conclusion that will be apprehended.

The deductive development lesson has received less attention relatively than the inductive. It is complementary to the inductive, for the complete development of an idea or principle includes both aspects. The principle that multiplying the numerator of a fraction multiplies the fraction cannot be considered thoroughly understood until it can be applied to any fraction. In the deductive lesson, the problem needs careful

statement. The pupil needs to realize that he is confronted by a situation that demands investigation. He should feel that he has a basis for his own experience but that considerable effort will be required to answer questions satisfactorily. He should consider his data in the light of the principles at his command, make his inference and verify it. The teacher's duty is to see that the principles necessary for the solution have been rationalized, that the inferences made are valid, and that they are thoroughly tested.

When we have developed a type in accordance with the principles previously developed, we may find it necessary to redevelop a portion of the generalization with which we are working. Cancellation based on the principle that common factors can be taken out of both terms without affecting the value was being taught to a class in fifth-grade arithmetic; a part of the class had difficulty with the idea of the common factors and this was redeveloped inductively. Again, there are few lessons taught inductively which do not depend in part on known generalizations.

In his *Methods of Teaching* Charters discusses another type of development. He says: "For want of a better word, we use the term 'informal'

to indicate those developments in which no conscious use is made of explicit principles."[1] As said above, it is a matter of course that both induction and deduction are implicit in every lesson, but in a great number of lessons we do not refer to them explicitly. This idea has rarely been conscious in the minds of writers who have discussed the development lesson, but when one visits classroom work, observes development lessons taught, and analyzes the method of procedure, he will find that the larger number of development lessons are of this type. Again, quoting from Charters, "In literature at least we cannot always develop lessons either inductively or deductively, likewise in much of the work of the early grades, principles are not formulated. We must be willing to allow generalization to grow in part unconsciously."[2] This statement should be extended to include other subjects because there are very few subjects in the curriculum which are taught in this way. Nevertheless, they should be taught so that the generalization may grow rather than be formulated.

The development lesson is one of the most difficult school exercises for the observer to analyze.

[1] *Methods of Teaching*, p. 191. [2] *Op. cit.*, p. 192.

This is due to its different aspects, to the fact that only segments are seen if the observer does not make consecutive visits, to the fact that few teachers are skilled in its use and also to the fact that it needs evaluation in reference to the subject-matter under discussion.

OUTLINE AID TO OBSERVATION

THE DEVELOPMENT LESSON

I. Aim. (See outline under Lesson.)

II. Type of Method.
  1. Inductive.
    a. Problem.
      (1) Specific.
      (2) Desirable type of treatment.
      (3) Adequate.
    b. Data.
      (1) Concrete or abstract.
      (2) Selection — representative.
      (3) Critical examination.
      (4) Significance of comparison.
      (5) Past experience utilized.
      (6) Logical organization.
      (7) Sufficient for generalization.
    c. Generalization.
      (1) First stated by whom.
      (2) Complete final statement.
      (3) Appreciation by a few or all the class.

d. Application.
(1) Adequate.
(2) Representative.
(3) Aim to habituate or rationalize.
(4) Provision made for further application.

2. Deductive.
a. Data.
(1) Source.
(2) Kind.
b. Principles.
(1) Selection — made by teacher or pupils.
(2) Process of selection.
(3) Logical reasoning.
(4) Points of failure of pupils.
c. Inference.
(1) Clear.
(2) Justifiable.
(3) Who made it, teacher or pupil.
d. Verification.
(1) Tested adequately.
(2) Process repeated.

3. Informal.
a. Problem.
b. Data.
c. Development.
d. Advantages over formal type.

VIII

THE DRILL LESSON

MUCH of our knowledge to be serviceable must be reduced to an automatic basis. Facts that are constantly appearing in various phases of our experience in the same form are most valuable when immediately recognized. In writing, one is greatly handicapped in expressing his thought if he must pause to attend to the spelling of the words he uses. In oral language one is handicapped if he must stop to consider the conventional forms of speech. In everyday experience in numbers, one needs to be both rapid and accurate in the fundamentals of arithmetic. There are elements in practically every situation in life that should be habituated if efficient action is to follow.

If people do not question the necessity of the value of being equipped with a sufficient number of habits to meet the exigencies of everyday life, they frequently raise the question as to the best method of securing the proper habituation. The argument is made by many that the time for

proper habituation is when the situation where it is needed arises. The other point of view is that the habits should be formed before the situation in which it is necessary arises. The beginning of the process of habituation should be found in a case of need, but rarely does this method continue to function throughout the entire process. To become facile in a process and to acquire skill in its application requires much emphasis. The necessary emphasis is secured through drill.

One of the essential elements in drill is proper motivation. It is a difficult problem to secure motives that will appeal to a student so that he will continue his task until it is thoroughly mastered, particularly when such mastery means repetition in unvarying form. There is less waste of time and effort under proper motivation, but the situation that demands an automatic response must be mastered, whatever its cost. The teacher's efficiency will be judged by his attainment of his aim in the shortest period of time. This condition is best achieved by motives that function throughout the process; many situations will arise where it is difficult, if not impossible, to secure such motives.

The devices that the teacher uses to hold the attention are worthy of careful attention by the

observer. The device must be simple, suited to the class, based on accurate psychological principles, administered without waste, and discontinued before it becomes monotonous. Many devices are so elaborated that a waste of time ensues when used. Again, they are sometimes so artificial that they are not representative of the true situation. Both extremes should be avoided in selection of devices. It is essential to have maximum attention in the process, and the device should be considered from this angle.

Habituation is frequently incomplete because drill ceases too soon. The first impression should be clear and logical with careful presentation, for the first impression is essential in retention. The first impression must be followed by many repetitions if retention is to be lasting. Drill should be continued until the desired skill at any stage of development is acquired. It should not be continued, however, beyond this point as it means a waste of time and energy. It should be remembered that the ratio of retention to time is an inverse one and that drill will need to follow closely the presentation if the greatest conservation is to accrue. Some words in a spelling list require three times as much effort as others, while in arithmetic, all teachers know that some com-

binations require more attention than others. The ability that a teacher shows in this phase of work will be a good indication of his ability to analyze his problems.

A drill exercise is not an easy teaching exercise. It requires a teacher who is alert, vigorous, resourceful. It requires a careful analysis of the subject-matter, emphasizing the parts that present the greatest difficulty, giving less consideration to those which are relatively unimportant. It requires an insight into the psychology of attention and fatigue; the proper selection of devices that secure the maximum attention and a knowledge when the continuance of drill will be ineffective.

OUTLINE AID TO OBSERVATION

THE DRILL LESSON

I. Aim. (See outline on Lesson.)

II. Motive.
   1. Motives available for this lesson.
   2. Motives utilized.
   3. Intrinsic or derived.
   4. Desirable.
   5. Function throughout the lesson.

III. Devices.

1. Purpose for which used.
2. Simple and concrete.
3. Justifiable.
4. Suggest other devices that you would have employed.

IV. Presentation.

1. Connection with former lessons.
2. Adequate basis for drill.
3. Suitability of material.
4. Length of period.
5. Portion of lesson given to fixing the facts by repetition, by application.
6. Attention given to helping children with special difficulties.
7. Attention given to correction of errors.
8. Concrete material used — for what purpose.
9. Which group received more attention, the strong or the weak.
10. Were new facts presented. If so, for what purpose.
11. Provision for future application.
12. High degree of skill expected.

IX

THE REVIEW LESSON

THE purpose of the review lesson needs to be conscious in the mind of an observer if he is to profit by consideration of a lesson of this type. Ordinarily, we find teachers confusing drill and review. The confusion is caused by a failure to analyze carefully the two processes. Drill, as we have discussed previously, is given for the purpose of making automatic the elements in knowledge when the fact rather than the process is the necessary element. Review is for the purpose of getting a new viewpoint, seeing the valleys through which we have passed from a higher elevation than we have previously attained. It means reorganization on a larger scope than our first endeavor; it means grouping subsidiary points about a central one that comprises all the relations which could not be seen until the subject-matter has been considered in its entirety. Knowledge is of use to the student when it is organized, and review fails if it does not clarify, amplify, and reconstruct our old organization.

We hold facts in mind through the number and quality of their associations, and review fails if associations that we wish on a final view are not intensified. The proper organization of subject-matter is important, and we may have either the logical, organized from the standpoint of the subject-matter itself, without respect to the needs of the students, or we may have the psychological, which represents the organization of subject-matter from the standpoint of needs, purposes, and aims. The final organization of the review lesson should be the organization of the subject-matter that will be of most value to the student in his later experience.

The method of treatment may be topical, question and answer, or textbook. The topical treatment gives the best opportunity for testing proper organization. In the organization of the topics, important elements receive their necessary emphasis, while details have their rightful place in the relation to facts. The test of one's understanding will be his ability to show relationship among ideas. The person who has no command of a given unit of subject-matter will tend to have facts of unequal value assume the same proportion. Hills will be as high as mountains, and the ant heap may be the residing place

of a behemoth. The topical recitation affords an opportunity for class discussion and elaboration, an important element in good instruction. Conceptions are clarified in this way, when this would not be the case through dogmatic statements by teacher or pupil.

The question and answer method will find a place in all types of instruction, but a minimum use of this plan should be made in a review lesson. Teacher and students will need to ask questions to secure additional information, to secure tests for the validity of statements, or to test knowledge of facts. The standard for judging the value of questions in a review exercise will be measured by the value of a question as a means of organizing material.

The larger number of lessons that we see taught in our school are recitations from textbooks. It is by no means the ideal type; if conducted with care and judgment, it is of estimable value. One function of the school should be to teach the students how to get information from books, and the judicious use of textbooks furnishes the best means that the teacher has at his command. If the textbook is used as the sole criterion, the pupil will gain an exaggerated idea of the importance of a textbook and his initiative, inde-

pendence, and originality will be atrophied. The textbook is the condensed organization of topics, and should be used in this sense, and not as an exhaustive treatise of any subject. The organization represents a general attitude that the author has in mind to meet many different situations. The teacher should have his students approach each topic with a specific aim in view, and the organization of his subject-matter should be such as to realize this definite purpose. The organization of the material in the text should not be accepted unless the organization happens to fit the particular need. It should be used rather as a means to aid in the solution of the problems on which the class is working. If this attitude is assumed, one will not have a slavish attitude toward the text, nor will he have the attitude that the text is worthless, but rather the judicious attitude of mind will be inculcated, i.e., the selection and rejection of pertinent material for his purpose. If the text gives a condensed organization of a topic, it is necessary that much amplification be done. Material should be collected from all sources that are available and within the experience of the class. When this viewpoint is taken toward the textbook, the review of any topic will not depend upon the organization of

any text, but it will give a body of knowledge that will be serviceable in other phases of experience where the viewpoint is more often different than alike.

OUTLINE AID TO OBSERVATION

THE REVIEW LESSON

I. Aim. (See outline under Lesson.)

II. Purpose.
  1. To reorganize knowledge previously presented.
  2. To emphasize material previously taught.
  3. To secure relationship among ideas.
  4. Evidence of confusion with drill.

III. Organization of Subject-Matter.
  1. Logical.
    a. In accordance with the organization of the subject.
  2. Psychological.
    a. In accordance with the needs of the pupils.

IV. Method of Treatment.
  1. Topical.
    a. Adequate.
    b. Representative.
    c. Criticized by the class.
    d. Amount of time given to each topic.
  2. Question and Answer.
    a. In detail.
    b. Proper organization result.
    c. Class show mastery of material.

3. Textbook.
   a. Organization of author accepted.
   b. Independent attitude assumed.
   c. Amplification of text.

X

THE LESSON FOR APPRECIATION

HEYWOOD, in his book on the *Lesson in Appreciation*, says the idea of the lesson in appreciation has been of rapid and quite recent growth and no single individual can be held responsible for its inception. One who examines the writings of those who have discussed this lesson will soon be convinced of the truth of the assertion. The eagerness with which teachers have sought information on the subject indicates that it is an idea that has been half conscious in the minds of many people. It is just as important to arouse desirable emotional attitudes as it is to implant habits of right conduct. The former being the purpose of the lesson in appreciation makes this exercise as justifiable as other school procedure.

The writers on this subject mention three aspects — intellectual, social, æsthetic. Those who emphasize the first phase consider any material valuable that makes appeal to our intellect as a system of perfect knowledge; thus, we find the mathematician has this attitude toward the field

of knowledge in which his interests lie. The attitude of the devotee of pure science is another illustration of similar nature. Science makes its appeal to him not because of its relationship to human welfare, not because of the value of its application in solving problems outside his particular realm, but because of its intellectual appeal. The value of the pursuit of knowledge for its own sake is being questioned to-day; nevertheless, there is a group to whom the purely intellectual makes a strong appeal.

The second phase, the social, makes conscious the ideals, the aspirations, and desires of the individual in his relation to the social group of which he is a part. The necessity for this type of appreciation is receiving increased recognition. This attitude is depicted in literature, in geography, in history, and in fact in all subjects that are based on or get their meaning from human life. The fifth-grade class that wrote the dialogue that supposedly took place at the meeting of the Pilgrim Fathers prior to the Boston Tea-Party, designed the costumes that the different patriots might have worn at this time, and took the parts of the various patriots, were in an attitude to appreciate the significance of this incident in the history of our country. The desired outcome is

that the individual shall appreciate the social situation in order that he may be a contributing member of the social group.

The third phase is the one that most people consider when the lesson in appreciation is mentioned. The purpose is to arouse emotions in the presence of the beautiful in art, music, or literature. Properly to appreciate and to secure the desired reaction from a great picture, an inspiring piece of music, or from a noble poem, necessitates an emotional tone. A cold intellectual state may serve to analyze the different elements, but the entire being will not be suffused with the glow that comes when the emotions are aroused. The actor, the orator, and the preacher have long realized the necessity of arousing the emotions of their audiences if they are to get a suitable response; the teacher has been slow to recognize the fundamental principle underlying such a procedure. Subjects such as music, or literature, are frequently considered to be the only ones in which where the emotional setting is valuable, but many other school exercises offer admirable opportunities for arousing emotions, before the material can be adequately assimilated.

The teaching of a lesson in appreciation demands both skill and imagination on the part of

the teacher. In the preparation for a lesson, it is essential to first prepare the class emotionally. The emotions that are aroused will, of course, depend upon the subject taught. If it is a masterpiece of art, the fundamental principles underlying the work may need some elaboration. If it is a piece of music, there must be sufficient training of the ear to give a basis for the interpretation of the selection. The question often arises as to whether teaching should be direct or indirect. Should the beautiful picture or beautiful music be left to make its own appeal, or should there be an interpretation by one who is more skilled in the technique of the art? If we believed in the indirect being sufficient, there would be little justification for this type of lesson, but most people will agree with Heywood when he says: "Pictures hanging silently in the classroom or music played without comments or discussion have not much influence of any kind upon taste or character. If, indeed, they have exerted a very large influence, the æsthetic outlook from modern nations would be gloomy in the extreme; for, presumably bad pictures and bad music would then also be tremendously influential on taste and character, and the sights of our ugly streets and the banal music of our halls would be caus-

ing, every day, a fatal deterioration in taste." [1] The significance of the material is appreciated through the explanation of an interpreter, but, on the other hand, the class must be actively thinking of the subject in hand. It is difficult for teachers to find the golden mean where technique is sufficiently utilized to explain and interpret the masterpiece. Some teachers emphasize technique to such a degree that the exercise is purely formal and there is not the emotional reaction that is the end point in the exercise. It is used as an end in itself, and their class is acquiring the mechanics without substance. A person may be trained in music so that his sensibilities are stirred by a false note, but the grandeur of the selection as a whole has little appreciable meaning. On the other hand, we find some advocates of appreciation holding that technique has no place; that the persons without any technical knowledge of painting will gain as great an inspiration from a masterpiece as will one who is skilled in the art. This point of view is as faulty as the other, where technique is considered the prime element.

The expression of appreciation is often misinterpreted; words are accepted as a substitute for

[1] *Lesson in Appreciation*, p. 196.

an emotional reaction. A class that can glibly imitate terms used by a teacher is oftentimes considered the one that has appreciated most deeply. Words oftentimes show how superficially the appeal has been made. The child who has said little about his appreciation of a great painting, but who gazes frequently in a contemplative way after the lesson has been given, has imbibed a much deeper meaning than the one who has glibly told why he likes it though he later never gives it a passing thought.

The lesson in appreciation should have the excellent points that one ought to find in a good development lesson. The teacher should have a definite purpose. He should know clearly what he proposes to accomplish. The children should be prepared adequately for the exercise. In this exercise, appreciation means largely the arousal of the emotions so that the material presented will be properly interpreted. The presentation should be clear and definite, giving sufficient opportunity for the children to use their own initiative. Technique should be used for explanation and interpretation and not as an end in itself. The value of the exercise should be judged by the influence that it has upon the group; by outward expression in conduct in the presence

of the beautiful in nature or in art, not through extravagant expression in words.

OUTLINE AID TO OBSERVATION

THE LESSON FOR APPRECIATION

I. Aim. (See outline under Lesson.)

II. Preparation.
1. Emotional preparation of the class for this lesson.
2. Method of arousing these emotions.
3. Evidence of overstimulation.
4. Evidence of strain.
5. Appeal: intellectual, social, æsthetic.

III. Presentation.
1. Initiative taken by the teacher, or was she acting as interpreter?
2. Significance of material appreciated by the class.
3. Technique overemphasized.
   a. Used for explanation.
   b. Used as an end in itself.
4. Type of development — formal or informal.
5. Attention on direct appreciation or on indirect appeal.

IV. Conclusion.
1. Form of expression of appreciation by the class.
2. Appreciation the end point or by-product of the lesson.
3. Evidence of enjoyment.

XI

QUESTIONING

THE question, as a means of imparting knowledge, has been a subject of considerable interest to educators since the days of Socrates. Since it is such an important factor, we are at first thought at a loss to know why teachers ask so many poor questions; when we consciously endeavor to frame several good questions that have a logical relation on any topic, we find that it requires clear thinking, careful planning, and considerable skill.

We may tell our students in the theory and art of teaching that questions should arouse and stimulate thought; how many heed the admonition, how many in their own class practice the doctrine they preach? If, during a large part of their school life, our prospective teachers had been exposed to questions that required clear, consistent thinking to be answered properly, our problem of questioning would not be so serious.

A question focuses the attention to the problem under consideration. The question is the means of bringing the specific problem to con-

sciousness, whether it is a mere fact, a state of feeling, or a process of reasoning. It is a command that requires all available forces to be directed to the strategic position in the lines. A specific problem holds attention and gives a means about which relevant material may be grouped. A question that does not furnish a center for focusing the attention of a class has no place in instruction, and in observing a recitation, this point should be conscious in the minds of observers in testing the validity of the questions. It is unnecessary to discuss the psychology of attention and interest, yet any factor that challenges the attention will foster interest. This does not mean that interest will continue because questions are asked, but it does mean that the teacher has an instrument in the questions, by which the work may be brought to the pupil, so that he realizes that it is his problem. When a child has no particular interest in a situation because he fails to see the relation to his own problem or needs, skillful questioning on the part of the teacher is usually the most potent means by which he sees the relation to his own experience. When the questions in any recitation fail to arouse or hold the attention of a class, the recitation fails of its purpose.

Good questions secure vigorous responses from pupils through contribution or by additional questions. If the recitation is to test the knowledge, the response will, of course, be conditioned by the excellence of the earlier teaching. If the teaching has been faulty and the questions suitable, a response in the form of other questions will be secured. By his questions, the teacher stimulates the indifferent, the timid, the slow, and represses the impulsive, superficial child.

Independence in thinking may be encouraged by skillful questioning. A child who is naturally dependent, if constantly confronted by questions that require him to use his own intellect, his own experience in answering them, will, after a time, see that he has the power, the ability, the means within himself to solve his own problems. A teacher who will ask a class of children in a sugar-beet section how maple sugar is made, without having carefully taught the different methods of sugar-making, does not contribute to this end, but rather undermines this quality. The one who has, however, related the process to the one they already know through a series of skillful questions is encouraging the use of their own experience, without which it is almost impossible to develop independence. Skillful questions that encourage

the right type of response and that foster questions from the class will help to clarify knowledge. They indicate where and how misconceptions have arisen; what portions of the lesson have not been properly developed; in what way misunderstandings have arisen; whether individuals or the class as a whole have not been thinking clearly. If our questions serve to bring out deficiencies in the way of thinking as well as deficiency in knowledge, our methods of instruction will improve.

The purpose of the recitation should determine the type of question that should predominate, although one should expect to find other types. Some questions are found which have little place in instruction, and it is necessary to consider them so that we may know what prominence is given to material that should be eliminated. Questions of fact are oftentimes contrasted with questions of thought to the detriment of the former; when we do this we are not thinking clearly of the function of each. If our purpose is to drill or to test knowledge, we must ask questions that will elicit the exact response which shows whether or not the person questioned has the requisite knowledge. If we wish to find out whether or not a person knows

the name of the President of the United States, we should ask a question that gets the direct response rather than one that arouses a process of reflective thought. One phase of a teacher's duty is to test the knowledge that his class has of the topic under discussion.

Few people will object to the statement that the thought question is one of the most important tools in instruction. Most life situations demand the exercise of the rational powers of the individual who meets it successfully. Therefore, the school needs to cultivate and develop such ability. The teacher's question should require the pupil to consider the data involved, analyze it into constituent elements, reject the irrelevant, choose that which bears on the problem, and give a statement of its solution. Thought questions need to be carefully framed. They should bear specifically on a definite problem. The data for the solution should be available to the one questioned. Many thought questions are of no value as they are based on broad generalization beyond the capacity and understanding of the pupils in our schools.

The topical question gives an opportunity for the teacher to discover the ability of a pupil to reorganize material in a logical manner. Many

topical questions test only the pupil's ability to reproduce material from a textbook; it should go much beyond this, as the test of the assimilation of a topic in any subject is the power of reorganizing it from a different point of view. We are usually surprised when we investigate carefully the limited character of the work in this respect in our recitations. In the upper grades of the elementary school and in high school we usually find that a pupil's resources are exhausted after he has talked for a minute on the topical question that has been given him. This is not due to the fact that he has not the ability. It is due to the faulty methods of questioning.

More questions that appeal to the emotions should be given. A situation is rarely appreciated unless one places himself in the attitude, as nearly as possible, of the person whom he is considering. When children are studying the Boston Tea-Party, its meaning will be much clearer to them if they are asked such questions as: How do you think the patriots felt who attended the meeting? What would be their attitude in addressing the assembly? Show how you think they walked on their way to the harbor. Questions of this type will tend to arouse the interest to a much greater degree than questions of fact or

those that merely arouse the intellectual appreciation of the situation. The teacher who questions a statement of this character should test it before rejecting the idea.

The purpose to which the question is put should to a great degree determine the type. If we wish to test knowledge that a student has of a subject, we usually ask a question of fact. If we wish to supplement the material of a textbook, that is, if we wish to find out whether or not the wider relationship of the subject under discussion is appreciated, we should ordinarily ask a thought question. If we wish the student to organize the subject-matter of a recitation, we should ask a question that demands a topical answer. If we wish to quicken the feelings, stimulate the emotions, a question that arouses the desired emotion would be the one to demand attention.

Unfortunately, many questions of a recitation have little or no purpose. They are wholly irrelevant, useful only to fill in the gap while the teacher is getting the thread of the organization himself, but such conditions are due usually to lack of preparation and they may be rejected. Efficiency of instruction from the point of view of the question should be judged by the absence of the irrelevant question and the

judicious use of the type in harmony with the purpose.

The mode of asking questions has an importance that is often overlooked. A class is doing effective work when all members are thinking vigorously during the entire recitation. The method of questioning that challenges the attention of all members of a class should be the one utilized. The questions that are asked promiscuously, calling the name of the pupil after the question has been given, command the attention of every one. When the class does not know who will be held responsible for the answer, every one needs to be alert to the situation, and cognizant of its significance. The objection that some members of the class will be called on very frequently and that others will be neglected is sometimes raised to this method of questioning. Many times we do note that a few pupils who respond readily receive the major amount of attention, due to the fact that the teacher has no definite order of procedure in mind; this is easily remedied by having the names on cards and shuffling the pack each time after all pupils have been called for a contribution. The mechanical method of calling on pupils in regular order makes recitations dull and lifeless, and only the person without imagina-

tion will proceed in such course. It is unnecessary to discuss the reasons why this is not a good policy from a psychological point of view.

Many times we are prone to believe that children possess knowledge when they give glib responses in unison, but this is no indication that a very large number of the class possess much of the information that is so easily given. The folly of this method was discovered in the work of Lancaster and Bell. When we wish to tune the ear of the children to the correct enunciation of a word it may at times be wise to have the response given in unison. The rote singing in the primary grades calls for work of this kind. Whenever correct impression of form is the requisite element, or when one wishes to secure harmony of action as a unit, then concert work is in place. One needs to be on the alert to see that when independence of action is necessary that concert work has no place.

The number of questions asked in a recitation period by the teacher, as a usual rule, is far too great. However, this would be anticipated when direct questions or questions of choice predominate. It requires very little time or effort to say yes or no. A teacher must be saying something to keep the children from indulging in profitable

slumber. The writer visited a class in history recently, where the teacher was asking questions at the rate of six per minute. This is not an extraordinary case, and can be duplicated if a person holds a watch on the teacher during the class period. There is not much opportunity for students to think when they are subject to such rapid-fire questioning.

An observer should give careful attention to the questions asked in the recitation. He should be cognizant of the fact that questions are an index of the efficiency of the teacher. The factors in questioning should be kept clearly in mind. The purpose of the recitation should be analyzed, and the questioning should be evaluated from this point of view. A teacher who is developing material would be accomplishing little if a great majority of his questions were those of fact, and the one who is testing the results of teaching a topic would be equally open to criticism if many emotional questions had place. Questioning is an art that is accomplished by persistent, strenuous effort, and the teacher who is master of this art is a desirable model.

OUTLINE AID TO OBSERVATION

QUESTIONING

I. Value of Question.
   1. Focus attention on problem.
   2. Foster interest.
   3. Encourage response from pupils.
   4. Encourage independence in thinking.
   5. Clearer thought.
   6. Correct misapprehension.

II. Type of Question.
   1. Fact.
   2. Alternative.
   3. Direct.
   4. Leading.
   5. Thought.
   6. Topical.
   7. Emotional.

III. Use of Question.
   1. Test of knowledge.
   2. Supplement text.
   3. Organization.
   4. Appreciation.
   5. Stimulation.
   6. Irrelevant.

IV. Mode of Questioning.
   1. Promiscuous.
   2. Regular order.
   3. Concert.

V. Number of Questions.
   1. Relation to type.
   2. Approximate number asked.

XII

CLASS MANAGEMENT

A TEACHER may have a desirable personality, may be skillful in presenting subject-matter, may have at his command all aids known to a modern schoolmaster, and may be housed in a building that is the last word in school architecture; he may fail to be one hundred per cent efficient because of his poor methods of management. Efficiency is the watchword of the modern world in which we are living, applied to all classes of workers from the humblest street sweeper to the president of the great transcontinental railway line. The coal heaver and the bricklayer are able to perform much more labor at a less cost of energy than formerly through a scientific investigation of their work, through the elimination of unnecessary movements, through mechanizing routine, and through having materials so easily accessible that there is no waste motion. If scientific management has increased the efficiency of workers in other fields, through the elimination of waste energy, should not teachers be

cognizant of the advantages thus gained and conduct their work accordingly?

Many factors in school management can be relegated to the realm of mechanical routine. Activities that are performed at a specified time each day, that have always the same specific purpose, that by their very nature would provide no opportunity for individual initiative, should be carefully considered and the most mechanical means of procedure should be discovered. We find certain elements in this category, such as the passing of classes, passing of class to the board, distributing supplies, fire drills, etc. It requires careful discrimination in the type of activity, as teachers sometimes have a habitual routine for activities that ought never to be on this basis, for example, calling on pupils, conducting morning exercises, etc. The performance of any task that demands the will of the group acting as a unit should be reduced to the basis of routine, and tasks that give opportunity for individual initiative should never be placed on this basis.

The discipline of a school is conditioned by good management. If the teacher is skillful in managing his class, the problem of discipline means that all pupils are conscious of the purpose

of the school, that all are working to attain this end; it means harmony of action, respect for the rights of others, coöperation in community tasks, and interest in the part the individual plays. If this is not the attitude in a school, the reason for its failure should be investigated and the means that the teacher uses to overcome the obstacles in the way should be noted.

A teacher who is a careless housekeeper rarely has the most potent influence on those instructed. We know the moral influence of a well-kept home, and this is as applicable in the school. The failure of a teacher to be a careful housekeeper is obvious in a casual survey, for one cannot cover the evidence of an untidy room, poorly kept supplementary material, torn books, broken furniture, and marred desks. An orderly, well-kept room is indicative of the habits of the one who is in charge.

A large amount of time is wasted in our schoolrooms. No institution, unless it is the church, is so prodigal of time. There is an historic reason why this is the case, but it is no reason for its continuance in modern civilization. The school is bound to be judged by its products, by the habits it inculcates in those it trains, and by their efficiency in the world of men and affairs. When

the cry is "Efficiency" in the business world, the school cannot afford to ignore this conception in its own organization. In viewing the conduct of a school, we should note where time is wasted. A few places where time can be economized are mentioned in the outline; one should also note means employed that conserve energy, facilitate rapid movement, and profitably utilize otherwise wasted time.

The program is another evidence of a teacher's efficiency in management. The program represents the teacher's systematic plan for conducting the day's work, and it is a good indication as to his knowledge of both the nature of the subjects and the psychology of fatigue; that is, if the teacher is given the responsibility for constructing his program. A program that places in succession the subjects that require much work with the hands would be undesirable. Again, a program that requires intense mental application for a long period of time is faulty. It has been found that short periods of drill at more frequent intervals are more efficacious than long periods less frequent; one should note this provision in looking at a program.

OUTLINE AID TO OBSERVATION

CLASS MANAGEMENT

I. Routine Factors.
   1. The passing of classes at recess, dismissal, etc.
   2. The passing of class to board.
   3. The passing of supplies.
   4. Other matters of routine.
   5. Emphasis on this factor.
   6. Situations that ought not to be on this basis.

II. Discipline.
   1. Attitude of the children.
   2. Disorder. Attention given to it.
   3. Methods of securing order.
   4. Standards of conduct.

III. Housekeeping.
   1. Condition of the room.
   2. Location of material.
   3. Condition of material.

IV. Waste in Management.
   1. The accessibility of needed material.
   2. Preparation for using supplementary material.
   3. Time wasted calling classes.
   4. Time wasted due to failure to mechanize routine.
   5. Time wasted due to lack of preparation.

V. Program.
   1. A systematic plan for the entire day.
   2. Order of subjects.
   3. Apportionment of time.
   4. Study periods.
   5. Recreation periods.
   6. Program rigidly followed.[1]

XIII

THE PHYSICAL FEATURES OF THE SCHOOLROOM

WHEN one visits a classroom, the element that commands attention next to pupils and teacher is the physical features, the hygienic conditions, the sanitary arrangements of the building. However, the importance of this factor is rarely appreciated. The science of school architecture, decoration, and sanitation is in its infancy. Until recently little thought has been given to the construction of school building either from a practical or an æsthetic point of view. The architect who could plan a comfortable dwelling-house was considered wholly competent to direct the construction of a school building, and the results of this are the monstrosities that we find in many cities, labeled school buildings. It is a healthful sign to find reputable architects specializing in school construction. People are beginning to appreciate the fact that school buildings should be artistic and practical; that they are measures of the community's ideals; that they should be the

center of public life; that they should be utilized during all the working hours and not merely during a brief period in the middle of the day. Standard units are being developed for the construction of school buildings and schoolrooms, and teachers should be familiar with these units. When a room is entered, they should have a standard in mind in order that they may be able to judge intelligently the conditions of the room in respect to light, heat, ventilation, seating, decoration, equipment, and accessories. It is not the purpose here to discuss minutely the standards that should be followed in the construction of buildings and rooms; the purpose is rather to make the problem conscious in the minds of people visiting schools. There is considerable literature on school hygiene which should be familiar to all teachers.

Many of the physical features of a schoolroom are beyond the control of the teacher. When the problem is carefully analyzed, however, it is seen that many of them may be remedied, if not changed. The teacher has no control over the length, breadth, or height of his room, neither has he over the window space, but if the light is deficient it is within his power to have the shades adjusted and seats so arranged that the light

is most advantageously distributed. How often are teachers prone to complain of poorly lighted rooms without using the means under their control to better conditions. Only recently have buildings been erected to furnish light that is adequately distributed over the entire space. In some buildings teachers through concerted effort have been able to have changes made, but as yet there is a woeful lack of attention given to this important factor.

Schoolrooms both with and without mechanical systems of ventilation are frequently poorly ventilated because in those with good systems the windows are opened, and in those without, the windows are kept closed. If ventilation must be by the direct method, teachers should devise a plan whereby the air can be constantly changed; if by a mechanical system, they should understand the principle of its construction in order that they may not do anything to interfere with its efficiency. Most engineers in school buildings where the ventilating system is adequate complain about the lack of coöperation on the part of teachers, due to their ignorance as to the working of the system. Teachers in training need to be taught the essential facts in regard to ventilation in order that they may understand that

raising a window may be a handicap as well as a help to the proper ventilation of a schoolroom.

Adjustable desks are helping to lessen the problem of proper position, but, like opportunities, it carries responsibilities. In the days of wooden benches, none of which fitted any pupils, the teacher had no problem in seating; when the desks can be adjusted to each pupil, the teacher must be constantly on the alert to see that each child has a seat properly adjusted. Rapid growth on the part of the child will mean two or three adjustments of his seat during a school year, so that although the adjustments are perfect in September they may not be in June. Attention should be given not only to the adjustment of the height, but also to the adjustment of the relation of seat and desk. Most authorities at the present time seem to agree that they should be at two inch minus.

Schoolroom decoration furnishes an opportunity for a teacher to develop the æsthetic sense of his pupils. The finish of the woodwork is usually fixed by authority other than the teacher, but pictures, hangings, and artistic arrangements of these transform a barren, desolate, unadorned schoolroom into an attractive, bright, homelike place. It is interesting to note the pleasing effects

that some teachers are able to secure with simple, inexpensive material. The influence of the teacher is often portrayed by the appearance of his room. The furnishings of the room bear a mute testimony to the character of the citizenship of the city or district. Were this appreciated in many of our American communities, it would mean more artistic school buildings. The moral atmosphere is oftentimes affected by the physical surroundings. Filthy desks, floors, coat-rooms, and toilets are debasing in their influence. The defaced condition of many school buildings encourages vandalism, destroys respect for public property, and makes it difficult to inculcate desirable standards of conduct. A boy or girl who is surrounded by such conditions does not have a great incentive to be neat and orderly about his person or in his work. The pernicious influence of the vulgar and obscene material inscribed about many school buildings is known to most experienced teachers.

The ideals of a school can often be measured by the equipment that is furnished. Maps, globes, blackboards are as essential to proper instruction as are a teacher and a textbook. In cities where children are required to provide their own textbooks, there is oftentimes a woeful lack of supplementary and illustrative material. It

seems at times as though the cities that furnish free textbooks are more cognizant of the necessity of supplementary aids. However, it would be unjust to make this statement as a generalization. A teacher in visiting a school should have clearly in mind the equipment that is necessary for the most effective work, and this should be used as one of the elements in forming his entire judgment.

The accessories of a schoolroom are important factors in furnishing proper conditions for the most effective work. The coat-room should be easily accessible from the room, but from no other source, in order that it can be under the immediate supervision of the teacher. It should be properly ventilated and sufficiently spacious so that each child has his own place in which to put his belongings. In our modern schools the common drinking cup has been abolished. This has been due as often to state laws as to the desire of the community to have proper sanitary conditions. In our modern school buildings sanitary toilets are found, and under efficient administration they are kept sanitary. Lunch-rooms are provided in many schools where conditions do not make it feasible for the pupils to return home for the noonday meal. This is rare in elementary

schools in cities, but is very essential in nearly all country and high schools.

There is no excuse whatever for finding a school building unclean. No matter if the building does not provide adequate light, heat, or ventilation; no matter if it has seats that cannot be adjusted; no matter if no attention has been given to æsthetic effects; no matter if the equipment is inadequate — this is no justification for filth. It costs very little to keep clean, and there are no factors more conducive to good health than cleanliness and ventilation. A school should be severely criticized if it does not have a sufficient force of janitors to keep it clean.

OUTLINE AID TO OBSERVATION

THE PHYSICAL FEATURES OF THE SCHOOLROOM

I. Building.
   1. Type.
   2. Age.
   3. Site.
   4. Entrances.
   5. Materials of construction.
   6. Stairways.
   7. Corridors.
   8. Number of rooms.

II. Rooms.
- 1. Size.
  - *a.* Length.
  - *b.* Breadth.
  - *c.* Height.
  - *d.* Relation to standard proportion.
- 2. Light.
  - *a.* Number of windows.
  - *b.* Location of windows.
  - *c.* Proportion of window area to floor area.
  - *d.* Kind and color of window shades.
  - *e.* Provision for artificial light.
  - *f.* Criticisms on condition.
- 3. Seats.
  - *a.* Number.
  - *b.* Type.
    - (1) Adjustable or non-adjustable.
    - (2) Stationary or movable.
    - (3) Adjusted to pupils.
  - *c.* Width and number of aisles.
  - *d.* Arrangement in respect to light.
  - *e.* Condition.

III. Heat.
- 1. Kind.
- 2. Amount — how determined.
- 3. Regulation.

IV. Ventilation.
- 1. Means.
- 2. Size and position of intake and outlet.
- 3. Why adequate or inadequate.
- 4. Apparent condition of air.

V. Decoration.
1. Kind of woodwork.
2. Finish of woodwork.
3. Color of walls and ceiling.
4. Pictures and statuary.
5. Attempts to make room homelike.

VI. Cleanliness.
1. Floors.
2. Desks.
3. Blackboard.
4. Erasers.
5. Books.
6. Walls.
7. Halls.

VII. Equipment.
1. Cabinets.
2. Blackboards.
3. Maps, globes, etc.
4. Chairs.
5. Illustrative material; e.g., specimens, books, etc.

VIII. Accessories.
1. Coat-rooms.
2. Toilets.
3. Drinking-water.
4. Lunch-room.
5. Location of each in respect to schoolrooms.
6. Desirability of location.

OUTLINE

I. THE NATURE OF THE PROBLEM

II. THE PURPOSE OF OBSERVATION

III. THE VALUE OF OBSERVATION

OUTLINE

IV. THE TEACHER

V. THE PUPILS

VI. THE LESSON PROCEDURE

VII. THE DEVELOPMENT LESSON

VIII. THE DRILL LESSON

OUTLINE

OUTLINE

XIII. THE PHYSICAL FEATURES OF THE SCHOOLROOM