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INNOVATIVE METHODS IN ELEMENTARY EDUCATION

A Description and Analysis of Individualized Instruction in the Progressive Movement in Comparison with the Innovative Modern Elementary School

A DISSERTATION

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INNOVATIVE METHODS IN ELEMENTARY EDUCATION

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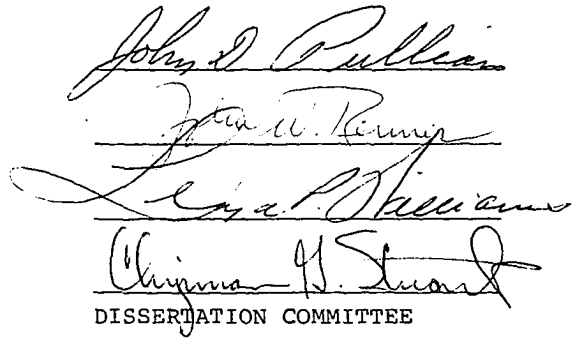

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INTRODUCTION

The mounting research evidence concerning the type and nature of differences among children has underscored the need for greater individualized instruction in our nation's schools. The necessity for providing an individualized education has been partly realized through numerous educators. Modern educational theorists demand a new technique of instruction to allow for these differences, just as the avant-garde pedagogues did in the nineteen-hundreds.[1] G. Stanley Hall asserted "that no education could be worthy, much less efficient, that persisted in ignoring his (the child's) nature, his needs, and his development."[2] The problem of instruction is finding material which will engage a person in specific activities having an aim or purpose of moment or interest to him.[3] Boyd Bode "argued that methods and procedures would have to vary in terms of the content and the children to be taught."[4] "Children

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[1]Lawrence A. Cremin, The Transformation of the School (New York: Alfred A. Knoff, 1961), p. 22.

[2]Ibid., p. 103.

[3]John Dewey, Democracy and Education (New York: The Free Press, 1916), p. 132.

[4]Cremin, Ibid., p. 223.

of the same chronological age reveal a great difference in physical, intellectual, emotional, social, and achievement levels. A tremendous variation in interests, needs, and learning styles is manifest among children who are the same age."[1] Jerome Bruner states that "There is no unique sequence for all learners and the optimum in any particular case will depend upon a variety of factors, including past learning, stage of development, nature of the material, and individual differences."[2]

"Individual differences in children are not new in or out of school situations. When teaching efforts were largely of a tutorial nature, individual differences created no insurmountable problem for the teacher or the learner. However, as schools responded to increasing numbers of students by emphasizing procedures of group instruction, the extreme variations in learning possibilities, naturally arising because of individual differences in students, caused many serious problems for teachers and students."[3] In the Second Handbook of Research on Teaching Robert Glaser and William Cooley state reasons for individualized education. Because of the mobility of families in our country, alternatives

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[1]Ralph B. Kimbrough, Administering Elementary Schools Concepts and Practices (London: The Macmillan Company, 1968), p. 195.

[2]Henry F. Ehlers, Crucial Issues in Education (New York: Holt, Rinehart and Winston, 1969), pp. 248-249.

[3]Melvin Hetland, Individualizing Instruction Extension Service Unit One (Chicago: Science Research Associates, 1968), p. 32.

need to be used which allow children to enter the curriculum at a point appropriate to the child's learning. Research on the negative side of ability grouping suggests that other ways of adjusting instruction for individual differences should be found. At this point in our society new skills and knowledges must be learned after leaving school. Therefore, a system of education which teaches students how to learn on their own is needed. In addition to the above reasons, Glaser and Cooley also see the year-round school and differential staffing as justifications for individualized education.[1]

"It is now platitudinous to say that instructional systems need to adapt to the requirements of the individual learner, but how to bring this about in schools, overwhelmingly geared to mass group instruction, is a fundamental question for educational change."[2]

Individualized instruction is not one special program or one particular scheme. It is the process of custom-tailoring methods of instruction so that they are suitable to each particular learner. Instruction need not necessarily differ for each learner, but must be appropriate for each. It rests on the assumption that there is no one best way for all learners, but that there are best ways for each learner, which may be different from those for another learner. Although

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[1] R.M.W. Travers, Second Handbook of Research on Teaching (Chicago: Rand, 1973), p. 848.

[2] Ibid., p. 847.

there is not any special way that individualized instruction should "look," there are definite categories that do appear when instruction is individualized. Alternative means of learning are provided. Instruction is paced in a purposeful manner. Plans include means for self-evaluation. Decision-making activities are included. Through the combination of these categories each pupil works on appropriate tasks, in the ways most productive for him, and with the type of teacher assistance which meets his needs.

This study is concerned with the similarities and differences in approaches to individualized instruction in the innovative modern elementary school and the progressive schools. Literature pertaining to the elementary schools of 1919-1939 and literature related to individualized instruction in the innovative modern elementary schools from 1954-1974 is analized in regard to the following questions.

1. How were alternative means of learning provided?
2. Was a method of purposeful pacing provided?
3. Did the plans include a variety of self-evaluation?
4. Were decision-making activities included?
5. Was purposive interaction included?

The following five chapters address themselves to these categories. Part one of each chapter describes the literature from the years 1919 to 1939. Part two of each chapter describes the literature from the years 1954 to 1974.

CHAPTER ONE

ALTERNATIVES

Part I

In this study the author was seeking alternatives to the conventional elementary school in which lessons were usually assigned for the class as a whole, and the school day was divided into scheduled periods for the study and recitation of the various lessons. In the conventional school courses of study closely followed the arrangement of topics in the basic textbooks of reading, arithmetic, language, spelling, history, geography, and penmanship. In this type of conventional schooling, the pupils had little or no influence either in suggesting or developing the curriculum. With few deviations, the teachers followed prescribed courses of study. Few or no attempts were made by the teachers or the supervisory staff to correlate or integrate the separate subjects of instruction. During a recitation the teacher's main responsibility was to secure an estimate of the pupil's mastery of the skills and knowledges in the assigned subject matter, to do as much remedial teaching as possible, and to prepare pupils for new types of subject matter. In the haste

to save the child's time and get him educated quickly, it was assumed that the process of experimentation could be shortened and the child could be presented with finished conclusions.

In exploring the alternatives to the above the author found the literature reflected that there was less interest in attaching subject-matter labels to segregated bits of knowledge, and less interest in deciding that fifth-grade pupils should cover certain groups of facts while sixth-grade pupils were considering another group. Instead, concerns were with having pupils take an interest in worthwhile situations, plan activities around these situations, and then carry these activities through to satisfactory conclusions. In place of the recitation were activities, projects, research and reports. It was anticipated that a group of active and inquisitive pupils assisted by a wise and thoughtful teacher would learn a lot of facts more or less related to one another; would perform a wide range of manual, physical, vocal and mental operations; and would find new and better methods of construction, transportation, communication, and recreation. This would grow out of their attack upon their problems. All would be practical. All would come about through actual experience. The barriers of curriculum and program were broken through and a new system was provided. This system was based on the child's own level of interest and understanding and was rich in materials and opportunities for creative growth.

There was an unwillingness to be dominated by subject matter. Instead, the children were to form strong habits of first-hand research and to discover relationships using concrete matter, so that they would then see these relationships when they dealt with abstract forms.[1]

The subjects such as reading, language, social studies, and the arts received major emphasis as integrated parts of a unit, and minor emphasis as separate studies. This integration took differing forms. Occasionally, subject-matter fields were completely fused. On other occasions, casual and incidental correlations among fields were made.[2]

Adequate instructional organization depended upon careful planning as subjects were regrouped and reorganized. Teachers found it necessary to create new syllabi, new textbooks, and new pedagogical procedures. Even if materials which suggested desirable lines of development were available and were sufficiently flexible to permit the organization to meet the needs of particular situations, the instructional organization could still be poor if the work was not planned with care.

John Dewey's basic principle "life is activity" was reflected. Each particular life was considered dynamic, ever adjusting to new situations and consequently ever-changing in

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[1]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 152.

[2]Margaret Koch, "Social Studies and the Correlated Cources," Progressive Education, XII (November, 1935), p. 460.

terms of past experiences and present environment. Experiences that allowed the children to participate in activities that were meaningful for them and enhanced adjustment in society of the day and the future were stressed. It was affirmed that during these experiences the children themselves were to be active, as distinct from merely the teacher being active.

The child was placed in real situations to promote purposeful work and intelligent thinking. He was given the opportunity to test his powers first hand in laboratory, playground and workshop situations. Book learning, as an end in itself, was discouraged for at best it represented vicarious experiences. The curriculum was to be related to the child's life and to his methods of learning and living. It was no longer to be memorizing any set of prescribed studies. It was to be organized around the child's fundamental and abiding interests and experiences.

A wide selection of materials was provided. It was especially interesting to note this wide variety, the inexpensiveness, and the diverse uses of the materials. Textbooks were not used as such, but instead, as manuals and reference books. Library books and pamplets were furnished. Long periods of work replaced the short unrelated periods and made greater activity and variety in the work possible.

There was an abandoning of the dependence on the authority of the teacher and the textbook. In its place came a seeking to nurture an indomitable independence of feeling, thought, and action in the children. With this alteration came a change

to teaching methods of investigation and confirming truth, rather than teaching a truth itself; or as the slogan developed, to teach children how to think, not what to think. Above all, the child was to learn by the scientific method, to investigate and discover for himself and thereby attempt to solve his own problems. It was not felt that books would spoil the child's mind. However, the distinction was made between learning from books and merely learning to repeat passages from them. The point was to ensure that all activities were done in conjunction with thinking. Manipulation of objects done apart from a thinking process could also become a routine exercise. Teachers were to guard against neglecting intellectual values in pursuit of activities that were merely novel and interesting.

Each child was to be regarded as a unique person requiring special individual treatment. Each was to be given the opportunity for complete development by providing the environment in which he could master the common essentials, the opportunity to express himself freely through various channels, the opportunity to practice in doing things co-operatively, and the opportunity to use freedom effectively with due regard to the normal checks which life itself imposes. This meant that his environment would be filled with actions or processes. Below is a list of processes that were constantly reflected in the literature.

1. Sensing
2. Responding
3. Thinking
4. Being challenged
5. Challenging
6. Deciding
7. Sharing
8. Co-operating
9. Participating
10. Contributing
11. Working
12. Initiating
13. Creating
14. Feeling
15. Caring
16. Enjoying
17. Playing
18. Renewing
19. Strengthening
20. Growing
21. Becoming
22. Projecting
23. Questioning
24. Evaluating
25. Reflecting
26. Thinking

The projects of units centered around the needs, interests, and abilities of children and took into full account the development of the children. In order to do this, the unit was broadly conceived. It was sufficiently full and complete to offer as many endeavors as possible. The pupils were to have a wide range of experiences, so that a variety of responses was demanded and so that each pupil was allowed to make his contribution in a way which was characteristic of himself.[1] That is, different children could concentrate on different aspects of the unit, depending upon their own interests and the teacher's sense of their pedagogical needs.

The units were based upon a central theme. These themes were chosen because they were in compliance with the above and were thought to be worthwhile by the child. These themes were either experienced based or subject-matter based. The activities portraying the themes were not merely subsidiary to and servants of subject-matter. They did not exist sheerly to facilitate the mastery of subject-matter, as a subterfuge

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[1] H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 604.

to enforce it, or to be a device to make the subject matter more platable and interesting.[1] For example, a teacher might have allowed the students occasionally to set up a representation of Oriental life on a sandtable, construct a California mission out of soap, or evolve a series of booklets illustrating the habits of the American Indian. Even if the students looked upon this as a happy variation from the dull grind of the day's work, and the teacher felt that it was a concession on her part to the current educational fad, the point was that the real project was not an addition to the course of study, but was the course of study itself.[2]

Often the learning situations were developed through a study of experiences outside the school, rather than in the classroom or on the playing field. These units took into account the out-of-school life, as well as, the in-school-life. The life of the smaller group was therefore related to that of the larger by means of significant responsibilities and activities. Rural schools had an especially good opportunity to correlate formal subject-matter with life-interest projects and to bridge the gap between the home and the school. "Not only were the needs of the farm brought directly and actively into the school, but the school was carried out into

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[1]Melvin A. Gordon, "The Nature of True Activities," Progressive Education, XIII (January, 1936(, p. 47.

[2]Robert Hill Lane, A Workbook for Principals and Supervisors (New York: Macmillan Co., 1930), p. 196.

the farm community, subtly aiding, directing, and enriching its industrial and civic life."[1]

On occasion, the projects contributed in one way or another to the comfort and convenience of the school population. For example, in the Moraine Park School enterprises which differed in the character of work they produced and in the types of service which they supplied were organzied within the school.[2]

The classifications of the projects or units that were used varied as much as the projects themselves. Harold Rugg used the following in order to classify projects:

> 1. ORIENTING ACTIVITIES. Trips to markets and stores, factories and farms, museums and libraries, warehouses and banks, railroads and steamship docks, city-council and government offices, galleries and artists' studios. Trips to the surrounding country-side or to the nearest metropolitan center. Excursions for the purpose of dramatic orientation to the world about. Here there is a new educational concept: Free the legs of a child as a first step toward freeing his mind.
>
> 2. BUILDING ACTIVITIES. Reproducing in minature the striking characteristics of community and national life: in the primary grades, stores and homes, post offices and other public buildings; in the junior high school, watersupply and power plants--to name but a few. Building for the sake of dramatizing meaning: building for understanding, even more than for technical skill. Free the arms and hands of a child and you will help to free his mind and spirit.
>
> 3. PRACTICE ACTIVITIES. The repetition of acts in which specific techniques are needed: mental skills, such as those of arithmetic, spelling and scientific manipulation; manual skills, such as those of typewriting and handwriting; craft techniques--the use of tools and

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[1]Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 195.

[2]Edwin C. Zavitz, "Projects in the Moraine Park School," Progressive Education, I (April, 1924), pp. 88-89.

machines; and the social skills involved in organizing people. Thus, the new school does not hold drill in contempt. On the contrary it employs it intelligently to build socially necessary techniques.

4. EXPRESSIVE AND APPRECIATIVE ACTIVITIES. The mass-school limits its expressive work to things that can be done with a few materials--lead pencil, pen, pencil, possibly paintbrush and crayon--means of expression that can be carried on in one room and chiefly at a desk. But the new schools engage the child in a great wealth of creative activities--sculpture, music, dance, scientific research, painting, creative writing, dramatics. These are regarded as the indispensable route to the building of appreciative persons.

5. RESEARCH ACTIVITIES. The new schools utilize all the ways there are of finding out things: by studying the past through the experiences of old residents as well as by documentation from old records; by gathering information in local industrial technology and agriculture and compiled archeology, by reading from books of drama, travel, romancing, biography..

6. FORUM ACTIVITIES--THE INTERPENETRATION OF MINDS. Finally the new school sets up clearing houses to which each person brings his own research findings--conference tables at which young people and their elders exchange and validate ideas, learn the act of co-operation and grow under the stimulating impact of personalities upon one another. Thus another new concept has been added by the new education: Free the larynx of a child if you would free his mind.[1]

Other authors made use of different categories. An example of an "activity unit" was a sequence of work using gardens as a theme. The children gathered seeds and allowed them to germinate in the room, walks to observe gardens were taken. The children collected pictures, told about gardens they had seen, made posters, made baskets for flowers, drew pictures of flowers, dramatized flowers in a garden, impersonated

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[1]Robert Hill Lane, The Progressive Elementary School (Boston: Houghton Mifflin Co., 1938), pp. 84-85.

bees, butterflies, wind, rain, et cetera. A "problem unit" was based upon an initial question such as "What natural equipment has the dog to fit him to be useful and companionable to man?" In this unit the pupils told why they liked their own dogs, created interest by stories, brought a dog to the room to illustrate points covered, drew and exhibited dog pictures, discussed personalities of dogs, classified dogs on the basis of adaptability to climate, and other activities related to the original question. Another classification used was the "casual unit." For example, a garden spider was brought to school. One science period was spent discussing the usefulness of spiders, their conservation, poisonous species, et cetera and studying the spinning of the web.[1]

Other classifications used were "hand or construction projects" which grew out of need for some specific objects which could be made by the pupils themselves; "play projects" which usually consisted of learning new games, playing them, keeping score, and organizing leagues; "story or communication projects" consisting of selecting stories, telling them, preparing a resume of stories, building up a catalogue of story titles with their sources, and dramatizing stories; "exploratory projects" in which the pupils might find out the names of the flowers in the country or how people in the colonial times made their clothes; and "artistic activities"

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[1]Edgar Marion Draper, Principles and Techniques of Curriculum Making (New York: A. Appleton-Century Co., 1936), pp. 462-463.

which included activities such as painting a picture or engaging in folk dancing.

A classification that was used and described in more detail in the literature was that of a "subject-content unit." The "subject-content unit", at times, sprang from available textbooks; authorities arguing that it was a waste of time to theorize since the teacher was dependent upon printed materials of instruction and that the sensible thing to do was to select units taken from or based upon texts currently in use. At other times, social functions approach was upheld. This procedure was based upon the assumption that the activities should be organized in such a way as to carry over with the greatest ease to real life situations. Since the social functions of group life tended toward gathering and organizing, it was considered reasonable that a curriculum which was concerned with guiding children into effective participation in the activities of real life might appropriately use these social functions as points for emphasis and orientation in outlining the curriculum.[1] "Subject matter units" were topical in nature. The purpose of a topical unit was to teach pupils facts about a subject that would be needed by those who would study more of the subject. Text and courses of study were simply divided into units instead of chapters or parts. For example, the following were typical topical units in arithmetic:

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[1]Robert Hill Lane, The Progressive Elementary School (Boston: Houghton Mifflin Co., 1938), p. 94.

Unit I--Learning More About Addition and Subtraction.

Unit II--Learning More About Multiplication and Division.

Unit III--Learning To Find Parts of a Number.

"Subject matter units" were generalization units. These were organized to develop understandings of a particular generalization, principle, or law. Generalizations that seemed to be most widely applicable in explaining contemporary life were usually selected; for example, men move from place to place in search of better living conditions might be chosen as a basis of a unit.[1]

The units varied in length. Some occupied several months of the time in the yearly program. "For example: 'Cotton Over the World' could be a comprehensive study of the cotton growing countries of the world; a detailed study of the cotton industry and all its ramifications in the United States; international trade; the manufacture of cotton cloth; clothing; national costumes; and climate and its relation to cotton production."[2] The longer units were to include a series of endeavors and explorations to open a new field, to raise new questions, to arouse a demand for further knowledge, and to suggest what to do next on the basis of what had been accomplished and the knowledge thereby gained.[3] It was considered

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[1]Hollis C. Caswell and Doak S. Cambell, Curriculum Development (New York, American Book Co., 1935), pp. 406-409.

[2]California Curriculum Commission, Teacher's Guide to Child Development (Sacramento: California State Dept. of Education, 1936), p. 31.

[3]H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 604.

a mistake for a teacher to feel that a unit must be in progress at all times. One should continue just as long as the children's interest was maintained. As soon as interest diminished, it should cease and be replaced. The important idea was that the day should be occupied by a succession of desirable experiences and these might well be of a many-but-short variety as well as the few-but-long.[1]

The themes for the units of work were developed in different ways. On occasion the teaching staff assumed that the interest of the children of a certain age or grade lay in particular areas and that all units in these areas, which had educational merit, would be satisfactory. The staff organized units related to previous work and to the social interests and experiences of children at given ages, in order to develop the educational program. Or, at other times, the teacher took the immediate interests and activities of the children as the basis of work.[2] These immediate interests were identified in a variety of ways. Discussions of current topics sometimes developed into a center of interest. To illustrate this point further, a certain class might devote an hour a day to science. The teacher and the children spent this hour on a certain day as follows:

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[1]Robert Hill Lane, The Progressive Elementary School (Boston: Houghton Mifflin Co., 1938), pp. 82-83.

[2]Edgar Marion Draper, Principles and Techniques of Curriculum Making (New York: D. Appleton-Century Co., 1936), p. 420.

"15 minutes--Current events in science. The entire quarter-hour was devoted to floods in the Ohio Valley (February, 1937).

15 minutes--Beginning an experiment with seeds showing measure of growth under varying conditions of heat, light, and moisture.

15 minutes--Discussion of a new series of science readers just received in the room.

15 minutes--Free reading in science."[1]

The next day the children demanded another discussion on the Ohio flood situation and asked many pertinent questions on flood control, levees, soil erosion, dams, et cetera. This discussion occupied over half an hour. The third day the interest grew to such a height that children and teacher decided to take the entire science hour for several weeks to study flood control and related problems. A unit of work was developed. Dozens of situations happened daily in classrooms that were potential beginnings of units of work.

One morning, a child brought his pet cat to school. That afternoon, several other pets appeared, and before the teacher realized it, a unit of work on pets was under way.

Some new houses were constructed near the school. Some of the children were intensely interested in the process. Classwork on the project developed quite naturally and traveled a very wide range of activities.

A boy's grandmother returned from China, bringing with her many souvenirs of the trip. Soon she was invited

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[1]Robert Hill Lane, The Progressive Elementary School (Boston: Houghton Mifflin Co., 1938), p. 82.

> to visit her grandson's class and to relate some of her experiences. The unit on China, which grew out of this situation, continued for several months.
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> A group of boys found some queer looking caterpillars while on the way to school. Several children thought they knew what they were, but the answers did not agree. A unit was underway.
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> A school boy accompanied his father on a trip by airplane and gave the class some of his impressions of the flight and a unit on aviation was started.
>
> A Congressman sent pictures of George Washington for each classroom, and considerable material was supplied by the United States George Washington Bicententennial Commission. As a result, one class started to write a George Washington pageant, and soon other classes were involved in one way or another. Before it was finished, this unit involved the entire school system.[1]

Asking members of the class questions brought interests to light. Some samples follow. Why do you want to come to school? What do you want to learn this year? Have you seen something lately about which you have wondered but about which you could not find the answer? What do you like to do at school, at home? Providing fruitful and varied first and second-hand sources and then observing the children gave direction to a unit. Which books do the children use voluntarily? Which objects do they choose to work with? While casually visiting with individuals and with small groups, where does the conversation lead?[2] The neighborhood of school and home suggested many activities which were tied up with the daily

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[1] Samule Engle Burr, An Introduction to Progressive Education (The Activity Plan) (Cincinnati: C.A. Gregory Co., 1933), pp. 35-36.

[2] H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), pp. 639-640.

work of the schoolroom. One school had a transcontinental railroad almost in its backyard, and the sight of the trains flashing back and forth throughout the day was the starting point of an activity which took in the history and geography of the entire western United States.[1] The newspapers sparked interests. Ideas for themes were plentiful. The important concept was kept in mind that it was not what the students did as long as they did it with a purpose.

The essence of the unit of work was the activities that were in progress during the unit. These were activities of the children themselves, as distinct from the activity of the teacher. They were as diverse and variable as human conduct--reading, writing, reporting, dancing, singing, planning, evaluating, discussion, picking apples, making cakes, building houses, driving spikes, raising monuments and tearing them down, eating, cheering, buying, selling, thinking, and fighting. An activity was an "ing" thing. At the heart of these activities was a purposeful act. This act fixed the aim, guided the process, and furnished the drive for the succession of experiences.[2] In every activity there were both mental aspects and physical aspects. To have one without the other was to deny the "purpose" of the action. A true activity always proceeded

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[1]Robert Hill Lane, A Workbook for Principals and Supervisors (New York: Macmillan Co., 1930), p. 197.

[2]Adolph E. Meyer, The Development of Education in the Twentieth Century (New York: Prentice-Hall Inc., 1946), p. 18.

through four steps: purposing, planning, executing and judging.[1]

No time was to be wasted in futile activities. Each was to instead contribute to the development of the entire group and to the development of individuals within that group. Good social habits were to be built. The simple skills necessary in every day life were to be acquired. The more complex essentials of scientific thinking, such as selecting, classifying, organizing, and comparing, were to be practiced, and the children were to learn how to find out. The crucial aspect of contemporary civilization was considered. Knowledge which would function in helping the children to understand the world in which they lived and to clarify social meanings was to be acquired. Attitudes which represented a respect and affection for the American cultural heritage were taught. The skill of using freedom effectively--with due regard to the normal checks which life itself imposes and an independence of feeling, thought, and action--was nurtured. The child was to develop those qualities which would "make him an individual and not a standardized robot."[2]

With the exception of the time that was needed in pure practice, the skills were approached in a functional, dynamic, and life-like way. For example, rather than just studying

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[1]Lawrence A. Cremin, The Transformation of the School (New York: Alfred A. Knopf, 1961), p. 218.

[2]Robert Hill Lane, The Progressive Elementary School (Boston: Houghton Mifflin Co., 1938), p. 80.

verbs, verbs were to be used correctly in everyday speech; rather than just realizing that one should help others by carrying things, a parcel for a friend was carried; rather than lecturing on speaking according to the canons of good speech, proper enunciation, pronunciation, and inflection, children practiced talking in assembly so that they could be heard, understood, and enjoyed.[1]

An observable trend was that there was no formal division of the subject matter into separate compartments labeled "reading," "writing," "spelling," et cetera. The separation of individual subjects was given only minor emphasis. This change was evident in several tendencies:

1. A disregard for subject-matter divisions in carrying out activities.
2. The recognition of the real arithmetical situations existing within the unit, the school, or the community.
3. The use of special subjects, such as music, shop, or physical education, as tools inseparable from the accomplishment of classroom activities.
4. The realization that science serves in the solving of many problems and interests.
5. The recognition that English expression is a basic part of all activities.[2]

Two specific individualized programs were the Dalton Plan and the Winnetka plan. Helen Parkhurst, at Dalton, Massachusetts, reorganized the elementary curriculum into a series of units or "contracts." As each child "accepted" his contracts, he accepted the responsibility to complete a specified amount

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[1]H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 633.

[2]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 92.

of work in a specified amount of time. Carleton Washburne, as superintendent of schools at Winnetka, Illinois, provided a series of "goals" in each essential subject for the various grade levels. Students worked to master these goals at their own speed. These two programs differed in several important aspects. Under the Dalton Plan the schools had work-shops or laboratories equipped for special subjects. Each laboratory had its own teacher, whose function was to answer questions, make suggestions and exercise the necessary oversight of the work done. This Dalton plan accepted the course of study of the school in which it was introduced and merely broke it up into monthly assignments. The Winnetka material was prepared after long investigation of what was most modern in type and content. Only the three R's were taught by the individual method in the Winnetka Plan.[1] The plan assumed that there were certain knowledges and skills which were essential. After these were isolated, a test was then organized which measured the degree of mastery attained by the pupil. The work was either organized into teacher prepared texts or was presented to the pupil as bound mimeographed sheets of assignment materials.[2]

There were two prevalent feelings concerning the teaching of reading. One was that the desire to read was to be cultivated, and the other was that one learns to read best when one

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[1]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 92.

[2]Edgar Marion Draper, Principles and Techniques of Curriculum Making (New York: D. Appleton-Century Co., 1936),p.410.

uses reading to serve one's ends or simply, one learns to read by reading. Many things happened during the day which enhanced the child's desire for reading. A familiarity with books developed. The necessity to collect data needed in furthering what one was doing evolved. There was a thirsting for stories. The children wanted to understand the notebooks in which records of experiences of the class were kept. The class newspapers were published. Value in books was expressed by allotting time for the enjoyment of books and for sharing book interests. Exploring took place through books. Children arranged the library. Room library collections were built up. One members was appointed to have charge of the books or selecting the new books to be bought for the class or school library. "Children can be led to form the habit of having a book on hand which they read at spare moments. They build an interest in books such that they look ahead to books they plan to read as soon as the books are available. They can become interested in favorite authors and illustrators. In fact, under proper guidance they can learn to regard books as friends. Where such a program is employed, growth in ability to read developed often unconsciously for the learner."[1]

Instead of sticking only to a textbook, a variety of materials were used. As experiences were talked about, and the pupils made up simple stories, the teacher wrote and placed them on the bulletin board. They were displayed until the

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[1]Lois Coffey Mossman, The Activity Concept (New York: Macmillan Co., 1938), p. 84.

pupils were familiar with them, or they were printed into "Reading Leaflets" for the school.[1] The practical duties of the day lent practice in reading. Before lunch was served one teacher made this bulletin:

I will take milk.

I will take crackers.

I will take an apple.

Very soon pupils knew where to place their names, because they wanted to be sure to get the lunch they chose.[2] Signs and labels that attracted attention were included in the materials. Directions and recipes were aids in carrying forward some enterprises. In the rural schools pupils read the bulletins of the Department of Agriculture and the state experiment station. Books from the library were used to a great extent.

Reading was a part of every other subject. It was used every period of the day. Vocabularies based upon the room activities began to take form. If a farm activity was underway, words such as farm, farmer, house, barn, horse, sheep, or cow became a part of the child's reading vocabulary. If it was a village community activity, the pupil soon leanred words such as streets, houses, stores, or buildings.[3]

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[1]Lawrence A. Cremin, The Transformation of the School (New York: Alfred A. Knopf, 1961), pp. 131-135.

[2]Robert Hill Lane, The Progressive Elementary School (Boston: Houghton Mifflin Co., 1938), p. 58.

[3]Ibid.

Reading was a natural part of the child's day, and it was natural for him to want to read.

The language arts skills were often combined as an element of communication. Again, creating the desire on the part of the child was important. To accomplish this it was necessary for the lessons to include writing of that which had an important function which the learner recognized as valuable in achieving his ends. Letters written in school went into the public mailbox instead of into the teacher's wastepaper basket.[1] In the Ojai Valley School, essays based on interviews with all kinds of people who had lived very different lives from those of parents and intimates, were used. These people included ranchers, fruit growers, railroaders, forest service workers, engineers, circus performers, sailors, and soldiers.[2] Grammar and spelling, the drill components of communications, were made more vibrant with games, flash cards, and spelling bees. Often the children made up their own spelling lists from words they were using.

Most important to the mastering of these skills, though, was using these subjects in the other periods of the day. An oral report in the social studies was to exemplify the teaching done in the language arts period. Ledgible penmanship was to be regarded as important all through the day. Language arts

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[1]Lois Coffy Mossman, The Activity Concept (New York: Macmillan Co., 1938), p. 82.

[2]Edwards Yeomans, "The Ojai Valley School," Progressive Education, I (July-September, 1924), p. 66.

was in no way pigeon-holed and taught only in a specified period; it permeated everything done in the school.[1] Countless opportunities for sincere expression presented themselves in the social life of the everyday classroom. Children extended courtesies to each other; happy experiences were related to the group; new games were explained; notes to children who were sick were written.[2] The literature was full of real situations in which the communication skills were practiced: publishing a class or school newspaper, corresponding with children elsewhere, writing local history stories, relating school-made books to the activities of classes, meeting with student councils, assembling informally, children reading to each other, reviewing books for lists for mothers, making vacation guidebooks for other children, and writing letters of invitation. The amount of practice that the children received on the communication skills was considerable when the interrelation and integration with the entire curriculum were borne in mind.

The common belief held was that children gradually developed concept of space, time, weight, and formalized numbers from their own personal experiences. They developed these concepts strictly in relation to themselves, deriving their ideas from the way these phenomena affected them

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[1]California Curriculum Commission, Teacher's Guide to Child Development (Sacramento: California State Dept. of Education, 1936), p. 27.

[2]Ibid., p. 327.

personally. Therefore, arithmetic was approached inductively, through objects rather than rules, and by the need for arithmetic skills arising out of the activities or studies of the group.

Once again the experiences related to life were important. In the City and Country School, the six-year-olds were offered opportunities at orange-juice time and lunch time by laying tables with the right number of spoons, forks, et cetera. Cooking provided the first introduction to fractions, for recipes called for half and quarter cup measures. Here they displayed a sense of proportion in that they halved all the measurements of individual ingredients to make a cake or other dish half the prescribed size. A dime bank provided an excellent introduction to the decimal notation system. About two dollars worth of dimes and pennies were provided for a city play. A "customer" needing money would take a domino whose spots represented the required sum in pennies, and, using this as a check, exchange it for money at the bank. Here they noticed that a three and four, or a five and two, both exchanged for seven cents. The "bankers" learned to keep simple accounts, and the column way of noting a dime as a "ten" was emphasized. At the end of the day, the money was called in and checked in piles. Very rarely was a cent lost. This practice was responsible for the clear understanding of money calculations. The seven-year-olds were granted ten dollars to a group for stationery supplies and trips each months. At first they watched the teacher keep the accounts. Then

individuals learned to record the money spent and the balance was found empirically and checked by adding to the amount spent.[1] The following is an example of an activity which enhanced directionality. The floor plan of a real city was built with the model corresponding to compass directions. North gradually became synonymous with "uptown," and south with "downtown." Instead of just knowing the direction of home from school and vice versa, the six-year-olds were encouraged to learn direction of places visited on past trips from anywhere on the next trip. After taking circular routes, they were constantly asked to locate their position with regard to many previously visited localities.[2] A class studying mensuration made several excursions to a house being erected in the vicinity of a school. First, they computed the number of cubic yards of earth excavated from the cellar, and the cost of the excavation (the rate per cubic yard which was kindly given to the children by the contractor). Later, they measured floor and wall areas, allowing for windows, and computed cost of plastering, woodwork, et cetera. This group project provided practice in measurement, which was done separately by two groups and checked for errors; provided practice in mensuration; and provided a study of actual

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[1]Brenda Lansdown, "The Experiential Background as a Basis for Mathematics," Progressive Education, XIV (February, 1937), pp. 109-111.

[2]Ibid., p. 107.

construction work and of current costs.[1] In another school a project of caring for chickens called for arithmetic. The feed was to be paid for and eggs were sold (which made knowing current prices necessary). Change had to be made.[2] The fact that a teacher and a number of children were living in a schoolroom involved number situations. A wise teacher was careful to evaluate each situation in terms of the quantities involved and whether the children had the necessary number processes mastered to enable them to meet the situations. Then, the realities of the situations could be met. There were individual possessions, and there were common possessions and materials. Living together on a common basis meant sharing on an equal basis. Numbers of children, numbers of books, pencils, crayons, et cetera needed care. Time had to be accounted for and the time schedule of the class had to be planned.[3] There were many opportunities to develop number concepts and to use arithmetical skills and the teachers cultivated a sensitivity in themselves to number situations.

Arithmetic was also correlated with other subjects. Mathematics was frequently introduced in connection with the

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[1]Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 186.

[2]A. G. Melvin, The Techniques of Progressive Teaching (New York: John Day Co., 1932), p. 13.

[3]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 234.

manual-training courses. When the youngsters actually made the equipment they needed for their studies, many mathematical skills were required. As pupils designed sets for plays, arithmetic became necessary. Rulers were used to find the lengths, widths, centers and heights of things. A great deal of work in proportions was necessary to judge the proper size of trains, furniture, cars, and trolleys to be right for the dolls who used them. Questions like the following constantly arose: "How much cloth is needed for the grocery store awning? How can we space the posts evenly for the railway fence? How do we get the posts all the same size?"[1] In buying the paint for the sets, the question of how much paint to buy had to be answered. This meant utilizing square measure, pints, quarts, gallons, as well as addition, multiplication, and other computations. Arithmetic problems grew out of social studies work. Comparisons were made of population of countries, population of cities, length of rivers, height of mountains, areas of basins, output of cattle, hogs, wheat and flax of countries, water and rail transportation, length of trade routes, the size of wheat farms, and size and capacity of wheat bins.[2]

Science and social studies were both dominated by John Dewey's theory that learning occurred through acting.

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[1]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 141.

[2]California Curriculum Commission, Teacher's Guide to Child Development (Sacramento, California: California State Dept. of Education, 1936), p. 383.

Therefore, learning was viewed as a dynamic, assimilative process and as taking place best under those stimulating conditions of real life in which the pupil participated in activities which he helped to initiate and for which he, himself, saw a need.[1] The replacement of vicarious with direct experiences in dealing with the child's immediate environment was stressed. There were many types of activities. Activities designed to help the child organize his experiences and draw general conclusions, to apply his knowledge to new situations, to stimulate observation of his environment, to provide the child with a working knowledge of facts and principles which would aid him in a growing understanding of his environment and give him an appreciation of the place of the disciplines in community life were only a few of the types. There was construction work, problem solving, and research. Conferences were held and excursions were taken. Dramatization was used to stimulate and illustrate to a great extent. "If you can't dramatize history and geography you can't teach them to children. The teacher of these subjects must have something more than a scientific method and a system of marks."[2]

The topics used as vehicles were random and from various sources. The inclusion of ideas which increased the child's

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[1]Lallah Blanpied, "How to Teach Science in the Elementary School," Progressive Education, VIII (April, 1931), p. 326.

[2]Edwards Yeomans, "The Ojai Valley School," Progressive Education, I (July-September, 1924), p. 66.

understanding of social and economic life in the local community was a tendency. The child was to be given an understanding of a changing world and the realization that as new facts are discovered and old theories discredited, he should fit them into his view of the universe and make the readjustment which would clarify his thinking.[1] The romance and thrills, which had in former generations been concealed in the mass of verbiage and unimportant details, changed to a vivid depiction of life itself and was closely related to the daily environment and needs of the child.[2] Social studies and science connected the child to the immediate and present world and attempted to lead him to the world about him and to an understanding of the larger human society.

This social functions approach was based on the assumption that the activities of children in school should be organized in such a way as to carry over with greatest ease to real life situations. This concept of organization of the instructional program suggested that the school program should provide, in so far as possible, for children to gain an increasing understanding of the issues and problems encountered outside the school, should aid in the development of desirable controls of conduct that operate in meeting such issues and problems, and should give them opportunity to

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[1]Lallah Blanpied, "How to Teach Science in the Elementary School," Progressive Education, VIII (April, 1931), p. 326.

[2]Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 182.

participate extensively in such real situations. This procedure further assumed that an adequate program of education would provide for the introduction of all the important areas of activity in real life and would provide for the gradual induction into participation in these activities.[1]

The recognition of children's current interests and experiences and the legitimacy of the reappearance of an interest on different age levels was a tendency. "The real world spreads out before him. History, geography, community living crowd him on every side and he dips into all of them with no idea of separating or classifying them. His approach is not logical. He plunges. In order to keep up with him we plunge also. Deliberately we help him open the doors to the past as well as the present, to the remote as well as the nearby, to social as well as individual life, believing that the interaction of these discoveries is necessary for the fullest development."[2]

Similarly, in science the children blazed their own trails and followed their own inquiries. Visiting a science laboratory one might have seen students melting glass tubing preparatory to making thermometers, another group experimenting with a steam engine, another with an electric battery,

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[1]Robert Hill Lane, The Progressive Elementary School (Boston: Houghton Mifflin Co., 1938), pp. 94-95.

[2]Margaretta Voorhees, "Social Studies in Beaver County Day School," Progressive Education, II (October-December, 1925), p. 243.

or an eager pair making ink.[1] It was believed that the science interests of children were rich. One child might want to make candles; another might want to examine under the microscope some aquarium life or the circulation of blood in a frog through the webbing of its foot, another might want to distill some sea water; another might be in the process of building an electric derrick.[2]

A real part of the child's life was lived away from class studies, and his life outside the classroom offered a great deal in the nature of science inquiry. This immediate environment was a rich source of topics. "How do doors open automatically as one comes up to them? With what are the dials of watches painted to make them luminous in the dark? Why did father's car stop after that driving rain? How does the camera take pictures?"[3] The natural surroundings of the children's daily life was built upon to combine science and social studies. The silkworm was taught in conjunction with the silk industry, the migration of the salmon in conjunction with the work of fishermen, the appearance of Venus in the western sky with the study of the globe, and the appreciation of the majestry of the redwoods with the problem of conservation.[4] The location of Ojai Valley School allowed astronomy

[1]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 205.

[2]Henry Paley, "An Approach to Creative Science," Progressive Education, XII (May, 1935), p. 334.

[3]Ibid.

[4]California Curriculum Commission, Teacher's Guide to Child Development (Sacramento: California State Dept. of Education, 1936), p. 17.

and geology to become a very realistic study. The sea coast, with its innumerable marine creatures, was only fifteen miles away, and its ancient boundaries were defined by shells and fossils on the very tops of the present mountains.[1] With the variety in activities and topics being used, the essentialist philosophers felt that specific skills were ignored. This was not the case. For example, if it developed in the social studies period that the children were not familiar with a world map, the teacher sensed the need for, and included, map drill. The ability and tendency to use maps and globes was furthered by the teachers often encouraging the habit of referring to them for location of all places under consideration, whether in the news, in history, in geography, or science, or literature. Quantitative thinking, in terms of space and distance, was taught by relating the new to data in the learner's own experience. He might know exactly from his own experience the height of the Empire State Building, Mount Mitchell, the Washington Monument, or Pikes Peak. When he read of other tall buildings, of mountain climbing or of airplane altitude or tall trees, he could think of these new heights in terms of the known, experienced height. Thinking in terms of time relationships was developed through thinking in terms of a "span of time, togetherness" and of "before-afterness." Definite reference points were used by fixing a

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[1]Edwards Yeomans, "The Ojai Valley School," Progressive Education, I (July-September, 1924), p. 65.

few dates that were significant to the learner and using those in locating and relating other things occurring in history. It was not supposed that the awakening in children, through school activities, of a dynamic consciousness of a need for any complex skill would ensure mastery in the incidental progress of their daily life. When genuine life activities had awakened in children the desire to read, write and figure, the teaching of those skills was just the beginning and had to be supplemented by much more careful teaching. This was sometimes referred to as the drill phase or the direct teaching phase of the instructional program.[1] It was felt that in the past too much time had been given to developing skills and learning facts that did not meet the present needs of the children and were of little permanent value. For this reason, information to be mastered was given careful consideration. It was to be of immediate need to the learner and to be of value in other situations.[2]

The review and drill came as a natural part of the activities. The following examples illustrate this fact.

> A group of school children were planning a flower garden. The seeds were to be purchased by a committee and the money for them was to come from the class treasury. Finally, a selection was made and prices were secured. As the spending of money was a group enterprise, the members of the class figured up the cost and the amount which would be left on hand in the treasury after the

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[1] H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 592.

[2] Ibid., p. 605.

> purchase was made. When the calculations were made, there were several answers, although the children knew that only one answer could be correct. The teacher made the most of this in order to have the pupils see the need for review and drill on number facts.
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> Another group of children were planning a trip to New York City. They wrote to several railroad and steamship companies for information. Of course, the teacher inspected the letters before they were mailed. Most of them had to be rewritten because they contained misspelled words. These words had occurred before in the unit, and the spelling should have been learned. As it had not been, the pupils themselves saw that review and drill would be necessary.
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> A standardized test on geography facts was given to a group of fifth grade pupils. When the papers were scored, the pupils found that many of them had made incorrect responses when asked to indicate capital cities, seaports, products and climatic conditions of certain countries--all of which had been included in units of work during the preceding two years. They saw that certain important facts had escaped them, and they were ready for review and drill work.[1]

The literature reflected that the curriculum was shifted from book-work of an abstract type through the long hours of the school day, with children confined to their desks, to a more well-rounded instructional program including constructive work, dramatic play and expression in varying art forms. The construction work was any manipulative experience which led to making something of use. The creative expression area represented those experiences in which the child strove to express himself through any appropriate medium--drawing, painting, modeling in clay, music rhythms, dances, poetry, or prose. The reasons for this shift to including the creative

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[1]Samuel Engle Burr, An Introduction to Progressive Education (The Activity Plan) (Cincinnati: C.A. Gregory Co., 1933), p. 60.

were many. The creative was included because it was felt that if the child was denied expression of his subjective life, he would not be a complete person, but a starved and thwarted being. It was felt that the creative abilities gave the child a chance for self-expression and the opportunity to contribute to the group something of his own special interests and abilities. Developing the creative purposes would establish habits motivated from within, which was the only way in which original and artistic work could be achieved.

Allotting time to enjoy the esthetics was important. "Beautiful interpretation of life experiences are worthy of study, and should be given ample place in the program."[1] Children must be brought into contact with the beautiful to enjoy it. People tend to like the familiar, and it is highly desirable that children of all grades have much contact with the arts. The expressive movement of the body to rhythm had important effects not only on esthetic, but also psychological development.

Children were considered motor-active. By making tasks, which made using one's hands necessary, an integral part of education, the children acquired knowledge in a way suited to their nervous system and to their psychological development. There was a felt need for the child to think for himself, to originate, and to create. To do this on the plane of the

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[1]California Curriculum Commission, Teacher's Guide to Child Development (Sacramento: California State Dept. of Education, 1936), p. 23.

abstract required more data and more knowledge than the young child had at his command. In the realm of the concrete, the child was able to create, to be original, and to be expressive. Involvement in these processes was a means of enhancing the child's self image and personality development. Success in such endeavors in the early years was a step toward a feeling of dignity and self-confidence. Aptitudes in the child were discovered. This was not used in an actual pre-vocational sense, but rather in a sense of showing a native bent which was of value in indicating one's life work. Also, the manual skills developed had a place in helping the child in worthy use of leisure time presently and in the future. The manual skills taught the children the dignity and worthwhileness of manual labor and thus helped bridge the gulf between Labor and Capital.[1]

It was believed, as John Dewey did, that the child was a natural artist, but that the environment must be structured with materials, sympathy and freedom in order for the child to create. The old methods of teaching--putting the learner in a formal art room and setting him down with charcoal and paper to do a careful study of pots or milk bottles--were thought to tie the child up so tightly in the bonds of technique that creative impulses were killed.[2] Instead, the

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[1]Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), pp. 57-60.

[2]L. Young Correthers, "Art in the Extra-Curriculum," Progressive Education, III (July-Sept., 1926), pp. 214-216.

environment was one in which the child found materials with which to clothe his ideas: paint, plaster clay, soap, packing-boxes, et cetera. What the materials were was of no great difference, but they were to be materials that liberated, and not confined. For example, large sheets of paper instead of small ones and soft crayons and chalk instead of hard crayons were used. It was the duty of the teacher to provide an environment and materials so that the process could develop into a creative habit.

It was the process which was stressed and not the product. The purpose of dramatics in the schools was not toward performance, but toward expression. It was not the art product, the crooked waste-paper basket or the staggering sailboat, which counted most. It was the fact the child had made a product of his own imagination and labor and was, therefore, dignified in his own eyes as a learning and achieving individual.[1] The period in which the creative was inspired was not one in which poetry must be written, songs composed, or pictures drawn. The techniques in the cultural subjects were means to further enjoyment and not an end in themselves.

The according of freedom was most important. Art without freedom was simply impossible. The slightest cramping, the least unsympathetic criticism, the mildest repression was believed to stunt growth. For this reason, only the simplest

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[1]A.G. Melvin, The Techniques of Progressive Teaching (New York: John Day Co., 1932), p. 263.

and most natural methods of helping the children were employed. The question of technique was not raised until the children showed the need for it. These were times when the child could not give body to his own ideas, and when he came to the place where he wanted to seek out more art products he could not do so because of the lack of technique.[1] The main responsibility of the teacher was to maintain a sympathetic attitude toward the children, realizing the important necessity of protecting the child from the teacher's own ideas, and allowing the child to express himself freely.

The creative abilities were constructive activities and activities involving esthetic self-expression. There were overlaps and, therefore, it was somewhat difficult to distinguish absolutely and clearly between the two. The constructive activities were grosser activities such as the making of tables and chairs. They were, on the whole, dominated by utilitarian motives, and were made for the sake of securing and using the product rather than for the sake of the experience involved in their production. A distinguishing factor was that the source of the plan was a matter of complete indifference. It might come from a book, the teacher, or another individual. On the other hand, the esthetic, self-expression activities were fine, rather than gross, in their general nature. They were of the type, commonly referred to as artistic or esthetic, such as the writing of a poem or the painting of a picture. They were

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[1]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 88.

not inspired by motives of utility, but, instead, by some emotional or personal desire.[1]

The teacher was to be ever on the watch for the occasions in school life which would lead on to the creative work. The literature was filled with accounts of these occasions. Little children marching around in costumes of their own making and a vaudeville of fun and acrobatic efforts were included. The reciting of poems, the composing of plays, the making of simple musical instruments, the building of scales from tumblers tuned to pitch by various quantities of contained water, the spinning, dyeing and weaving of wool to make tiny blankets, the weaving of baskets, the making of doll dresses, the making of stepping stones from cement for the school, the engaging in folk dancing were all described in detail and were regarded as an indispensable route to the building of an appreciative person.

These creative activities were often done in correlation with the other classroom work. For the majority of elementary school children, the fine and industrial arts skills were needed, primarily, for the graphic representation of ideas or concepts. The social and natural sciences especially reflected this need. Reported were children illustrating ideas which people of various times have held about eclipses, children painting columns for Egyptian plays, children reproducing Indian art, or children decorating a store.[2] Music, rhythms,

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[1] A.G. Melvin, The Techniques of Progressive Teaching (New York: John Day Co., 1932), p. 269.

[2] H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 633.

and dancing were also closely allied to the classroom activities, but they were used mostly for expressing emotions rather than ideas. Each source seemed to provide an endless supply of ideas for the correlating of these subjects to the creative.

The implimentation of the creative into the school curriculum raised an important question for the educator; what was the right proportion of handwork to brainwork, or the concrete to the abstract? This question was not answered explicity. Rather, it was affirmed that it was the balanced, all around personality that they were aiming to produce--neither too bookishly impractical, nor yet too lacking in the finer intelligence and in the powers of intellectual discrimination.[1]

School was extended to the life about the school. The function of the environment was considered important as a factor which stimulated activity which resulted in learning. For this reason, schools did not limit the carrying out of their activities to the classroom.[2]

This movement beyond the classroom was undertaken with a composite of goals and objectives in mind. The four walls of the school were "removed" to allow the children to gain social experiences. The emphasis on the social lay in the proposition of John Dewey, that, if knowledge is worthy of being called

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[1]Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 61.

[2]Lois Coffey Mossman, Principles of Teaching and Learning In the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 52.

knowledge, it is obtained only by participating in activities of social life.[1] Excursions were used for the purpose of dramatic orientation to the world about. They helped to crystallize and gave a sense of vivid reality to the world. For example, if clay was being studied the following happened. The class went to see a clay bank; they brought back some samples of clay, asked a potter how he prepared the clay for use in making jugs, and visited stores to see as many clay products as possible. Thus, the ordinary clay of the environment took on new meaning.[2] Or, if the children were studying Manhattan Island, they visited the North River where they saw different materials coming in on scows, ferryboats carrying people back and forth across the river, freighters, tugboats and other river traffic. They visited bridges, tunnels, railroad terminals, and large public markets. They went to the top of the Empire State Building and visited Radio City. They made trips on the longer ferries to Staten Island, to South Brooklyn, and to the lighthouse at Seagate.[3] The City and Country School felt that trips helped the children clarify and organize their experiences and observations. The trips gave the children the opportunity to learn through first hand

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[1]Adolph E. Meyer, The Development of Education in the Twentieth Century (New York: Prentice-Hall Inc., 1946), p. 63.

[2]Lois Coffey Mossman, Principles of Teaching and Learning In the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 54.

[3]Agnes De Lima, The Little Red School House (New York: Macmillan Co., 1944), pp. 18-19.

observation, and the opportunity for concrete experiences in connection to their studies.[1] The theory, that one learned how to live through the process of living, took the teachers and the children out of the classroom. Since life was not confined to a classroom, a building, a book, or a conventional school subject, the curriculum was not confined to these limiting areas.[2] Excursions were taken for other reasons. The school was an integral part of the community and, therefore, utilized the entire community environment.[3] Real things interested children, and a trip to a real blacksmith shop, or to see the boats from the dock, was a successful rival to a story or picture book.[4] Trips were made in order to assist children in investigating first hand.

The places to visit were limited only by imagination and the locale of the school. Trips to markets, stores, libraries, warehouses, banks, railroads, steamship docks, government offices, galleries, artists' studios, museums, parks, factories, bridges, bakeries, pasteurization plants, hospitals, newspaper plants, various exhibits, farms and goat ranches all took their turn. In volume ten of Progressive Education, A.G. Peterson

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[1]Leila Stott, "Use of City Resources in the City and Country School, New York City," Progressive Education, XVI (March, 1939), p. 151.

[2]H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 157.

[3]Ibid., p. 588.

[4]Elizabeth Irwin, "The Little Red School House," Progressive Education, I (July-September, 1924), p. 103.

gives a detailed account of a week's trip undertaken when he had charge of one of the classes at Winbrook in White Plains, New York.[1]

The trips were well planned learning experiences. Questions, to which answers were desired, were listed, and the method of recording answers was agreed upon ahead of the trip. Permission from proper authorities was secured, and careful arrangements were made beforehand about details.[2]

Where excursions were not possible technology was beginning to provide avenues. The motion picture and stereoscopic slides began to have a genuine educational significance. The motion picture, especially by reason of its seeming reality, not only made an excellent substitute for the excursions, but also, in some instances, could even surpass the excursion in value if the excursion was not well planned. The picture, it was thought, afforded the child a realistic experience. It offered an exposition that was full and so complete that one remembered without any conscious effort to do so.[3]

The literature revealed a trend, evident throughout all the descriptions, that the research method--comprised of direct observation, the study of sources, and the organization of

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[1]A. G. Peterson, "An Adventure in Real Learning," Progressive Education (March, 1933), pp. 154-158.

[2]H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 644.

[3]Fred W. Orth, "Vitalizing the Textbook," Progressive Education, XIII (October, 1936), p. 445.

data--was valued as an intellectual process. The children were encouraged to build research attitudes and to use research techniques in obtaining the information they desired. Investigative research seemed common in almost all successfully executed activity projects. Through practice in tackling problems, the learner developed a positive, constructive attitude toward life. He developed systematic problem-solving techniques. In the process he was ever growing, always becoming, and never fully satisfied with the research findings. He developed the attitude of open-mindedness toward problems and issues; he developed abiding interests in significant areas of current life.[1] Research forced the children to think for themselves when they found authorities disagreeing. It was believed that the child who possessed these abilities had gained more real education than could have been derived from any amount of mere knowledge. More specifically, the children learned the value of exact quotations. They learned to demand an authority for statements made, to value impartial sources of data, to see the differences between a statement about a subject, and a statement bearing directly upon the issue, and to recognize the difference between opinion and proof.[2] During investigative research, the teacher assisted the pupils in solving their problems by explaining what information was

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[1]F.C. Borgeson, "What Makes An Activity Program," Progressive Education, XIII (January, 1936), p. 51.

[2]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 82.

necessary to answer the questions raised, how to select facts that were pertinent to the problem to be solved, how to use reference books and the library, and how to organize for class reports. The success of the study activities was judged by whether or not the children grew increasingly independent in their study.[1]

[1]H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 643.

ALTERNATIVES

PART II

There was, again, an unwillingness to be dominated by subject matter.

> It is more important for the child to learn where to find and how to use content than it is for the child to memorize, or "learn", if you will, definite content, as if the content is the sole important goal. The most important goal is for the child to grow as a learner, and that means how to analyze and solve problems; where to go to find needed information; how to use reliable information to solve problems and to attain goals; how to evaluate critically what he learns from himself and others; how to assess the strong points and the limitations of the scientific method; how to evaluate and use his inventive and creative powers; and how to learn from others who are more qualified in a given area. There are some of the elements of the learning process that the child should acquire as he develops.[1]

Sometimes the teacher had a need to go with the class rather than follow a dictated syllabus. A short story might have referred to an earthquake in passing, and the class might have been more interested in discussing earthquakes than in finishing the story. Or, in studying motion in science, some students might want to look into motion in dance or track.[2]

The integrated curriculum or day, where most subjects were being taught and learned simultaneously, appeared in various forms. In the open classrooms, an array of learning

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[1]Joseph D. Hassett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), pp. 59-60.

[2]Herbert Kohl, The Open Classroom (New York: New York Review Book, 1969), p. 31.

centers permitted all children to be actively learning at the same time. Or, the skills might be taught to children in a straight forward manner, but organized around a theme.

The importance of planning continued. An open classroom had to be well organized. Individual projects were to provide opportunities for creativity and sustained work, and were to offer a quality and type of experience that was needed by each particular child. Even assuming the teacher had the best programs in each subject area, there was still the responsibility for deciding what adaptations and additions were needed.[1]

A wide selection of materials was still considered important, "No teacher, even if he is a genius, is able to meet the varied needs of his pupils without an adequate supply of varied learning aids. As Wiles states, 'The richness of our collection of materials is one of the best measures of the extent to which we try to care for individual differences.'"[2] The idea that the more good materials the teacher had, the more alternatives he could make available to the learners, was constantly repeated in the literature. Each individual item had numerous potentials as a "turn on agent," no matter how inexpensive the material. The creative use of these multiple resources was supported by the development of material

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[1]J. Murray Lee, Foundations of Elementary Education (Boston: Allyn and Bacon, 1969), p. 77.

[2]Dorothy G. Peterson, The Elementary School Teacher (New York: Appleton-Century-Crofts, 1964), p. 381.

learning centers. These were libraries--but libraries with more than books. They encompassed all instructional materials and devices which enriched learning. Under the arrangement, the teacher could go to the center and select, from a large collection, those materials which fitted the needs of her class. Each teacher had a much wider range of resources available than she would under a classroom-by-classroom allocation of learning materials.[1] There was considerable agreement that modern textbooks were greatly improved over those of the past. However, it was still stressed that textbooks should not be relied upon totally or adhered to completely. A summary of specific weaknesses of reliance upon or adherence to a single textbook and valid uses of a textbook follows:

Weaknesses

1. It was deadly the good student to follow textbook reading with discussion in which no new material was introduced.
2. It was impossible to find a single text suited to the interests and abilities of all the students in a group.
3. It did not encourage the development of initiative and self-direction to assign students three or four pages in a textbook.
4. It limited the scope of the course and did not encourage students to work up to their maximum ability.

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[1]Ross M. Core, "Strengthening the Classroom Instruction Through Social Studies," National Elementary Principal, XLI (May, 1963), p. 34.

5. It encouraged belief in the infallibility of the printed page and reliance upon a single authority.
6. It provided little opportunity for students to compare and evaluate different points of view and develop critical-mindedness.
7. It encouraged bad reading habits in students and rote memorization.
8. It tended to make procedure routine--so many pages to be read, followed by recitation and a quiz on what was read.

Valid Uses

1. To motivate a unit of study.
2. It served as the common base for a group discussion or assignment.
3. It provided skeletal or factual account of a particular situation or incident.
4. It provided practice in certain critical reading skills, for example, finding answers to specific questions, locating information, using the index or table of contents, reading to grasp the main idea, reading for specific details, adjusting the rate of reading to a specific purpose, et cetera.
5. It confirmed information obtained from direct experience (discovery, experimentation, visitation, and interviewing.)
6. It introduced a new skill or process.

7. It provided opportunities for skill reinforcement, particularly in arithmetic.

8. It provided a common basis for the orderly building of vocabulary and skills, as in the basal reading program.[1]

The idea of how to think, rather than what to think, continued to be prevalent in the literature of 1954-1974. The whole basis of learning depended less on the facts of a subject and more on an experience of the situation. The learning or resource centers mentioned above encouraged student research and independent study through the use of specially designed materials as encyclopedias and programmed materials.

> "See if you can find another way to prove or disprove it." Thus did Miss X challenge the sixth-grade pair whose curiosity had been left unsatisfied by the class demonstration of centrifugal force.
> Miss X is a typical member of the staff who encourages creative and experimental thinking. In the social studies-science program she is constantly alert for opportunities to improve the children's problem-solving ability as well as to bring out other latent capacities.[2]

The point that all activities were to be done in conjunction with thinking was again stressed.

The environment was important in the education of the child. It was to be one that would aid the child in developing the interests and skills he already had or wished to try, and one that could encourage him to be as creative as possible. The literature of this period was filled with descriptions.

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[1]Dorothy G. Peterson, The Elementary School Teacher (New York: Appleton-Century-Crofts, 1964), pp. 413-414.

[2]M.G. Bowden and others, "Quality Through Individualized Instruction," Childhood Education, XXXVI (April, 1960), pp. 365-366.

In a first grade an atmosphere of friendly acceptance of one another seems to pervade. There is noise, but it is the muffled noise of busy children working together. One child is writing a story on the chalkboard and three others are writing names of other children; some children scattered over the room are reading to themselves. In the library corner one little girl is browsing through some books, and a little boy is laughing as he shows the pictures and tells the story of "Curious George Flies a Kite" to another little boy. Some children are illustrating words that begin with the consonants "h" and "b." A display on a pegboard screen serves as a reference. In the art corner, several children are painting large pictures with tempera paints. Others are doing crayola work. Four of these are drawing pictures for the Movie Box about 'A Wiggle, Wiggly Tooth' from Did You Ever? These pictures will later be used in conjunction with the tape recorder to make a television show. A bulletin board display and a table exhibit indicate that the social studies-science interest is toys and how they work. One boy is playing with a wind-up car on the exhibit table, another is examining a plastic clock, and another is experimenting with a battery-operated truck. The teacher is seated near a portable chalkboard with a little girl who is reading "The Big Umbrella" from The New Our New Friends. Words on the chalkboard show that she has helped the child improve her ability to read new words; names indicate that she has read with twelve children or small groups of children.[1]

A third-grade classroom in Minot, the state's third largest city (population 33, 477). Five children are plugged into a tape recorder, listening to a story and following it in the books in front of them. Another child is dictating a story he has written into a second tape recorder; when he finishes the dictation, he plays it back, a look of rapture on his face. Several others are watching a filmstrip on some aspect of Indian life; two of the children are operating the projector. Four children are painting at a huge easel made by the teacher. Others are busy reading and writing at a large homemade carrel in the middle of the reading area. One youngster, who feels the need for privacy, is reading in a booth the teacher has built for that purpose. Made out of the packing crate in which a large freezer had been shipped, the booth has a door and window, two chairs, and a light.[2]

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[1]M.G. Bowden and others, "Quality Through Individualized Instruction," Childhood Education, XXXVI (April, 1960), pp. 365-366.

[2]Charles E. Siberman, Crisis in the Classroom (New York: Random House, 1970), p. 292.

> I guess I operate a kind of democratic class, with mutual respect. This is the overall attitude. We all try to cooperate with each other--a small community. They have freedom to talk and work together most of the day. I have a math area with all kinds of materials, including puzzles, bottle caps they can count, graphs they've made of things in the neighborhood, number games, tape measures and a lot of homemade things. But I also introduced language skills in this area, starting with words about whatever a kid may be working on. Behind the bookcases is the reading area. It's comfortable, a place where children can relax and really enjoy reading. They can do hundreds of learning things here.[1]

The projects or units that were chosen were to reflect the children's needs, interests, and abilities. When preparing a unit, attention was paid to structuring the subject matter to fit the needs of the particular learners. Consideration was also given to the selection of appropriate instructional methods and materials suitable to the varying abilities of the pupils.[2]

If the particular needs were not those of a particular learner in actuality, the learning experience could be destroyed. Whether the theme was chosen because of content or subject matter of the program or in order to develop attitudes, skills, and appreciations, much of the essence of the unit was its fidelity to the child's own point of view. The curiosity of children seemed to insure an endless list of ideas that children wanted to explore and things about which they wanted to learn. Some basic criteria suggested for selecting a theme in the

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[1]Madeline Hunter, "Individualize Instruction," Innovations in Education for the Seventies: Selected Readings (New York: Behavior Publications, 1973), pp. 191-192.

Maurie Hillson, Elementary Education (New York: The Free Press, 1967), p. 271.

literature follows.

Is it worthwhile?

> The understandings, concepts, appreciations, facts, and skills that are intended as outcomes of the work ought to be of significant and permanent value to the individual child and to his group.

Is it learnable?

> Learning how to learn may be achieved to the extent that a child develops confidence in himself as an independent learner, a sense of respect for that which he is to learn, and deep joy and profound satisfaction in the agony and ecstasy of the effort itself.

Is it interesting?

> A necessary ingredient of real scholarship is the emotional feeling of delight with which the true scholar approaches his work--the keen expectation of pleasure that will accompany the intense effort... To circumvent the possibility of a less than positive attitude on the part of each child, a teacher will strive to identify a concern in which his pupils already have an actual or potential interest.[1]

As in the earlier literature, often the learning situations were developed through a study of experiences outside the school.

> Deborah, a third-grade child, collected some tiles from a construction site and asked if she could show them to the class. Question arose: "In which room of the completed house would the tiles be used? How could we find out?" Lynn, Laura, and Judith decided they would be interested in helping Deborah to set up experiments testing the tiles for durability, resilience, resistance to stain, and cleanability. Janet and Susan wrote to tile companies asking for information about tiles; thus they learned to use the Yellow Pages. Michael brought in some tiles he found at home and discovered that they were very different from Deborah's. Michael enlisted the aid of two other boys to perform the same tests on his tiles....[2]

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[1]William C. Nutting, Designing Classroom Spontaneity (New Jersey: Prentice Hall, 1973), pp. 95-96.

[2]Joseph D. Hasseth, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 27.

The book The Micro-Society School--A Real World in Miniature by George Richmond described in detail how one teacher based his entire classroom upon the economics of the real world and supported the idea that learning situations were developed through experiences outside the school.[1]

Projects contributed to the comfort and convenience of the school population as in the Case of the Foldaway Playhouse and the Case of the Congested Playground sited in Designing Classroom Spontaneity by Nutting,[2] or as sited in The Classroom of Miss Ellen Frankfort Confessions of a Private School Teacher by Ellen Frankfort. In the Frankfort book, the children ran a supply store, a post office, and a printing shop. After a year of working in the Play City, the children were not given any job that did not serve a genuine purpose. They were even paid a wage.[3]

The classifications of the projects or units varied. There were work projects that corresponded closely to the sort of endeavors customarily undertaken by the community at large, units from the children's interest, and subject matter units. The Elementary School Teacher makes the following classification of activities:

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[1]George Richmond, The Micro-Society School--A Real World in Miniature (New York: Harper and Row, 1973).

[2]William C. Nutting, Designing Classroom Spontaneity (New Jersey: Prentice Hall, 1973), pp. 46-55.

[3]Ellen Frankfort, The Classroom of Miss Ellen Frankfort Confessions of a Private School Teacher (New Jersey: Prentice Hall, Inc., 1970), pp. 153-158-

Expressional Activities

1. Painting pictures at desk, easel, or art table.
2. Experimenting with new media and forms of two-dimensional or three-dimensional art.
3. Illustrating favorite stories, plays, poems, etc.
4. Making puppets, stage, and scenery for puppet show.
5. Making murals and other large-scale art work.
6. Making lantern slides, "movies," "filmstrips," etc. to be shown to class.
7. Block printing drapes, table pads, greeting cards, gift wrapping paper, etc.
8. Making dioramas and panoramas.
9. Working in clay or plasticene.
10. Making and illustrating booklets on any area or unit of work.
11. Creative writing--poems, stories, plays, TV scripts, etc.
12. Making and illustrating class booklet for gift for school library, another class, etc.
13. Writing biographies of famous personalities in government, science, literature, arts, etc.
14. Writing diaries and logs of historical personages or events.
15. Seasonal activities--making Christmas gifts, wrapping paper, cards, etc.
16. Composing songs--words, music, or both.
17. Preparing bulletin board display on unit of work or current news happenings.
18. Creating dances.
19. Writing and assembling class or school newspaper.
20. Compiling a notebook or card catalogue of new vocabulary words.
21. Making models, miniatures, etc.
22. Writing autobiographies, diaries, etc.

Work or Study Activities

1. Making or using maps, globes, graphs, tables, etc.
2. Observing and caring for living things in classroom.
3. Preparing bibliography on unit of study for individual or class use.
4. Cataloguing reference materials.
5. Reference reading--utilizing encyclopedia, dictionaries, atlas, and numerous supplementary texts.
6. Research and writing for individual or committee report.
7. Viewing filmstrips and other visual aids.
8. Conducting individual science experiments.
9. Observing, collecting, and recording data.
10. Interviewing.

Recreational-Appreciational Activities

1. Recreational reading.

2. Playing games of educational value--those that involve vocabulary building, spelling, counting, arithmetical skills, etc.
3. Exploring hobbies.
4. Making or solving puzzles--jigsaw, crossword, mathematical, etc.
5. Listening to records in music corner.

Constructional Activities

1. Constructing model, project, etc. in connection with unit or work.
2. Building containers or houses for pets kept in the classroom.
3. Weaving, sewing, basketry, leather work, and numerous craft activities.[1]

Units were not written to cover a specific period of time. Some extended only over a week or two. Others ranged from four to six or even eight weeks. Time needed for the successful completion of a unit was occasionally suggested, but this did not serve as a restrictive force. It was considered better to attend to the business of making what was done valuable. Unitary teaching demanded flexibility in time usage.[2]

At the heart of any worthwhile unit was the notion that children be allowed to work--to throw their full energy into that which they felt, at the moment, to be most important, to act immediately, to do whatever must be done, and to do it in their own way. Impulsiveness, exuberance, challenge, and frustration were all within the fabric of a unit. Nothing was guaranteed but the opportunity to try. The unit was dedicated

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[1]Dorothy G. Peterson, The Elementary School Teacher (New York: Appleton-Century-Crofts, 1964), pp. 390-392.

[2]Maruie Hillson, Elementary Education (New York: The Free Press, 1967), p. 273.

to an experience approach in teaching and learning.[1]

An important aspect of unit study concerned the instructional experiences undertaken. They were to contribute in some way to the established objectives, and they were to be related to the content and skill goals of the units. In no instance was poor discipline or disorganization to be tolerated. Adequate classroom discipline demanded purposeful activity and pupil initiative governed by self-control.[2]

Skills and ideas were to be approached in a dynamic way. The child had not only the right but the need to lay his hands on his environment. Children were encouraged not only to work, but also to verbalize. Talking about things humanized them and reduced them to size.[3]

The trend of no formal division could still be observed.

> The instructional environment of the classroom not only teaches the basic skills as they become relevant to the children's needs and interests, but it also teaches the basic skills in an interdisciplinary manner. The artificial barriers are down and all skills relevant to a single project are grouped comfortably together. Follow Sheila's log a little further along to see this point about the basic skills:
>
> "Rusty is 7½ inches long and weighs 8 ounces. We put her in a maze and then it took her 3 minutes to find the food we put in one part of the maze. Then we put an alligator and 5 turtles in there with her. The turtles got along with her but the alligator didn't. He tried to bite her.

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[1]William C. Nutting, Designing Classroom Spontaneity (New Jersey: Prentice Hall, 1973), p. 87.

[2]John C. Manning, "Differentiating Instruction in the Content Subjects in the Intermediate Grades," Journal of Education, CXLII (December, 1959), p. 60.

[3]Henry Beechhold, The Creative Classroom (New York: Charles Scribner's Sons, 1971), p. 138.

> Rusty's pulse is 116 because she's smaller and her blood circulates faster. Our pulse is 80 because it takes longer for our blood to circulate.
>
> This written record represents one hour of activity. How could we classify this activity in classroom terms? Is it science, since it deals with blood circulation? Or is it mathematics, since there are elements of weighing and measuring? I detect a hint of animal psychology, human relations, spelling and dictionary and research skills. The study undertaken by this sixth-grade youngster amply illustrates our belief that learning should be interdisciplinary, since life constantly presents problems that require an interdisciplinary approach to solve.[1]

This trend indicated a total response to education that was neither confined to, nor restricted by, subject matter lines in any way.

Creating the desire to read, and then structuring the environment so that reading was not only easily accessible, but almost inevitable was reflected in the literature. Ideas for doing this were numerous. Structuring the environment in this way revealed that a variety of materials was used rather than reading being taught from textbooks only and that spelling, grammar, composition, and penmanship were often combined.

Reading was geared into the larger context of learning; therefore, throughout the school day children used their communication skills to functional ends:

To understanding and using ideas
To acquiring important information
To solving problems
To participating in creative activities

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[1]Joseph D. Hassett, Open Education: Alternative Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 77.

To thinking critically
To developing viewpoints and ideals
To evaluating learnings, ways of behaving
To comprehending culture
To understanding self and others
To knowing, being, and becoming[1]

The purpose was clear. Learning included learning to talk comfortably, learning to read easily, and learning to write fluently.

Modern instructional procedures also emphasized the importance of making arithmetic operations mathematically meaningful to children. Each new concept was to be introduced through a meaningful situation, from concrete to semi-concrete, and finally to the abstract. Meanings were learned through a wide variety of planned experiences designed to help the children to understand the number system and the ways in which it operated in making of computations. A great variety of physical objects which a child could touch, count, rearrange and measure were provided before he was expected to acquire his ability to work with mathematical abstractions.[2]

It was recognized that mathematics was used in real life situations every day when one went to the supermarket, took a pleasure ride in an automobile, and planned one's day, most of life's activities required a knowledge of time, measurement, number and computation. The arithmetic program was built to

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[1]Merle M. Ohlsen, Modern Methods in Elementary Education (New York: Henry Holt & Co. Inc., 1959), p. 224.

[2]Robert Homes Beck, The Three R's Plus (Minnesota: University of Minnesota Press, 1956), p. 161.

include social situations in which number functioned as it did in the affairs of daily life. An example follows:

> ITEM: Four second-grade children sit around a table containing four mail-order catalogues, four sets of advertisements from department stores, four pads, four pencils, and four "adding-multiplying" machines. For a time, the children select random items from the catalogues for the sheer fun of going "shopping" and then adding up costs. They they follow a prepared "suggestion card" written by the teacher, directing each child to pretend that he has a forty-dollar budget with which to buy a complete Easter outfit, from hat to shoes, from underwear to lightweight coat. A furious amount of addition, subtraction and multiplication ensues as the children struggle to stretch the budget as far as possible. For these children, arithmetic has become "relevant."[1]

Science and social studies were both dominated by the "learning by doing" theory. Science was taught through first-hand involvement, with enough varied equipment to enable the child to work alone and in small groups. In social studies children were given the opportunity to design new institutions, and at the same time analyze existing ones. There was an emphasis on primary source materials, research, evaluation, and comparison. Some schools followed curriculum projects as the Greater Cleveland Social Program, the Elkhart Indian Experiment in Economic Education, or the Committee on Curriculum Guide (Kindergarten - Grade 12) Geographic Education in social studies; or The Science Curriculum Improvement Study (SCIS), The Elementary Science Study (ESS) or The University of Illinois Elementary School Science Project in science. Other

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[1]Charles E. Silberman, The Open Classroom Reader (New York: Random House, 1973), p. 309.

schools organized spaces which contained a great variety of materials. The student was expected to plan his work and go about resolving the particular problem that he had set up.[1]

In the book Making New Schools,[2] Turner proposed a new project for the social studies program that met the requirement of manipulability and liberation. The general idea was to pick a social institution, within the range of sight of the students, on which they could do investigative work. These institutions included airports, TV stations, museums, police departments, welfare agencies, et cetera. Investigations considered what the institutions were suppoed to do, what in fact they were doing, and whether these purposes might be better accomplished by other means. The topics that increased the child's understanding of social and economic life in the local community reappeared in the literature. Some specific suggestions were cited in the book The Creative Classroom.[3]

The topics were often chosen at random. In the curriculum development programs, the topics were chosen because it was felt that they best represented the structure of knowledge of the discipline, would allow the child to engage in the appropriate processes, and would accompany the interests and curiosities of the child.

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[1]Charles E. Silberman, The Open Classroom Reader (New York: Random House, 1973), pp. 293-294.

[2]Joseph Turner, Making New Schools (New York: D. McCoy Co., 1971), pp. 162-170.

[3]Henry Beechhold, The Creative Classroom (New York: Charles Scribeners Sons, 1971), pp. 176-179.

The child's life outside the classroom offered ideas for science inquiry, as noted in Open Education: Alternatives Within Our Tradition.

> It is April. The sun is shining through the partly opened classroom windows. Do you take advantage of this real learning situation? What changes are noticeable in the classroom itself? The clothes the children are wearing? The windows opened more widely? The warmer rays of the sun? The angle of the sun? Any flowers in a window box in the classroom? Are the birds more active, if there are any in the vicinity of the classroom window? Is the heat shut off?. . .[1]

Although much emphasis was placed on creativity and alternative ways of learning, the basic skills were not neglected. The basic skills were regarded as tools for learning, and the child was expected to learn and appreciate them as tools. It was believed that skills learned for their own sake were far less effective than skills learned as tools with which the child operated.[2]

Outward signs of differences from "formal" schools were obvious. Children did not sit in rows facing the chalkboard; they worked in groups or as individuals and arranged their desks accordingly. The teacher less frequently gave a formal lesson to the whole class by standing in front of the chalkboard and expounding on a selected topic. In short, there were fewer history "lessons" or geography "lessons."[3] The distinction

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[1]Joseph D. Hassett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 44.

[2]Ibid., p. 68.

[3]Charles E. Silberman, The Open Classroom Reader (New York: Random House, 1973), p. 70.

between learning and play became blurred. The games played were actually serious, exploratory encounters with the environment.

Allotting time to esthetics was important. It was believed that art education had value for all pupils and that it contributed to the total, integrative growth of each individual. The environment was to be structured with materials, sympathy, and freedom in order for a child to create. The children saw many good examples of art works and produced as much art as they wished. The teacher posed problems and asked questions that would help the child move from discovery to discovery.[1] The according of freedom was most important. The classroom was a place for mutual growth, teacher and students alike, growing through doing and discovering. The process was the real issue and not the product.

It was believed that creativity manifested itself in a variety of ways. Children made objects, drew pictures, wrote compositions, composed music, danced and even made films. These creative activities were often done in correlation with the other classroom work. One author pointed out how the Science Curriculum Improvement Study units of Interactions, Relativity, Systems and Subsystems, and Environments could be correlated with the creative arts.[2]

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[1]Henry Beechhold, The Creative Classroom (New York: Charles Scribner's Sons, 1971), p. 184.

[2]Herbert Kohl, The Open Classroom (New York: New York Review Book, 1969), pp. 66-67.

The community and its resources were used. Interesting people and places were anticipated and visited. The indoors led outdoors. There were numerous environments that the children and teachers explored as living, learning experiences, the schoolyard itself, the neighborhood of the school, a construction site, stores in the neighborhood, a vacant lot, a nearby park, and a zoological or botanical garden. The purpose of the trips was not to have the teacher answer questions the children raised. It was to stimulate interest and questions the children would pursue back in the classroom, singly or in groups. The outdoor experience was not a gawking expedition. It was unstructured in the sense that the child was out to observe, be aware, and question whatever interested him. It was structured in the sense that the teacher gave the children a focus on the things they experienced and found interesting. The purpose was to make the children aware of the environments and to arouse their interest and curiosity.[1]

The technology of the earlier literature was now more advanced. The adaptation of machines for use in teaching led to a technological culture of the school. This educational technology was relevant to curriculum, teaching method, and organization; but its major emphasis was its role in assisting the teacher and adding an exciting dimension to their work. Visual technology included television, opaque projectors,

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[1]Joseph D. Hassett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), pp. 46-47.

overhead projectors, micro-projectors, stereographic viewers, microviewers, and tachistoscopes. Audio possibilities included radio, records, tape recorders, and language laboratories. There were teaching machines that varied from very simple devices presenting only reading materials to highly complex machines using print, slides, filmstrips, motion picture film, and tape recordings. Their role was to supply the learner with a step-by-step sequence of questions to which he responded. As the learner moved to the next question, he was able to determine whether his answer to the previous question was correct or not.[1] The new frontiers in educational technology were vast, complicated and changing rapidly.

The trend toward the research method continued. The children investigated topics, organized their data, and then often presented their findings. At times, the teacher interrupted the independent activity to discuss a common problem, share ideas, or present an enrichment activity.[2]

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[1]J. Murray Lee, Foundations of Elementary Education (Boston: Allyn and Bacon, 1969), pp. 94-99.

[2]John C. Manning, "Differentiating Instruction in the Content Subjects in the Intermediate Grades," Journal of Education, CXLII (December, 1959), pp. 53-54.

CHAPTER TWO

PURPOSEFUL PACING

Part I

If one accepts that children differ in their mental ability, and if the class is held at the same rate, either one must let the slow ones set the pace, holding the more rapid children back, or one must let the more rapid children set the pace, pulling the slow ones so fast that they cannot do thorough work. Consequently, too often in the attempt to meet a happy median, courses of study are developed which meet the needs of only one group--the average--and the teacher is responsible for the diluted or the concentrated doses to be given to those of low and high ability. There is another alternative, and this is the one that the progressive elementary schools chose. This alternative was to allow an individual to progress at his own natural rate. The old struggle between the needs of the child and the demands of curriculum was recognized. There was an expressed desire to place the child first and the curriculum second. A conscious effort was made to consider each child an individual case and to fit the teaching to his needs. Each assignment was to be

adjusted to the child's ability and level of attainment. Upon completing the assignment, he was permitted to proceed to the next without regard to what other members of the class were doing. The objective was to free the child from the necessity of observing identical progress with forty or forty-five other children of varying ability; that is, to free him from slavery to mass-standardization.

It was felt that true education was a continuous movement or growth which followed both longitudinal and latitudinal lines according to ephemeral interests which were catered to from day to day, not a jerky, spasmodic effort. This continuous movement was taken into account not only in the day to day work, but also in the yearly outlook. Such purposes and philosophies meant the elimination of the evils of failure and non-promotion; they guaranteed that every child worked to his fullest capacity and in accordance with his own nature, and that the teacher secured satisfactory results through the child's interest and not by holding the fear of failure over the child. The continuous movement or growth adjusted to each individual was reported again and again in the literature.

> Through individual reading, the child is permitted to go along at his own rate of speed and his improvement is based on his own standard, not on that of the class or any group. Thus the speedy reader is not held back by comparison.[1]

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[1]Mina Frances Silverman, "Guidance and Child Initiative," Progressive Education, XVI (April, 1939), p. 258.

Instead of a whole class proceeding at the same rate and achieving varying quality, each student proceeded at his own rate, thereby varying time in place of quality.[1]

All boys and girls are given a full opportunity, different levels of work and an elastic program which allows each individual to find his level. Each is permitted to move at his own rate.[2]

The one essential is that enough time be saved for free study to enable the pupils to work on contracts instead of daily lessons, and to work at their own rate of speed.[3]

When the group drills are over, each child takes up his individual work where he left off the preceding day.[4]

She must guide the child in his techniques, help him to develop at his own pace, encourage him to experiment and discover for himself new ways and methods of working.[5]

Except for certain group activities, the children work entirely as individuals, and each child is set free to cover the required ground at whatever hours and at whatever pace seems best to him.[6]

We undertook to remedy matters by announcing that thereafter no lessons would be prescribed; each would pursue his own lessons and proceed at his own rate.[7]

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[1]Lawrence A. Cremin, Transformation of the School (New York: Alfred A. Knopf, 1961), p. 297.

[2]Edgar Marion Draper, Principles and Techniques of Curriculum Making (New York: D. Appleton-Century Co., 1936), p. 852.

[3]Evelyn Dewey, The Dalton Laboratory Plan (New York: E.P. Dutton, 1922), pp. 16-17.

[4]Ablion Harrall, Let's Go to School (New York: McGraw Hill, 1938), p. 74.

[5]Agnes DeLima, The Little Red School House (New York: Macmillan Co., 1944), p. 192.

[6]Agnes DeLima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 86.

[7]Frederick Burk, "Individual Instruction in the San Francisco State Teachers College," Progressive Education, I (April, 1924), p. 8.

This adjustment of pace to fit each child was intended to help the children learn to harness their energies and to use them in purposeful work. Hopefully, they would become masters of themselves and their jobs.

It was most important, before determining the materials and methods by which the needs of the child were to be met, to be certain that nothing was taught except at the time when the child had reached the appropriate stage of physical, emotional, and intellectual development. This was believed to be the only time when learning could actually occur. The question of when formal teaching should begin and at what rate it should proceed was a very important one. The solution lay in having a basic course required of each child as he reached the right stage of development, and including only those items which really functioned or could be made to function in the experience and training of the child. Anything which violated the order of development was banned. A definite trend toward postponing the three R's was reported in literature.

> Formal studies of every sort were delayed as long as possible. Initially it was her hope to defer all systematic work in reading and writing until the age of ten, but in the face of parental insistence, she relented and reduced the age to eight.[1]

> During the first year and a half these children had no formal instruction in reading, writing or arithmetic.[2]

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[1]Lawrence A. Cremin, Transformation of the School (New York: Alfred A. Knopf, 1961), pp. 149-151.

[2]Elizabeth Irwin, "How Much Wood Would a Woodchuck Chuck If He Didn't Chuck All Day Long?" Progressive Education, V (Apr.-June, 1928), p. 104.

> All formal work such as learning to read, write, and use figures should be postponed until the ninth or tenth year.[1]

> We started with these six-year old children without any of the "Three R's" and without any formal academic work...These children had no academic work until the second half of the second year and since then they have had only an hour and a half a day of it.[2]

> At this age (seven) also, we begin formal work in reading, writing, and arithmetic. We purposely delay such work until second grade because we have found from long experience, that children can acquire these tool subjects very much more efficiently when they have more mental and physical maturity than they have in earlier years.[3]

The curriculum before the formal work was one in which the schools gave the children real and vivid experiences and the opportunity to use language and materials to express their conception and reaction to these experiences. In general, the early program consisted of storytelling, discussion of everyday affairs, block building, handwork, music, dancing, painting, outdoor play periods, dramatization and trips about the neighborhood and city. It was believed that the average child emerged from the play world and desired to be taught. Before this emergence the emphasis throughout was on observing, describing, and understanding; and only when these abilities began to manifest themselves, were the more conventional studies introduced.

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[1]Marietta Johnson, "Standards and the Child," Progressive Education, VIII (December, 1931), p. 693.

[2]Standwood Cobb, "Contributions from the Field," Progressive Education, III (July-September, 1926), p. 232.

[3]Agnes DeLima, The Little Red School House (New York: Macmillan Co., 1944), p. 19.

> The child, who is fortunate enough to be in a situation which provides an abundance of direct sensory experiences, will no doubt have the advantage over the child who goes to school merely to learn to read. The child of school age is at a time of life when rich sensory experiences are natural and the use of abstract symbols is extremely unnatural. All later richness of thought depends upon the number and the vigor of early sense impressions.[1]

It was believed that when there was more meaning and content behind the formal subjects, the motive for learning was more urgent and sincere, and the drudgery and feeling of futility was greatly reduced on the part of both teachers and students.

As the readiness activities were enacted, data on growth and development was gathered in order to place each child in the correct curriculum. Health records of the pediatrician, the recording of the behavior of children in their groups, detailed reports on each individual, and notes on group activities were compiled. As the child advanced into the formal studies, results of the intelligence and achievement tests were included as were the contributions from parent interviews. Individual children were studied in a seminar with the school psychologist. The staff made use of these findings in the teaching situations in order to insure that each child was following his natural order of development.

The reorganization of the schools into child-centered institutions required that those designing the curriculum look closely at the interests and needs of the children. Purposeful

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[1]Ruth Streitz, When Should Reading Experiences Begin?", Progressive Education, XIII (May, 1936), p. 331.

pacing meant that each of the subjects were taught in relation to the child's life and interests. Subjects were taught when the child was ready to use them through having his interest aroused and cultivated. Assignments were to challenge individual interests and to implant an activity urge. In reviewing the importance of interest, the Community School in St. Louis accepted the following facts in answer to the question "How Far Can We Use Children's Interests in Building the Curriculum?"

> 1. The answer to the question must be made from the standpoint of the psychology of learning rather than from the adult conception of logic of subject-matter. The child is the starting point.
>
> 2. The idea of incorporating the genuine interest of children both as groups and as individuals into a curriculum is sound.
>
> 3. It is necessary to realize the difference between the genuine indigenous interests of children and such interests as may be superimposed by a teacher.
>
> 4. The newer type of free curriculum in the lower and middle grades provides leeway for the development of the child's own interests. The nursery school follows the children's lead to a large extent with no organized curriculum.
>
> 5. Larger classes do not prevent the following of the child's own interests, but the technique for the purpose is different from the technique for small informal groups.[1]

This school, like the other progressive schools, viewed interests as being essential to an individualized program. Not until there was interest did they expect to have intelligent effort expended.

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[1]Virginia Stone, "How Far Can We Use Child Interest In Building the Curriculum?" Progressive Education, VIII (April, 1931), p. 337.

If the child was anxious to do something, if he felt that it was a necessity in his life, he would then develop the necessary technique.

In many of the schools, age groups took the place of the traditional grades. It was felt that each age group was to express itself in different lines to the best of its ability. Each year's work was what naturally flowed out of its interest, and not what was done in submission to a formal program with standards extrinsic to the child, set for it by the adult mind according to patterns deemed necessary for culture or curriculum demands from the upper grades. The children passed on automatically from one group to another as they reached the proper age.

Some of the schools felt that the children of certain age levels naturally expressed themselves in certain activities, that the programs of successive years bore a definite relationship to one another, and that one year's activities grew naturally from those of the years preceding. For example, at the City and Country School in New York City conducted by Caroline O. Pratt, at the age of six, children built cities out of blocks. At seven, they built a miniature city in permanent form, constructed wooden houses which they painted, furnished, and wired, laid out streets, trolley lines, and waterways with a full quota of boats. At eight, the children ran the supply store for the school, taking complete charge of all orders and accounting for the money.[1] Other schools,

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[1]Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 192.

such as the Walden School, founded by Margaret Naumberg, made no attempt to define activities at given age levels, although of necessity, older children demanded more formal instruction. It was felt that groups were no more alike than the individuals composing them. A class of six-year-olds might have been interested in studying boats one year and might have embarked upon an intensive study of waterways. The following year the six-year olds might have, because of summer-camp experiences, become interested in primitive life and organization.[1] The teacher relied on her own observation of the many interests and capitalized upon her observation to adjust education to these interests.

Therefore, there was a need to know much about children's interests. The book Curriculum Development by Caswell and Cambell listed the following suggestions about discovering and developing interests:

> 1. Find his physical, mental, and social status.
> 2. Study his record at school. Analyze weaknesses and strength. Trace back to causes.
> 3. Enter into his playground hours and his free minutes at school as definitely as into his class hours.
> 4. Know his home hours and his community hours by direct participation or by conferences with an understanding mother.
> 5. Observe analytically the child's ways of responding to methods of studying, of playing, and of reacting to comrades, situations, and materials.
> 6. Discover what the child reads, what games he plays, what responsibilities he carries, what he thinks about, with whom he converses seriously, what he does with scraps of time that he controls, etc.

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[1]Agnes deLima, Our Enemy the Child (New York: American Book Co., 1937), p. 640.

7. Observe mischievous or pernicious tendencies; study the instinctive basis; see if some happy expression of basic impulse may not be substituted.
8. Read analyses of children made by others and consider the truth with regard to the child we are studying.[1]

As suggestions arose, the teacher explored them to determine whether the interests of the group were genuine or cursory. She knew that the activities must be built upon incipient interests that were or would be genuine, purposeful interests. She examined with care to discover that there was depth enough to provide for the differences in individual interests and individual abilities within those special interests. The shifting, social scenes, the ever-changing environment, the ever-new factors coming from man's creativity prevented a monotony of things studied. If free to follow genuine interests, the children did not want to repeat studies of previous years.

It was felt that the educational system should include a new standard--an inner one. This standard was to provide work so truly adapted to the native interest of childhood as to enlist the keenest sort of mental activity. Children and young people worked in the same spirit as that shown in play or "extra-curricular activities." Such work was sincere and was its own reward. History, literature, geography, mathematics, and science were studied to satisfy an inner need, just as sports, handwork, music, and dancing were pursued. Childhood was not a preparation for adult life. It was

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[1]H.L. Coswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 640.

important for itself. The school satisfied the interest of childhood. Singing, dancing, handwork, nature, free play, and stories were properly the work for children. Progress was not measured by any external measure. Progress was recognized in the joy and spontaneity of the attack and by the satisfaction the children had in the experience.[1]

Clearly, there were certain skills which the elementary pupils needed and acquired. They were well learned and available for efficient use in any processes which might be deemed important. These skills included the techniques of reading, handwriting, composition, the fundamentals of arithmetics, and the ability to analyze printed textual matter and master it for use on any required occasion.

However, the difference in the progressive schools and the traditional schools was that the progressive schools tried to develop these important techniques by enlisting the whole-hearted cooperation of the child. Inspiration and desire were created first and the necessary drills followed.[2] When the actual situation of any child called him to drill, there seemed no lack of willingness to engage in it. In order to enhance concentration and earnest effort, materials were selected to meet the child's interests and needs. An attitude of cooperation, rather than impatience or censure, was established.

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[1]Marietta Johnson, "Standards and the Child," Progressive Education, VIII (December, 1931), p. 692.

[2]Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 176.

Immature performance did not satisfy the pupils forever. When the original and more perishable part of the process had developed to a sufficient extent to have made such action a real part of the individual's life, he wanted to turn that power toward fuller realization. As pupils felt this growing need, they were trained to recognize their deficiencies and sought from the teacher the secrets of technique. Pupil purpose received emphasis. A series of activities achieved an end or outcome which the learner considered worthwhile and wished to achieve. A study was not carried beyond the point of interest with the children. However, the individual interests were encouraged so that they led to the point where the students found in organized knowledge those materials that made it increasingly possible for him to move about independently.

Pupils differed in their likes and dislikes of subjects. The time needed for mastering a subject was dependent upon the interest the pupils felt--the greater the interest, the less the time required. Subject antipathies were usually identical with subject weaknesses. The readjustment of the time schedules permitted individual pupils to devote more time to their particular obstacles with the result that antipathies were hopefully eliminated, and to allow each child to pursue with ease the subjects that easily drew forth his interest. Consequently, in some individual programs, the same student, who did fourth-grade arithmetic during one period worked at fifth-grade reading a few minutes later. One pupil was one year and one month

advanced in reading, one year and six months ahead in arithmetic, and two months behind in language.

The integrated curriculum, referred to in the chapter on alternatives, contained certain dangers in regard to each child beginning in subjects that aroused his deepest interest and having the right to be at the level in which he developed best. There was a real danger of forcing the teaching of a particular topic at a completely unsuitable time in one subject because it happened to fit another. For example, if history were the central theme, the chronological nature of history might bring about this forcing of teaching. It would seem customary when medieval history was taught to take up medieval art at the same time. However, it was quite possible that a child who would be thrilled by a picture of castle or monastery life would be much too young for appreciation of medieval painting or for an understanding of its technique. This was not interpreted as meaning that such correlation was necessarily bad. On the contrary, some instances brought rich results, but only when the yardstick of the maturity and readiness of the child was applied.[1]

Allowing for the child's purpose to point the way for curriculum called for careful preparation of the environment coupled with a policy of waiting until the situation had borne down sufficiently on each child. If the child seemed slow in

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[1]Margaret Koch, "Social Studies and the Correlated Courses," Progressive Education, XII (Nov., 1935), p. 460.

feeling the pressure of the need to learn, the teacher took special pains to put him in a situation where the particular need did bear upon him with special cogency. The importance of the teacher constantly maintaining an environment in which the need for the basic tools of knowledge would be felt and recognized was obvious. She was ever on the watch for the time when these needs might be naturally awakened, and observed and conserved when learning responses arose. For example, the number needs of first grade children arose in the playing of games, in the keeping of their attendance records, in checking materials such as pencils, crayons, scissors, in counting any objects, and in dozens of similar activities. In the second and third grades, more complete activities, such as holding a sale or having a market introduced the need for more complex figuring. In the fourth and fifth grades, controlling the school store or bank brought still other number needs to the foreground. Brief blackboard or bulletin board notices, school newspapers, written directions and stories, and records of their own experiences all stimulated interest in reading. Far from being indifferent, the teacher was ever active in preparing an environment which revealed to the children the pressing needs of life.[1] Education was viewed as an evolving process, and the sequences of its experiences and their contents were at least partly determined by the process itself. So it

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[1]A.G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), pp. 286-287.

followed that curriculum building was not completely segregated from educational practice without certain limiting effects on the curriculum and on education itself. The nature of educational experiences and their subject matter was progressively determined by the structure of the process itself and was not always prescribed prior to or apart from that process.[1] Therefore, there were no fixed rules or procedures for awakening specific needs. In the actual instance, the method varied from teacher to teacher and pupil to pupil. Some teachers found that the consciousness of a need for a new process in a pupil who had reached a certain stage of development might be awakened by a few words of conversation. Others found that the mere provision of a new set of instructional materials was sufficient. Certain teachers secured motivation via the other activities of the class, such as construction, play, the making of fudge, the playing of games, or the building of a Dutch home in the classroom. As the children advanced in growth in these complex skills, motivation was not found as difficult. The value of these skills was so obvious in meeting the problems of every day life that any child who was living normally realized their essential nature. Teachers, therefore, had no need to strain themselves to motivate what was already motivated.[2]

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[1] H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 156.

[2] A. G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), p. 288.

The pedalogical needs of each child were considered individually and deemed important. Each individual was to be working on some worthwhile task which was fitted properly to his previous accomplishments, and his ability. Therefore, the use of diagnostic teaching was important.

> Diagnostic teaching may be considered to be based on the broad definition of diagnosis, which is 'scientific determination.' Diagnostic teaching includes the whole act of teaching in acquiring and maintaining skills in computational arithmetic. Being scientific it is governed by the laws of learning. Scientific experimentation is done in accordance with psychological principles. From the results of such study have come the factors of diagnostic teaching.
>
> The technique of diagnostic teaching is a definite professional approach to educational problems.
>
> 1. It determines the knowledge and ability the pupil brings to a given situation.
> 2. It considers attitudes and habits of work in analyzing the responses and thought processes.
> 3. It determines the probable causes of error or difficulties to be encountered.
> 4. It indicates the method of using instruction material that has been prepared as a result of the analysis of the numerous steps or skills in each process.
> 5. It measures the extent of learning and determines the practice of reteaching needed.
>
> One of the most significant contributions of the Twenty-Ninth Yearbook is considered to be the discussion of diagnostic and remedial teaching. Therein it is pointed out that the present emphasis on remedial work is a reflection on the lack of good teaching. The end toward which the schools should work is prevention rather than correction. With an adequate program of tests to use during teaching, difficulties can be checked so promptly that they will be corrected during the original teaching procedure rather than allowed to accumulate to make a problem for remedial procedure. An attitude of checking every step of the work on the part of both the pupil and teacher is essential. Pupil and teacher alike must purpose, plan, execute and evaluate.
>
> Diagnostic teaching does not mean merely testing at intervals to see if faults of procedure have been allowed to accumulate and then giving remedial exercise. But it is the orderly acquiring of skills that are checked

step by step and at the conclusion of each unit.[1]

Valuable knowledge came in a considerable part from the use of diagnostic tests. By their use, the teacher knew specifically just where the child's difficulty lay.

After the area of need was defined, if there was but one right response accepted, the learner needed to know exactly how to proceed before he began. Society placed no premium upon originality in spelling, or in column addition. The essential form of a business letter or a bibliography card in a library was already established, and the child's best interest was furthered, not be experimenting to devise new forms nor by guessing as to what was the right form, but by mastering the accepted form as efficiently as possible.

> Spelling. Winnetka's campaign for individual instruction began with spelling. An examination of every child at the beginning of the term in the words he was to learn during the term, revealed that the average child already could spell about two-thirds of these words. In fact, even the poorest spellers knew all but a dozen or so of the words on the entire list. Under the old procedure all the children would have had an identical spelling lesson every day. But at Winnetka, the child's work in spelling was adjusted to his needs. To begin with, the teacher checked in each child's spelling book those words he had missed, and these he was expected to master before the end of the term. He was free, moveover, to study them as he pleased. The result was rather revealing. A few youngsters actually completed their entire term's spelling in a single day. Even the slowest student did not have to study as many words under this scheme as under the traditional plan.[2]

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[1]California Curriculum Commission, Teachers' Guide to Child Development (Sacramento: California State Department of Education, 1936), p. 393.

[2]Adolph E. Meyer, The Development of Education in the Twentieth Century (New York: Prentice-Hall Inc., 1946), p. 179.

It was recognized that there were countless individual problems that confronted the educator. One child might need release from academic drill, while to a second child such release was fatal. A child who got to school only rarely, because the management of the entire household fell upon him, was not to spend time at school working math problems in a feverish haste to catch up with pupils who were able to finish an entire course in math. It was evident that there was no general panacea for all children. Each case was studied by itself. The curriculum was planned, drill had its place, and standards of achievement were set and maintained. The teacher had in mind the outcomes or educational objectives expected from the various experiences in which the child was engaged.

An interesting set of objectives, based on modes of human activity, found in the literature divided the curriculum into the following categories: growing, homemaking, producing, technifying, communicating, socializing, thinking, teaching energizing, and originating. A list of suggested objectives follows:

I

GROWING

1. Children's Beginning School (Primary -- ages 5-7)	Eating what is good to make me grow well--e.g. milk. Sleeping the amount desirable to make me grow well. Playing in the way desirable to make me grow well--for example, not playing in damp clothes.

2.	Children's School (Intermediate--ages 8-10)	Behaving in such a way as to make me grow well. Bringing my eating habits under my control. Bringing my sleeping habits under my control.
3.	School for Boys and Girls (Upper--ages 11-13)	Mastering skills in desirable games such as swimming, tennis. Bringing my body under my control: In general skills--walking - standing. In special skills--as piano playing.

2

HOMEMAKING

1.	Children's Beginning School (Primary--ages 5-7)	Doing my part in housekeeping--e.g. dressing myself. Doing my part in helping my family live well--e.g. showing pleasure when pleased.
2.	Children's School (Intermediate--ages 8-10)	Taking over regularly some share of housekeeping at home and in school. Doing something for other members of the family and of the class.
3.	School for Boys and Girls (Upper--ages 11-13)	Caring for my own personal affairs in the home--for example, with respect to keeping my own room tidy, collecting soiled clothing.

3

PRODUCING

1.	Children's Beginning School (Primary--ages 5-7)	Helping the workers in the family. Dramatizing in school.
2.	Children's School (Intermediate--ages 8-10)	Definitely and regularly helping members of the family in some aspect of their productive work --for example, keeping a desk including stationery and postage stamps in order. Dramatizing in school forms of productive work.

		Carrying on some form of productive work such as making Christmas cards for sale.
3.	School for Boys and Girls (Upper--ages 11-13)	Carrying on productive work--keeping a garden. Making a serious attempt to help workers of the home and the school. Assisting in upkeep of the school grounds and plants, rake leaves-tidy classrooms.

4

TECHNIFYING

1.	Children's Beginning School (Primary--ages 5-7)	Making objects needed by myself and others--objects of cardboard, wood, paper-mache, metal, clay. Building with blocks. Operating toys. Caring for toys.
2.	Children's School (Intermediate--ages 8-10)	Making needed objects of any available materials on a higher level--making a sled. Operating and caring for machines--a toy railway, a lathe, a typewriter.
3.	School for Boys and Girls (Upper-ages 11-13)	Making complete and skillfully finished objects of selected materials--aquarium, radio. Operating, caring for, and repairing machines. Driving an automobile.

5

COMMUNICATING

1.	Children's Beginning School (Primary--ages 5-7)	Talking so that others can understand what I say. Telling stories that others want to listen to. Reading what others write (in terms of level of pupils' maturity). Writing what I want others to read--signs, notices, notes. Singing by myself and with others. Playing on a block, flute, or a xylophone.

2.	Children's School (Intermediate--ages 8-10)	Writing bulletin announcements. Writing letters so that others can read them. Speaking aloud so that I can be understood. Writing on wall newspaper.
3.	School for Boys and Girls (Upper--ages 11-13)	Speaking aloud to groups. Writing and publishing a class newspaper. Playing on a musical instrument--piano, violin, marimba. Singing by myself and with others (higher level).

6

SOCIALIZING

1.	Children's Beginning School (Primary--ages 5-7)	Playing with others.
2.	Children's School (Intermediate--ages 8-10)	Working for the good of classmates or schoolmates. Making inquiries, collecting information, or securing materials in out-of-school time.
3.	School for Boys and Girls (Upper--ages 11-13)	Contributing to community life through services of Boy Scout Organization, Safety Patrols, Big Brother Organization.

7

THINKING

1.	Children's Beginning School (Primary--ages 5-7)	Thinking about what I do in and out of school. (Teacher must focus this goal on improvement in all modes of activity. 1/5 of the school day.) Making trips into the neighborhood.
2.	Children's School (Intermediate--ages 8-10)	Thinking about what I do. Seeing the things around me. Finding out about the things around me. Making trips to places which specially interest me--ships, parks, factories.

		Asking thoughtful questions about myself and the things I do and see. (1/4 of the school day.)
3.	School for Boys and Girls (Upper--ages 11-13)	Getting an orderly outlook on the world around me. Preliminary recognition of the five sciences. Getting an orderly outlook on my ways of acting--a preliminary familiarity with the ten modes of behaving.

8

TEACHING

1.	Children's Beginning School (Primary--ages 5-7)	Showing others what I know that will help them. Teaching myself what I can learn by myself.
2.	Children's School (Intermediate--ages 8-10)	Giving definite time to teaching others what I know especially well. Teaching others around me, when occasion arises, what they need to know. Teaching myself carefully.
3.	School for Boys and Girls (Upper--ages 11-13)	Similar to lower schools. Teaching the group occasionally.

9

ENERGIZING

1.	Children's Beginning School (Primary--ages 5-7)	Saying grace before meals. (imitative level.)
2.	Children's School (Intermediate--ages 8-10)	Customary exercising (degree of participation not clear and varies much in terms of age and background.) School and home must not conflict.
3.	School for Boys and Girls (Upper--ages 11-13)	Customary exercises accompanied by questioning and tentative agreement of disagreement.

10

ORIGINATING

1.	Children's Beginning School (Primary--ages 5-7)	Making new things different from things others make--for example: Composing songs. Painting new pictures. Making new objects in clay. Making new stories or jingles.
2.	Children's School (Intermediate--ages 8-10)	Similar on a higher level.
3.	School for Boys and Girls (Upper--ages 11-13)	Similar on a higher level.[1]

The above is not included to be representative of curriculums of the times, but as an interesting and unusual approach.

The subject matter and the needs, I.Q., age, and social characteristics of the child were considered. This did not mean that ability groups, in the generally accepted connotation of that term, were always organized in the school.

THREE PLANS OF PROCEDURE

> A modified class and study plan, the group plan and the individual plan, or a combination of these are used. Many will agree, when using a textbook as the tool of instruction, that a most advantageous plan of procedure will be the use of class instruction that is profitable to all of the class, temporary groups selected because of particular needs or abilities and individual practice and checking upon the mastery of each process and in the retention of skills. Any kind of plan will prove inadequate unless there is the necessary organization of material that provides for diagnostic teaching and some independence of the individual in attacking his work and checking his results.

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[1] A. G. Melvin, Activated Curriculum (New York: John Day Co., 1939), pp. 140-153.

THE CLASS PLAN. The use of uniform study, recitation, drill periods and assignments for the entire class is rarely satisfactory. Small units of work may be designated with some provision for variation in assignment. All of the pupils are given the introductory assignment of each unit, at the same time. Alternate days or other periods are designed for study. Certain periods of the week are used for clearing up difficulties, checking results and discussion. The scientifically prepared self help material in the textbooks is essential in providing for individual needs.

THE INDIVIDUAL PLAN. In most classes are pupils whose abilities range over four or five grades. To treat children whose abilities range through four or five grades as if they were alike, giving them all the same assignment and the same time to accomplish that assignment is preposterous. Individualizing the instruction allows each child to work at his own rate of progress. It is a substitution of piece work for time work. The teacher moves about the room observing the work, giving help as needed.

The first step in individualized teaching requires the teacher or some one to set down in black and white exactly what it is each child is expected to master. The second requirement is complete diagnostic tests to cover the objectives specified. The third necessity is the making or attainment of materials which are self-instructive and self-corrective. To individualize the text for instruction will require the preparation of an assignment manual. Additional explanations, practice material and diagnostic tests in some instances will be necessary. The answers are in the text. It will be especially helpful to secure some of the most carefully prepared self-instructive materials that are available for suggested organization and some books that outline the basic principles of individual instruction.

THE GROUP PLAN. The teacher works with groups of nearly equal ability. Survey tests given early in the term give sufficient information for the formation of two, three or four groups. Three groups are frequently used. Two groups may prove to be adequate. Occasionally four are used. The arithmetic period is frequently divided so that the teacher works with each group in turn. The teacher can contact the individual more easily in a small group than in the class. The instruction is individual to a considerable extent. Each group will have the rate and content adjusted to its level. Assignments can be differentiated among the groups. The fast group may have briefer assignments in practice work for skill but an enriched program in problem situations and special investigations. The slow group will cover a

> minimum course simplified whenever possible, but with more exercises to acquire fundamental skills.[1]

Students were considered on the basis of their intelligence and accomplishments in regard to the subject matter. Definite courses of study which provided differentiated materials and methods in order to accommodate pupils' learning styles as well as rates were designed. That is, the material varied to meet the needs of the different types of pupils, not only in amount but also in kind.[2] A great number of stimuli in order to produce the desired responses was needed. A wise choice in the selection of a wide variety of experiences within the range of the child's comprehension and background was needed. Challenges and all levels of thinking and abilities within the group and a degree of success to all was mandatory.

The work made individual growth possible. The pupil's own standards were raised as his experience broadened. What satisfied him currently, did not satisfy him the next month; therefore, the work was more difficult than the previous activities and required increased skill on his part. As the children showed increasing initiative and ability, they embarked upon more and more ambitious tasks. The work led into other related work so as to widen the pupil's interests and

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[1]California Curriculum Commission, Teachers' Guide to Child Development (Sacramento: California State Department of Education, 1936), pp. 391-392.

[2]Stanwood Cobb, "Contributions from the Field," Progressive Education, III (July-September, 1926), p. 241.

understanding. This developed a higher level of thinking.[1] That is to say, that the gradation of subject matter was largely in terms of next-needed steps, interest, challenges, and questions, accompanied by the continuous effort of the teacher to develop an awareness of the relationship of a new item with the larger system of which it was a part. There was a gradual addition of more systematic work in reading, writing, spelling, arithmetic, arts and crafts, and music. Unless this growth and progress appeared in the work of the students, it was considered that there must be something seriously wrong with the work of the school. Constructive work was no excuse for dilly-dallying. It was not progress on low levels of dilatory activity.[2]

In making each teacher responsible for the development of her own program, the important problem arose of securing some definite continuity of growth from year to year. Therefore, a careful continuous analysis of all the programs was required. Each of the opportunities which were offered the children was analyzed with a view to its technical requirements and the informational content to which it lead.

In order to provide purposeful pacing for the common essentials, the curriculum was often broken into broad assignments. The Dalton Plan called these jobs and the Winnetka

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[1]Robert Hill Lane, A Workbook for Principals and Supervisors (New York: Macmillan Co., 1930), p. 159.

[2]A. G. Melvin, Techniques of Progressive Teaching (New York: John Day Co., 1932).

system referred to them as units of achievement. Obviously, in order to give a child a mastery of the common essentials, first the common essentials had to be defined. A common essential meant a knowledge or skill which was essential to everyone and was used by practically everyone who possessed it. The knowledge of square root was not a common essential, because only a few people used it. The knowledge that seven and eight are fifteen was a common essential because everyone used it.[1]

The following is a summary of the steps in developing an individual unit of achievement in social-science by Carleton Washburne.

> 1. Select those facts which it is necessary for every child to master. Do this if possible in terms of the investigations that have been carried forward. But if the results of these investigations are not available, do it in consultation with other teachers or even just on the basis of your own common sense. Specify only those facts which you want every single child to master--which no child can omit. Specify them first by writing them for your own use in your notebook as definite statements--not in outline form, but in the form of fact statements like this: "Every child must know that (a) Columbus discovered America, (b) he was trying to find a short route to the Indies, (c) he was financed by Queen Isabella, (d) he sailed in 1492"--as definite and as detailed as that. Attempts to shortcut this process by using such general outline forms as "The Discovery of America--tell why and by whom" are fatal to clear thinking and good assignments.
> 2. Prepare a set of questions to be placed in the hands of each child to guide him toward the securing of the knowledge which you have specified. They can be and probably should be somewhat general. They might take such a form as the following: "Who discovered America? Why did he set forth from Spain? How was he financed? When did he set sail?"

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[1]Carleton Washburne, "The Winnetak System," Progressive Education, I (April, 1924), p. 11.

These questions and definite instructions as to where the child will find the information, what pages of the textbook he is to read, what supplementary reading he is to do, what maps he is to prepare, if any, and how he is to prepare them should, if possible, be mimeographed. If they are mimeographed, they can be used over and over in different years. If they are not mimeographed, they might be hectographed, or even, in a pinch, written on the blackboard. The trouble with writing them on the blackboard is that they have to be written every year. They also are harder for the children to see, and they take up a great deal of space. Assignment sheets that can be placed in the hands of the children are much more satisfactory.

3. Let the children proceed through their unit of work during their social-studies study period strictly as individuals, each child using his assignment sheet to guide him in his study of the given topic.

4. Prepare a test based upon your original set of statements as to what each child must know. This test should be of the most objective type. It might, for example, be in the following form:

I. The Italian who discovered America was _____.

II. His voyage of discovery was paid for by:
   1. The merchants of Genoa
   2. The King of England
   3. Queen Isabella of Spain
   4. The scientists who wanted him to prove that the world was round

III. When he set forth from Spain he did so:
   1. To find a short route to the Indies
   2. To conquer India
   3. To find a new continent
   4. To find the fountain of youth

IV. The year in which he discovered America was _____.

There is only one possible right answer to each of these questions. If the child has made a mistake in any one of them, it is a simple matter for the teacher to see it, to assign additional reading to him and to require him to make either an oral or a written report to her upon the element missed.

5. Use for discussions of debatable questions and for group and creative activities of the kind described in the next chapter the time that would ordinarily be used for recitations and for oral assignments.

The discussion of debatable questions will differ radically from recitations. There will be no right or wrong, there will be no marking, there will be no attempt to see whether the child has studied his lesson. There

> will simply be a vigorous give-and-take on such a question as to whether the South had a right to secede from the North, whether there should be government ownership of railroads, or whether we have a right to hold the Philippines.
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> In such discussions the teacher will scrupulously avoid molding the children's opinions to hers or even to those of the community or nation. Her one object will be to help the children to think their problems through scientifically and in the light of facts and logic.
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> By saving the time wasted through the usual class methods of instruction in the social studies, one can gain time for these life-giving activities. By clearly seeing the difference between those objectives which are definite and measurable and which concern themselves largely with the learning of certain essential facts, and those objectives which are desirable outcomes which we hope will result from certain types of activity and exposure, it is possible to combine the values of the individual with those of the group method of instruction.
>
> Let us individualize those phases of the social studies which have to do with the mastery of factual material and which therefore are going to be tested and used as a basis for promotion. Having individualized these, let us use our saved time in a whole-hearted endeavor to get from the social studies those rich values which, though we cannot measure them as yet, are among the most socially valuable in our entire school curriculum.[1]

The attempt to integrate the child's school experience or to develop a phase of human living in terms of the pupil's abilities around a theme in which he was interested was important. However, this did not imply that all subject matter need be part and parcel of the activity unit. This was not the intent of integration.

> One of the most valuable experiences of the child is that of being able to use in another situation what he has learned in an earlier one. He gains both an immediate experience of the value of the thing that he

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[1]Edgar Marion Draper, Principles of Curriculum Making (New York: D. Appleton-Century Co., 1936), pp. 415-416.

> has learned and a sense of his own power because he has acquired the ability to use it. To force, through integration, the simultaneous consideration of all aspects of some phase of life or period of history is to deprive the child of opportunity for that experience. Indeed, it is incumbent on those making a curriculum to allow deliberately for such experiences.
>
> On the other hand, integration has a definite advantage where the attempt is being made to give a child some fundamental understanding which really has various aspects that must be stressed in order to make it clear. For example, rhythm cannot be fully understood if it is taken up in connection with music alone, but if it is studied in art, poetry, biology, and the dance at the same time, then, and then only, is a real understanding gained. The same might be said for a number of different topics. Only when the specialists help to show the meaning of rhythm in their fields can the fundamental understanding of rhythm be clear. Although those specialists need not be in the same classroom or dealing with the same material, they are consciously building for balance in the education of the child.[1]

Another problem that arose in the pacing of the curriculum was the debate over whether it was necessary to complete a full course of study in a year's time.

> There are two different points of view as to the teacher's duty in the development, from the activities upon which the class is engaged, of other activities which will ensure the logical completion during a given year of the full course of study, for example, in history or geography. How long should a group study be allowed to proceed, when should it be stopped, and how should the untouched elements of the course of study for the year be completely covered?
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> The first point of view can be put into practice only in a school in which the supervising authorities allow the teacher considerable freedom in the interpretation of the curriculum. Those who hold this point of view are convinced that it is not essential to give to children in the elementary school complete courses in such subjects as history or geography. They feel that the children of a given grade in the elementary school do not need a study of history which will be complete in

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[1] Margaret Koch, "Social Studies and the Correlated Courses," Progressive Education, XII (November, 1935), p. 461.

terms of subject matter, which will be sure to cover every element of a logical course of study. Rather, they believe that the children should delve deeply into some period of history, such as the Colonial Period, as thoroughly, as richly and concretely, and in as much detail as the children wish. Such teachers think it better to give the children full and real experiences even if parts of the suggested curriculum are not covered. They are supported in their convictions by certain upper school teachers who maintain that they do not demand of pupils who come to them complete systematic knowledge in such subjects as history. Partial knowledge, they say, provided that it be complete and rich in the brief field covered, is even more satisfactory than hazy and mechanical knowledge of logical organized surveys. These high school teachers claim that logical, completely organized work is better treated in the upper grades.

They prefer that children come to them fresh, without previous thin and poorly digested subject-matter surveys. Thus there are many who prefer for elementary school childrem episodic learning in such a field as history, as long as this learning is rich in terms of real experience. They have little faith in logically complete knowledge which is, nevertheless, poorly related to the children's total experience.

Others hold a very different point of view. They insist that activities should be developed in such a way that the curriculum for the year will be fully covered. In schools where this opinion is current teachers must assume the burden of completely covering the curriculum. What, then, shall such a teacher do when, toward the end of the term, parts of the work are incomplete? When, due to careful selection and planning, the children have covered the major part of the curriculum, but have left other curriculum essentials untouched? The problem may be better discussed in the concrete. Suppose, for example, that the curriculum in fifth grade geography prescribes for the term the study of the geography of North America, and that the year's work has developed so that a great deal of the geographical material has been covered by various unit studies. First a study was made by the children, and the whole of its construction investigated. The study of this construction work and the source of supplies of shipping and the routing of ships and products gave an admirable opportunity for a study of the United States via its transportation facilities. Toward the end of the year, however, it has become increasingly clear that the geography of Canada is being neglected. Here is a large section of the curriculum which has been untouched. What shall the teacher do? Shall she wait to see whether or not the children propose a study which will be concerned with Canadian geography?

> Or shall she let the matter go? Teachers who are in a teaching situation in which it is required of them to complete the curriculum will deliberately guide the activities of the children by suggestion and the use of materials leading to Canadian affairs. This might be done via a study of Arctic exploration, through international commercial relations in the use of the Great Lakes, through a study of the interchange of products, or via whatever plan seems nearest to the children's developing activities. While it seems unnecessary to suppose that children could not be so guided by a skillful teacher from interest in one part of America to interest in another, yet let us, for the sake of argument allow the possibility. In such a case there is no reason why a teacher should not inform the children that there is a considerable part of their work which is still undone, and suggest the study of some aspect of Canadian life. No teacher need be troubled by her educational conscience who solves a concrete difficulty in practical terms which meet the situation, rather than in theoretical ones which fail to meet it.[1]

The change to acquiring techniques, skills and knowledge on an individual basis called for a more flexible schedule. It was not possible to set down a definite length of time, which was consumed by each unit of work. The unit was not carried beyond the point of interest with the children. To lead a child into the realization of his responsibilities for the intelligent use of his own life and his natural environment could not be done in an hour set apart for this study, but had to be reflected in all the hours of the day. Consequently, some periods became longer, less uniform, and were adapted to the changing needs of the work of successive days. Rather than pigeon hole the child's day into thirty minutes of arithmetic, fifteen minutes of composition, twenty minutes of language, and so on, the plan changed to a variety of

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[1] A. G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), pp. 244-246.

flexible schedules. An example included some hour-long periods, forty-minute assemblies, a half-hour in the gymnasium, an hour and three quarters for individual, self-initiated undertakings.[1] Some teachers preferred to place drill work in the last period of the day. This was done so that advantage could be taken of the mistakes and weaknesses noted during the various activities of the day. Other teachers preferred to have skills and drills the first period in the morning. They felt that after dismissal in the afternoon they had a better opportunity to check over the errors made during the day. Between dismissal and opening of the next day, they could diagnose individual needs and plan to administer the remedy soon after school was convened the next day.[2] In the Dalton Plan the schedule was totally flexible and left to the child's choice. It was felt that a home-life modal could be used to develop concentration, encourage purposeful activity and cooperation, and at the same time avoid mechanical instruction. At home a child moved as an individual from room to room without permission and without confusion. When he needed something at home, he went to get it. This simple but valuable fact was utilized, and made and secured harmony and true social life under the Dalton Plan. The pupils were given their jobs, allowed to adjust their work to their own rate of speed, and

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[1]H.L. Coswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 613.

[2]Ablion Harrall, Let's Go to School (New York: McGraw Hill, 1938), p. 74.

then let move in and out of and about the laboratories at will, as they searched out the necessary teacher or book which would unlock a difficulty.[1]

In order to meet individual differences, the assignments were differentiated. This involved both quantitative and qualitative differences in interests, knowledge, attitudes, and skills. The assignments were to be varied in order to provide, at regular intervals, opportunities for socialization through group work. Assignments were to analyze activities into an hierarchy of component habits and skills, each of which must be perfected before the next one could be attempted. Also the assignments were to have enough of an emotionalizing quality to serve as a challenge to pupils. They were not only to tell what to do, but were to provide the urge, and the desire to do. Consequently, the lesson sheets were to set up certain definite attainments in habits, skills, knowledge, and attitudes. These permitted pupils to work at their own rate of speed and also afforded opportunity for selective interests.[2] The mechanical difficulties were not to defeat the purpose for which the material was to be used. Neither meaningful learning nor a love of learning was obtained from material far too difficult for the child. If the ultimate goals were sufficiently attractive, obstacles

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[1]Helen Parkhurst, "Dalton Laboratory Plan," Progressive Education, I (April, 1924), p. 16.

[2]Florence Bamberger, "The Problem of Individualization," Elementary English Review, VI (March, 1929), pp. 86-87.

were surmounted, but the growth was a gradual one. For all, this meant that each was to work at something he understood at a pace which was not beyond him. A description of the Dalton assignment helped to clarify the quantitative aspects. The assignment was given to the student neatly typed and outlined in the form of problems to be solved with each part of the job arranged in what they chose to call his "job book." The job, mapped out for an elementary school pupil, was determined by what could be done easily in the school month of twenty days. They used the day only as a unit of measure. In speaking of any part of the job, the child said he had twenty units to do in each subject. If he was dealing with projects he said that the mechanics of construction of the project were valued as twenty units, and the art or decoration of the project as twenty units, and the recording of the project as twenty units, et cetera. If there were five subjects or five project parts, the grade or group would have five times twenty, or one-hundred units of work to do and for this, a certain number of hours were set aside.[1] Mimeographed sheets, containing the work to be done in all subjects for a month, were given each pupil, and he assumed the entire responsibility for completing the assignment within the time specified, if possible. The assignments were arranged week by week and month by month as to cover the required work by the end of the year.

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[1]Helen Parkhurst, "The Dalton Laboratory Plan," Progressive Education, I (April, 1924), p. 1647.

As soon as he had completed one assignment, he was permitted to go on with the next month's "job." He was neither hurried, by the teacher, because some other pupils finished their assignments more quickly, nor held back because some worked at a slower pace.

Often the progressive schools were described as allowing children to do "whatever they wished to do," setting no standards. This was not the case. Boundaries were set. The difference came in the fact that there were no blanket standards set. It was felt that every individual, regardless of age, race, color, or creed, had an inalienable right to receive, at public expense, that training which would best fit him for the job of life; but that individual, either because of unwillingness to work or mental inability to maintain a reasonable standard, did not have the right to interfere with the growth of another.[1] It was considered wrong and vicious to set a standard lower than that which could be reached by the individual, and equally vicious to set a standard too high for the individual. Inasmuch as individuals differed and differed widely, there was a wide range in standards. Assignments were expected to be completed, but the time given to complete assignments varied. The child who finished in less than the allotted time was not held back, but took the next job immediately. Rarely was a pupil found whose habits and sense of responsibility were so poor that he would fail completely in organizing

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[1]Edgar Marion Draper, Principles and Techniques of Curriculum Making (New York: D. Appleton-Century Co., 1936), p. 851.

his time to complete his assignments working independently. Seeing his fellow pupils, the normal child was stimulated to prove to his teachers that such special supervision was not necessary, and he was able to work as the others did.[1]

There was a difference between the Winnetka and Dalton plans in progressing through the subjects. The Winnetka plans allowed for more complete individualization by subjects. No child, under the Dalton plan, could progress in any subject until he had finished all the month's assignments in the other subjects. In the Winnetka, there was no such limitation.[2] At Winnetka, the pupils were on several different grade levels as far as the basic essentials were concerned. Since the limits were organized on an individual basis, a pupil could be in the fifth grade and carry some work in the sixth grade. Under the Dalton plan, however, the pupils had to complete the program of all studies for the entire month before starting into the next month's assignments in any single field.

Another boundary placed was proficiency. A careful check on individual growth and progress in appreciation, skills, knowledge, self reliance, shouldering responsibility, and the like was made. A final examination, embracing all factors involved in the skills, was given under the direct supervision of the teacher. If the minimum information, skills, abilities,

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[1]Helen Parkhurst, "The Dalton Laboratory Plan," Progressive Education, I (April, 1924), p. 26.

[2]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 92.

and attitudes, which were to be mastered before attacking the minimum core of the next units, were not demonstrated as proficient, the pupils were required to spend more time on the types of problems they had missed. Mastery was described in the literature differently depending on the subject, school, et cetera.

> The Winnetka teachers have carefully checked the degree of speed possible to the slowest normal child, and have found that four examples in three minutes are attainable. Therefore, the assignment in addition of fractions reads thus: "Be able to work four problems in three minutes with 100 per cent accuracy, the examples to contain denominators of 12 and under, to contain three addends, and to involve changing to a common denominator, addition of mixed numbers and to lowest terms."[1]

> Morrison has pointed out that in the acquiring of skills, such as those involved in the study of organized subject matter, learning is unitary. That is to say, with respect to such a unit, a pupil either has or has not learned that unit. For example, a boy may or may not be able to spell the word "receive." There is no half way measure. He either knows how to spell it or he does not know how to spell it. There are units of learning in the mastery of skills which are not divisible. To Morrison, in such cases, mastery means completeness. A unit either has or has not been learned by a pupil. If he has learned it he has mastered it and can perform the operation involved perfectly. Consequently, it is necessary for a pupil learning such a complex skill as multiplication to proceed step by step, attaining perfect mastery as he goes. Only so may the complex skills be properly learned. This point of view has resulted in a technique of teaching applicable to the mastery of complex integrated skills which is known as the mastery technique. According to this technique a pupil drills himself on a unit of learning and only passes on to the next when his mastery of the units has been tested and found perfect.[2]

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[1] Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 93.

[2] A. G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), p. 233.

Each pupil's achievements were compared with specific qualitative and quantitative norms set up by the school authorities. For example the Gray's Reading Test, the Burgess' Reading Test, and the Stanford Achievement Test were used.[1] Since the pupils did not advance to the next tasks unless an acceptable standard was achieved, there was in a sense no such thing as grade failure. Nor did a pupil ever skip a grade. If in June a child had not finished his grade work, in September he went on from where he left off. If a child could do more than a grade's work in a year, he did so--but he did all the work without skipping any.[2]

There were boundaries on the work itself. It was sufficiently within the range of accomplishment of the children to insure a satisfactory degree of success, but was difficult enough to challenge the best abilities of the group. An activity, to be appropriate to an individual, fell within the narrow range of tasks that were hard enough to test the individual's powers and easy enough to promise fairly frequent success. Stressed was the fact that there was no meaning when activities were so easy that there was absolutely no chance of failure, or when activities lay beyond the powers of the individual concerned. Activities that were either so easy, as to make success a foregone conclusion, or so hard, as to make failure inevitable, were ruled out. As the

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[1]Florence Bamberger, "The Problem of Individualization," Elementary English Review, VI (March, 1929), p. 86.

[2]Adolph E. Meyer, The Development of Education in Twentieth Century (New York: Prentice-Hall Inc., 1946), p. 181.

activities or unit developed, the teacher was constantly alert to whether or not the whole activity was moving along satisfactorily toward a desirable and proper conclusion, and a maximum of learning situations were developing from it as it progressed toward that end.

The complexity of the art of individualized teaching made the needs for records acute. The records made it possible to find in ponderable form the patterns that had been made; and then to think about them, use them, or change them most wisely. Record keeping provided much for the teacher. Records lent understanding into what the children's real interests were. They helped in realizing what might be true definitions of "levels," and in understanding what significant individual differences were, and how to deal with them. For the new teacher, these records enumerated studies already made, processes already studied, abilities already achieved, and tendencies toward further growth, both for the group as a whole and for each individual learner. Teachers judged assignments from records, determining whether they were too hard or easy for the class, and just which children got ahead or fell behind. By comparing graphs from month to month, the teacher watched the progress of each pupil in his ability to plan his work and economize his time. She identified which children should be stimulated to undertake supplementary readings or extra topics. Those children who habitually had slow mental processes, and so should be spared unnecessary detail and helped to get control of the minimum fundamentals of their

studies, were determined. Records also furnished a convenient machinery for caring for the occasional pupil, who for some external reasons was behind other children of his age in one or more of his subjects.[1] Records also helped the teacher in getting together the smaller groups of children who had common needs. Record keeping was beneficial to the child. It was an efficient aid in budgeting his time intelligently and served to stimulate him. It helped him to distribute his time according to his special needs and difficulties. When record cards were taken home by the pupils, they showed a record of definite achievement and demonstrated to their parents what they could themselves recognize as very definite and unmistakable growth, and provided a springboard for discussion between the parents and child or teacher.

There was a great variety of systems of record keeping. Under the Winnetka system, each child had a "goal book"--a booklet in which were listed the goals to be reached in the common essentials such as the speed and accuracy necessary in each arithmetic process; the rate and comprehension to be attained in reading and the number of books to be read; the elements of punctuation and capitalization to be mastered in language; and so on through all the individual work. This goal book was at once a guide and record of achievement.[2]

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[1]Helen Parkhurst, "The Dalton Laboratory Plan," Progressive Education, I (April, 1924), pp. 36-37.

[2]Carleton Washburne, "Winnetka System," Progressive Education, ((April, 1924), p. 12.

The Dalton Laboratory Plan was designed around "contracts." These contracts consisted of outlines of assignments of work that were posted for each grade in each subject at the beginning of the month. Each child had an assignment card on which he copied, in detail, the work of the monthly contract in each subject. In order to give him a view-point of his progress, as related to his effort, each pupil was provided with a job card on which he registered his daily progress in terms of units of work completed. This provided him with a graphic picture of his job. What he did in each subject on his first day was marked "1", meaning "day number 1", everything the second day was marked "2", and so on. A chart that made it possible for the teacher to tell at any moment just how much of a contract each pupil had filled was also used under the Dalton Plan. There were vertical columns for each week's assignment with sub-divisions for each day. The children in a grade were listed in the left margin. Each pupil showed the amount he had accomplished, whenever he left the room.[1] From this graph any teacher could see at a glance just how much each pupil had done on a contract in any particular subject. It was also possible to tell which children had reached about the same point in their work. Another type of record was kept by the children. It showed the amount of time on the basis of the average that each child in a class took to fulfill

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[1]Helen Parkhurst, "The Dalton Laboratory Plan," Progressive Education, I (April, 1924), p. 31.

his contracts. On this graph, the names were entered at the bottom of vertical columns on a large sheet. Twenty horizontal rows represented the twenty days work in each contract. As his work was accepted by the teacher, the pupil marked his progress in the assignment by drawing a vertical line covering the portion he had done, just as he did on the laboratory graph. If he worked several hours in one morning and did the entire weeks assignment to the teacher's satisfaction, he drew a line through the first five squares in his column. If he completed his contract in the first fifteen days of the school month, his line had mounted to the top of his column. Here each column was divided into three spaces, one for the number of days required for the contract, one for the number of days lost. The pupil then marked 15 in the first space and 5 in the second. If he had not finished until the third day of the next month, he put 23 in the first space and 3 in the third.[1]

> Some teachers find it convenient to use a small printed form, which can be made by the children, on which each pupil makes a record, with dates, of what work he is engaged in. This work-slip may be filed in a filing box with that of the other children, and may be removed from the box by the pupil the moment he begins working on the piece of construction. If he keeps this slip on his bench while he is at work, the teacher can see from it just what he is doing and how he is progressing. He may also use it for notes, plans and records which will assist him in carrying on his work. As soon as he stops work, he should, without being told, file his work-slip in the proper place. This plan greatly assists both teacher and pupil in keeping track of the work which is proceeding.[2]

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[1] Helen Parkhurst, "The Dalton Laboratory Plan," Progressive Education, I (April, 1924), p. 35.

[2] A. G. Melvin, The Techniques of Progressive Teaching (New York: John Day Co., 1932), p. 265.

In Vol. 12 of Progressive Education, H. H. Giles listed twelve devices he had employed.

1. A scheme for using large sheets of cheap paper instead of blackboard on which lithograph crayons were used for writing as permanent record, and notes for class discussion.

Judgment: It didn't work because I had no handy way of mounting sheets and also because it was hard to read as the lines were small although the letters were large.

2. The use of 3 x 5 cards for writing anecdotes and other notes during class and afterward, to be filed under such headings as "Individual Child," "Committee Activities," "Suggestions," "Columbus Study," "Parties," etc.

Judgment: After two or three months, I discontinued the use of the cards because such notes as there was time to make seemed to lose much of their value when they were divorced from the general descriptions of the whole situation.

3. Sheets of paper about 16" x 3" on which the names of pupils were written in alphabetical order, with a long horizontal line running from the name to the end of the thirty six inches and with space at the top above all the names for writing in the date and general notes. Opposite each name, in the section alloted to a particular day, it was possible to describe individual activities, reactions, etc.

Judgment: This is a good system except for the unwieldy size of the scroll, and the fact that quick notes cannot always be placed in their proper position.

4. An 8" x 11" sheet, divided into five sections, one for each day of the week, in which plans for each day were written in advance by the teacher, and on which notations were made as to the actual work done.

Judgment: This, with supplementary notes on similar typewriter-size paper, is a very good combination.

5. An 8" x 11" sheet of paper, with plans for the day written at the top; space below filled with notes on what happened.

Judgment: This is the most satisfactory of all.

6. Dictation to a stenographer of what went on during the day, impressions of individuals and the teacher's philosophy.

Judgment: This apparently provides so much significant material that I dare not yet make final judgment of it. I can say, however, that such a record seems to prove that knowledge of the whole situation is essential to the understanding of the inner significance in individual behavior. It also seems to show that group trends bulk large: for example, choices of study made because "everybody was doing it," consciousness of sex, afternoon vs. morning behavior, cliques--their kind, their cause, their effect; group attitudes toward individuals.

7. Tabulation sheets listing both quantitative and qualitative measurements and, in some cases, detailed plans of work and time contracts. These were intended both as records for the teacher and as guides and means of evaluation for the children. Sometimes they were prepared by the teacher; sometimes by a single pupil or by a committee.

Judgment: All brief forms of tabulation are vague and incomplete. Skillfully used by the teacher with all his background and knowledge, they may become significant as time goes on and repeated tests of a similar kind are made. The pupils' interest in them is brief, though beneficial, provided that personal or general discussion illuminates their meaning. There is always the danger, as I found in practice, that they will become a means by which pupils attempt to compete with each other, instead of attempting to analyze themselves for the sake of improving the quality of their own work. Parenthetically, I may say that almost always a frank and sincere discussion of plans and results conducted orally in the class gives all the benefits and has none of the disadvantages of tabulations.

8. Records of daily work kept by student secretaries or by each student for himself.

Judgment: This is in theory excellent training for the pupils, as well as a good device for holding up a mirror which shows the teacher as his pupils see him. I find, however, that seventh, tenth, eleventh, and twelfth graders are united in their protests against the time waste--as it seems to them--in keeping individual records as detailed as this. I refer now to such things as the weekly summaries. Class secretaryships, on the other hand, seem to be regarded as positions of honor, and

probably serve the purpose well enough, provided the secretarial notes are available to the whole class.

9. Pupil's self-evaluations at periodic intervals in which pupils are asked to estimate their progress on the basis of criteria developed by them or with them. These evaluations are usually written in class in from five to fifteen minutes, the time limit being determined by the teacher.

Judgment: I find these evaluations to be almost unanimously sincere, highly personal, and acutely critical revelations of tremendous significance.

10. Pupil evaluation of each other on the basis of criteria developed by them.

Judgment: I have used this device most frequently in connection with speaking or reading, where I wished to develop in the pupils a very conscious consideration of the art of oral discourse. Pupils tend to be too generous or too complacent--and certainly too brief--in making these written criticisms. This is a contrast to what happens in oral criticisms, where the teacher has a chance to inject fresh points of view continually during the discussion.

11. A special sheet in the writing folder or notebook of each pupil, on which he records salient criticisms written on his papers made in class or developed by him and the teacher in personal conference. These items are dated.

Judgment: The pupils are interested and faithful in keeping up this record for a short time but seem to find that once the criticisms are made, there is not much value in repeating them in this form. This is a device which I should like to try over a period of years with the same pupils, for it might become more significant to them as they grow more skillful and more accustomed to handling it, and could see comparative results more and more clearly.

12. Objects of art other than writing, and photographs or drawings made from them for file.

Judgment: I, myself, feel that such permanent records as these may have far-reaching significance and be most economical by reason of the fact that almost at a glance one can see the quality of the work. However, I am as yet only beginning to be able to make use of these things, just as the pupils are only beginning to realize that such

things represent respectable achievement rather than just fun.[1]

[1]H.H. Giles, "Record Making in an Experimental School," Progressive Education, XII (November, 1935), pp. 473-474.

Part II

It was accepted that every child was an individual and differed in his rate of physical, intellectual, emotional and social growth.[1] Age and grade level were not guides to the appropriateness of a learning task and a task which was right for one learner could be wrong for another who was not ready for it. It was not expected that all children of one age or grade level all would do identical tasks. Providing a differentiated curriculum for individual children carried the responsibility of making appropriate selections of materials and suitable teaching methods for differing maturity levels.

This differentiated curriculum took various forms. For example, in a group of children working on a unit on the New England states, the slowest learning youngster in the class might study and make a map of the New England region by tracing from an atlas or by using an overhead projector. At the same time, the average youngsters did research and practiced their study skills by locating, interpreting, organizing, and utilizing information. The rapid learners in the class, after grasping all phases of the unit, would go into depth and study the role that the New England states had played in the nation's economy, et cetera. By organizing the unit in this

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[1]David W. Beggs and Edward G. Buffie, Nongraded Schools in Action (Indiana: Indiana University Press, 1967), p. 136.

way, each child worked according to his ability and interests and at his own level of comprehension.[1]

Another differentiated curriculum was created by providing alternate job sheets to serve as extra practice lessons for rapid achievers who had not mastered the learning through the job sheets and for average achievers who possessed the necessary discipline to work alone yet required more practice than the high achiever group. The slower learners then worked under the direction of a teacher.[2]

It was believed that development was continuous. Growth and development in the acquisition of academic skills, like physical growth and development, was continuous and on-going; it could not be regulated by the six-weeks marking period or the semester.[3] Ideally, the child should enter kindergarten and progress through the sixth grade, continuously learning as he went. A child's elementary school career was a meaningful sequence of learning experiences that were skillfully interwoven into a consistent pattern of behavioral growth. There was provision for both variety and continuity. Each of the years that the child was under the care and direction of

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[1]Ross M. Core, "Strengthening Classroom Instruction in Social Studies," National Elementary Principal, XLII (May, 1963), p. 32.

[2]Walter F. McHugh, "Learn Learning in Skill Subjects in Intermediate Grades," Journal of Education, CXLII (December, 1959), p. 30.

[3]Don H. Parker, Schooling for Individual Excellence (New York: Nelson and Sons, 1963), p. 145.

the elementary school was an integral part of this phase of a child's total education. The entire faculty accepted the mutual responsibility of ensuring that each child's program, when viewed as a whole, represented a balanced and harmonious plan, rather than a random patchwork.

It was felt that if a child was unable, at a given stage of development, to grasp a particular concept, mathematical principle, or formula, or to read "according to grade level," it might simply be because the mind of the child was not ready at that time. If this was the case, the child was given the opportunity to gain more experience, to experiment more, to grow intellectually and emotionally before he was expected to grasp that particular concept or mathematical principle, or to read according to prescribed expectations. If a student did not have the readiness and foundation for his exposure to any material, he was not only unable to learn it, but precious time was lost that could have been used to give him the experiences he needed. In other words, exposing students to fifth-grade reading, when they could not read a third-grade book, or exposing them to multiplication when they didn't understand addition was actually detrimental. Brute repetition did not cause the student to learn it. Furthermore, no other coercive form of teaching succeeded either. On the contrary, if the child were given full opportunity to grow as his needs naturally arose, he in time grasped the concept in

question or came up to an expected norm of reading.[1] If the change was made when children were psychologically ready and after they had achieved security in earlier concepts, the new standards were accomplished with a minimum of strain.

There was an effort in this period to examine the structure of knowledge in fields of learning in order to ascertain which concepts were suitable for the differing stages of intellectual development. Propositions of the bodies of knowledge were restated in simpler forms that were both powerful and effective in the sense of being within reach of the learner. In short, it was felt that subjects could be taught effectively in an intellectually honest form to any child at any stage of development.[2] This is not to say that the three R's were never postponed. Evidence is that they were.

> Well...reading is one of our real problems--or should I say, one of the real problems for our parents who tend to panic because reading is taught at age 6 in the public schools, and here we don't even attempt to teach it until 7. We consider ourselves lucky to have squeezed in an extra year of firsthand knowledge unhampered by the necessity of books. If it weren't for the parents and the pressures they put on us, I don't think we'd ever bother with books and other vicarious means of learning.[3]

Early training in elementary intellectual skills, such as language and simple manipulative skills, was thought critical for later development.

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[1]Joseph D. Hassett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, 1972), p. 58.

[2]G.W. Bassett, Innovations in Primary Education (New York: Wiley Interscience, 1970), p. 90.

[3]Ellen Frankfort, The Classroom of Miss Ellen Frankfort, Confessions of a Private School Teacher (New Jersey: Prentice Hall, Inc., 1970), p. 154.

Children were very carefully identified at every stage of their development before it was determined what was going to be taught them. Information concerning mental, social, emotional, physical and educational factors was collected. Information from intelligence and achievement tests was included.

The pupil's interest in and readiness for learning largely determined the actual selection of what was to be studied. Centers of interest were set up in the classrooms to provide for the needs of children. A teacher divided a class into groups, according to interest, to do specific jobs in relation to a unit of study. If a class was studying their community, one group of youngsters investigated the community's government. Another group studied local industries. Another made a mural depicting the history of the town. Still another studied the town from a sociological standpoint. Learning experiences took children into depth and broadened their understanding and concepts plus provided each pupil with experiences which were uniquely fitted to his abilities and interests.[1]

Although some literature reported age groups taking the place of the traditional grades,[2] the bulk of the literature reported the nongraded organizational plan as replacing the

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[1]Ross M. Core, "Strengthening Classroom Instruction in Social Studies," National Elementary Principal, XLII (May, 1963), p. 33.

[2]Ellen Frankfort, The Classroom of Miss Ellen Frankfort Confessions of a Private School Teacher (New Jersey: Prentice Hall, Inc., 1970), p. 155.

age-graded, self-contained classroom. The term "nongraded" was a reactive one. It meant the absence of, or the reverse of, grades. Armed with the scientific findings on learning, bolstered by the historical attempts to get around the grades and encouraged by a Space Age public's growing receptivity to change, the educational movement of nongraded schools ventured into the educational scene.[1] These nongraded schools were developed as basic organizational attempts at dealing with the problem of inflexibility in the education of the child. They called for continuous academic progress.

> Anderson: 'Nongradedness refers to two dimensions of the school and its atmosphere; the philosophy (or the value system) that guides the behaviors of the school staff towards the pupils, and procedures by means of which the life of the pupils and teachers is regulated.'
> Brown: '...a place which makes arrangements for the individual student to pursue any course in which he is interested and has the ability to achieve, without regard either to grade level or sequence.'
> Dufay: 'A philosophy of education that includes the notion of continuous pupil progress, which promotes flexibility in grouping by the device of removing grade labels, which is designed to facilitate the teacher's role in providing for pupils' individual differences, and which is intended to eliminate or lessen the problems of retention and acceleration.'
> Howard and Bradwell: 'Nongradedness refers to any effort on the part of a faculty or administration to take into account factors other than age when the grouping of students is being considered.'[2]

Plans for nongrading varied. Some had heterogeneous grouping within a single grade level and others followed a random plan

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[1]Davis W. Beggs and Edward E. Buffie, Non-Graded Schools in Action (Indiana: Indiana University Press, 1967), p. 33.

[2]G.W. Bassett, Innovations in Primary Education (New York: Wiley Interscience, 1970), p. 106.

with intermediate children of every chronological age and reading ability in the same classroom. In some schools, children were grouped across age levels with either two or three ages included in a single class. The grouping depended upon the local situation, the teachers involved, the children and the neighborhood. It was normal to anticipate that a given child would advance along different prescribed threads at varying rates. Thus, at a given moment, the child's very irregular profile of achievement, perhaps varying several years from learning area to learning area, was anticipated, accepted, and encouraged. The teacher felt--not guilt--but assurance, that he was doing the right thing in permitting a single child to be working at what would be, in a graded system, several grade-levels.[1]

> A 'full'fledged' non-graded school, according to Anderson, would be able to claim that all the following statements apply to it:
> (i) Suitable provision is made in all aspects of the curriculum for each unique child by such means as (a) flexible grouping and subgrouping of pupils, (b) an adaptable, flexible curriculum, (c) a great range of materials and instructional approaches.
> (ii) The successive learning experiences of each pupil are pertinent and appropriate to his needs.
> (iii) Each child is constantly under just the right amount of pressure. Slow learners are not subjected to too much pressure, as they are in a graded school, nor are talented learners exposed to too little.
> (iv) Success, with appropriate rewards, is assured for all kinds of learners so long as they attend to their tasks with reasonable diligence and effort. Such success spurs the child to a conviction of his own worth and to further achievement.
> (v) Grade labels and the related machinery of promotion and failure are non-existent.

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[1]John I. Goodlad and Robert H. Anderson, The Nongraded Elementary School (New York: Harcourt Brace and Co., 1959),p.88.

> (vi) The reporting system reflects the conviction that each child is a unique individual.
> (vii) The teachers show sophistication in their curriculum planning, evaluation, and record keeping.
> (viii) For certain purposes, pupils enjoy regular social and intellectual purposes, their contacts are with pupils of different minds and talents.
> (ix) The school's horizontal organization pattern allows for flexibility in grouping pupils and in using the school's resources....
>
> It might appear from Anderson's inventory that a non-graded school is equivalent to a good school. Not all agree with this. Below are set out some of the common criticisms. . . .
>
> The effect of the teacher:
> (i) it places an impossible burden on the teacher;
> (ii) it lacks fixed standards and leads to 'soft pedagogy'.
> The effect on the curriculum:
> (i) it replaces grade requirements by some other requirement, e.g. reading level;
> (ii) the curriculum sequence tends to lack specificity and order.
> The effect on parents: it makes it difficult to report adequately to parents.[1]

It was felt that the educational system should be based upon intrinsic motivation. It was the willingness of the student to engage in investigatory and intellectual activities that was utilized. The present concern was with achieving productive rather than reproductive thinking. Intrinsic motivation was considered better than the appeal to extraneous goals such as social approbation, gold stars, high grades or threat of failure. It was recognized that extrinsic motivation could be very effective in influencing children to acquire information, but the price was costly in terms of permanence of learning, the transferability of what was learned to other

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[1] G.W. Bassett, Innovations in Primary Education (New York: Wiley Interscience, 1970), pp. 108-109.

tasks, and, above all, the attitudes engendered.[1] It was felt that a child, like an adult, would participate in, profit by, and enjoy work in which he was successful. Just as teachers welcomed an opportunity to join a group working on a problem that was troubling them, so children were happy to gain the help they needed.

It was felt that maximum learning of skills took place when the learner found success and reward in the learning activity itself, as well as in its end result; or, in other words, learning took place when the learner had a need to learn.[2]

It was believed that the right decision at the right moment was the essence of good teaching. Right decisions were those that timed learning perfectly for the individual student and were the result of careful planning and organizing on the part of the teacher. It was the job of the teacher to set up an environment that would initiate certain desired reactions on the part of students.[3] This environment was a balance between oral, written and active work. It guided each child toward materials and activities consistent with his capacities and toward a situation in which he could succeed.

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[1]G.W. Bassett, Innovations in Primary Education (New York: Wiley Interscience, 1970), p. 82.

[2]Don H. Parker, Schooling for Individual Excellence (New York: Nelson and Sons, 1963), p. 146.

[3]John I. Goodlad, School, Curriculum and the Individual (Massachusetts: Blaisdell Publishing Company, 1966), p. 190.

No child was to repeat a task he had already mastered except in order to maintain proficiency. The opportunities for skill-learning were both systematic and opportunistic, arranged from primary experience toward abstractions and from particular objects or events to general propositions.[1] One author discussed the instructional procedures in the following way:

> (i) Determination of entering behavior: by this is meant assessment of what the student already knows about the material which will be taught in the programs. Account can be taken of this assessment in prescribing a course which is designed for the pupil's individual interests and abilities.
> (ii) Participation in terminal behavior: this refers to the early introduction to the student of the end product of the instructional sequence to assist learning and to enhance interest. A simulation (for example of flying an aircraft, performing a diagnosis, singing a song, reading a sentence), in which the student has the feeling of participation in the terminal behavior, gives the student a familiarity with the terminal behavior without having to accept any consequences of error...
> (iii) Generalization display: this has to do with the process by which concepts are formed. The pupil learns to respond to similar elements in different learning situations, and to make appropriately different responses to different stimulus situations.
> (iv) Gradual progression: the planned progression through the material must be gradual enough to minimize wrong responses, and at the same time allow for errors to be used as effective learning experiences.
> (v) Reinforcement: reinforcers may be extrinsic (gold stars, praise), or intrinsic (knowledge of success). Intrinsic reinforcers are preferred when they are effective.
> (vi) Prompting and guidance of learning: in many stages of instruction efficient learning requires a hint or guide to the appropriate response to be learnt. A prompt which can be used as mediator in future learning is to be preferred to prompts which are unrelated to future tasks.
> (vii) Withdrawal of guidance: the prompting referred to in (vi) may be withdrawn as the need for it diminishes.

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[1] G.W. Bassett, Innovations in Primary Education (New York: Wiley Interscience, 1970), p. 80.

> The need for guidance may be inferred from the time it takes the student to respond after the presentation of a stimulus.[1]

Diagnostic teaching was employed and, therefore, it was required that the educational objectives to be attained by the pupils, in terms of achievement level and performance related to each curriculum area and in terms of values and action patterns, be identified. An estimate of the range of objectives that were attainable for subgroups of pupils was determined.[2] Then each individual task to be accomplished was defined. The diagnostic techniques ranged from the application of standardized tests to informal observation of the pupil's methods of work. The diagnostic tests were used to identify strengths and weaknesses, levels of knowledge, and understandings of concepts. The less formal procedures included examination of the pupil's written work to determine the kinds of errors made, observation of his work habits, an analysis of the thought processes he used as he stated ideas orally, an analysis of the pupil's answers to the teacher's questions to determine the steps the student used in solving an example or his understanding of each step taken, and interviews with other teachers and associates of the learner to secure other pertinent information that might be helpful in diagnosis. In certain cases, it was necessary to consult available school

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[1]G.W. Bassett, Innovations in Primary Education (New York: Wiley Interscience, 1970), pp. 102-103.

[2]Herbert J. Klausmier, "The Mutli-Unit Elementary School and Individually Guided Education," Phi Delta Kappa, LIII (November, 1971), p. 182.

records to secure information about the pupil's health, mental ability, school history, and social background before a satisfactory diagnosis of the difficulty and the underlying causes could be determined.[1]

Independent study was not considered merely as a necessary evil that accompanied group work. To the contrary, depending upon the type, independent study could serve several important purposes and produce many desirable values. Purposes included reinforcing through practice a previously developed skill, extending or enriching a concept or understanding developed during a previous discussion, providing a basis for the teacher's diagnosis of specific learning gains, developing positive study habits or introducing a new unit of work or area of study. In order to realize the values of this type of independent work, the following basic principles were carefully observed:

> 1. The purpose of the assignment should be made clear to children. Assignments such as 'Read from pages 62 or 66 for tomorrow' should be strictly avoided because they present no problem to be solved nor any purpose for reading.
>
> 2. All directions should have been made clear before work on the assignment was begun...
>
> 3. All necessary materials should be available to children.
>
> 4. The assignment should be adaptable, in length and difficulty, to the varying abilities of children. . .

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[1]Robert Homes Beck, The Three R's Plus (Minnesota: University of Minnesota Press, 1956), p. 166.

5. Varied types of assignment were to be utilized to advantage. A conscientious teacher would make every effort to avoid letting assignments fall into a drearily monotonous routine.[1]

The development of programmed learning was especially helpful in allowing the learner to know how to proceed. Essentially, it was a process of supplying the learner with a step-by-step sequence of questions to which he responded. As the learner moved to the next question, he was able to determine whether his answer to the previous question was correct or not.[2]

The goal was to provide an educational program to meet the widely varying needs of all the children. All children were of equal importance and each deserved careful consideration of the unique attributes that he brought to the program. Far from being static, the wide range of pupil achievement tended to increase markedly, and confronted teachers with a very complex task in planning and organizing for instructional purposes.[3]

In order to assure a developmental educational program of sequential experiences for all children, goals and levels of

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[1]Dorothy G. Peterson, The Elementary School Teacher (New York: Appleton-Century-Croft, 1964), p. 389.

[2]J. Murray Lee, Foundations of Elementary Education (Boston: Allyn and Bacon, 1969), p. 99.

[3]Merle M. Ohlsen, Modern Methods in Elementary Education (New York: Henry Holt and Co., Inc., 1959), p. 226.

work were defined instead of time allowances.[1] The teacher was to have a clear picture of what the learner would know or do when he had accomplished certain tasks. For fields, such as science and social studies, certain broad principles were to be chosen and then used as vehicles to refine certain cognitive processes such as collecting data, interpreting facts, synthesizing related information, et cetera. In other content areas such as reading and mathematics, specific skills related to the internal system were isolated.[2]

Important criterion used in grouping follows:

1. Chronological Age (with special note of behavioral activities)
2. Achievement Test Results (with special note of reading ability)
3. I.Q. Test Results (with special note of the Mental Age)
4. Social Maturity (with special note of relations with others)
5. Reading Ability (with special note of readiness at that stage)
6. Interest (with special note of desire or motivation to achieve)
7. Needs (with special note of school and family background)
8. Physical Set (with special note of physical maturation in terms of motor skills)[3]

To safeguard the effectiveness of the groups of pupils of like attainment, the group placement was to be flexible. Careful reappraisal was frequent to guarantee proper placement for

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[1]Lillian Glogaw and Murry Fessel, The Nongraded Primary School a Case Study (New York: Parker Publishing Company, Inc., 1967), p. 61.

[2]John I. Goodlad and Robert H. Anderson, The Non-graded Elementary School (New York: Harcourt Broce and Co., 1959),p.84.

[3]David W. Beggs and Edward G. Buffie, Non-Graded Schools in Action (Indiana: Indiana University Press, 1967), p. 40.

each individual. Group placement tried to avoid the dangers of stigmatization and competition. Labeling the groups first, second, or third was to be avoided. Instead, designating them by the materials being used or by a person's name within the group was encouraged.[1] At times, flexibility in individual progress came, not from moving a child from group to group according to accomplishment as in arithmetic and reading, but in encouraging and providing opportunity for differing outcomes from a single stimulus situation.

> To individualize the complexity of the thinking--Make up questions at different levels of difficulty for a story interesting to your class. If you choose Goldilocks and the Three Bears, for example, your questions might run like this: (1) Remembering information--What are some of the things Goldilocks did in the Bears' home? (2) Understanding--Why did Goldilocks like the Little Bear's things best? (3) Application--If Goldilocks had come into your house, what are some of the things she might have tried to use? (4) Analysis--What parts of this story could not have really happened? (5) Syntheses--How might the story be different if Goldilocks had visited the Three Fishes? (6) Evaluation--Do you think Goldilocks was "good" or "bad"? Why do you think so? For which of your learners would each of your questions be appropriate?[2]

It was believed that each individual child differed in the kind of instruction he needed for maximum learning to occur. Some learned more effectively through auditory means. Some were more attuned to visual learning, specifically reading. Others needed a tactile approach in addition to the more common approaches. Still others profited most from a combination of

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[1] Dorothy G. Peterson, The Elementary School Teacher (New York: Appleton-Century-Croft, 1964), pp. 382-383.

[2] Julia E. DeCarlo and Constant Madon (eds.), Innovations in Education for the Seventies (New York: Behavior Publications, 1973), pp. 181-182.

methods experienced simultaneously such as listening to a record of a story as they looked at the words of the story in a book.[1] The choice of learning style varied with the pupil's previous experiences, with his ability, with the task, with the current interest of the study, and even with the style of presentation. When a choice of learning styles was offered, the student could continuously expand his repertoire of learning behaviors that worked well for him.[2]

There was not one optimal sequence for presenting a body of knowledge. It was generally believed that the size of step that one would employ in presenting a sequence of material to be learned varied with the present ability of the learner, and depended, too, on the kind of eventual ability that one wished to produce. Rarely was everything to be learned about anything presented on one encounter. Because of this, the curriculum was to be a spiralling one.[3]

In the nongraded levels plan each child was expected to hae continuous academic progress based on the accomplishment of clearly described levels. The number of levels to be accomplished by the child varied from one school to another. No level or step was omitted or skipped in thc program by any

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[1]Virginia A. Stehney, "Why Mutliage Grouping in the Elementary School?" National Elementary Principal, XLIX (January, 1970), p. 22.

[2]Julia E. De Carlo and Constant Madon (ed.), Innovations in Education for the Seventies (New York: Behavior Publications, 1973), p. 188.

[3]G.W. Bassett, Innovations in Primary Education (New York: Wiley Interscience, 1970), p. 91.

student. The skills and materials on each level were important to all children. The time required for developing these skills depended on the children involved.[1] However, an increasing complexity in the student's thinking was expected. The simplest level was one in which the student merely showed that he remembered what he had learned. In further steps, he demonstrated his understanding of that information, applied the information to new situations, used that information to solve problems or generate ideas by analyzing, then synthesizing, and finally, evaluating.[2]

The fact that the term integrated was not merely abolishing the bell was stressed in this period of literature also. It meant that the children worked at their own pace on a topic chosen by them from a range carefully prepared by the teacher. It was not expected that all lessons would be integrated.

When ideas were taught, was less important than which concepts, skills, and values were being learned and how well. The timing and pacing of learning processes became more important than the grade placement of specific learning tasks.[3] Thinking was in terms of the child's growth rather than grade levels. Schools were not to fool themselves by believing that

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[1]David W. Beggs and Edward G. Buffie, Non-Graded Schools in Action (Indiana: Indiana University Press, 1967), p. 156.

[2]Julia E. De Carlo and Constant Madon (eds.), Innovations in Education for the Seventies (New York: Behavior Publications, 1973), p. 179.

[3]John I. Goodlad and Robert H. Anderson, The Nongraded Elementary School (New York: Harcourt Broce and Co., 1959), pp. 84-85.

because material was presented every child absorbed it. Organizing threads or specific topics were not to be dealt with according to a predetermined time table. Consequently, the teachers were relatively free to select organization center for instruction from a wide range of possibilities and, therefore, there was a need for the schedules to be flexible.

Individualizing instruction did not mean that certain students got by with doing less work. It meant that the student was able to perform and move systematically toward better and better academic performance. A premium was put on what each child accomplished within his limits, and not on standardized objective performance tests. The apprehension that unless standards were demanded of the pupils they would cease to learn properly was shunned. It was felt that this fear was based on two basic assumptions: children possess neither the willingness nor discipline to learn what they must learn to succeed in life, and education of the young is best attained when the matter to be learned is clearly set out in a curriculum by experienced educators, and pupils are required in terms of objective performance tests to meet certain established standards.[1] Rejection of these fears does not mean that standards were not set. The difference came in the fact that there were no blanket standards set. An environment was created where each child was accepted for himself and where he had a

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[1]Joseph D. Hassett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, 1972), p. 58.

chance to develop at his own rate. Often standards were built by the children. They included items such as: (1) Does every sentence being with a capital letter? (2) Does every sentence end with a mark of punctuation? (3) Does every sentence express a complete thought? (4) Are all words spelled correctly?[1]

Proficiency was also expected.

> If a child passes the test satisfactorily, he is given another book...[2] Never was a child to advance without ninety per cent mastery.[3]

It was felt that learning was motivated if the learner had the opportunity to start at a point at which he met a reasonable degree of success. A child's learning experiences were genuinely challenging, but the frustration level was not overwhelming. His objectives were achieved, but not without real effort. Success came after an honest struggle. The work was neither too difficulty, nor too easy. The criterion of learnability entered into every selection decision. Two appropriate questions were asked first: "Am I helping each child to succeed as an independent learner?" and seond, "Am I helping him to develop an honest love of learning?"[4]

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[1]Walter F. McHugh, "Team Learning in Skill Subjects in Intermediate Grades," Journal of Education, CXLII (December, 1959), p. 36.

[2]David W. Beggs and Edward G. Buffie, Nongraded Schools in Action (Indiana: Indiana University Press, 1967), p. 156.

[3]Walter F. McHugh, Ibid., p. 28.

[4]William C. Nutting, Designing Classroom Spontaneity; Case Action Learning (New Jersey: Prentice Hall, 1973), p. 94.

The teacher's role as a recorder was of vital importance. He had an obligation to know that his pupils were gaining the fundamental skills necessary to becoming proficient. This also helped succeeding teachers provide an uninterrupted flow of instruction for each child.[1]

The records varied from devices such as checklists and anecdotal file cards to teacher-made tests and observations. It was important to have all the information needed, but, on the other hand, not to waste time collecting useless or obsolete data.

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[1]M.G. Bowden and others, "Quality Through Individualized Instruction," Childhood Education, XXXVI (April, 1960), p. 362.

CHAPTER THREE

SELF-EVALUATION

Part I

Education, if it was to be of real value in life, was to be evaluative on the part of the child. For unless the child actually participated in a considering way in his own mental training and was inspired to exert himself from the very depths of his heart and soul in the mental endeavors he was called upon to make during his school training, he departed from the school neither a thinking being, able to intelligently share in the life of society, nor an awakened being, constantly striving toward further intellectual and cultural goals. Because of the wide variety of pupil capacities, and the nature of human beings, evaluation was necessarily individual and, therefore, individual instruction was most efficient. Each child was offered an opportunity to evaluate his own endeavors. He developed initiative as he proceeded with his own tasks; accuracy, as he checked and compared his work; judgement and habits of analytical thinking, as he appraised his work and decided if he was ready for a check-up test before beginning new work.

The more objective subjects as arithmetic and spelling offered simple evaluation. In arithmetic, a child finished his assignment, and then turned to the answer book and checked his own work.[1] Or, using a pack of cards that had sets of combinations printed on the, he worked with a partner to decide which ones that he had mastered.[2] Pre-tests in spelling identified the words each student was to spend his time studying.

While the more objective subjects were easily evaluated, the more subjective areas also gave practice in self-evaluation. The appreciation of music, art, and literature included: judging one's own work, an evaluation of the works done by other pupils in the group, and the long process of becoming familiar with the work of great artists of all ages and judging the values of their masterpieces. By using the research method, there was a demand for initiative, clear understanding, judgement, interpretation, evaluation, and powers of organization.

The recording of work was important to self-evaluation. As the pupil kept a record he tended to compare each new score with previous scores; in so doing, he also tended to recall which acts led to success and to look for the causes of failure. The sheer satisfaction in seeing his score improve

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[1]Ablion Harrall, Let's Go to School (New York: McGraw Hill, 1938), p. 6.

[2]Sidney Firman, "Taking the First Steps in Progressive Education," Progressive Education, XII (January, 1935), pp. 31-32.

tended to further an interest in learning. Where an interest in successful learning was lagging, establishing the practice of keeping scores usually increased interest and resulted in learning. The progressive school used many different devices for recording the measure of each individual's control of the mechanical skills that enables him to assimilate subject matter. For example, after a spelling test, all incorrectly spelled words were entered with the date in a notebook, where there was space for recording words to be studied that week. The score on Monday's test was entered on a chart ruled for twenty-five words and used for Monday through Friday scores. After the study of these words, on Tuesday, Wednesday, and Thursday, by those who needed to study them, the whole class, on Friday, took the test of the previous Monday. The score was entered by Monday's score. Any words missed were recorded for further effort.[1] The use of charts or graphs was found frequently in the literature.

> Miss Parkhurst has developed a system of record keeping for teachers and pupils that has worked efficiently in several American schools. A bulletin board hangs on the wall of each laboratory. On this the teacher posts the month's contract, in such form that the average pupil can take it and go ahead with his work. Each pupil has a contract card. There are different colors for different grades, so that an individual is easily placed in the laboratory.
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> The card is divided into vertical columns, one for each subject the pupil is studying. It is ruled in four rows, each indicating an amount corresponding to a week's work on the contract, i.e., a square on the card then represents one week's work in a subject. These squares

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[1]Lois Coffey Mossman, The Activity Concept (New York: Macmillan Co., 1938), p. 80.

> are subdivided into five rows, each row representing one day's work in the subject. Our fifth-grade pupil starts a new month of work by going to his geography room. He copies the outline of the month's assignment on the back of his card. He studies the week's assignment until he understands it, and determines what his first step should be. He may become absorbed in his work and remain in the geography laboratory for several hours. He has, of course, done more than one-fifth of the week's assignment in geography before he leaves. When he is ready to leave, he goes over what he has done and decides that he has finished say, three-fifths of the assignment. In the geography column on his card, he will draw a vertical line which covers the first three subdivisions of the square for the first week. In the next subject laboratory he goes to, he will follow the same procedure, crossing off the proportion of the week's work that he accomplishes in each subject. In order to keep track of which records are made each day, the number 1, 2, 3, etc., corresponding to the day of the week is written on each day's line.
>
> When the expression 'time for a contract' is used, it should be noted that this does not mean so many minutes allowed for each day's work. It means the amount of work done at any one time on the week's assignment on the basis of a rough division of that assignment into five parts.[1]

In the Dalton school, the record cards enabled the inexperienced person to keep track of his work. They gave him a picture of his work in such a concrete form that he could check, plan, and evaluate, from day to day, and from month to month. The contract card mapped the way a pupil planned his assignment for a month. It showed him his rate of work, so that, by comparing his records on the graphs for different subjects, he could see where he could save time for his slow subjects.[2]

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[1]Evelyn Dewey, The Dalton Laboratory (New York: E.P. Dutton, 1922), pp. 23-25.

[2]Evelyn Dewey, Ibid., p. 28.

The traditional report card was turned into a self-evaluative tool. Grace Bell, in an article entitled "An Evolutionary Report Card" in the twelfth volume of Progressive Education, described an episode in which the children took part in designing their own card. First, discussions of what a fair report card would be like was held. It was significant that, to the children, a fair report should give a clear picture of individual achievement in subject matter, of growth in personality traits, and offer definite suggestions as to how to improve where improvement was needed. Acting upon the suggestions, the group and the teacher worked out a report. All the points, which the children felt should be incorporated in a record, were listed on the board. These points were combined and organized under appropriate headings. The resulting form was an outline, with space left for comments instead of grades.[1]

Foremost in the lists of essentials in the progressive schools was responsible self-direction on the part of the learner. The members of the committee of the National Society for the Study of Education who prepared the Thirty-Third Yearbook, Part II were in agreement on this statement: Responsible self-direction as it operates thoughtfully in continual experience is a necessary constituent of sound education. Education must be characterized by reality of purpose for the pupil.[2]

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[1]Grace Ball, "An Evolutionary Report Card," Progressive Education, XII (February, 1935), pp. 89-93.

[2]F.C. Borgeson, "What Makes An Activity Program," Progressive Education, XIII (January, 1936), p. 50.

Freedom was essential in their programs. This was neither a mere absence of restraint, nor a license. It was an opportunity to exercise responsible and thoughtful self-direction to the extent of one's ability.

The children did a goodly portion of the checking of their lessons themselves. The keys for the exercises were readily available to them. When a child did a certain unit of work, he took a practice test, which he administered to himself, and corrected himself. If he found that he had reached the requisite standard in the practice test, he asked the teacher for a real test.[1] If a child consistently failed in real tests, he might have his answer sheets sealed temporarily and be required to have each assignment checked by the teacher or by a designated pupil before he was permitted to undertake the next assignment. All members of the class were assumed to be dependable and responsible citizens until they proved themselves otherwise. As soon as they again showed that they were willing to play the game according to the rules, they were given an opportunity to do so.[2]

The responsibility of using time wisely was given to the children. Often there was a discussion at the beginning or end of a period to help toward effective use of time throughout the period by each individual child. In the Dalton Plan,

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[1]Carleton Washburne, "The Winnetka System," Progressive Education, I (April, 1924), p. 12.

[2]Ablion Harrall, Let's Go to School (New York: McGraw Hill, 1938), p. 8.

a pupil was not allowed to start a new contract in any one subject until he had finished all the subjects of the contract the month before. This meant that he must plan distribution of his time. Sometimes a heedless child, who followed his impulses, found the first month or two of a free program difficult. Gradually he worked out an arrangement of his time that was coordinated with his mental habits.[1]

Many of the progressive schools eliminated marks, as well as medals and prizes for excellence in school work.

> In the working out of group projects by children there is neither need nor room for any marking system. Here, the children are all working together to achieve something which they themselves deisre to achieve. They are eager to do the very best that is possible, and the stimulus of the group desire is sufficient to carry along those in the group who by temperament and nature would be less careful, less industrious, the type who need something to spur them on. Here, the social approbation of the group provides the necessary stimulus and the evaluation is as in life itself, namely, the quality of the final achievement. This is one of the great values of the group-project method; namely, the quality of the final achievement. This is one of the great values of the group-project method; namely, that it is a replica of life itself. Achievement is carried on from day to day without these extraneous and meaningless marks, yet checked up as to final value by the criticism not only of the group itself, but of the whole school and of the parents and visiting public.
>
> The progressive schools, in general, though they may in some form record for the office and the home the academic work of the children, do not confront the children with marks as a means of incentive, nor do they use the classmeeting as a mark-eliciting performance. Thus, though they may not abolish marks, they abolish the tyranny of marks in so far as the child is concerned.[2]

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[1] Evelyn Dewey, The Dalton Laboratory Plan (New York: E.P. Dutton, 1922), p. 25.

[2] Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 128.

The child's progress was judged by the comparison of his own work and achievements. The pride of fine performance, coming as a natural consequence from work well done, was considered reward and sitmulus enough; just as disappointment and dissatisfaction followed poor work or the failure to accomplish the task to be done. The youngster who fashioned a good play or poem had the reward of being appreciated by his fellows. The same thing applied to the child who helped and cooperated with his comrade.[1]

Recognizing one's own achievement frequently bred pride. At the end of each practice period there was some sort of test to close the period and the test was scored immediately, each child scoring his own paper. As the part of the summary of the units, the children had a part in judging their work. Each activity was evaluated according to its contribution toward the purposes set in the beginning. In this way, the children saw that some activities might have been better developed. This part of the conclusion of the unit was very valuable, for it was through such reflection that relationships were understood and the real meaning and significance of the unit realized.[2] High standards were held before the children, and opportunities were given them to check their performances with the standards for their age. Even with the high standards,

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[1]Adolph E. Meyer, The Development of Education in the Twentieth Century (New York: Prentice-Hall, Inc., 1946), p. 65.

[2]H.L. Coswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 644.

care was taken to make it also possible that satisfaction was yielded, even to the slow child. There was to be some medium for revealing to each child his own self-possibilities. This was true in the academic subjects and also in the esthetics. There was infinite value in the child visioning his own successes and failures in concrete indisputable embodiment. If the child's gains in esthetic self-expression were to be conserved, they had to receive recognition in accordance with their esthetic merits interpressed in relation to the personality of the child. If the product was made the standard or the aim of teaching, the whole of the teaching process was thrown out of joint. A child did not draw to make a masterpiece, or play the piano to entrance an audience. The objective result was only important when interpreted in terms of the personality of the individual child concerned.[1] The child was to be helped to have a healthy amount of honesty about his own purposes and some self-criticism, and to maintain his own standards. The progressive schools were concerned not only with the academic child, the child who must acquire the skills of language and mathematics, the principles of science and the knowledge of history, but with the whole child, which included his attitudes and ideas, his conflicts and inhibitions, his unified and integrated outlook on life and the many little habits and skills of social adaptation.

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[1]A. G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), p. 277.

The mental health of the child was considered related to the instructional procedure. Out of the classroom experience came those feelings of success and security, or failure and inadequacy, which determined the individual's habits of confidence or failure throughout his life.[1] Methods of the classroom instruction were judged at every turn to provide for the building of responsibility and the pride in one's own accomplishment.

Review and drill were considered a natural part of the life activities of most people. They were, therefore, a natural part of the school work of a progressive school. The essential difference between review and drill in the progressive school and in the formal school was that in the progressive school, the pupils felt the need for the review or saw the desirability for the drill before such work was done. However, in the traditional school, review and drill were not felt needed by the pupils, but were merely part of the teacher's assignment. It was shown that the children came to realize the need for drill and that review work was meaningful. Pupils recognized certain values in routine procedures. Some things had to be repeated many times after they were learned. In daily life shoe strings were tied, front doors were unlocked, gears were shifted while driving, and dozens of other familiar acts were performed as a matter of routine.

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[1]California Curriculum Commission, Teacher's Guide to Child Development (Sacramento: California State Department of Education, 1936), p. 11.

They became automatic. In fact, it was considered a tragic waste of time to experiment, study and reason about such matters day after day.[1] The drill periods were devoted to securing or improving a specified skill needed in carrying on the undertakings, or to memorizing some data, the memory of which was found to be essential to what was being done.[2]

The pupil was given the opportunity to diagnose his own work for difficulties. It was felt that he was less likely to take an interest in his work if his work was thrust upon him and he was forced to do it without knowing the reasons. For example, practice books were used and each portion was checked by the child. The evaluations were very complete and were so keyed that the teacher and the child could tell at a glance where the child's difficulty lay. If he was completely successful, he continued. If not, he labored at the weaknesses revealed by the test and then requested a retest.[3]

Not only was the environment significant in that it provided the stimulus to action, but the environment was the medium in which the results of the action were noted. If the child did well, he was aware of the approval of people about

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[1]Samuel Engle Burr, An Introduction to Progressive Education (The Activity Plan) (Cincinnati: C.A. Gregory Co., 1933), p. 61.

[2]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 77.

[3]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 94.

him. If he did ill, he was conscious of their disapproval. If he succeeded, his action brought a change in the environment which was the consummation of his efforts. In some ways, many of the satisfiers and annoyers which accompanied and followed the child were factors or products of the environment. Through control of these factors and products the teacher influenced the learning, which resulted from the child's activity.[1] The effect of the group enhanced self-evaluation. All were challenged to value traits essential to good work in meeting challenging questions. Class valuation of the sucdessful efforts of individuals was one way of promoting interest in developing this ability. A provision for the class to take account of what had been accomplished was necessary if a spirit of group responsiblity was developed or if group standards were raised. In the approval of one's mates, the child found satisfaction in effort, and found criteria for judging the worth of his efforts. If what he did was acceptable to his group, he tended to purpose more worthy enterprises.[2] This consciousness led each child to want to know what he contributed to the group life, and where he failed in this respect.

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[1]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 53.

[2]Ibid., p. 93.

It was felt that any group which attempted to live together--whether the group be a family, a camp, a school, or a religious organization--if it was to succeed, determined definitely the objectives for which it was living. The more clearly its members understood those objectives, the more definitely would a unified effort be put forth. Therefore, much depended upon a genuine setting-up of objectives by the class and the guiding of the activities of the class so that they constituted a continuous process. First-grade children stated what they should do in the course of the year. One class stated the things they wanted to do, and the teacher put these statements on a chart. One item was the fact that they wanted to learn to read. At the close of the year, the parents came to see the results of the year's work. This chart was posted on the wall. By the side of it was one made by the children which read, "we all wanted to learn to read. We all can read."[1] Because the class had set up definite objectives, it was interested in attaining them, and it used its time to this end. Each member was responsible to the group for the way he used his time. If he wasted it, the group attainment was retarded. If he accomplished something worthwhile, the group gained. Each child felt responsible to his mates for doing well because all were concerned in the outcome. The poem written by one child was of concern to

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[1]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 5.

all, perhaps because it was being considered for the class paper, or perhaps just because he was one of them. A worthy group activity offered a variety of things to be done--a variety great enough to give every member a share of its achievement. When an individual undertook a part of the work the class was projecting, he was then responsible for the success of that part of the enterprise. Learning to feel responsibility in group living was no little thing in the category of desirable learning.[1]

[1]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), pp. 91-92.

Part II

There were many classes in which the child checked his own work. He used the teacher's answer book, or a list of standards that were often built by the children themselves. In spelling, a child not only asked himself if he could spell the word correctly, but also "What other words can I write that sound like this word? Can I pronounce the word correctly? Can I arrange the words alphabetically? Can I write the syllables for this word?"[1] In the more subjective areas the standards included questions such as "Is this my own unique product?" and "Did I do my best work?"[2]

It was believed that not only was a close check of pupil progress necessary, knowledge of progress was an effective motivation in skills learning.[3] The child was often asked to keep a record of his own progress and grades.

It was felt that pupil dynamism and self direction affected growth patterns in a positive way. Self direction was in the interest of both pupil and teacher time and if the child checked his own work the teacher was saved from an extra duty. However, time was not the underlying reason for a child checking his own work. When the teachers did the

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[1]Howard E. Blake, "Studying Spelling Independently," Elementary English (January, 1960), p. 102.

[2]Don H. Parker, Schooling for Individual Excellence (New York: Thomas Nelson and Sons, 1963), p. 184.

[3]Donald D. Durrell, "Adapting Instruction to the Learning Needs of Children in the Intermediate Grades: A Summary," Journal of Education, CXLII (December, 1959), p. 5.

checking, they were actually robbing the child of a good half of his learning opportunity. It was important for the child to learn the difference between poor quality and good work. With proper suggestions, the teacher offered a challenge within the reach of each particular student to do a better job. Each child was encouraged to take one step at a time according to his own capabilities. By taking this attitude in the class, the teacher set up a social environment wherein each child in the room was respected as an individual for his or her own sake.[1]

It was felt that pupils had different learning styles and were capable of achieving different levels, and this was programmed into their education. Not every student was expected to be completely self-initiated or to obtain the same goals.[2]

Marks, medals and prizes were not the ultimate goals.

> 'I don't want my kids working for a gold star the way a horse works for a lump of sugar', one teacher told me. 'I want them working for the satisfaction that comes from accomplishing something they set out to do. That's the best reward of all--and no one can give it to you. It comes from within.' (I knew what he meant, incidentally, because I can still recall the thrill I felt the day I finished making my first dress. What a sense of achievement!)[3]

It was believed that the feedback of results of the child's specific performance was essential to achieve a higher

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[1]Joseph D. Hassett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 60.

[2]Walter F. McHugh, "Team Learning in Skill Subjects in Intermediate Grades," Journal of Education, CXLII (December, 1959), pp. 32-34.

[3]Charles E. Silberman, The Open Classroom Reader (New York: Random House, 1973), pp. 56-57.

level of performance. Provisions for short-range, intermediate, and long-range feedback were to be built into the learning materials. Immediate feedback was received by the learner on his specific performance while the experience was still fresh in his mind and before his next attempt at a similar task. Thus, he was able, on the one hand, to continue his profitable behavior and, on the other hand, to redirect his less effective behavior in new ways. Intermediate feedback performed a similar function, operating over a period of perhaps several minutes instead of seconds, as in the case of immediate feedback. A long-range feedback enabled a continual evaluation and reevaluation of overall behavior and performance over a period of days, weeks, months, and years.[1]

> A rat learns to avoid the barpressing behavior that results in its being shocked. Similarly, a child learns that he can avoid the pain of failure by simply not trying anymore.[2]

Diagnostic tests were used by both children and teachers to identify strengths and weaknesses, levels of knowledge, and understandings of concepts. The errors were to be made as informative as possible. Programmed learning gave the learner the ability to determine whether his answer to the previous question was correct or not.

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[1]Don H. Parker, Schooling for Individual Excellence (New York: Thomas Nelson and Sons, 1963), p. 151.

[2]Harold W. Sobel, "The Case for Open Education," Teachers College Record, LXXIV (May, 1973), p. 561.

The sense of security and belonging was all-important in learning successfully. At the close of each work session, teachers were encouraged to have a group evaluation session.

> Are you satisfied with what we accomplished today? Did we meet any problems? How could these have been avoided? What shall we keep in mind for tomorrow?[1]

These and other questions helped to insure the success of group work.

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[1]Dorothy G. Peterson, The Elementary School Teacher (New York: Appleton-Century-Crofts, 1964), p. 386.

CHAPTER FOUR

DECISION MAKING

Part I

Children studied independently, chose their own goals, and worked to the maximum of their capacity. In order to develop fully, they were to encounter situations which would try their powers to the utmost. Without choice and conflict there was no real growth. To have one's head stored with facts was not the goal. The ability to make decisions concerning the facts, use judgement, and develop power to think was far more important.[1] To form habits of analytical thinking was one of the major objectives of elementary education, and practice was to be given in meaningful situations for decision making.[2] With this freedom in his work, the child--not the teacher--became the questioner. The test of study and investigation was not examinations and marks but a questioning attitude. The ability to originate a problem and to formulate

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[1]California Curriculum Commission, Teacher's Guide to Child Development (Sacramento: California State Department of Education, 1936), p. 14.

[2]Ibid., p. 22.

a question was the essence of independent thinking and a very important factor in education.[1]

The idea of decision making was felt important for a democratic government. It was felt that a child did not have an opportunity to develop desirable habits of social usefulness under arbitrary teacher dictation or with high marks as the chief incentive. The exercise of choice was a prime factor in a representative form of democratic government, and training children to make choices should be continually stressed. Each day was to be filled with opportunities involving choice both in academic work and in conduct, just as it was to be filled with work involving interest, effort, initiative, and social responsibility.[2]

Life-likeness was essential and of major importance to the progressive schools. Life-like activities for children in school were those experiences in which the child was assuming responsibility, making decisions, directing activities, and securing pleasures.[3] If a child learned to live his life effectively, he was to sense a need for the particular ability; purpose to acquire it; consider all the factors he found involved; evaluate those factors to see which ones concerned his

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[1]Gudrun and Georg, "Responsibility Through Freedom," Progressive Education, VIII (December, 1931), p. 659.

[2]Flora J. Cooke, "Values of the Social Group Project as a Method of Teaching," Progressive Education, II (July-September, 1925), p. 150.

[3]F.C. Borgeson, "What Makes An Activity Program?" Progressive Education, XIII (January, 1936), p. 51.

ends most; contrive what he was going to do, decide, accept his decision as his way of meeting the situation; act upon it; and accept the responsibility for what he did.[1] Therefore, the lessons learned, in having to plan one's own time, were as necessary to a child's education as the multiplication table or a legible handwriting. Ability to fit a definite job into a definite time, to plan a coming day, and to improve in the ability to organize one's work were large factors in adult success. Like all habits, they could not be established without practice. Emphasis was laid on the necessity for training that developed initiative, organizing ability, resourcefulness and critical judgement. Where pupils were free to organize their own time, these qualities functioned as they did in real life. In the progressive schools, each pupil worked and played as a self-directed, self-disciplined individual, as he did outside of school.[2]

In the Dalton Laboratory Plan, as the child pursued the study of his contracts or assignments, he was free to budget his time in his own way, moving about the school from laboratory to laboratory and staying in each as long as he considered it wise. The work of one contract was normally expected to take four weeks of five days each. Each contract was similarly divided into four parts corresponding roughly to weeks

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[1]Lois Coffey Mossman, The Activity Concept (New York: Macmillan Co., 1938), p. 91.

[2]Evelyn Dewey, The Dalton Laboratory Plan (New York: E. P. Dutton, 1922), pp. 26-27.

and five units corresponding roughly to days.[1] Children worked at will, for a few minutes or an entire morning, going from one laboratory to another without permission. There was no time schedule, no bell to summon the child from one room to another. If he determined to work on his geography one morning he went to the geography laboratory. His work might be reading references, answering questions, drawing maps or other pertinent matter. He carried on his work independently. The time he spent there was determined entirely by his interest-span and his fatigue.[2] School living, Miss Parkhurst held, should take its model from home life. At home a child moved as an individual from room to room without permission and without confusion. He went to get something. It was this extremely simple but valuable fact that was utilized, and which made secure harmony and true social life under the Dalton plan. The pupils had their jobs, they knew what they had to do, they went in and out of the several laboratories, at will, in search of the necessary teacher, book, or materials they needed. The student soon learned to budget his time and to distribute it according to his special needs and difficulties. How a pupil managed his time was important in school and bound to affect his whole life.[3]

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[1]A. G. Melvin, The Techniques of Progressive Teaching (New York: John Day Co., 1932), p. 232.

[2]Evelyn Dewey, The Dalton Laboratory Plan (New York: E.P. Dutton, 1922), p. 14.

[3]Agnes de Lima, Our Enemy the Child (New York: New Republic Inc., 1926), p. 88.

If the child was to exercise the privilege of choice, if this was to be an important factor in his education, the environment in which he was placed should, of course, offer a number of activities from which he might choose. It was more than a collection of seats with four walls around. It was replete with possibilities, so that out of the variety of activities and phases of life which surrounded him, each normal child found something to interest him, or something to which he might respond. The organization of the school, its faculty, buildings and grounds, were such that they gave the child freedom to think for himself, to investigate, to experiment, to question, and even to doubt. Progress, either for the individual or for society, was not possible except with this type of freedom as its impelling force.[1] Pupils were free to move about, choose their own seats, form groups, talk, use apparatus and materials, do anything they deemed necessary for the best completion of their assignments, as long as it did not interfere with the others working in the room.[2] Freedom from constraint, however, did not mean that the pupils ran wild. They held to their self-chosen tasks with concentration and absorption.[3] Children were expected to learn to clean up whatever mess they had made when their work was over, and to put

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[1]Gudrun and Georg, "Responsibility Through Freedom," Progressive Education, VIII (December, 1931), p. 657.

[2]Evelyn Dewey, The Dalton Laboratory Plan (New York: E. P. Dutton, 1922), p. 41.

[3]Agnes de Lima, Our Enemy the Child (New YOrk: New Republic, Inc., 1926), p. 149.

their unfinished work in lockers or cupboards where they would find and recognize it, and to put materials in their proper places. It was essential that children learned to look after these matters.[1] The classroom of the progressive school appeared to be one in which children were able to live normally. Children expressed their own individuality in the arrangement of their classrooms. They did so by expressing their own needs and ideas of beauty. It was not unusual to find them painting furniture, making curtains and decorative hangings, or building tool chests or library furniture as each need arose. Children were found making attempts to fit classroom equipment to the varied program which normal living in a room demanded.[2] The teachers were careful not to make too many decisions concerning ways of changing the room. Instead, each teacher was to lead the learners to face the room situation and make plans to deal with it. One teacher, who believed that children should participate in preparing the room for the life that was to go on there, had the boxes of books and supplies brought into the room and left packed, ready for the opening day. The seats and working surfaces were there, but not arranged for use. She used the first day in having the children face the situation, consider its demands, limitations, and possibilities, discuss ways of

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[1] A.G. Melvin, The Techniques of Progressive Teaching (New York: John Day Co., 1932), p. 268.

[2] H.L. Coswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 268.

arranging the room, unpack the books and supplies, and make tentative arrangements for beginning.[1]

In the list of essentials for decision making was enlightened teacher-guidance as distinguished from "telling." In the progresssive schools the content and succession of activities emerged under teacher-guidance from the developing experience process itself; in the degree that suggestions came from pupils, the teacher was successful.[2] The teacher was to arouse pupils to the point where they were actually assuming responsibilities, making decision, directing activities, and withal, securing pleasures in genuine life-giving experiences in school and out. The teacher, at any given time, was aware of what each child was doing, but she did not attempt to control or administer it in detail. When the child assumed any unit of conduct, the teacher handed over to the child as much of the full responsibility as he was able to bear. Although the teacher, at times, seemed to appear overbusy, she was not bearing the whole burden of all the activities in progress. Each unit had a self-supporting center in the personality of the child who was carrying it on. Part of the burden of the activity was being carried by the child. The result was that diverse activities went on smoothly and regularly with a minimum of supervision on the part of the teacher. By careful

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[1]Lois Coffey Mossman, The Activity Concept (New York: Macmillan Co., 1938), pp. 8-9.

[2]F.C. Borgeson, "What Makes an 'Activity' Program?" Progressive Education, XIII (January, 1936), p. 50.

planning and by keeping accurate mental and written records, the teacher coordinated the most varied activities.[1] If the responsibility for learning was not put confidently and wholeheartedly on the children, the teacher not only lost many of the pedagogic advantages of the plan; she took on herself an almost intolerable burden of detailed supervision and note-taking.[2] The children took the initiative in many valuable activities that went on in the classroom. Children purposed, planned, collected, organized, similated, reported, reproduced, created, and carried on activities that were natural and valuable for them. The teacher was there to set the stage, to stimulate curiosity, to build background, and to suggest and to guide. She was well informed and familiar with all available material. She was conscious of the needs of the group. She knew at all times where she was going and why she was going that way.[3] While the teacher was not employed to dictate a program to the pupils, neither was she to be led on will-of-the-wisp trails toward educational mirages by immature interests and imaginations. Wise leadership guided the children in setting up worthy objectives, in making a workable, practicable program, and in entering upon a series of activities

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[1]A. G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), p. 242.

[2]Evelyn Dewey, The Dalton Laboratory Plan (New York: E.P. Dutton, 1922), p. 33.

[3]California Curriculum Commission, Teachers' Guide to Child Development (Sacramento: California State Department of Education, 1936), p. 30.

that attained the desired objectives.[1] In Our Enemy the Child one teacher described her role in the following way. The children had just come together in the morning. They entered the room naturally and easily. One child ran up to inspect the fish and supervise their breakfast. Another lovingly lingered over his loom and the small rug in process of weaving. A half dozen, with no suggestion from the teacher, began to arrange chairs in a semicircle. The children talked as they came together. Five minutes, ten minutes passed. The teacher appeared quite unperturbed. Although she could have called the class to order and saved these passing minutes, she realized that a child's tempo is different from an adult's and speeding up was a violation of the principle of growth.[2] Another teacher explained that he was there as a convenience, and only occasionally as a necessity. The materials and apparatus were within easy reach of the children. They used them as they pleased. They felt their way about, got acquainted gradually with Bunsen burners, test tubes, and other science equipment. A boy began, in the spirit of play, to heat glass tubing and found that it readily turned into various shapes. He went from that to trying to make thermometers, or as did one boy, to etching glass, a process that required weeks of research.

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[1]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 28.

[2]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 37.

In his class journal, the boy published an account of his experiment, which he had carried on from beginning to end with no help whatever from his teacher.[1] To summarize the role of the teacher in regard to decision making, a summary from the literature was helpful.

1. She repeatedly put responsibility for decisions squarely on the children unless her judgement told her that the teacher's decision was necessary in order to settle a difficulty.

2. She helped the children formulate rules for their guidance when it became apparent that rules were necessary for effective group action.

3. She encouraged children to set up their own standards of evaluation.

4. She developed leadership in children who showed that they had possibilities in this direction.

5. She made the children accept responsibility for completing jobs promptly and successfully.

6. She encouraged the children to provide for each other's needs.

7. She held each child responsible for his individual action and let punishment (in the best sense of the word) follow promptly upon neglect of duty.

8. Children were asked to be lenient with members of the group who were socially undeveloped and proved trials to the room as a whole.[2]

By putting the responsibility before the child through desire for expression, through interest in the acquisition of knowledge, through the zeal for some project self-chosen, the

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[1]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), pp. 206-207.

[2]Robert Hill Lane, The Progressive Elementary School (Boston: Houghton Mifflin Co., 1938), p. 153.

child was helped to realize the need for techniques that could be acquired only by drill. He then undertook the necessary drills in such a way as to attain success much better than if the drills were put upon him arbitrarily or apparently arbitrarily by a teacher or by a school system.[1] This purpose for learning the skill arose out of the satisfactions in previous successful achievements. Again, much depended upon a genuine setting-up of objectives by the class, and a seeking to guide the activities of the class so that they constituted a continuous process. At times, it was well to stop and summarize what had been accomplished. This served to show what was yet to be done. Sometimes a class worked more expeditiously if someone recorded on the blackboard, in brief form, each step as it was made. Good organization involved making a plan of action at the beginning of the work, and checking the plan from time to time to reveal progress and to determine the next steps. There was to be an integration of the many things that the children did so that the whole was unified. All things attempted, played into the common plan to live fully. Each activity, instead of being an isolated thing, was a part of the larger program, and its connection with previous and succeeding activities was traceable. Where such integration was found, there were drill periods devoted to securing or improving a specific skill needed in carrying on the undertakings. Data was memorized when the memory of

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[1]Standwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 176.

such was found to be essential to what was being done.[1]

If drill included purpose and contriving of the learner, then there was a basis for intelligent learning. Spelling words to be learned became the words that the learner needed in what he was doing and had difficulty in spelling. This need for the words, as recognized by him, and coupled with pride in carrying what he was doing through successfully, gave him the purpose to learn them. In considering the situation, he tried to find out just which words he must study. Then he decided how he would study them; tried to visualize each word as a whole, saw that he pronounced it correctly and found the parts and words which were familiar. He then tested himself to see if he was succeeding in his effort to spell each word. Having thus assured himself that he could spell each word, he joined the others in the group to be tested by the teacher or other designated persons. He scored his own test immediately to see which words he had right. He entered his test score in the chart in his notebook by the side of previous test scores, so that he could note his success as compared with previous test successes after studying words. He entered in another part of his notebook, with the date, the words which he failed to master. Note that such purposeful study really reduced the size of the spelling task. Or, in arithmetic drill, as a learner mastered individual number facts, he came

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[1]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 76.

in time to ask how many more such there were and, if he was getting a wholesome, healthy attitude toward achieving in his enterprises, he readily proposed to master all of them. So he undertook learning all the "7's" after having met some of them and having seen them useful. These number facts differed from spelling facts in that they tended more truly to fall into groups of facts which had a relationship to each other, and these relationships might be used as an aid in learning the facts.[1]

If the conditions were such that there was divided attention, wrong learning resulted. The distracting conditions were corrected or practice was discontinued. Divided attention made for reduced effort, and this did not produce the desired results. Diminished attention usually led to errors.[2]

With freedom for responsibility in the school, the child's nature also underwent a profound change. Instead of working for marks and percentages, for examinations and promotions, for rewards--artificial goals set up by adults--or from fear of punishment, he worked for love of the work itself, to accomplish something which had value in itself, something of which he understood the purpose. This motive lifted all his school activities to a higher moral level, made them creative and strongly individualized. Freedom in the child's work determined the

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[1]Lois Coffey Mossman, The Activity Concept (New York: Macmillan Co., 1938), pp. 78-81.

[2]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929, p. 78.

quality and intensity of interest, and interest was the compelling force in attainment. If the child worked for marks and promotion, to stand high in his class, if that was his motive, his main interest in his work and studies was concerned with their value as means of attaining this end, and not with their value as intellectual and social tools. He would exert himself to the extent of accomplishing this purpose, and his mental output would be proportionate, no more--no less. Whatever would help him in this endeavor, legitimate or otherwise, would be employed, everything else rigidly excluded. An interest in the subject itself, as desire to explore its infinite possibilities, however valuable as an intellectual pursuit, was an obstruction, a waste of time in his purpose of "getting" his lessons in the shortest possible time and with the least expenditure of effort.[1]

The slavish dependence upon the textbook was thought destructive to the moral and intellectual integrity of the child. The usual textbook supplied the facts and the inferences based on the facts. It asked the questions and furnished the answers. It molded the mind into a pattern, alike for all the children, with no chance for independent thinking, investigation, or questioning. The only mental effort called for on the part of the child was memorizing and imitation. Instead, making decisions was to be inherent in the quality of the

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[1]Gudrun and George Thorne-Thomsen, "Responsibility Through Freedom," Progressive Education, XIII (December, 1931), pp. 657-658.

child's work and proportionate to it. The two were to be inseparable and related as cause to effect. Therefore, if his work had moral content and purpose, the effect upon the child would be moral. Decision making could not be pasted on something. It was the spirit which pervaded the work or the motive which actuated it, which determined its value. If the work in school served its legitimate function as intellectual and social tools, and if the child understood his function, then there was no need for detached lessons on how to make decisions.[1]

Each child was to develop his own way of working and arranging his material, the one best suited to his habits and ability in order to meet the requirements of his own work.[2] Whether a child was allowed to choose his own subjects to study was not consistent in the literature. At times he was. Henry Paley reported that he allowed each child to work on whatever was of interest to him in his science class.

> I never set out to teach. I try to follow the interest of a child to a point where at first hand experience with science material leads the child to obvious truths. My approach is to encourage him to see what is happening. The 'why' of a phenomenon usually comes as a discovery on the part of the child. I thoroughly disagree with our educational philosophers who maintain, in spite of so much data to the contrary, it is the absence of intellectual interests in young children that may render teaching futile and ineffectual, and it is therefore necessary to discover some plan of education that will

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[1]Gudrun and Georg Thorne-Thomsen, "Responsibility Through Freedom," Progressive Education, VIII (December, 1931), pp. 657-658.

[2]Helen Parkhurst, "The Dalton Laboratory Plan," Progressive Education, I (April, 1924), p. 15.

> be suitable to various levels of child development.' I have found that the science interests of children are so rich in content that no single book has yet been written that is comprehensive enough to deal with this broad scope of things scientific. We have been misled by such philosophy!"[1]

Caswell and Cambell were in agreement with Paley.

> The curriculum worker can take the preliminary step in selecting subject matter. He can canvas available subject matter for educational ventures in certain areas as defined by the subject of the curriculum. He can see that the most valuable and worthwhile materials, in terms of past experience, are included in the suggestive list. He can see that the list is carefully selected terms of the area to be dealt with. He can see that it is reasonably inclusive. He can suggest possible relationships to the purposes and outline the logical relationships that probably will not be involved. But this is as far as he can go. He can not make the actual selection for the child any more than the would-be explorer can determine previous to the exploration just what will be used.[2]

> What is needed...is that as individual interests are encouraged they should lead on to the point where the student finds in organized knowledge those materials that make it increasingly possible for him to move about independently. Under these prior conditions subjects would be studied properly, namely, in a way to bring the individual, already deeply interested in the field, to make such an organization of knowledge therein as would lead him to live ever more intelligently...Subjects should be available as instruments for which particular students have use as they follow interests whose warmth urges them to such action. Subjects should not be required as vehicles in which all must ride regardless of where they desire to go. The school has discovered that it is futile to present the same organization of knowledge to all students, even within limited divisions of that knowledge; it needs now to permit the student to discover the exhilaration that follows upon the realization that one finds building up an organization of knowledge which widens understanding and makes increasingly possible the intelligent control of social forces. Indeed, if some are so disposed, the school ought to encourage them to seek the joys that may be theirs as they organize knowledge for the

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[1]Henry Paley, "An Approach to Creative Science," Progressive Education, XII (May, 1935), pp. 333-334.

[2]H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), pp. 288-289.

fun of organizing it.[1]

Examples of the opposite feeling comes from Flora J. Cooke and Carleton W. Washburne.

> We can not, however, yet go to the lengths of those radical leaders in education of today, who would give the child the choice of subject matter and activity throughout the day. It seems to us that a child has neither the wisdom nor the experience which will enable him to satisfy his intellectual hunger and supply his mental necessities any more than he has the ability to select wholesome food and a balanced ration with which to nourish properly his body.[2]

> It is conceivable, and is held by some educators, that a program of activities could be organized exclusively around the interests and activities of children and that through these the children would have occasion to feel the need of all the knowledges and skills which we are attempting to teach as preparation for adult life. If such a program is possible, we in Winnetka shall be most happy to make use of it, letting the individual work grow out of felt needs. Up to the present, however, our reasoning has told us that it is extremely unlikely that a program built on truly child-like activities would involve all the things which are going to be needed by adults...[3]

Even if the children were not allowed to choose particular subjects to study, there was a chance within the assigned subjects to make decisions. The creative areas were abundant in chances for decision making. Samples from the literature included a group making a map and deciding on the color of

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[1]H.L. Coswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 586.

[2]Flora J. Cooke, "Values of a Social Group Project As A Method of Teaching," Progressive Education, II (July-September, 1925), p. 150.

[3]Carleton W. Washburn, "Social & Individual Work in Winnetka,", Progressive Education, II (July-September, 1925), p. 148.

water or land,[1] choosing details to include in a play, solving problems dealing with the building of a viking feast hall,[2] and deciding who was to be the carpenters, painters, decorators, and cabinet-makers in the building of a club house.[3] It was also pointed out that in disposing of the products produced by the children that disposal should not be made without the consent of the pupil concerned, and if the product was exhibited, it was returned to the person who made it.[4]

The research method of teaching provided for decision making, and an opportunity for a wide range of interest, ability, and effort on the part of individual children in finding material to enrich the group project. The research project permitted and encouraged the expression of individuality. The ability to discriminate in accepting data was developed. The child learned to judge the source of information both from newspapers and books. He learned, to a degree, to consider relative worth, in terms of the one making the statements. Government documents were distinguished from advertising material. Variations in

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[1]Laura B. Clements, "An Adventure in Map Making," Progressive Education, V (October-December, 1928), p. 401.

[2]Helen Ericson, "Creative Expression in the Sunset Hill School," Progressive Education, I (July-September, 1924), pp. 84-85.

[3]Margaret E. Wells, "Brookside School," Progressive Education, III (January-March, 1926), p. 62.

[4]A.G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), p. 268.

statements about a town as given by real estate men or the local chamber of commerce, and by government surveys were recognized. Work, in which differences in data were noted, did something to build a tendency to weigh statements and taught children to be discriminating readers.[1] It was not expected that all children active uniform results. Different individuals chose and assimilated different materials from the field of knowledge.[2] Research methods demanded and inspired initiative, clear understanding, judgment, interpretation, evaluation and powers of organization. For example, children were asked to read different texts relating to the same subject and saw wherein and why they differed. The children were forced to think for themselves when they found authorities disagreeing. It led the children to investigate and to get to the bottom of things.[3] The problems that the children were given for consideration were evaluated carefully. They were genuine to the members of the class. The teacher kept the problem clearly in the minds of the children. The extent to which the problem was bedded in experiences with concrete, tangible materials affected its clarity. In gathering and using data needed for the solution, the teacher

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[1]Lois Coffey Mossman, The Activity Concept (New York: Macmillan Co., 1938), pp. 86-87.

[2]Stanwood Cobb, New Horizons for the Child (Washington, D.C.: Avalon Press, 1934), p. 96.

[3]Stanwood Cobb, Ibid., pp. 150-151.

helped the children foster an attitude which demanded pertinency and accuracy of statement and verification of data. Time was given for the class to gather adequate data. Above all, the teachers' efforts were devoted to teaching the children how to arrive at conclusions of their own.[1]

In spelling, there was a set list of words to be learned in a given school year. The learners assisted in apportioning the words to be learned each semester or month. In one school each week a committee went through the list for the month or semester and selected words particularly related to the work they would be doing in the coming week.[2] In another school, the children made up games to motivate the learning of the words, such as the game Football Spelling. Words of five letters spelled correctly permitted the player to advance five steps toward the goal.[3]

Science, taught in a creative way, helped develop a critical interpretation of the child's relationship to his environment. Science laboratories were kept simple in makeup. Their contents were of such a nature that children readily handled the apparatus without fear of injury to themselves or to the apparatus. The contents ranged from materials used in the physical sciences to those used in the natural sciences.

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[1]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), pp. 80-85.

[2]Lois Coffey Mossman, The Activity Concept (New York: Macmillan Co., 1938), p. 79.

[3]Faye Henley, "The Orchard School," Progressive Education, II (January-March, 1925), p. 48.

The scope of inquiry was wide. One child might have wanted to make candles. Another might have wanted to examine, under the microscope, some aquarium life or the circulation of blood in a frog through the webbing of its foot. Another might have wanted to distill some sea water or another might have been in the process of building an electric derrick. All this occurred simulataneously. The materials had to be of such a nature as to allow for the manipulation of the eager, though inexperienced, explorer.[1]

Social studies also reinforced decision making. The pupils were not only permitted but actually encouraged to hold opinions different from those of the teacher. Vital problems were stressed more than the chronological treatment of facts. Social studies was viewed as a path to develop the kind of citizen who was aware of social problems, who felt a responsibility for their solution, and who had a habit of working cooperatively, tolerantly, open-mindedly, and intelligently toward their solution.[2]

An adequate program of work provided free time in which children were allowed to follow their individual interests. Such provisions were based on individual choice and interest. It was free from any hampering influence of the school regimen of marks and tests. Through this phase of the instructional

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[1]Henry Paley, "An Approach to Creative Science," Progressive Education, XII (May, 1935), p. 334.

[2]Margaret Willis, "The Real Task of Social Studies: Some Implications," Progressive Education, XIII (April, 1936),p.282.

program, the child had an opportunity to strengthen his individual interests and aptitudes, to engage in activities that provided for wise use of leisure time, and, in many cases, to lay a basis for later choice of a vocation.[1] This was often a period in the classroom when individuals were doing many varied things. It was really a period of unassigned time--a period set aside to give everyone time for extending his interests and responsibilities. Children were given great freedom of choice. The amount, of course, varied with different schools and different teachers. Merely to be busy at something at this time was not sufficient. Busy work could find no justification in a serious class program planned toward definite objectives. Each child was to look upon this time as a valued period, because then he could carry his own efforts farther toward realization. The children did not ask what to do at this time, nor were the teachers telling children to do something. The source of these undertakings was in the living situation prevailing in the class.[2] This was not a time to encourage the whims of children, rather a time for intelligent decision-making. The learner was not withheld from making choices, but rather helped to practice choosing even more thoughtfully, with increasing awareness of social and

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[1]H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), p. 592.

[2]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), pp. 90-91.

other pressures and outcomes.[1] With the help of teachers, and especially from his own experience, made up of successes and failures, the child learned how best to use that free time in order to get the best result from his effort. He became in a small way an efficiency engineer. He was the master, not the servant acquiring the habit also of seeing the part always in its relationship to the whole.[2]

A system of group government was used in many of the progressive schools, and provided a vehicle for the children to make real decisions. First the children were led to recognize the need for government. The children were dimly conscious of the nature of group life. As they lived and worked together, however, circumstances occurred which revealed to even the youngest children the necessity for some sort of regulative control. This sometimes became clear to the younger children when they felt irked by the unsocial action of one of their number, who might be quarrelsome, pugnacious, or thoughtless of others. The teacher did not expect children to know the answer to such social problems. Instead she seized on the first evidences of discomfort and dissatisfaction and held a discussion with the children, taking up the question of what must be done, and revealing to them, in their own simple terms, the need for some form of

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[1]F.C. Borgeson, "What Makes An Activity Plan," Progressive Education, XIII (January, 1936), p. 51.

[2]Lucy L. Wilson, "The Dalton Plan," Progressive Education, II (July-September, 1925), p. 158.

government. After the need for some general regulative scheme was clear to the children, the question of how it was to be worked out had to be taken up with them. Special time was set aside for the matter when it arose. In this time the children, with the teacher's assistance, worked out some plan which seemed to be feasible. With the young children in the earliest grades the plan was a very simple one. Teachers were careful not to introduce into the discussion adult notions of government based on a state of affairs which did not exist in a group of the children. It was realized that such a self-regulative form of behaviors was not worked out or maintained without an adequate provision of time in which to deal with the issues. Whenever it was needed, the time was set apart. On such occasions the children brought up matters which had been causing trouble.[1] The literature included many examples.

> Perhaps one child might suggest that there had been 'too many interruptions when we are at the bench.' Or another might object that at certain times there was 'Too much talking out loud.' Or the teacher might report that there had been a message from the principal concerning conduct in the corridors, or walking on the lawns, or fire drill, or some such matter of school interest. Whatever problem arose, it was discussed and solved by the children in such a way that they realized and accepted their responsibility for their own conduct and that of others of the group in respect to the matter being dealt with.[2]

> At one private school no action had been taken on an upcoming holiday. Two faculty members taking it for

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[1] A. G. Melvin, The Techniques of Progressive Teaching (New York: John Day Co., 1932), pp. 252-253.

[2] Ibid., pp. 253-254.

> granted that there would be a holiday left for the city Wednesday noon. At dinner that day, the child who was chairman of the community meeting asked if they were going to have a holiday. It was stated that was thought so, but no definite action had been taken. It was decided to discuss this question that afternoon at the regular community meeting and, to the surprise of the faculty, the children voted to do their regular work the next day.[1]

> There were groups to discuss and act on committees pertaining to school safety, playground, building exhibits, monthly newspaper, assemblies, library, athletic competitions, and student councils.[2]

In the progressive schools, a system of self-government or partial self-government was also of great value in establishing an atmosphere of harmony. The children were generally willing to forego private revenge if they knew they could have ready recourse to organize justice. It was felt that it was much better for the children to bring up points of dispute, discuss them and adjudicate them than for the teachers to handle these things. A child was much more impressed by the criticism of his equals than he was by the criticism of adults. By discussing the social behavior of each other, by weighing and judging such acts and dispensing punishment if necessary, the children tended to form an attitude of respect of law and respect of the rights of others. The following is an account of a justice court reported observed in one room.

> Those who have not been good citizens during the day are given 'tickets' by the 'policemen.' Offenders

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[1]Stanwood Cobb, "The Delegates' Conference," Progressive Education, II (July-September, 1925), p. 174.

[2]Mina Frances Silverman, "Guidance and Child Initiative," Progressive Education, XVI (April, 1939), p. 258.

> are given an opportunity to plead. If guilty, they are sentenced immediately by the 'judge.' Those who plead 'not guilty' may give testimony and listen to accusations made by the 'policemen' or other members of the group. After all evidence is in, the offender is sent from the room while the members of the class vote on his guilt. These boys and girls are usually fair in their decisions. When the penalties appear to be too harsh, or an offender is about to be freed because certain evidence has been overlooked, then and only then does the teacher interfere.[1]

This sense of justice became ingrained in their being, because they were not hearing it preached to them, but were actually practicing it in the working out of their own self-governing institutions.[2]

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[1]Stanwood Cobb, New Horizons for the Child (Washington, D.C.: Avalon Press, 1934), p. 258.

[2]Ablion Horrall, Let's Go to School (New York: McGraw Hill, 1938), p.8.

Part II

The atmosphere was to be one of freedom in which students were curious and adventuresome human beings.[1] Children were thought to be natural investigators who were interested in all aspects of their environment. They possessed both the desire to solve problems and the ability to plan and carry out the activities necessary for the solution of problems.[2] Self-direction was stressed, viewing pupils as unique individuals who from time to time had common likenesses and needs, and who yearned to exercise autonomy, to feel competent, and to achieve mastery.

It was felt that to understand the scheme of our social structure, the child must have practice in decision making, developing a sense of responsibility, understanding one's own role in a community of peers, appreciating individuals and their differences, and building favorable self-concepts.[3]

There was evidence that at some schools the children were free to organize their entire day. The Classrooms of Miss Ellen Frankfort Confessions of a Private School Teacher gave not only some interesting accounts based on this type of scheduling, but also accounts of the children running departments

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[1]Frank A. Dagne and Donald W. Barnickle, "Two Schools That Are Nongraded: How...What...Why," Instructor, LXXVIII (March, 1969), p. 64.

[2]Robert Homes Beck, The Three R's Plus (Minnesota: University of Minnesota Press, 1956), p. 187.

[3]Frank A. Dagne and Donald W. Barnickle, Ibid., p. 69.

within the school (for example, a printshop and post office.)[1]

In the schools, the materials available were an important avenue for making decisions. The selection of these materials was of vital importance. They were the turn-on agent and the bridge from teacher to child. The exploration of the materials led to the development of learning experiences.

The materials that were selected were important, but more important was an accepting attitude on the part of the teacher. Some children moved directly to activities when given choices. Others, sometimes with a friend in tow, shopped around before settling down to one thing. The teachers accepted both situations easily.

This acceptance did not mean turning over to students all responsibility for their own learning. That would have been an abdication of professional responsibility. While it was highly desirable for a student to assume an increasing amount of responsibility for his learning, the rate of take-over was individualized. The decisions concerning learning a student was allowed to make were commensurate with his ability and experience. The teacher provided for the growth of each student toward maturity in making decisions. The teacher did not merely hope the student would take over, nor did she expect the

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[1]Ellen Frankfort, The Classroom of Miss Ellen Frankfort Confessions of a Private School Teacher (New Jersey: Prentice Hall, Inc., 1970), p. 209.

same degree of initiative and independence of all students.[1] The teacher confronted the situation long before the children became involved. She helped each child set the pace for his progress. If the students were working in groups, the teacher guided and supervised the daily progress of each group. A few minutes visit with each group, sitting down and talking over problems or goals was most important to the success of group enterprises with young children.[2] The teacher guided not only in learning how to learn and in learning necessary skills, but also in learning helpful social behavior. She set an environment that not only permitted, but positively encouraged the child to associate with and develop good relationships with the other children. She let the children know clearly what their social roles were. Simple explanations, discussions, talking things over, private corrections of individuals, all were a part of the classroom procedures. Thoughtfulness towards others, cooperative action, sharing, regard for others' privacy, respect for one another's opinions, acceptance of one another's ethnic background--these were things children learned.[3] The following were cautions to the teachers in beginning to allow children to make decisions.

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[1]Dorothy G. Peterson, The Elementary School Teacher (New York: Appleton-Century-Crofts, 1964), p. 386.

[2]Joseph D. Hossett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 103.

[3]Ibid.

1. Trust these children. Be confident that they can be interested in something.
2. Be open from the start to what interests them.
3. Accept their interests, even if at this stage their interests are not connected with the curriculum.
4. Set down a few clear directives of what will and will not be tolerated in class. Explain the reasons for these directives and discuss them with the youngsters to win their understanding and cooperation in meeting the directives. This makes their role clear in the classroom.
5. Be patient. Don't expect miracles. Build slowly on interests. Spend all the time necessary on basic skills.
6. Make sure that they have success in their initial undertakings. They have had too many experiences of failure. Their self-imate is negative, and it has to be changed slowly into a positive self-image.
7. Lead the individual pupils gradually to more challenging educational experiences.
8. Don't panic about the curriculum...You can work on the curriculum when they have developed adequate interest and motivation.[1]

Intrinsic motivation was stressed again and again. The child's full involvement in the task helped to assure that there was an immediate or a potential interest for him. It gave him a sense of personal commitment for the success of the undertaking. When a child had a genuine voice in choosing what he would do, he was likely to feel a personal responsibility for achieving the objectives. It was felt that the ultimate might be realized when each child was intrinsically motivated to work to his full capacity and was faced with problem-solving situations at his level of competence and capacity.[2]

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[1]Joseph D. Hossett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 102.

[2]David W. Beggs and Edward G. Buffie, Nongraded Schools in Action (Indiana: Indiana University Press, 1967), p. 34.

The creative areas were of great value in providing decision making practice. For instance, in developing a dramatic production, to get where they wished to go, the group solved a number of problems they had in common. In the process, each child was able to communicate his ideas and wishes to his peers; he was able to listen to his peers and take such direction as was offered. In short, he gave and took incrementally, so that the group together made something that wasn't there before. Verbal skill, a sense of logical relationships, a sense of form, and the ability to think in terms of the group were some of the results of this kind of activity.[1]

The science curriculums provided many opportunities for decision making. Would mold grow in a lighted room--in a dark room? Did heat make a difference?[2] These and like experiments provided opportunities.

Problems in group living gave opportunities for group government. The children worked on problems like hanging up coats in the morning,[3] developing techniques for communicating while keeping the noise level down,[4] receiving an unfair ruling

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[1]Henry Beechhold, The Creative Classroom (New York: Charles Scribner's Sons, 1971), p. 154.

[2]Joseph Turner, Making New Schools (New York: D. McKay Co., 1971), p. 123.

[3]Herbert Kohl, The Open Classroom (New York: New York Review Book, 1969), p. 30.

[4]Joseph D. Hossett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 32.

in a ball game, being teased or hit, finding the assignment too difficult, and many other problems related to attitude. Teachers led the learners to suggest many different ways to deal with the problems.[1] They avoided letting children vote before they had thoroughly considered all of the possibilities and also avoided going through the motions of permitting children to make a free choice, about which the option had already been decided. The first of these practices indicated a gross misunderstanding as to the educational value of learning to make sound decisions. The second practice was one of sheer dishonesty and, moreover, was insulting to the intelligence of the children.[2]

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[1]Julia E. Carlo and Constant A. Madon (Eds.), Innovations in Education for the Seventies: Selected Readings (New York: Behavior Publications, 1973), pp. 184-185.

[2]William C. Nutting, Designing Classroom Spontaneity; Case Action Learning (New Jersey: Prentice Hall, 1973), p. 108.

CHAPTER FIVE

INTERACTION

Part I

> On entering a classroom, one is greeting not by a dead silence--so ominously significant--but by the low hum of busy, interesting activity. The children work together in pairs or in small groups, the teacher passes unobtrusively from one to another with suggestions or answers to questions. Talking and moving about, according to need, is a matter of course. Only occasionally does hum grow into hubbub, and a reminder of the rights of others becomes necessary. Books lie opon on the desks, references are consulted, pencils sharpened, all with the natural freedom of those working together with common interests.[1]

Progressive education had as its aim the ultimate adjustment of education to individual differences. This did not involve a return to primitive methods nor to conditions where a teacher was provided for every pupil. Participants in the movement were concerned with the individualization of instruction in situations which were typical of the present day schools. Further, individualization fully understood, was in no way opposed to socialization. It referred primarily to procedures designed to adjust school work to individual needs, not to the

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[1]Stanwood Cobb, "The Delegated Conference," Progressive Education, II (July-September, 1925), p. 175.

development of individualistic and selfish ideals. Socialization and individualization, therefore, were viewed as complimentary aspects of a single unified process.[1] John Dewey said that he believed that the individual who was to be educated was a social individual and the society was an organic union of individuals. If the social factor was eliminated, only an inert and lifeless mass was left. The school was simply that form of community life in which all agencies were concentrated, and was most effective in bringing the child to share in the inherited resources of the race, and to use his own powers for social ends. Education, therefore, was a process of living and not a preparation for future living. The school represented present life--life as real and vital to the child as that which he carried on in the home, in the neighborhood, or on the playground. The teacher was engaged not simply in the training of individuals but in the formation of the proper social life. The teacher realized the dignity of her calling; that she was a social servant set apart for the maintenance of proper social order and the securing of the right social growth.[2] The plan of the progressive schools set up a socialized community which paralleled the life of a real community where real conditions for work prevailed. Children dealt with each other; they shared

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[1]Wendell Vreeland, "Individual Instruction," Progressive Education, VIII (April, 1931), p. 328.

[2]Flora J. Cooke, "Values of the Social Group Project as a Method Teaching," Progressive Education, II (July-September, 1925), pp. 154-155.

experiences and communicated them to others. The outstanding purpose was to help the children to evolve a world of their own in which they would think, act, and express themselves on their own level.[1] School work was done in such a way and under such conditions that groups and individuals were brought into constant interaction. The children learned how to fit their interests and abilities in with those of others, to cooperate with and to participate in the activities of the group. It was believed that mutual aid was of as great an importance as individual struggle in the evolution of all life.[2]

A real progressive school was a living example of democratic, cooperative planning. All had a voice in the development of policies. All cooperated to make policies successful. After a fair trial period, all had the right to present criticisms and to make constructive suggestions for the revisions of policies in light of experience. Practical democracy, growing out of consciously shared experiencing in real life situations, was a basic tenet.[3] A group of children came together with the teacher in the classroom and discussed various problems or topics. One or two of these were chosen as themes for units of work.

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[1]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 149.

[2]Flora J. Cooke, "Values of the Social Group Project as a Method Teaching," Progressive Education, II (July-September, 1925), p. 149.

[3]Samuel Engle Burr, An Introduction to Progressive Education (The Activity Plan) (Cincinnati: C.A. Gregory Co., 1933), p. 64.

Then the children, as individuals and as committees, went to work. From time to time, they compared notes, they shared their findings, they helped one another, they revised their plans, and they then worked some more. A lavish assortment of other social activities was encountered in the literature: open forums, plays, self-government meetings, school journals, excursions, shopwork, music, art.

The opening period of the mornings provided time for friendly greetings and interchange of ideas between members of the group in a natural way. The traffic squad gave its members ample opportunity to develop responsibility and dependability. The school paper was an integrating influence, for it was another medium of informing the various groups as to what was being done in other parts of the school. The musical organizations afforded additional means for boys and girls of various groups and ages, but with common interests, to come together, and provided pleasure for themselves and enjoyment for others. Other situations that provided opportunities for interaction were as diverse as arranging desks or tables, managing the luncheon hour, running a stationery store, organizing a circus, raising poultry, holding of a radio party, joining book clubs, carrying on a business in rabbits, playing outdoors, keeping the playgrounds in order, beautifying the classrooms, and even making grape jelly.

In the book The Activity Concept by Lois Coffey Mossman the processes a learner engaged in in the course of his living and interacting were classified into ten categories.

1. ADVENTURING
   Adventuring, exploring, trying, finding out, experimenting, investigating, searching, reaching, inquiring, extending, contemplating, collecting, examining, questioning, proving, asking, studying
2. CREATING
   Creating, contriving, devising, proposing, constructing, imagining, planning, organizing, thinking, initiating
3. COOPERATING WITH OTHERS
   Cooperating, pooling, suggesting, helping, contributing, outgiving, discussing, refuting, talking, reporting, proposing, sharing, participating, communicating
4. JUDGING VALUES
   Judging, evaluating, deciding, considering, concluding, forming an opinion, summarizing, formulating
5. CONSUMING
   Consuming, enjoying, receiving, accepting, intaking, being affected, depending upon, listening
6. RECREATING
   Recreating, resting, renewing, playing, singing, dancing, relaxing
7. Recording, drawing, writing, expressing, painting, sculpturing
8. PRACTICING
   Repeating, reciting, practicing, drilling
9. OBEYING
   Obeying, accepting, following, conforming, submitting
10. Dictating, controlling, ordering, forcing[1]

Action and interaction was fruitful in enlarging the world in which the learners lived, and led them to acquire a sense of having a part in a life that was extensive, dynamic, and vital. It was extended far beyond the confines of the schoolroom or the local community. No two groups had the same environment, nor did they work in the same way. Life touched them at different points and in different ways. Each learner was allowed to take hold of those things which were tangible and challenging.

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[1]Lois Coffey Mossman, The Activity Concept (New York: Macmillan Co., 1938), pp. 54-61.

The students interacted with the environment, each other, and the teachers assisted, guided, suggested and did their share of the work, too.

The aims of the socialization as listed in An Introduction to Progressive Education by Burr were as listed below:

1. To respect other individuals.
2. To respect the property of others.
3. To value his own property.
4. To work independently.
5. To work harmoniously with a group.
6. To think independently.
7. To realize when advice and help are needed.
8. To develop the ability to criticize his own work and that of others.
9. To develop the ability to make suggestions pertinent to group discussions.
10. To develop a feeling of responsibility.
11. To develop the ability to express himself freely in different media.
12. To realize the dependence of life today upon the life of the past and to build up an appreciation for it.[1]

To enhance realizing the above goals, the progressive schools included vertical principles. Schools were no longer thought of only in layers which separate children into age levels. In life, children were arranged on the vertical principle. The older ones could be of help to the others. It was felt that life in school should be fertilized by the sympathetic companionship of children of different age levels; the grade levels and standards of child behavior introduced a false discrimination on the basis of age which resulted in enmity rather than friendliness between older and younger children, and destroyed the natural responsibilities of old toward

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[1]Samuel Engle Burr, An Introduction to Progressive Education (The Activity Plan) (Cincinnati: C.A. Gregory Co., 1933), p. 22.

young, and of young to older people. Instead, schools were often organized into families, the members of which were pursuing similar ends; and in a sense the whole elementary school was one family in which group needs, such as a whole morning, say, to fly kites together, a picnic, or a school visit to some other school were met by friendly companionship between young and old in group action.[1] A variant group gave each child greater freedom in making friends and there was room for many kinds of interests to find expression. Even in the schools not organized into families, children worked and shared together. At times they were grouped together on the basis of liking the same thing.[2] At other times units being studied were complementary. The following is an account from Lincoln School.

> Recently the youngest group was experiencing a unit on the circus and at the same time the members of the fourth group were learning about animals of the circus and zoo. A most interesting and profitable half hour was spent when six members of the older group visited the primary room and told the younger children some of the characteristics peculiar to the various animals. They took great joy in answering the questions of the younger group.[3]

In the Dalton Laboratory Plan as the children studied in the subject laboratories in mixed ages, the older children were

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[1] A.G. Melvin, Activated Curriculum (New York: John Day Co., 1939), p. 131.

[2] Elsie Wygant, "Creative Activities Growing Out of Social Studies," Progressive Education, VIII (April, 1931), p. 327.

[3] Ablion Horrall, Let's Go to School (New York: McGraw Hill, 1938), p. 116.

able to help younger ones with work and assignments they had already been over. Younger pupils read the assignments and saw children working in grades beyond their own. The spirit of mutual respect and responsibility that arose from friendly pupil-teacher relations among children was recognized. While the pupils did not do identical work, the relationship between advanced science and elementary science was closer than that between different subjects in the same grade. Experiments in geography did not differ in kind, only in degree. This similarity tended not to distraction, but to positive helpfulness.[1]

The progressive educators deprecated the segregation of children according to their intelligence quotients or other qualifications. The different types of children, by associating together in their intellectual life, aided each other. The book-minded brought the results of their research to the group, and the motor-active contributed their special gift of concrete achievement. All learned to bear and forbear, to respect differences in mentality and temperament as fundamental facts which called, not for individual comparisons, but for mutual understanding, sympathy, and service. It seemed more normal, more desirable, more conducive to full and wholesome development of the individual child, that there not be segregation but association on a basis which permitted expression

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[1]Evelyn Dewey, The Dalton Laboratory Plan (New York: E.P. Dutton, 1922), p. 20.

of wide individual differences.[1]

The progressives were careful to make purposeful group-assignments so that the class periods were real work periods for the pupils, instead of mere recitation periods in which they used all of the time to tell the teacher what they had learned. Major principles were approached through units of work. The students were encouraged to work together in the learning of the basic skills.

For example, in the learning of number combinations, each pupil might be supplied with a set of small cards on which the teacher had copied the primary number combinations. As soon as the pupil thought that he had learned his group of combinations, he went to any pupil in his class and asked him to hear him "say his combinations."[2] Or, in schools where there was a set list of words to be learned in a given school year, the learners might assist in apportioning the words to be learned each semester or month. For each week a committee was assigned to prepare the list to be mastered. The committee went through the list and selected words particularly related to the work they would be doing in the coming week.[3]

In order that each child might profit to the greatest

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[1]Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 94.

[2]Sidney Firman, "Taking the First Steps in Progressive Education," Progressive Education, XII (January, 1935), pp. 31-34.

[3]Lois Coffey Mossman, The Activity Concept (New York: Macmillan Co., 1938), p. 79.

degree, it was recommended that, as a rule, most of the work be done in small committees, to be presented to the class during a group discussion. Each child then saw in what way he had contributed to the undertaking of the class.[1]

The discussion periods were times when all members of the group freely asked questions and expressed their opinions. In this type of activity the children made plans, selected facts most pertinent to the solution of the problem under consideration, evaluated and organized the materials and data presented, determined meanings, judged the validity of statements, and arrived at conclusions. Such discussions followed the collection of materials and data bearing on the solution of the problem were used for planning the solution, preceded or followed an excursion, or were used to evaluate work already accomplished. They came at any time during the class period when needed and were allotted as much time as necessary. Discussion activities were judged by whether or not there was a worthwhile, wholesome, social situation. Such a situation was evident when the children were interested, took part in a natural manner, and were courteous but frank in criticisms and suggestions. Also, the success of the activity was estimated by such evidences of thinking and learning as: making accurate statements, giving reasons for opinion, questioning statements and opinions, avoiding needless repetition, keeping

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[1]Samuel Engle Burr, An Introduction to Progressive Education (The Activity Plan) (Cincinnati: C.A. Gregory Co., 1933), p. 22.

the topic under discussion in the foreground, and demanding sufficient data before reaching conclusions.[1] The first important step was the encouragement of children to express themselves freely and fluently. A discussion time that was described frequently in the literature was the conference. It had a most important and basic function in the progress of class activities. It was, however, neither necessary nor desirable to hold any fixed notion of what a conference should be. It was merely what the word itself signifies, a conferring, which was held between two or more individuals. Its purpose was merely that the two or more persons who conferred worked in harmony and cooperation. Often the class found it convenient to hold a more or less regular conference at the beginning of the school day, or at the beginning of a period of diverse activities. During this period there was a discussion of work accomplished the day before, and plans were made in light of previous accomplishment. At this time, children had the privilege of presenting their problems to the group for suggestions. They also shared information with the other members of the group. Sometimes it was best to have a short conference period before and after the work period. This plan provided for a discussion of ways of working and also for a period of evaluation at the close. Trips which were made, work done on the school paper, anything of common

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[1] H.L. Coswell & Doak S. Cambell, Readings in Curriculum Development (New York: American Book Co., 1937), pp. 642-643.

interest was discussed. But a conference was not always inclusive of the entire group. In fact, one unconcerned member was a definite drag on any conference. Those who had no purpose for being present spent their time on some other activity. While individuals, not concerned, were busy on their personal tasks, small groups or committees met, with or without the teacher, as the circumstances demanded. Individual pupils conferred together or with the teacher. The conferences were not held at any designated time. At any time during the progress of activities, when it seemed convenient, any of the types of conferences referred to were arranged. The basic principle of the conference was that individuals planned together and pupils had moments of special personal discussion and guidance with the teacher.[1]

The following is a list of suggestions for evaluating procedures where the purpose was to conduct a class conference.

1. Does the object of the conference seem to be clearly in the minds of the children?
2. Is there a definite plan of procedure?
3. Have the children tried to break, into its essential elements, the task to be accomplished in the conference?
4. Are the children learning how to organize group planning and decision?
5. Is there a definite spirit of cooperative concerted action?
6. Is the spirit of the class toward individual opinion and individual contribution such as to encourage each individual in exercising freedom in thinking?

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[1]A. G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), p. 240.

7. Is there evidence of growth in group consciousness?[1]

In providing opportunities for the development of each individual it was remembered that he was a member of a social group and must work in harmony with the group. Essential was the group enterprise--a learning situation that involved collective effort, cooperative endeavor, commonality of goal, and division of labor. Often the curriculum was planned by teachers and pupils working together in group conferences. As the children worked in social enterprises, they grew in their ability to plan a schedule that made wise use of their time. They began a given period in the program with the thought of what it ought to accomplish, and ended the period with a reflective "What have we accomplished?" followed by "What ought we do next?" By continuing to look at their use of time in this way, and by daily practice in allotting time to things that needed to be done--and so making a daily schedule, pupils learned to use time more wisely.

Assemblies played an important role in the progressive schools. They were valuable in cementing together the various groups not only as a medium for joyful singing in a large group but also as a means of appreciating what others were accomplishing and were capable of doing.[2] The programs were flexible. Announcements were made, stories were listened to,

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[1]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), pp. 93-95.

[2]Ablion Harrall, Let's Go to School (New York: McGraw Hill, 1938), p. 114.

songs were sung, and plays were presented. There were class studies assemblies, cooperative assemblies by several grades, current interest assemblies and programs by outside speakers, artists and specialists.

Dramatic productions provided a strong vehicle for interaction. The planning and staging of the plays, scene painting, carpentry, costume designing and making, including dyeing and decorative work, running the lighting effects, printing the programs, ushering, and managing the stage and audience provided ways for the expression of the many diverse gifts and individual talents in cooperative work.[1]

The following is an account of a pageant described in "Living As Education," an article from Progressive Education, I.

> This year the international element widened the horizon and broadened the vision and the year's work in history, geography, reading, art, literature, music and sociology, culminated in a pageant--the expression of an intimate understanding which had grown up in the children's minds concerning the brothers of the world.
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> The grounds were gay with flags of all the nations and their varied costumes. Here were Bedouins selling boxes of different sizes made by the children and decorated with Arabian scenes, cornucopias filled with cocoanut and stuffed dates, sweet lavendar bags, dyes in the colors of Arabian silk and filled as they were bought with lavendar carefully weighed. There was a French bakery booth, an Italian flower booth, Japanese venders of fans, kites, tops, ballons and beads, and a German toy booth, with the gay and tempting products of the shops.
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> All the original dances and music were brought together in a program, out under the trees at the close

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[1]Stanwood Cobb, The New Leaven (New York: John Day Co., 1928), p. 93.

> of the day, and the school year ended fruitfully, with a lovely picture of eager and earnest children, who had incorporated into their experience of learning, not only the "minimum essentials" but a goodly beginning of the maximum qualities of world citizenship.[1]

The student councils provided another means for drawing the groups closer together. The schools were designed to perpetuate democratic ideals and were organized on a democratic basis. In the schoolroom was found the same type of freedom, responsibility and control that characterized the operation of a desirable type of democracy in everyday life. The ideals of democracy controlled and directed the activities and experiences of the children. It was the duty of the school officials to organize the school so as to contribute to the realization of such ideals. It was held that the ability to govern oneself was developed only through the practice of self-government. If the school was to be a laboratory for democracy, the pupils must share in their own government, in planning the program, in administering the curriculum, and in conducting the life of the school. The children were interested in every phase of school activity. They worked hard, developed original ideas, initiated new enterprises, and evaluated their own work constructively. They grew individually and collectively in the capacity to govern themselves.[2]

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[1]Lucia Burton Morse, "Living As Education," Progressive Education, I (July-September, 1924), p. 71.

[2]H.L. Caswell and Doak S. Cambell, Readings in Curriculum Development (New York: American Bool Co., 1937), p. 588.

Issues that were discussed included topics such as too much talking in loud voices, conduct in the corridors, walking on the lawns, fire drills, and conduct on the playground. Whatever problem arose, it was discussed and solved by the children in such a way that they realized and accepted their responsibility for their own conduct and that of others of the group in respect to the matter being dealt with.[1]

There were definite beliefs concerning the interaction between the pupil and the teacher. In the progressive school, the distinction between teacher and pupil was largely evened out; in fact, in many of the activities it was difficult to differentiate between the two, except for the difference in age. Teachers and pupils became friends and associates with common aims and common interests. The teacher was employed neither to dictate a program to the pupils nor to be led on will-of-the-wisp trails toward educational mirages by immature interests and imaginations. The teacher guided the child in his techniques, encouraged him to experiment and discover for himself new ways and methods of working, provided a mainstay to which pupils could go for advice; and stimulated and motivated self-initiated and self-directed efforts toward goals which were valid through paths which had proven effective in the past. The atmosphere was of mutual sympathy and consideration. To an outsider accustomed to more formal discipline,

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[1]A.G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), p. 254.

this easy relationship between teacher and child sometimes came as a shock and interpreted as a lack of respect on the part of the children toward their elders. The apparent lack of respect, however, was all on the surface. Underneath was a profound respect based on sympathy and understanding, on mutual interests and purposes.[1]

The role of presenting remained in the teacher's realm. Even though much of the time the teacher remained in the background, there were situations in which, in order to get satisfactory results, she was aggressive. Sometimes in order to economize time, those who had arrived at the same point and were ready for the presentation of the same new material were drawn together. Other times, which necessitated presentation, included items relating to the subjects outside the pupil's experience and things impossible for him to discover with his limited time and equipment.[2] However, the role of presenting did not dominate the situation unduly. The children took the initiative, assumed responsibility and exercised judgement as far as they were capable. The teacher contributed information as little as possible, lest she cripple the investigating and creative powers of her pupils. Mainly she was there as a convenience and only occasionally as a necessity.[3] Not only

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[1]Gudrun and Georg Thorne-Thomsen, "Responsibility Through Freedom," Progressive Education, VIII (December, 1931), p.656-657.

[2]Evelyn Dewey, The Dalton Laboratory Plan (New York: E.P. Dutton, 1922), p. 16.

[3]Agnes de Lima, Our Enemy the Child (New York: New Republic, Inc., 1926), p. 206.

did the teacher put herself consciously more and more into the background, but she was increasingly being put there by the children. As soon as they tasted a bit of freedom of thought and action, they were amazing in their eagerness and ability.[1]

The fact that the teacher was in the background did not mean that she played a non-active role. Guidance to the pupil in planning was important. Pupil planning involved the response of boys and girls in the initiation of means, evaluation of means, and choice of means. Pupils and the teacher discussed the best use of the time available and mapped out a procedure for the period for the day. The teacher's leadership guided the children in setting up worthy objectives, in making a workable practicable program for accomplishing these objectives, and in entering upon a series of activities that would attain the desired objectives.

An aim of the teachers was to help the boys and girls to pursue their own activities better and more fruitfully. Consequently, they were always available to lend assistance in order to further their research. As the children worked, they often made notes on questions they could not answer among themselves or any point where the teacher's advice was needed.[2] A few minutes' talk with a teacher about problems and difficulties

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[1]Mina Frances Silverman, "Guidance and Child Initiative," Progressive Education, XVI (April, 1939), p. 258.

[2]Evelyn Dewey, The Dalton Laboratory Plan (New York: E.P. Dulton, 1922), p. 14.

led to illumination of new concepts. The teacher was to make it her business to see that the pupil was not doing the work carelessly but actually learning something during the time he was studying. She was to provide the necessary oversight of the work done and the progress made. Work was neither begun or carried on independent of her guidance or direction. If the children were carrying on individual activities, they had been arranged for with the teacher in some period of conference. In the conference the teacher and the child came to some agreement as to the unit of conduct for which the child wished to assume responsibility. The teacher made mental or written note of this fact, and consequently knew just what to expect of that individual child.[1] The idea that teachers should not help their children to live up to high standards of performance because they wished to allow them adequate freedom was not accepted. Children needed freedom, freedom not atrophy.[2]

The teacher had the responsibility of structuring the environment both physically and emotionally. The materials were readily available to the children and they were aware of them. As diverse activities were engaged in, the teacher arranged things in such a fashion that noisy activities did not interfere with the quiet ones that required dignified

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[1]A. G. Melvin, The Technique of Progressive Teaching (New York: John Day Co., 1932), p. 241.

[2]Ibid., p. 266.

reflection and self-expression. Emotionally the teacher was responsible for creating a free social environment in which there were opportunities for the pupils to express themselves naturally, to practice self-control, to exercise initiative and responsibility, to appreciate freedom, and to develop poise and personality. The teachers recognized the conditions which might hae temporarily strangled a desire for communication in the classroom. They took time to establish an atmosphere of friendliness and sincere interest. They did not violate the privacy of their shy pupils. They did not demand responses, but instead encouraged and waited. They arranged situations in which each pupil felt somehow impelled to contribute his own experience.[1] The willingness to venture suggestions was not encouraged in timid children unles the class attitude was right. The intensity of the purpose of the class fostered a spirit which encouraged such suggestions. If the class was working together on a basis of pooling and sharing experiences, an individual brought to the class something out of his experience.

The teacher kept owrk pitched at the level which encouraged continued success. To meet zero difficulties in first attempts was not good. However, if a child was annoyed by failure in his attempts, there was danger of acquiring a distaste for the thing before any degree of mastery was secured.

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[1]California Curriculum Commission, Teachers' Guide To Child Development (Sacramento: California State Dept. of Education, 1936), p. 326.

It was important that there be guidance by the teacher, so that there be a sequence of difficulties in the steps the child attempted to master.[1]

[1]Lois Coffey Mossman, Principles of Teaching and Learning in the Elementary School (Boston: Houghton Mifflin Co., 1929), p. 78.

Part II

Individualization did not oppose socialization. There was a real concern that the loss of individual identity and creative freedom might occur if the teachers and learners simply followed prescribed patterns, and if the instructional situations were organized so that they tightly controlled the learner's every move. It was not felt that individualization must lead to automation. Quite to the contrary, through the increased opportunities for interaction of the learner with the teacher and other learners, and through the necessity for increased assumption of responsibility by the learner, the opposite was encouraged. Social isolation was not to be a component of the individualized instruction design. Groups of various sizes were brought together with specific goals to fulfill. Such activities were to be scheduled at appropriate intervals to ensure adequate contact time.[1]

A most important norm was self-development, not just meeting objective standards. Individual differences were accepted as perfectly natural. Any and all examinations that sought to establish some standards of performance were considered. It was felt that the field of testing had been preempted by the behaviorists, and that far greater emphasis should be centered, in the elementary schools, on the

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[1]Julia E. De Carlo and Constant A. Madon (eds.), Education for the Seventies: Selected Readings (New York: Behavior Publications, 1973), pp. 216-217.

developmental aspects of the individual child. The feeling was that when children were permitted to work on projects singly or in groups, when children were permitted to speak to others as they move about the classroom on their projects, when they shared the results of their individual and group accomplishments, when they helped to plan their future work together, when they had meetings to discuss the disciplinary problems that arose and how to solve them, and when they lived a real life of interaction with other human beings in a meaningful way, the social environment that was created became a teaching agent itself.[1]

This meant that the teacher had to consider, thoughtfully, the basis of the child's learning needs to make the decision as to whether, for each task, he should be learning alone or in a group. Some specific suggestions follow.

> Individual learning activities. These included independent reading and study for special reports; writing of papers and essays; taking tests for evaluation and analysis; certain types of skills practice; and keeping records of learning achievements and needs.
>
> Whole-class enrichment activities. Many of the appreciation objectives seem to be served by whole-class participation; some are probably enhanced by a child being a member of a larger group. When multisensory aids are used in the presentation of new information, pupils of all levels may profit by the same presentation. Some of the whole-class activities in which listening or viewing were predominant were the following: demonstrations, experiments, television or radio programs, motion pictures, slides, recordings, exhibits, displays, pupil reports, teacher explanation or direction. Activities involving group or whole-class

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[1]Joseph D. Hassett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 61.

participation were: impromptu dramatization, play reading, choral reading, singing, preparation of displays, class projects, games, and contests.[1]

During the group times, teachers were alert to situations in which behavior was exhibited that was undesirable in our democratic society. Grouping was an invaluable technique for developing positive social relationships and skills of democratic group action.[2]

The classroom was a place where children learned internal self-discipline, instead of merely following regimented patterns of external behavior demanded by the principal and the teachers. The teachers realized that every child had the right to become in his lifetime a self-directing, autonomous, and psychologically healthy person who assumed his proper responsibilities. At the top of the list of the salient features of a classroom, which encouraged healthy social attitudes, was the living conviction that each of the pupils in the class was first and foremost a human person--a unique individual different from all other children. The teacher and the classroom environment encouraged the child to participate fully as a member of the social group called his class. Social membership and individuality were, of course, in tension, but one was not sacrificed for the other. The objective was to help the child retain his personal integrity and

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[1]Donald D. Durrell, "Adopting Instruction to the Learning Needs of Children in the Intermediate Grades: A Summary," Journal of Education CXLII (December, 1959), p. 7.

[2]M.G. Bowden & others, "Quality Through Individualized Instruction," Childhood Education XXXVI (April, 1960), p. 368.

identity while participating as a member of a group. Socialization, that submerged the child into the class and robbed him of his uniqueness, was discouraged. Rather, each child's individuality was stressed within a healthy social environment.[1]

The social skills were individualized as well as the academic skills. Using respect for the rights of others as an example, some learners were expected merely to become aware that there were others who were waiting to take a turn. Learners already aware of the need for taking turns were required to do so. Some children took turns without intervention, even if it was only because they knew it was required. Still others took turns becuase the game went better. The objective for the children was for them to take turns because the other fellow had a right to one.[2]

The literature reflected that children of differing ages were sometimes grouped together. At times, these groups were formed of students who had similar interests. At other times the grouping was according to companionate instruction purposes. The philosophy behind this was that he who teaches others, teaches himself. Two or more children comprised a teaching-learning team. This did not mean a mere exploitation of the one or two of the ablest children in the room.

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[1]Joseph D. Hossett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 55.

[2]Julia E. De Carlo and Constant A. Madon (eds.), Innovations in Education for the Seventies: Selected Readings (New York: Behavior Publications, 1973), p. 184.

All children acted as teachers or learners with each other at one time or another. A slow academic learner occasionally instructed other children in a constructional activity. Another supervised a group that was working on a wall mural. Still another supervised a dramatic production. In a class of twenty-five or thirty youngsters, there were limitless possibilities of grouping and regrouping so that children learned from each other more effectively than they could even with the most skillful teacher. It was felt that such grouping helped to develop understandings of the limitations and strengths all of us possess.

Discussion groups provided interaction. The progress of groups were evaluated and appraised at the close of work sessions. "Are you satisfied with what we accomplished today?" "Did we meet any problems?" "How could these have been avoided?" "What shall we keep in mind for tomorrow?"[1] When pupils had read, listened to, or observed the same presentation, it was common to hold class recitation or discussion. In order to provide immediate pupil reaction to new knowledge, discussion teams of three to five pupils, with one acting as a recorder, generally replaced whole-class discussion. Group conclusions were shared by oral reading of the group summary, with other groups adding information from their lists.[2] At

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[1]Dorothy G. Peterson, The Elementary School Teacher (New York: Appleton-Century-Crofts, 1964), p. 386.

[2]Donald D. Durrell, "Adapting Instruction to the Learning Needs of Children in the Intermediate Grades: A Summary," Journal of Education, CXLII (December, 1959), p. 5.

times, discussion groups were used to identify some school situations that caused problems. The problem solving technique of "brainstorming" was employed. Whether brainstorming was done solo or in committees, the principle was the same; the mind was allowed to float free in order to note many possibilities no matter how farfetched or ridiculous some seemed. The possibilities were then grouped into areas of exploration; some were discarded as improbable, some as too sophisticated, while others lent themselves as definite possibilities.[1]

Interaction between teachers and children remained the nucleus of the educational process. It was enhanced, extended, and enriched, but was not replaced by television sets, a multiplicity of devices for use of film, recordings, science manipulatives, tape recorders, or programmed teaching machines. It was a strong opinion that the relation between the one who taught and the one who was taught affected the nature of the learning that occurred. The communication between the teacher and the learner kept the teachers "tuned in" to the needs of their students, and also reduced learner frustration arising from failure in a task. School was a place where opportunities to learn how to relate constructively to fellow human beings existed. Teachers individualized or modified their behavior with different students. They joked with one student, were solicitous with another, checked every problem with one,

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[1]Joseph D. Hossett, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 34.

spot-checked another, praised one, scolded another, insisted that one work by himself and gave continuing help to another. This sensitivity of the teacher to varying personality patterns and needs was an important factor of individualization.[1]

The teacher was to assume various roles. He set up a physical environment that promoted the optimal participation by all the children in the learning experience. An environment conducive to learning was one in which all materials were readily accessible, guidelines and limitations were clearly spelled out, and duties and responsibilities were delineated. This took planning, discussion, and constant evaluation with the children. The teacher tended to conceal or withhold his knowledge rather than reveal it. He did this in the hope that the child would seek knowledge elsewhere, and that child and teacher could find out together. The teacher was to establish a systematic scheme of progress for each child according to his own rate of learning, and then to get out of the way of the learning. The child's natural curiosity and initiative were not stifled by too many questions, too many demands or too many judgements.

Basic to this approach was the philosophy that children were individual human beings who were capable of becoming actively involved in their own learning and were capable of employing self-initiation and self-direction. As the child discovered, the teacher accepted the child's efforts and

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[1]Julia E. De Carlo and Constant A. Madon (eds.), Innovations in Education for the Seventies: Selected Readings (New York: Behavior Publications, 1973), p. 190.

offered encouragement leading to the child's feeling of accomplishment and satisfaction. If the child needed a particular skill in order to advance to a new level of achievement in his area of interest, the teacher was alert to the need and was available to teach the skill.[1]

CONCLUSION

The data of the two time periods revealed that they paralleled each other in regard to each question examined. It is the opinion of this author that the data collected would serve as a valuable guide to a school administrator or faculty wishing to individualize the program in their school. Too often in the past schools have included only the purposeful pacing segment or at best the purposeful pacing and alternative means of learning prongs of individualized instruction. All five must be included in order for programs to be complete.

A Recommendation for Further Study

The statement of "I don't want to teach students what to think, but rather how to think" often suggests to the persons hearing it that if this is true, then what content that is used as a vehicle to rational thinking if of no importance. A study should be made to determine what if any criteria was used when content was chosen. Were the structures of the disciplines considered? Were the differing levels in the students' thinking considered?

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[1]Joseph D. Hasset, Open Education: Alternatives Within Our Tradition (New Jersey: Prentice Hall, Inc., 1972), p. 112.

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