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An Investigation of a Self-Determining Curriculum

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AN INVESTIGATION OF A SELF-DETERMINING
CURRICULUM

A Thesis
Presented to
the Graduate Faculty
Central Washington State College

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Roger Gray
June, 1969

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

It is not uncommon in discussions among educators to hear a leader such as Suchman emphasize that a high degree of intrinsic motivation precedes effective learning (21:70). It is even more common to hear educators stressing such terms as "individualized instruction" and "independent learning" as they relate to teaching. How does a teacher incorporate these concerns into his teaching, especially when he is expected to follow a predetermined curriculum, which is arbitrarily based upon a child's age? The task, at best, seems elusive.

A major concern of the teacher is to ascertain learner needs. How is this fundamental necessity for learning accomplished? Many teachers have for years professed that they could ascertain learner needs, and thus, prescribe the curriculum. This is apparent wherever one finds a predetermined curriculum. On the other hand, some argue that only the learner really knows what his needs are, and therefore it is he who should determine the curriculum. Their opponents would insist that the learner only knows what he likes to do--not what he needs to do. A solution is a synthesis of these two concerns, which would require that the teacher design a rich and stimulating curricular environment of multi-level materials encompassing all elements of the school, and then permit the

learner to satisfy his learning needs by choosing his curriculum from that environment. This final proposal was implemented by the teaching staff of the non-graded Hebel Elementary School (HES) at Central Washington State College during the summer session, 1968.

I. THE PROBLEM

Statement of the Problem

The purpose of this study was to: (1) determine what patterns of selection occurred when children chose their curricular areas at times they preferred within the school day; (2) determine what proportion of time children with academic deficiencies (identified by their pre-summer session teachers) spent in the curricular area of their deficiency; (3) present the attitudes (as revealed through a questionnaire study) of parents whose children attended a summer school using a self-determining curriculum, and (4) present the attitudes and preferences (as revealed through personal interviews) of children who attended a summer school using a self-determining curriculum.

Importance of the Study

It is rare that one encounters a total educational setting in which learners are determining, as they see needs for it, their own curriculum from an educational environment. Probably the most widely known curriculum organization plan of this type exists at Summerhill School, described by

A. S. Neill as a school in which children are free to choose what they want to learn and when they want to learn it. In fact, they are free not to attend any classes at all (17:5).

Neill has both strong supporters and strong critics of his school, but there is one essential element that both of these factions would like to see: a record of who chose what, when, and for how long? In addition to the analysis of a nearly unique curriculum organization plan used at HES, this study was designed to report answers, via systematic recording of pupil choices, to the questions of both Neill's supporters and his critics. These data may also indicate, over a period of time, relationships between age and the ability to choose a balanced selection of curriculum. A corollary to this question is, will the child who experiences difficulty or is deficient in a curricular area ever choose that area, and if so, how often? It appears that data supporting or denying these points would be valuable.

In addition to giving Neill's supporters and critics some new data, it is possible that the people who raise the age-old question, "In regard to any choice area, do children over a period of time choose a balance from the choices available?" will now have some new data to consider.

The attitudes and feelings of the parents of the children who attended the school are of paramount importance. Since ultimately parents must approve of the local school program, it is essential to survey their reactions to the program. All elements of the curriculum organization plan

may be highly functional and effective, but if the parents of children do not support the plan, it then may have little practical value for public education.

Likewise, the attitudes and feelings of the children who attended this type of school are of paramount importance. Since the children are intimately involved, the most comprehensive survey possible of their reactions is essential. If the children do not feel they are learning effectively in this type of plan, even if their teachers do, it will probably have damaging effects upon their self-concept in relation to learning.

A final value of the study is that the curricular organization plan implemented during summer session may serve as a paradigm for other groups reassessing or planning curricular designs.

II. DEFINITIONS OF TERMS USED

Summer Session

A nongraded education program for six- to twelve-years-olds. The daily program began at eight o'clock a.m. and terminated at noon for twenty-one school days during the summer of 1968.

Period

A fifty-minute unit of time in which children were exposed to one of the curricular areas.

Curricular Area

One of four separate rooms in which all of the school's learning material was categorized and displayed in the following areas: math-science, arts-manipulative items, music-drama-rhythms, and reading-language arts-social studies.

Curricular Organization Plan

The day was divided into three periods and prior to each period each child was to choose the curricular area in which he preferred to spend his time. A child could stay in one curricular area all day or attend a different one each period.

HES

When used in the study, these initials refer to Hebel Elementary School, the Central Washington campus school where the study took place.

III. LIMITATIONS OF THE STUDY

It is acknowledged by the investigator that the summer session population may not be representative of the larger population of school children and therefore generalizations should be limited. This lack of representation is reflected by the large proportion of children who come from homes in which at least one parent has a college education.

The investigator also acknowledges the tentativeness of the data in this study due to the length of the summer session term.

Further, the investigator acknowledges that the teachers at HES agreed not to influence the pupil choices in any way other than providing stimulating experiences, but this does not mean that pupil choices were void of influence from peers, family, etc.

Finally, the investigator was employed as a member of the HES teaching staff (science-math area) during the summer session, but was not involved in tabulating pupil choices or in interviewing children.

IV. ORGANIZATION OF THE REMAINDER OF THE THESIS

The remainder of this thesis is organized into four parts. The review of literature on children's curriculum choice patterns and self-determining curriculum programs will be presented in Chapter II. The investigation procedures will be discussed in Chapter III. The data received will be analyzed and conclusions, implication, and recommendations will be reported in Chapter IV. Chapter V will include the summary.

CHAPTER II

REVIEW OF THE LITERATURE

A review of research on elementary children's curricular choice patterns and self-determining curricular programs, which specifically reported who chose what, when, and for how long, revealed very little data. Because of the apparent rarity of information associated with these specific topics, a survey of literature was completed in the following three related areas: (1) the self-selection principle, (2) children's curricular preferences (not the actual process of choosing a subject and subsequently studying it, but merely an indication of what they like best, second best, etc.), and (3) self-determining curricular programs in existence.

I. SELF-SELECTION PRINCIPLE

Based upon assumptions of trust and faith in children, the self-selection principle is defined by Olson as ". . . a process by which the child is free to use natural opportunities in accordance with capacities, needs, and satisfactions that are self-defined"(18:52).

Since this principle doesn't appear to be too commonly practiced in our educational system, one may logically inquire as to its rationale.

Emerging from a belief in naturalism and supported by the writings of earlier educators like Rousseau, Pestalozzi, and Froebel, who were

concerned with freeing the child to follow his natural interests, Olson begins a justification of the principle at a child's birth by stating:

Self-regulating activities of the body are designed to preserve water, balance, temperature, and chemical equilibrium, and to meet the invasion of disease. The problem of balance is concerned with the psychological as well as the physical environment, and with "learned" as well as "unlearned" behavior. Most proposals for the use of the self-selection principle in education rest on the assumption or demonstration that natural laws are always at work to preserve good conditions for the survival of the individual (18:52).

The philosophic position taken by Olson and his predecessors assumes that "baby knows best" or at least, knows more than he may be given credit for knowing. This assumption appears to be supported by medical doctors who advocate letting the child sleep until he awakens naturally and eat until he refuses food. Others, such as Dreikurs, insist that the establishment of a routine to sleeping and feeding is one of the earliest training functions required by parents (8:116).

Further, Jersild reports on the studies by Davis (1928, 1933) which support the self-selection principle in the selection of food. In these studies, a tray of twelve foods was available to children and they were free to accept or reject the food. Davis reported that there were wide variations in the self-selected menus of the same child from time to time and in the menus selected by different children. Also, the selections were thoroughly unorthodox from the view of an adult, but physical examinations and measurement seem to indicate that the children made wholesome choices and thrived (14:112-114).

It appears that, to some degree, the self-selection principle may be justified in relation to an infant's sleeping, eating, and internal regulatory functions, but to what degree can one generalize about a youngster's "playtime" or later, his school day?

In reference to a modern nursery school or kindergarten which places emphasis on the individual as he functions in a group, Hammond states:

The teacher strives to provide a stimulating environment in which appropriate materials and learning situations provide rich experiences for child guidance as he is motivated to learn. This is quite different from the "traditional" type of kindergarten in which all children were expected to complete the same tasks without recognition of individual needs and interests, or of varied levels of maturity (12:53).

Since Hammond does not specifically state how appropriate materials and learning situations are selected for the children, two interpretations readily appear to exist: first, that a teacher works with each child at the child's appropriate developmental level, directing him to the appropriate experience; secondly, that from the stimulating environment, each child chooses activities or participates in experiences he feels he can accomplish and at which he can be successful. Assuming the teacher-pupil ratio is nearly always greater than 1:1, it appears that the second interpretation may be more realistic and that Hammond may be at least partially referring to the application of the self-selection of activities by children.

While writing about the self-selection principle as a means of self-direction for young children, Burts reports:

In this atmosphere of freedom [application of self-selection principle], children not only demonstrate their ability to choose those experiences for which they are ready, but they also build on successful experience and reveal a pattern of progression. The individual exercises his initiative and creativity as he pursues independent interests and develops his social relationships (1:45).

Maria Montessori, noted leader in early childhood education, advocates for young children a "prepared environment" in which all elements of the curriculum are represented. It is then the task of the child to choose the materials representing a curricular sequence and work with them as long as he chooses (20:284-285).

Referring to the application of the self-selection principle to reading, Olson states:

. . . first reading implies that a teacher will provide help and a suitable environment, but the child himself will be the judge of whether or not and at what time he should be consuming reading materials. The nature of this behavior has not been too well documented, but it is known that it begins early in mature children and is reflected in the time they spend with picture books, in the questions they ask, and other evidences of interest (18:53).

The above statement is consistent with reading authorities such as Lee and Allen, who say: "Choice of activity is an essential ingredient in the program of learning through experience" (15:106-107).

Is the self-selection principle applicable to other curricular areas? Olson observed a teacher using the principle in spelling and arithmetic and commented:

When workbooks in spelling were provided at five grade levels in a combined third and fourth grade class, children selected materials ranging from the second to the sixth grade. A child often started with material that was too easy, and covered one or several grades during the year, depending on his interest and readiness for the task. This same procedure was followed in arithmetic both with the practice material and with the standard text books (18:54).

From the information reported, it is clear that some educators feel the self-selection principle may be advantageously applied to education. Others, as evidenced by the absence of the application of this principle in many classrooms, may feel that it may be unwise to relinquish important curricular decisions to children for one or more of the following reasons: (1) children are not capable of determining what is important for them, (2) they lack the knowledge and skill to make sound decisions, or (3) they are simply inexperienced at decision-making.

Regardless of viewpoint, it would appear desirable to compare data about children and their achievement from both regular classrooms and classrooms utilizing the self-selection principle.

II. CHILDREN'S PREFERENCES

In 1949, Jersild and Tasch reported on children's interests in grades one through twelve. Primary children (grades one through three)

indicated preferences for English usage, writing, reading, and library; numbers (arithmetic and mathematics); and spelling. Natural sciences, health, and social studies were rarely mentioned as preferences. When compared to the primary, the intermediate preferences of English usage and numbers were reversed in order and declined in percentage, while spelling and social studies gained considerably. The sample surveyed 2,248 children from various size communities located in the Middle West, the South, and in New York City (13:25, 138).

Chase studied a group of 13,483 fifth graders in New England in 1947 with the following results: reading, arithmetic, and art, respectively, were favorites, while language, penmanship, and health were the least popular (2:205).

Chase and Wilson, using procedures identical to Chase's 1947 study, examined the preferences of 19,135 fifth graders in 1957. In this study, no subject changed more than one rank position from the results reported in 1947 (3:1-5).

In 1960-61, Curry investigated the subject preferences of 43,979 fifth graders representing all fifty states. After comparing his findings with those of Chase, he found that the fifth graders surveyed in 1961 indicated preferences for art, health and P. E., language, and spelling, whereas music, reading, and social studies were less popular (6:23-27).

In Mosher's 1952 study of 2,164 fourth through sixth graders from urban, rural, and mountain communities in New York, children surveyed revealed preferences for arithmetic, spelling, and art (16:35).

In 1959, Greenblatt investigated subject preferences of approximately 300 children from grades three through five and reported that art, arithmetic, and reading were found to be significantly preferred over other subjects. Science and music occupied an intermediate position whereas writing, language, and health were the least preferred in this study (11:554-555).

Davidson, in 1965, surveyed the subject preferences of 1013 fifth grade pupils in the State of Washington. He found that art, health and physical education, and spelling were rated first, second, and third, respectively, while social studies, science, and language were the least preferred subjects (7:30-32).

After analyzing the results of these studies, some fairly consistent patterns of children's preferences appear to exist. In most of the studies arithmetic, art, reading, and spelling have been highly preferred by elementary youngsters, whereas the study of language, social studies, science, health education, and penmanship generally seem to be less preferred.

Regardless of which subjects are most preferred, one thing in the final analysis is certain: children do have subject preferences.

If Thorndike's "Law of Effect" is applied to the apparent fact that children do have preferences, one can easily see that this process could tend to develop the "specialized" person rather than the "generalized" person. If this assumption is true, it would appear that children would learn only what they liked and if, for one reason or another, they didn't like a subject, they would not choose it, and thus, a considerable void could develop in one's education.

Another point of view, however, assumes that the individual will become aware of his weaknesses and consequently strive to improve the areas in which he is deficient and subsequently obtain a more balanced education. Although this assumption may be tenable, it appears that a considerable amount of will power will be needed to overcome the effectiveness of the "Law of Effect" when coupled with the opportunity for the individual to choose the subject to be studied.

III. SELF-DETERMINING CURRICULAR PROGRAMS

Schools in which children decide what, when, and how to study seem to be relatively rare when compared to the number of schools in which children follow a predetermined curriculum. This statement causes one to wonder about the effectiveness of the schools which function with a self-determining curriculum and specifically raises the question, Why are not more schools utilizing a self-determining curriculum? The answer

appears to lie in a complex assortment of factors relating to society, man, and learning; but perhaps a description of schools which utilize this type of curriculum will shed some light on the question.

Regardless of why schools utilizing self-determining curriculums are limited, they do exist, and according to recent trends, substantiated by Featherstone's article utilizing the Plowden Committee's report, they are increasing in number more noticeably in England than in America (9:17-21).

When the subject of the self-determining curriculum ventures into educational conversation, one commonly hears the names of "Summerhill," "Montessori," and since World War II, the "free day" elementary schools in England, and there may be other schools which have not yet gained national or international prominence. The remainder of this chapter contains a discussion of these programs.

Founded in 1921 by A. S. Neill, Summerhill School usually enrolls twenty-five boys and twenty girls who are divided into three groups: the young ones, ages five through seven; the intermediates, ages eight through ten; and the eldest, ages eleven through fifteen. The children are housed by age groups with a house mother for each group, and no one picks up after them. They are left free.

A typical day is reported by Neill as follows: Breakfast at 8:15 with lessons starting at 9:30. Lessons follow a posted time table such as

laboratory class I on Monday, class II on Tuesday, etc. Similar time tables are used for English, mathematics, geography, and history. The younger children usually stay with their homeroom teacher, but venture out to science and art. The morning lessons continue until one o'clock with the entire afternoon free (17:13).

In reference to class attendance, Neill comments:

No pupil is compelled to attend lessons. But if Jimmy comes to English on Monday and does not make an appearance again until Friday of the following week, the others quite rightly object that he is holding back the work and they may throw him out for impeding progress (17:13).

Writing in the forward of Neill's book, Summerhill, Erich Fromm summarizes several major principles of Neill's philosophy of education:

(1) The aim of education--in fact, the aim of life--is to work joyfully and to find happiness. Happiness means being interested in life. (2) Intellectual development is not enough; education must be both intellectual and emotional. (3) Education must be geared to the psychic needs of the child. The child is not an altruist. Altruism develops after childhood. (4) Freedom does not mean license. Respect for the individual must be mutual. A teacher does not use force against a child, nor has a child the right to use force against the teacher (17:xii-xiii).

When questioned about the degree to which a child becomes educated under this type of system, Neill openly admits that his school has produced no geniuses so far, but a generous proportion of the children go into original or creative work (17:33).

When asked about how well his students do on college entrance examinations, Neill reported that if they want to pass the examination, they will. Further, he says it usually takes his university bound pupils about two years of intensive study to pass college examinations as opposed to the usual five to seven years needed in an ordinary school (17:64).

Withholding value statements, one thing appears to be very clear; Neill believes in his cause and has designed a school consistent with his assumptions about man and education.

Another pioneer in the self-determining curriculum movement, although more conservative than Neill, was Dr. Maria Montessori. About 1900 she began to implement her ideas in classrooms for mentally retarded and slum children in Italy. As success permeated her small classrooms, the Montessori Method, consisting of a "prepared environment" and a teacher believing in "liberty" for children, has grown into a world-wide society in which teachers and parents are trained in and children are trained through the Montessori Method of education.

Basically, the Montessori classroom is composed of: (1) miniature furniture representing all of the domestic equipment necessary for practical life, (2) sensorial materials designed to refine the child's senses during his "sensitive" periods, and (3) didactic materials which are generally self-correcting and representative of all elements of the curriculum or "Paths to Culture." These paths are ready and waiting for children to

explore as they spontaneously venture into the "prepared environment," each going at his own pace, and each making his own personal discoveries (20:270-276).

The directress (teacher) facilitates three-way interaction among the children, environment, and herself. Her specific function is to assist the child to reach perfection through his own efforts (20:266-267).

Although commonly criticized for a basic inconsistency between a "liberty" philosophy which espouses freedom and alternatives, and a didactic teaching system which values rigidity and only certain perfect responses, one must agree that through using a self-determining curriculum, Montessori has made a significant contribution to children and education. Her influence has been visible in most countries of the world and especially Europe, where it is felt by some that her method has served as a catalyst in the movement to transform many of the primary schools into "free day" schools.

Since World War II, many primary schools in England have undergone a period of direction seeking, and according to Featherstone:

. . . there has been a profound and sweeping revolution in English primary education, involving new ways of thinking about how young children learn, classroom organization, the curriculum, and the role of the teacher (9:17).

To lend perspective to the primary revolution in England and to substantiate his statement of a revolution, Featherstone paraphrases from the Plowden Committee's report and says that about a third of England's

23,000 primary schools have been deeply influenced by the new ideas and methods, that another third are stirring under their impact, and that the remaining third are still teaching along formal lines of British schools of the thirties (9:17-21).

A description of a typical "free day" primary classroom and how it works may help to clarify Featherstone's phrase of "new ideas and methods." Upon arrival in the morning, he describes Westfield Infant School in Leicestershire, England:

. . . a number of children [are] already inside, reading, writing, printing, playing music, tending to pets. Teachers sift in slowly, and begin working with students. Apart from a religious assembly (required by English law) it's hard to say just when school actually begins, because there is very little organized activity for a whole class to do together. The puzzled visitor sees some small group work in mathematics ("maths") or reading, but mostly children are on their own, moving about and talking quite freely. The teacher sometimes sits at her desk, and the children flock to her for consultations, but more often she moves about the room, advising on projects, listening to children read, asking questions, giving words, talking, sometimes prodding.

Classrooms open out onto the playground, which is also much in use. A contingent of children is kneeling on the grass, clocking the speed of a tortoise, which they want to graph against the speeds of other pets and people. Nearby are five-year-olds, finishing an intricate, tall tower of blocks, triumphantly counting as they add the last one, "23, 24." A solitary boy is mixing powders for paint; on a large piece of paper attached to an easel, with very big strokes, he makes an ominous, stylized building that seems largely to consist of black shutters framing deep red windows. "It's the hospital where my brother is," he explains, and pulls the visitor over to the class-library corner, where a picture book discusses hospitals. He can't read it yet (he's five), but says he is trying. And he is; he can make out a number of words, some pretty hard, on different pages, and it is clear that he has been studying the book, because he wants badly to know about hospitals.

The visitor is dazed by the amount and variety and fluency of the free writing produced: stories, free-verse poems, with intricate images, precise accounts of experiments in "maths" and, finally, looking over a tiny little girl's shoulder, he finds: "Today we had visitors from America"

In these classes there are no individual desks, and no assigned places. Around the room (which is about the size of one of ours) there are different tables for different kinds of activities: art, water and sand play, number work.

Gradually it becomes clear how the day proceeds in one of these rooms. In many infant and some junior schools the choice of the day's routine is left completely up to the teacher, and the teacher, in turn, leaves options open to the children. Classes for young children, the visitor learns, are reaching a point in many schools where there is no real difference between one subject in the curriculum and another, or even between work and play.

In the school that operates with a free day, the teacher usually starts in the morning by listing the different activities available. A lot of rich material is needed, according to the teachers, but the best stuff is often homemade; and, in any case, it isn't necessary to have 30 or 40 sets of everything, because most activities are for a limited number of people. "Six people can play in the Wendy House," says a sign in one classroom. The ground rules are that they must clean up when they finish, and they mustn't bother others.

A child might spend the day on his first choice, or he might not. Many teachers confess they get nervous if everybody doesn't do some reading and writing every day; others are committed in principle to letting children choose freely. In practice, a lot of teachers give work when they think it's needed. In this, as in any other way of doing things, teachers tailor their styles to their own temperament and the kind of children they have. But the extent to which children really have a choice and really work purposefully is astonishing (9:18-19).

The type of classroom and school day described by Featherstone was substantiated by Sponberg as she visited Bristol's Sea Mills Infant's School and interviewed Doris Nash, Head of the school, who said,

"Because children are always changing, . . . we stress the recognition of environments that meet the needs of individual children" (19:14).

Sponberg also reported that Roy Illsley, Head of Battling Brook County Primary School, had his own explanation about the interrelationship of decision-making and choices inherent in the British primary schools. He said:

The only way to get people to accept responsibility for decisions they make is to give them chances to make them. Until this happens, education will not be innovative (19:15).

Referring to Illsley's comments, Sponberg indicated that in these "free day" schools, the heads leave the selection of daily activities and curriculum mainly to teachers, who in turn let the children make their choices.

Further, she reported that Illsley stressed the need for choice without condemnation. She quoted him as saying, "We must also give people chances to examine what they've done and communicate their failures and successes." According to Sponberg, Illsley's statement confirmed an observation she made during her visit to the primary schools. She observed what appeared to be real communication between teachers and teachers, pupils and teachers, and pupils and pupils. In addition, she felt that the ultimate strength of the "free day" concept is based upon this type of communication (19:15).

According to Trude Freeman, head teacher of an infant school in Sheffield, England, and guest writer for the Christian Science Monitor, England leads the world in modern educational practices in infant schools. Freeman says that it is nearly impossible to generalize about the organization and curriculum in these schools, but in more than half the infant schools, tight rows where children sat listening to a teacher are being overthrown in favor of the "free day" concept (10:11).

In Freeman's school, the morning follows the "free day" concept while a more structured teacher-directed program exists in the afternoon. During the morning session at this school, a child may choose any activity. The opportunities available are designed to meet individual needs (10:11).

The role of the teacher, according to Freeman, is:

. . . to provide the necessary stimulation and materials and to be at hand with advice and help when it is required. In this way the child feels free to pursue his own interest as he does in normal home environment, but he has the advantage of the skilled help from the teacher, who is ready to teach the skills required to read up information and record the experiences and thoughts (10:11).

In reference to the "free day" concept, Freeman reports that this concept completely eliminates barriers of time tables and set lessons. Further, he comments that the educators favoring this program do so because it gives the child maximum opportunity to develop (1) his own interests and (2) a greater sense of responsibility and self-control (10:11).

A consistent pattern of activity is seen throughout all the self-determining curricular programs surveyed. Inherent in the self-determining curriculum then, is the assumption that activity teaching is at least comparable to non-activity teaching, if not better in terms of growth in the intellectual, as well as growth in the social, emotional, and physical domains.

The following studies on activity teaching tend to support the assumption underlying the self-determining curriculum.

In 1923, Collins reported an experimental study on achievement and attitude development in elementary children from rural schools in Missouri. In this case, the experimental group utilized projects or activities and the control group utilized traditional subject matter. He found:

- (1) The mean achievement of the experimental School in the common facts and skills when expressed in terms of the achievement of Control Schools was 138.1%.
- (2) The mean achievement of the Experimental School in the common facts and skills when expressed in terms of the achievement represented by the National Standards was 110.8%.
- (3) The improvement of the children of the Experimental School in eight ordinary attitudes toward the school and education ranged from 25.5% to 93.1%, whereas the improvement of the children of the Control Schools in the same attitudes ranged from 2% to 15%.
- (4) The improvement of the children of the Experimental School in twelve ordinary phases of conduct in life outside of the school ranged from 35% to 100%, whereas the improvement of the children of the Control Schools in the same phases of conduct ranged from no improvement to 25%.

The experimental group consisted of forty-one subjects from one classroom and the control group consisted of sixty subjects from two classrooms. The age range of the subjects was from six to sixteen years. This study began in 1917 and terminated in 1921 (4:4-7).

In 1931, Crawford and Gray studied reading vocabulary, reading comprehension, and language usage in a departmentalized fifth grade English class. They found about 60 per cent more gain in the above-mentioned areas than was normal and therefore concluded that it is possible to teach through activities and still accomplish normal or better than normal results in the fundamental skills (5:270).

In 1935, the Elementary Division of the New York City Schools began an experiment with the activity program. A number of schools were established as activity schools (schools using activity curriculums), and they were used for comparison with the non-activity schools. The results of the study, as reported by Wrightstone, revealed that the activity program was as effective as the larger established program in developing children's mastery of fundamental knowledges and skills, and that it was more effective in developing children's attitudes, interests, social behavior, ability to think, and ability to work on their own initiative (22:252-257).

CHAPTER III

METHODS, PROCEDURES, AND TREATMENT OF FINDINGS

As stated in Chapter I, it was the purpose of this study to (1) determine what patterns of selection occurred when children chose their curricular areas at times they preferred within the school day; (2) determine what proportion of time children with academic deficiencies (identified by their regular teachers) spent in the curricular area of their deficiency; (3) present the attitudes (as revealed through a questionnaire study) of parents whose children attended a summer school using a self-determining curriculum; and (4) present the attitudes and preferences (as revealed through personal interviews) of children who attended a summer school using a self-determining curriculum.

It is the intent of this chapter to present the methods and procedures used in this study. This chapter has two main sections: (1) sources of data and the methods and procedures, and (2) the treatment of the findings.

I. SOURCES OF THE DATA

Population and Data Collecting Procedures

The population of this study contained ninety-eight students ranging in age from six to twelve years. Forty-six of the students attended

HES during the regular school year. When analyzed during winter quarter, 1968, the data indicated that two-thirds of the regular HES students had at least one parent employed by Central Washington State College in a teaching or administrative position. The other third of the HES students could be described as rural community. The non-HES students were primarily children of college students attending the 1968 summer session at Central. Only students who remained enrolled during the entire summer school session were included in the study.

The data used in this study were obtained from three major sources: (1) the hourly tabulation of the students' curricular choices from the four curricular areas, (2) personal interviews with a representative sample of children, and (3) parental responses to the HES Summer School Attitude Inventory.

Tabulation of Students' Curricular Choices

As mentioned earlier, all materials in the school were categorized in one of the following curricular areas: math-science, arts-manipulative items, music-drama-rhythms, and reading-language arts-social studies. The school day began with a home base period of fifteen minutes, at which time attendance was taken and information concerning the daily activities available in each curricular area was disseminated. The home base period was followed by three fifty-minute periods with a juice-recess break occurring after the second period. After the final period, children returned

to their home bases for dismissal. (See Appendix A for a description of each curricular area.)

After receiving information concerning the day's activities, the children left home base and each placed his identification tag on the tag board outside his chosen curricular area. If a particular area was full, the child had to select his second choice, etc. Rarely were more than two curricular areas full at the same time. Once a choice was made, the child had to stay until the period terminated.

The usual capacities of the curricular areas were: science-math, 30; arts-manipulative items, 42; music-drama-rhythms, 30; and reading-language arts-social studies, 42. The combined capacities totaled 144, which left a considerable margin of choice for 98 students.

After each period began, the school secretary recorded the identification tag numbers of the children who had chosen each curricular area. These data were then recorded on the master data chart which contained the curricular area choices of every child, every period, every day of summer school.

All percentages reported in this study were rounded off to the nearest tenth or to the nearest hundredth.

Identification of Children with Academic Deficiencies

Children who regularly attended HES and who had an academic deficiency (achievement below grade level) in a particular curricular area

were identified by their pre-summer session teacher. The identification of deficiencies was based upon (1) the teacher's classroom observations, (2) achievement scores, (3) other data obtained from testing basic skills.

HES teachers identified nine children who had a total of fourteen deficiencies in one or more of the curricular areas.

HES Attitude Inventory

On July 15, inventories were sent to all families with children enrolled in the HES summer school. Each family was to complete a separate inventory for each child enrolled and return the inventories by July 18.

On July 26, a note was sent to the families who had not returned their inventories, reminding them that the HES staff was interested in their feelings about summer school. (See Appendix B for a duplicate of the note.) By July 1, the agreed upon closing date, fifty-four of ninety-eight inventories (55%) were returned.

The attitude inventory was designed to furnish information about parents' feelings concerning attainment of summer school goals; children selecting their own curriculum, attitudes toward learning, children's growth in curricular areas, and the strengths and weaknesses of the summer school plan. (See Appendix C for a duplicate of the attitude inventory.)

Personal Interviews with Children

During the third week of summer school, the population of HES summer students were categorized by age, sex, and HES/non-HES status, which resulted in a total of twenty-eight categories. Each child's name was placed face down on a table area representing his age, sex, and school status category. Then the school secretary arbitrarily selected two slips of paper (names) from each category. Had all the categories been full, this process would have yielded fifty-six names. Since the population didn't provide names in all categories, the total of fifty-six was not attained.

From the names available in each category, a total of forty-nine children were selected by this random method to be interviewed during the last week of summer school by the Director of HES. Since two students selected to be interviewed moved, only forty seven children were interviewed.

The interviewer used an interview form especially designed for use in this HES summer school. This form was intended to furnish information about: (1) areas children liked most and liked least, (2) the child's criteria for making choices, and (3) his thoughts about the decisions that affect his education. (See Appendix D for a duplicate of the form.)

The interview procedures were as follows: (1) the interviewer located the interviewee in a curricular area, (2) entered the room and asked, "Please stop your activity for a moment and join me for a talk so I can find

out how you feel about summer school," and (3) they left the room and began the interview.

II. TREATMENT OF THE FINDINGS

The data obtained from the tabulation of hourly choices, interviews, and attitude inventories were used in an attempt to answer the original questions of this study. These questions also serve as a guide in the treatment of the findings.

1. What patterns of selection occurred when children chose their curricular areas at times they preferred within the school day?

A number of different patterns of selection and other interesting data relative to curricular selection were available from the tabulation of pupils' curricular choices. These data were analyzed in the following ways:

- (a) The proportions that children, by age level and by total group, chose each curricular area for the entire summer program were determined and will be reported. This will give some indication of the curricular area preferences of the children. In addition, the number of times each curricular area was full to capacity was determined and will be reported. This data may suggest that certain curricular areas were even more in demand than they appeared to be when compared to the data collected on children's preferences of curricular areas.

(b) To give some indication as to the balance in selection, the number of children, by age level and by total group, that made 20 per cent or more of their curricular choices in four, three, two, or one area(s) was determined and will be reported.

To lend further perspective to the relationship between age levels and the ability to select a balance of curricular areas, the total number of curricular areas from each age level chosen 20 per cent or more of the time was divided by the number of children from that age level, thus yielding an "average" number of times children from each age level chose curricular areas 20 per cent or more of the time. These "averages" were then ranked in order.

(c) To give an indication as to the lack of balance in selection, the number of children, by age level and by total group, that made 10 per cent or less of their curricular choices in three, two, one, or no area(s) was determined and will be reported. In addition, the number of children, by age level and by total group, who did not choose each curricular area at least once was determined and will be reported.

A similar kind of "average" was computed to illustrate the relationship between age and a lack of ability to select a balance of curricular areas. This was done by totaling the number of curricular areas from each age level chosen 10 per cent or less of the time and dividing this number by the number of children from that age level, thus yielding an "average"

number of times children from each age level chose curricular areas 10 per cent or less of the time. These "averages" were then ranked in order. A list of which curricular areas were not chosen by these students also will be included.

(d) To illustrate individual differences in curricular selection, the extreme patterns were identified and will be reported. Some examples of these extremes would be: a child spending nearly all his time in a single curricular area; repeating patterns of selections which may illustrate long range planning; or perhaps, a nearly even distribution of choices from the four curricular areas.

(e) To give perspective to attention span and to time committed to self-chosen activities, the number of times children, by age level and by total group, stayed in a curricular area two or three consecutive periods in one day was determined and will be reported.

Also, the greatest number of consecutive choices in the same curricular area that each child made was determined and will be reported by age level and by total group.

2. What proportion of time did the children who had academic deficiencies spend in the curricular area of their weakness?

In response to this question, the total number of curricular choices made by these students was determined. Then the number of times they chose the curricular area of their deficiency was determined. From these data, proportions of the total group and of the individuals were computed

and will be reported. Also, the number and percentage of the students who chose the curricular area of their deficiency over 25 per cent of the time were determined and will be reported.

3. What were the feelings of parents whose children attended a summer school which utilized a self-determining curriculum?

The parental responses on the inventory were compiled and a mean score for each item was calculated. These mean scores will be reported. Any comments that correspond to items on the inventory will be reported if they are representative of several parents or if, perhaps, they reveal particular insight as to an advantage or disadvantage of the application of a self-determining curriculum.

In the open-ended areas of the inventory, through trial and revision, a set of categories was determined for analyzing the data. Responses that seemed to have a common element were grouped and summarized.

4. What were the reactions of the children to the HES summer program which used a self-determining curriculum?

The children's responses to the interview form were compiled by total group and on some items by age level. Percentages of responses were determined for items one, five, and six, and will be reported.

Rankings were determined on items two, three, and four. This was done by assigning a value of 3 to a first preference, 2 to a second preference, and 1 to a third preference. By adding these assigned values, a composite score was obtained, which permitted a total ranking of all items, which will be reported.

In the open-ended areas of the form, through trial and revision, a set of categories for analyzing the data was determined. Responses that seemed to have a common element were grouped and summarized.

CHAPTER IV

THE FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

A self-determining curriculum was selected for investigation because it appears to be, as a curriculum approach, consistent with independent learning and self-direction. Specifically, it was the purpose of this study to investigate this type of curriculum by examining the curricular areas selected by children and to collect data about how both students and parents felt about a school setting which utilized such a curriculum.

An attempt was made to answer several specific questions.

1. What patterns of selection occurred when children chose their curricular areas at times they preferred within the school day?
2. What proportion of time did the children who had academic deficiencies spend in the curricular area of their weakness?
3. What were the feelings of the parents whose children attended a summer school which utilized a self-determining curriculum?
4. What were the reactions of the children to the HES summer program which used a self-determining curriculum?

This chapter is organized around the four questions listed above. The findings, conclusions, implications, and recommendations are presented for each question.

I. WHAT PATTERNS OF SELECTION OCCURRED WHEN CHILDREN
CHOSE THEIR CURRICULAR AREAS AT TIMES THEY
PREFERRED WITHIN THE SCHOOL DAY?

Findings

To give some indication of the curricular area preferences, every curricular choice was classified by age and by curricular area. Table I reflects these proportions in number of choices and in percentage. Also included in this table is the number of children at each age level. By studying Table I, one can see that from 4,939 possible choices, the total group's most popular area, arts-manipulative items, was chosen 1,894 times for 38 per cent. The reading-language arts-social studies area was the second preference, chosen 1,462 times for 30 per cent. The music-drama-rhythms area and the science-math area were virtually tied by percentage (16%) for third place, but since the former had one more choice for a total of 792 as compared to the latter's choice total of 791, it was given third place and science-math was placed fourth.

The percentages of each age level that chose the arts-manipulative area were generally consistent in that all age level percentages fell between 35 and 42 per cent. In reading-language arts-social studies, the percentages for selection by age level generally showed an increase with age as represented by the following percentages: 18, 24, 31, 37, 32, 41, and 44 for the ages 6, 7, 8, 9, 10, 11, and 12, respectively. In the music-drama-

TABLE I

THE NUMBER OF TIMES AND THE PERCENTAGES THAT EACH AGE LEVEL
CHOSE EACH CURRICULAR AREA

Number of Pupils in Each Grade Level	Age	A		L		M		S		Total Curricular Areas
		No.	%	No.	%	No.	%	No.	%	
19	6	351	36	172	18	259	26	196	20	978
18	7	388	42	222	24	174	19	142	15	926
23	8	456	40	357	31	162	14	178	15	1,153
9	9	168	36	175	37	56	12	71	15	470
11	10	221	41	174	32	72	13	75	14	542
14	11	242	36	277	41	53	8	106	16	678
<u>4</u>	<u>12</u>	<u>68</u>	<u>35</u>	<u>85</u>	<u>44</u>	<u>16</u>	<u>8</u>	<u>23</u>	<u>12</u>	<u>192</u>
98		1,894	38	1,462	30	792	16	791	16	4,939

Legend: A = Arts-manipulative items
L = Reading-language arts-social studies
M = Music-drama-rhythms
S = Science-math

rhythms and science-math areas, a reverse pattern existed in that percentage of selection generally decreased markedly with age as represented by the percentages 26, 19, 14, 12, 13, 8, and 8 for ages 6, 7, 8, 9, 10, 11, and 12, respectively, in the former area; and 20, 15, 15, 15, 14, 16, and 12 for ages 6, 7, 8, 9, 10, 11, and 12, respectively, in the latter area.

The highest percentage of selection (44%) was recorded by the twelve-year-olds who chose the reading-language arts-social studies area 85 out of 192 times. The lowest percentage (8%) was recorded by both the eleven- and twelve-year-olds who chose the music-drama-rhythms area 53 out of 678 times and 16 out of 192 times, respectively. See Table I for further information on curricular choices and percentages by age level.

To further clarify a factor which to some degree influenced the curricular choices of children, the number of times each curricular area was full to capacity, which in essence forced the next child selecting it to "tag" his second choice, was recorded.

The arts-manipulative area was full to capacity 18 of fifty-four times (33%). The reading-language arts-social studies area was full 4 of 55 times (7%), while neither science-math nor music-drama-rhythms were ever full to capacity.

Only 3 of 55 times (5%) were two curricular areas full to capacity the same period, consequently allowing for the possibility that a child may have had to select his third choice.

To indicate some degree of balance in selection, Table II illustrates the number of children, by age level and total group, that made 20 per cent or more of their curricular choices in four, three, two, or one area(s).

As a total group, only 2 of 98 children (2%) spent 20 per cent or more of their time in all four areas. Twenty-four of 98 children (24%) chose three curricular areas 20 per cent or more of the time, while 49 of 98 children (50%) chose two areas that often. Clearly showing a lack of balance, 23 of 98 children (23%) chose only one area 20 per cent or more of the time. See Table II for further information about balance of selection by age level.

To report on age levels and to give further meaning to Table II, the total number of curricular areas by each age level chosen 20 per cent or more of the time was divided by the number of children from that age level, yielding an "average" number of times children from each age level chose curricular areas 20 per cent or more of the time. Table III shows the rank order of these averages.

With an average of 2.27 curricular areas chosen 20 per cent or more of the time, the seven-year-olds were ranked first, while the twelve-year-olds posted an average of 1.75 curricular areas chosen for last place. See Table III for the rank order of each age level.

TABLE II

THE NUMBER OF TIMES AND THE PERCENTAGE THAT CHILDREN IN EACH AGE LEVEL CHOSE TWENTY PER CENT OR MORE IN FOUR, THREE, TWO, OR ONE CURRICULAR AREA(S)

Age	<u>Four Areas</u>		<u>Three Areas</u>		<u>Two Areas</u>		<u>One Area</u>	
	No.	%	No.	%	No.	%	No.	%
6	-	-	7	37	8	42	4	21
7	1	6	6	33	8	44	3	17
8	1	4	4	17	13	57	5	22
9	-	-	1	11	5	56	3	33
10	-	-	3	27	5	45	3	27
11	-	-	2	14	9	64	3	21
12	<u>-</u>	<u>-</u>	<u>1</u>	<u>25</u>	<u>1</u>	<u>25</u>	<u>2</u>	<u>50</u>
Total	2	2	24	24	49	50	23	23

TABLE III

THE AVERAGE NUMBER OF TIMES CHILDREN FROM EACH AGE LEVEL
CHOSE CURRICULAR AREAS TWENTY PER CENT OR MORE OF THE
TIME AND THE RANK ORDER OF THESE AVERAGES

Age	Average	Rank Order
6	2.15	2
7	2.27	1
8	2.04	3
9	1.77	5
10	2.00	6
11	1.92	4
12	1.75	7

To indicate some degree of the lack of balance in selection, Table IV illustrates the number of children, by age level and by total group, that made 10 per cent or fewer of their curricular choices in three, two, one, or no area(s).

As a total group, 5 of 98 children (5%) chose 10 per cent or less of their choices in each of three curricular areas, 32 of 98 children (33%) chose two areas, 43 of 98 children (44%) chose one area, and 18 of 98 children (18%) chose 10 per cent or less in no area, or in other words, this latter group chose each curricular area at least 10 per cent of the time.

To report on age levels and to give further meaning to Table IV, the total number of curricular areas chosen 10 per cent or less of the time from each age level was divided by the number of children from that age level, yielding an "average" number of times children from each age level chose curricular areas 10 per cent or less of the time. Table V shows the rank order of these averages.

As one can see, the seven-year-olds, with an average of .88 curricular areas chosen 10 per cent or less of the time, recorded the lowest average. This means that, as a group, they chose a better balance in the curricular areas than the twelve-year-olds who recorded an average of 1.75 curricular areas which they as a group chose 10 per cent or less of the time.

TABLE IV

THE NUMBER OF TIMES AND THE PERCENTAGE THAT CHILDREN IN EACH AGE LEVEL CHOSE TEN PER CENT OR FEWER IN THREE, TWO, ONE, OR NO CURRICULAR AREA(S)

Age	<u>Three Areas</u>		<u>Two Areas</u>		<u>One Area</u>		<u>No Areas</u>	
	No.	%	No.	%	No.	%	No.	%
6	1	5	4	21	11	58	3	16
7	1	6	3	17	7	39	7	39
8	1	4	7	30	9	39	6	26
9	1	11	4	44	4	44	0	0
10	1	9	5	45	4	36	1	9
11	0	0	6	43	7	50	1	7
12	<u>0</u>	<u>0</u>	<u>3</u>	<u>75</u>	<u>1</u>	<u>25</u>	<u>0</u>	<u>0</u>
Total	5	5	32	33	43	44	18	18

TABLE V

THE AVERAGE NUMBER OF TIMES CHILDREN FROM EACH AGE LEVEL
CHOSE CURRICULAR AREAS TEN PER CENT OR LESS OF THE
TIME AND THE RANK ORDER OF THESE
AVERAGES

Age	Average	Rank Order
6	1.15	3
7	.88	1
8	1.13	2
9	1.67	6
10	1.54	5
11	1.35	4
12	1.75	4

When considering the question of balance of selection, it is of interest to note how many children completely rejected certain areas. Table VI shows which curricular areas were completely rejected and how many times children rejected them. As one studies this table, he will note that only the music-drama-rhythms and science-math curricular areas were rejected. The former was rejected seven times by children ranging in age from eight to eleven, while the latter was rejected six times by children ranging in age from seven to eleven.

While examining the master data chart, a number of unusual or extreme patterns of selection were discovered. They include the following:

1. One child chose the same curricular area (music-drama-rhythms) thirty-four consecutive periods, which incidentally represented his last thirty-four choices. From a total of forty-nine choices, this boy chose this area forty-five times. Teacher reports indicated that during the regular year he was an above average student in all areas of the curriculum.
2. A nine-year-old girl chose from only two of the curricular areas. During the first half of the summer session, she stayed almost exclusively in the reading-language arts-social studies area and then near the half-way point, she ventured into the arts-manipulative area and remained there nearly all the time through the rest of the session. The second day of school

TABLE VI

THE NUMBER OF TIMES, BY AGE LEVEL, THAT EACH CURRICULAR AREA
WAS REJECTED BY A CHILD

Age	A	L	M	S
6	-	-	-	-
7	-	-	-	1
8	-	-	3	1
9*	-	-	1	2
10	-	-	1	1
11	-	-	2	1
12	-	-	-	-
Total	0	0	7	6

* One nine-year-old rejected both the M and S curricular areas.

Legend: A = Arts-manipulative items
 L = Reading-language arts-social studies
 M = Music-drama-rhythms
 S = Science-math

the librarian overheard this girl remark, "The thing I like about this school is that you can read, read, and read!"

3. One of the most balanced selections recorded was made by a seven-year-old. From fifty-five choices, he chose the four listed curricular areas eleven, fifteen, twelve, and seventeen times.
4. Interesting re-occurring patterns were recorded by two nine-year-olds. During eight of nine days, one chose in order the following curricular areas daily: reading-language arts-social studies, arts, manipulative items, and science-math. For thirteen consecutive days, the other chose reading-language arts-social studies for the first two periods and music-drama-rhythms for the last period. These patterns seem to imply some sort of pre-selection planning.

For the purpose of giving perspective to attention span and time commitment to self-chosen activities, Table VII shows the number of times children, by age level and by total group, stayed in the same curricular area two and three consecutive periods in one day.

The average number of times the total group of children chose the same curricular area two consecutive periods in one day was 6.4, and the average for three consecutive periods in a day was 3.8. In both categories, the highest average was recorded by the ten-year-olds, while the eleven-

TABLE VII

THE AVERAGE NUMBER OF TIMES, BY AGE LEVEL AND BY TOTAL GROUP,
 THAT THE SAME CURRICULAR AREA WAS CHOSEN TWO AND THREE
 TIMES IN SUCCESSION AND THE RANK ORDER
 OF BOTH CATEGORIES*

Age	Two Times In Succession	Rank Order	Three Times In Succession	Rank Order
6	6.6	4	3.4	7
7	6.2	6	3.6	6
8	6.4	5	3.8	5
9	6.7	3	4.2	2
10	7.3	1	4.5	1
11	5.4	7	4.0	3.5
12	<u>6.8</u>	<u>2</u>	<u>4.0</u>	<u>3.5</u>
Total	6.4		3.8	

* The days in which the same curricular area was selected three times in succession were not counted in the number of times an area was selected twice in succession.

year-olds posted the lowest average for two consecutive periods and the six-year-olds posted the lowest average for three consecutive periods.

Only eleven of ninety-eight children failed to stay in the same curricular area all three periods at least once during the summer session. One of these children chose the same area back to back fourteen times, but still didn't make three choices in a row in a single day.

To further determine time commitment to self-chosen activities, Table VIII illustrates by total group and by age an average of the greatest number of consecutive choices in the same curricular area that children made. As a group, the average of their longest string of consecutive choices in the same curricular area was 8.2 periods. By age levels, the twelve-year-olds led with a 10.5 average, while the seven-year-olds recorded 7.0 for the lowest average. Generally, there was an increase in the average number of consecutive choices with an increase in age.

Conclusions

Based on the findings of this study, several conclusions were drawn concerning the patterns of curricular selection.

1. The curricular area of arts-manipulative was the most commonly selected, with reading-language arts-social studies second, and music-drama-rhythms and science-math virtually tied for third place.

TABLE VIII

THE AVERAGE, BY TOTAL GROUP AND BY AGE LEVEL, OF THE GREATEST NUMBER OF CONSECUTIVE CHOICES IN THE SAME AREA MADE BY EACH CHILD AND THE RANK ORDER OF THESE AVERAGES

Age	Average of Consecutive Choices in Same Area	Rank Order
6	7.2	6
7	7.0	7
8	8.5	4
9	9.6	2
10	9.5	3
11	7.9	5
12	<u>10.5</u>	1
Total	8.2	

2. The percentages that arts-manipulative was selected were generally consistent from age level to age level, while the reading-language arts-social studies area increased in percentage as age increased. However, in music-drama-rhythms and in science-math, the per cent of selection generally decreased with age.
3. The twelve-year-olds recorded the highest per cent (44%) of selection in a curricular area (reading-language arts-social studies), while the eleven-year-olds joined the twelves in recording identical percentages (8%) in the same area (music-drama-rhythms) for the lowest per cent of selection in a curricular area.
4. In terms of a balance of selection from the curricular areas, it was obvious that some children lacked an even distribution, while others chose a distribution that was possibly more even than the distribution provided by their regular subject-centered curriculum. Based on data from Table III, the younger children generally selected a more even distribution from the curricular areas than did the older children. Data from Table V also supports this conclusion.
5. The music-drama-rhythms and science-math areas were the only areas completely rejected by any children. Also, they were the only areas never full to capacity.

6. As one might anticipate, knowing that individual differences exist, highly individual patterns of selection occurred from all age levels of children.
7. Attention span and time commitment to self-chosen activities were shown to be much longer than the typical twenty to thirty minute elementary classroom period.
8. The average amount of time children committed to self-chosen activities generally increased with age.

Implications and Recommendations

The findings of this study simply indicate the curricular preferences, percentage of choice of curricular areas by children, extreme patterns of selection, and time committed to self-chosen activities.

It seems important for educators concerned with curriculum to be aware of these interests. Certainly more research is needed to begin to understand the complex rationales for children's behavior in regard to decision-making in these vital curricular areas.

It is hoped that by being aware of curricular preferences of children, teachers can approach the least popular areas with great sensitivity and hopefully insure success in these and related experiences. Likewise, if the teacher is cognizant of the more popular curricular areas, she can more effectively extend a child's comprehension without fear that she is extending him beyond his capacity.

It can be argued, to some degree, that attitudes influence selection. If this is so, it is interesting to speculate as to why percentages of selection in this study decreased with age in the areas of music-drama-rhythms and science-math. Naturally, one tends to reflect upon the past methods, content, and circumstances under which instruction took place to seek an explanation for this decrease. Perhaps, it is simply a characteristic of these age levels and these curricular areas. Or, perhaps, older children experience these areas less in their regular curriculum and therefore are accustomed to less exposure than younger children. It is even possible that as children get older, the experiences they have in these areas are for several reasons increasingly negative and thus, their attitudes are affected.

Further, one can speculate as to why younger children tended to select a more even balance of curriculum than older children. Again, based on the assumption that attitudes influence selection, could it be that previous school experience has decreased the receptivity of older children in certain curricular areas? Or is it that they have just found their niche in life and are very content with their background of knowledge? Regardless of which explanation receives the most support, it would seem desirable to know more about children's abilities to determine their curricular areas.

Knowing a child's ability to determine a balance of curriculum appropriate for him, the teacher can then provide the necessary amount of structure and teacher direction. Thus, the learner can become as self-directed as his ability and interest permit.

Because extreme, yet sound, patterns of selection exist for some children, the teacher can, without concern that the child will become bored, permit these children the time and the support to pursue personal interests even when these interests appear to be taking a major proportion of their school day. It is probably true that education will be taking giant strides forward when educators begin to release children from teacher planned curriculums to pursue personal interests during the regular school day.

Because the above-mentioned concerns are so integrated in educational philosophy, it is hoped that further study can be undertaken to investigate these aspects of teaching and learning. Specifically, further investigation should include: refinement of the curricular areas chosen, a longer period of time in which children determine their curricular areas, an in-depth probe to determine the common elements children consider prior to making decisions, and possibly a larger and more reliable sample of children.

Because of the possible influence of the personal appearance and personality of the teacher, the physical aspects of the room, and the lesson content, it is recommended that a study devoted to these factors be conducted.

II. WHAT PROPORTION OF THE TIME DID THE CHILDREN WHO HAD
ACADEMIC DEFICIENCIES SPEND IN THE CURRICULAR AREA
OF THEIR WEAKNESS?

Findings

To give further perspective to this question, Table IX illustrates which children were identified as having deficiencies in certain areas. In total, nine children were identified as having among them fourteen deficiencies in the curricular areas. These deficiencies were primarily in the reading-language arts-social studies and the science-math areas.

Table IX shows the number of times and the percentages that each child chose the curricular area of his deficiency. As a total group, the children spent 189 of 680 periods (28%) in the curricular areas of their deficiencies, which is 3 per cent more than one could interpret as a perfect distribution of spending 25 per cent of the time in each curricular area.

Closer inspection reveals that ten of fourteen times (71%), the curricular area of the child's weakness was chosen over 25 per cent of the time. Five of the nine children (56%) chose their weak area more than 25 per cent of the time, while three (33%) did not choose their weak area that often. One child having two weak areas chose one more than 25 per cent of the time and did not choose the other. As Table IX shows, two times needed curricular areas were not chosen. See Table IX for further details about children choosing the curricular area of their deficiency.

TABLE IX

THE NUMBER OF TIMES AND THE PERCENTAGES THAT
CHILDREN CHOSE THE CURRICULAR AREA IN WHICH
THEY WERE DEFICIENT

Age	Pupil	Total Number of Choices	A		L		M		S	
			No.	%	No.	%	No.	%	No.	%
6	1	55	-	-	6	11	-	-	-	-
6	2	39	-	-	12	31	-	-	13	33
7	3	52	-	-	7	13	-	-	-	-
8	4	55	-	-	30	55	-	-	16	29
10	6	54	-	-	17	31	-	-	14	26
11	7	49	-	-	-	-	-	-	20	41
11	8	48	-	-	-	-	0	0	18	38
11	9	46	-	-	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>0</u>	<u>0</u>
Total					<u>93</u> 298	31	0	0	<u>96</u> 334	29

* Data was listed only in curricular areas in which children were identified as having deficiencies.

Group Total: 189 of 680 times (28%) children chose curricular areas of their deficiencies.

In relation to age, there seems to be no consistent pattern to indicate that children were more or less able to choose the curricular areas of their deficiencies. A quick inspection of age levels reveals that the highest percentate (42%) of selection occurred in the eight-year-old bracket, while the lowest percentage (13%) of selection occurred in the seven-year-old bracket.

Conclusions

Based on the findings of this study, several conclusions were drawn concerning children choosing the curricular areas of their deficiencies.

1. Collectively, children spent more time in the areas of their deficiencies than they would have if they had been required to spend an equal proportion of time in each curricular area.
2. Nearly all the areas of deficiencies were in the reading-language arts-social studies and science-math areas.
3. Some children never visited the curricular areas of their deficiencies.
4. There seemed to be no consistent pattern which indicated that age was a significant factor in determining one's ability to select the curricular areas in which one was deficient.

Implications and Recommendations

These conclusions tend to support the notion that children can and will choose not only what they want but what they need. However, we must not over-generalize since we cannot be certain that the child who was deficient in science-math actually attempted to reduce his deficiency. Another concern is that a child may have been more deficient in math than in science, but still was identified as being deficient in the science-math curricular area. It is then possible that he would choose this area for the science rather than math related experiences, even though the teachers in all curricular areas tried to correlate all aspects of their curricular areas.

Regardless of what actually happened to these children when they chose their curricular areas, as a group they displayed a willingness to become further exposed to the areas in which they were weak. This seems to be the first step to enable the teacher to stimulate them to in-depth study in these areas.

It is recommended that this receive further study. Specifically, children's deficiencies should be more accurately diagnosed and the curricular areas should be more precisely defined to enable investigators to determine exactly for what purposes children choose a curricular area.

III. WHAT WERE THE FEELINGS OF THE PARENTS WHOSE CHILDREN
ATTENDED A SUMMER SCHOOL WHICH UTILIZED A
SELF-DETERMINING CURRICULUM?

Findings

From the fifty-four parent inventories received, a mean score for each item on a continuum was determined. The first six items of the inventory, the goals of the summer session (see Appendix C), received the following mean scores: 3.6, 3.8, 3.5, 3.3, 3.7, and 3.4, which represent moderate approval. These mean scores were computed from raw scores ranging from one (extremely negative) to five (extremely positive).

All anecdotal comments from parents that were not repetitious have been included to give each item an added personal dimension. These comments were extracted from the parent inventory in response to the questions on the continuum. Comments on Item One included: "I believe she is not old enough to be fully self-directive--needs a broader background." Item Two: "I feel that a child at this age reacts rather than being 'aware' consciously of these items." Item Three: "This is the best attitude toward school he has ever shown." "This is the first time he has talked so much about school and the instructors. I feel I know them without meeting them. He was enthusiastic about music (he had no former feeling here) and science-math." Item Four: "I was unaware that J_____ had picked up the attitude that 'math and science are for boys'--this attitude, in

relationship to her own abilities, was reappraised." Item Five: "Sometimes B___ does what he wants to do, even though he knows he should do otherwise." Item Six: "He became quite interested in science and music as a result of your program."

In reference to the next item about children attending a school based on options, the mean score was 4.1, which indicates general approval of the idea. Parental comments on this item include: "We feel the whole general idea of choice is excellent. However, I think there needed to be more guidance and direction for the children. For instance, the children chose the same thing every day, either because they themselves wanted to go there, or because they were unable to get into something else because it was already full." "Kindergarten age needs more direction toward manipulative and rhythmic activities than other two options, especially if options include all ages." "Choices of where to go often depend on where friends go or where child gets used to going. I feel some choice is good but for such a young age perhaps requirements to go to a class they are not familiar with just to see what it's all about, would have been better." "I felt she chose the subject for the teachers rather than the subject matter itself." "On a full time basis, J___ would choose only those points which really interested him and would shy away from those in which he did not feel confident--thus, a poorly rounded education." Since this boy's parent seemed so sure that he was incapable

of selecting a balanced curriculum, the boy's choices of the four curricular areas have been included. They are: arts-manipulative, 9; reading-language arts-social studies, 16; music-drama-rhythms, 16; and science-math, 14. There appears to be a gap between a parent's perception of what his child would choose and what the child actually chose. Another parent said, "This may lead to an unbalanced curriculum, but I'm sorry my child did not have a beginning school experience such as this, because I wonder if a child in kindergarten wouldn't choose most areas if they had not already been programmed to be told what classes he must take." "I think there should be a much stronger emphasis on basic skills and not as much freedom of choice." "My daughter was making sound decisions about the use of her time. For instance, as we drove into town she said, 'I will begin with art, then while my project is drying, I will take library. Later, my project will be dry and I could do the next step.'"

The next item, which incidentally was tied for the highest mean score, dealt with the child's attitude toward learning in summer school and received a score of 4.5, which represents high approval. Parental comments on this item include: "I don't think it was exciting, interesting, challenging enough for either of them." "I can't begin to express my appreciation. His attitude is beyond expectations and before, he never liked school."

A feeling of personal security and a feeling of frustration were the next two items to which parents responded with a 3.9 mean score, which indicates general approval, and a 2.7 mean score, which means slightly less than an average degree of frustration, respectively. Parental comments for the first item include: "I feel that some amount of structure makes for more security. During the school year there seemed to be a better balance of choice and direction, and I think this provided a more stable atmosphere for growth and experimenting. At the ages of our children, I don't think they are quite ready to choose everything for themselves." "During the first week of school, he seemed insecure in the school environment. However, after he became used to the routine, he seemed much happier." "She prefers to be directed." Parental comments for the second item include: "She wasn't really frustrated--she is a little frustrated now, however; she is disappointed that summer school is over and she wishes she could attend Hebelers rather than" "In the beginning she felt frustrated because she had been in a situation previously where she was constantly told how to do everything. She didn't have the freedom to explore and consequently she seemed lost unless someone directed her, especially in art." "She became very frustrated over a puppet project. The strings were always tangled, the practice went badly, and she never wants to do it again." "He has had reading frustration in the past, but chose library daily at will. I would hardly believe it." Another

Another parent described her child as "Frustrated because he couldn't get into trouble."

An item to survey the parents' feelings about their child's interest in learning during summer school yielded a 4.1 mean, which represents general approval. Parental comments include: "I can honestly say that, with subject matter exposure not previously placed within their contact, their interest has doubled in new subject matter." "His interest was at the highest."

In reference to their child's growth in the three R's (reading, writing, and arithmetic), parents responded with a 3.1 mean score, which indicates they felt little growth occurred in these areas. Parental comments on this item include: "Perhaps he didn't advance very far in these areas. But what he did gain is more important to him and as a result he will do better in the three R's." "I don't think there was any growth." "In her weak area of arithmetic, I don't think she selected math in her choices."

When surveyed about the "other" areas of the curriculum, the parents responded with a mean score of 4.1, which represents general approval. The parental comments include: "For the amount of time M____ spends in art, there was little evidence as to what he accomplished because he brought home 5 activities out of 17 experiences." "For the length of time of summer school and the age of child, I was amazed at ideas from science she was able to tell me." "This is good--there is

little time for the 'others' in a regular school." "No art or music talent before. Now loves music, so he will miss it." "She enjoyed summer school very much which was quite an improvement from last school year which she admitted was unhappy." "An 'Oscar' to the music teachers."

The same response (4.1) was given to an item surveying the degree to which children's needs were met during summer school. In reference to needs, parents commented: "Many needs were met: social contacts, something worthwhile to do, I think they both had fun, enjoyed whatever they did. Some needs were not met; in my opinion, namely in outdoor recreation, socialization, doing things together with other children, manual activities." "Needs in terms of academics were not met (due to her choices) but 'needs' in terms of self-realization, self-satisfaction, feeling of worthiness and need for enjoyment were met very well." "Has learned that art is not a stereotyped object to be assembled or a mimeographed picture to color and cut. Also, learned that science is fun."

An item, which represented some degree of controversy in staff planning sessions, dealt with younger children having social contact with older children. On this item, the parent response was 4.5, which tied for the highest mean score and represents high approval of the idea. The parent comments included: "I think this helps point out to the children that in later life we are judged on our ability and not on our age." "This is life itself." "We believe this is good in breaking age barriers. He

learned to care and assist younger children and to show respect for their needs."

The final item, in continuum form, dealt with the plan for extending the summer school idea to include the entire year. When surveyed, the parents responded with a 3.4 mean score, representing slight or moderate approval. Because the extremes were well represented on this item, the distribution will be presented.

The continuum points of 1, 2, 3, 4, and 5 (from extreme disapproval to extreme approval) were selected by 8, 8, 10, 7, and 19 people, respectively. Parental comments included: "I don't feel this is of real value to a young child because his choices do not provide him with a balanced program." R___ [age six] would have a hard time passing college entrance exams after twelve years of music and art." "It seems to me that the younger children may need more guidance in exercising their options." "I'm sure B___ would choose only those things that he liked and would be hesitant about trying those which are harder." "For D___, I believe this would be excellent (rated 5). For my other son, I would say a 1 (one)."

Parents were surveyed on two other items--the strengths and the weaknesses of the summer school idea, which are included in Tables X and XI. As Table X illustrates, the most commonly mentioned strength of the summer school, options and free choice of learning, was listed

TABLE X

THE PARENTAL RESPONSES AND THE FREQUENCY OF THOSE RESPONSES
AS TO THE STRENGTHS OF THE HES SUMMER SCHOOL

Responses	Frequency of Response
Options and free choice of learning	17
Facilitated improvement in child's attitude toward learning and/or school	8
Great variety in meaningful learning activities	8
Much interaction of older and younger children occurred	8
Provided a relaxed atmosphere for learning	8
Program was well organized and planned, and served interests	6
Stimulating and inspiring teachers	6
Children could explore new areas and do new things	5
Child could pursue interests for several days without interruption	5
Opportunity to make decisions and live by them	5
Opportunities for children to assume major responsibilities	4
Provided greater opportunity for a feeling of success in school	4
Opportunities for individual guidance	1
Young children had contact with male teachers	1

TABLE XI

THE PARENTAL RESPONSES AND THE FREQUENCY OF THOSE RESPONSES
AS TO THE WEAKNESSES OF THE HES SUMMER SCHOOL

Responses	Frequency of Responses
When free to choose, a child may never choose the three R's, science, etc., or something he needs	12
Lack of teachers directing children to new areas or areas of the child's weakness	6
Lack of parent-teacher communication on child's progress when no grades were given	5
Some classes were filled quickly--some children didn't always get their first choice	5
Lack of parent-teacher communication on the summer school program and its objectives	4
Lack of a physical education option	3
Lack of requirements, i.e., must choose a different option each period	3
Length of summer session was too short	3
Lack of emphasis in systematic and sequential instruction of basic skills	2
Lack of material taken home which was written by the students	1
Lack of options in industrial arts, home economics, community awareness, etc.	1
Lack of a signal system to warn children they will be late	1
With only three periods, not all curricular areas could be visited	1

seventeen times. See Table X for other strengths and how frequently they were listed by parents.

Table XI reflects the weaknesses of summer school as reported by parents. As one can see from Table XI, the most commonly mentioned item, when free to choose, a child may never choose the three R's, science, etc., or something he needs, was listed twelve times by parents. See Table XI for other weaknesses and how frequently they were listed by parents.

Conclusions

Based on the findings of this phase of the study, several conclusions were drawn concerning the feelings of parents whose children attended a school which utilized a self-determining curriculum.

1. In general, parents approved the idea of a school based on a self-determining curriculum, but several had some reservations about its applicability as the sole source of their child's education.
2. There seemed to be a number of parents who were extremely positive toward the self-determining curriculum and a lesser number that were equally opposed to this idea.
3. In general, the primary concern of parents about the self-determining curriculum seemed to be, if left alone to choose, will children receive a balanced education?

4. Many parents felt that this type of curriculum, as opposed to what their youngsters were accustomed, was very refreshing and in many cases, revitalized their children's attitudes about school.

Implications and Recommendations

There appears to be some degree of support for schools utilizing self-determining curriculums. Since there were many parents who ardently supported the idea and others who strongly resisted it, maybe educators and lay people should consider some other alternatives.

An alternative, which would primarily appeal to the supporters of the self-determining curriculum, would be to reduce the number of course requirements and reduce the amount of time spent in the present curriculum subjects, and increase the amount of time to be spent on electives and one's own interests.

Another alternative, which, although it sounds contrary to present day thinking, may satisfy not only parents but children, teachers, and administrators as well, would be to establish two types of schools within the district and let the parents choose which type of school they preferred to have their children attend. As the parental support for one type of school increased, then so should the budget and the staff proportionately increase for that school. This plan might be impractical in small districts, but it might have some merit for larger districts.

It is recommended that further study be undertaken to more specifically consider the advantages and the disadvantages of the self-determining curriculum and its applicability to the public schools. Also, more research is needed to determine the characteristics of self-directive children who can select a balance of curriculum when given a chance to do so.

IV. WHAT WERE THE REACTIONS OF THE CHILDREN TO THE HES SUMMER PROGRAM WHICH USED A SELF-DETERMINING CURRICULUM?

Findings

When the forty-seven children selected to be interviewed were asked, "Which do you like better, this summer school or regular school last year?" thirty-one of forty-two (74%) replied that they preferred the HES summer program. Also, the children's responses to this question generally reflected a trend of preferences that increased with age.

After each child stated his preference for a type of school, he was asked by the interviewer to indicate reasons for his preference. Table XII illustrates the reasons and how frequently they were mentioned by the children selecting summer school as their preference. As one can see from Table XII, the most frequently mentioned reason was that options were available. See Table XII for further details about the children's reasons for their preferences.

TABLE XII

A LIST OF THE REASONS CHILDREN PREFERRED SUMMER SCHOOL
OVER LAST YEAR'S SCHOOL

Reason	Frequency
Options were available	10
It was more enjoyable (funner)	8
More freedom to do what you want	7
Wide variety of activities for learning	6
Can pursue a task, interest, or subject until you are finished	6
Can visit all the rooms	4
Teachers respect you	1
There was a snack period	1
You could play ball at recess	1
You don't have to read to your teacher	1
You don't have to write things	1
You don't get report cards	1
Because we have lots of music	1

Table XII shows the reasons and how frequently they were mentioned by the children indicating a preference of regular school over the summer school program. As one can see, the most frequent reasons in order were: (1) wide variety of school subjects, (2) more friends in school, and (3) because there was more work in subjects like math and spelling. See Table XIII for further details about the children's reasons for their preferences.

When the children were asked to rank from the list on the interview form the things they liked most about summer school, the most common response was the chance to choose the areas you want. The least common response was the teachers. See Table XIV for a list and the rank order of these items. The rank order was determined by assigning a value of 3 to a first choice, a value of 2 to a second choice, and a value of 1 to a third choice, and then totaling these weighted scores.

When the children were asked to rank from the list the things they liked least about summer school, the most common response was the open-ended item "other." See Table XV for a list of the items that were included in the "other" category. The second preference was the half-day concept, which is essentially a positive response to a summer school. Two items that were not mentioned at all were the films and the art center. See Table XV for a list and the rank order of these items. The rank order for Table XV was computed the same way as the rank order in Table XIV.

TABLE XIII

A LIST OF THE REASONS CHILDREN PREFERRED LAST YEAR'S
SCHOOL OVER SUMMER SCHOOL

Reason	Frequency
Wider variety of school subjects	2
More friends in school	2
Because there is more work in subjects like math and spelling	2
Had to take certain classes	1
Had your own class responsibilities	1
It was a longer day	1
You don't have tags	1
You don't have to go to different rooms	1
Because school was in the summer (If the schools were the same time he would prefer summer school.)	1
If you're late, you can still go to class	1
Have more toys	1
More enjoyable (funner)	1

TABLE XIV
THE RANK ORDER OF THE ITEMS CHILDREN
LIKED MOST ABOUT SUMMER SCHOOL

Item	Weighted Score	Rank Order
a. chance to choose the areas you want	72	1
b. materials	5	10.5
c. films	12	7
d. chance to learn what you want	5	10.5
e. the teachers	3	12
f. snack/recess	12	6
g. art center	39	2
h. music center	11	8
i. math/science center	32	3
j. library center	25	5
k. 1/2 day	6	9
l. other *	27	4

* Items mentioned under "other" include: the way some of the rooms are doubled; the periods; places I can go by myself; they don't force you to work, but you can if you want to; don't have to go to math; toys; and responsibility for using equipment.

TABLE XV
THE RANK ORDER OF THE ITEMS CHILDREN
LIKED LEAST ABOUT SUMMER SCHOOL

Item	Weighted Score	Rank Order
a. chance to choose the areas you want	2	9.5
b. materials	7	5
c. films	0	11.5
d. chance to learn what you want	2	9.5
e. the teachers	5	6.5
f. snack/recess	5	6.5
g. art center	0	11.5
h. music center	16	3
i. math/science center	10	4
j. library center	4	8
k. 1/2 day	29	2
l. other*	34	1

* "Other" comments include: people pushing when tagging; no familiar landmarks (a six-year-old); not enough playing outdoors; don't like to look for bugs in science; too noisy; would like to go a full day; not enough to do; "I wanted to get into trouble but you've made it almost impossible"; full tag boards; the teachers baby you; lack of rules; tripping over little kids; not enough academics; and lack of consistency in subjects from day to day.

When the children were asked to rank in order the things from the list that they thought about when they chose an activity, their most common response was "a study you are interested in." The only item from this list that was never mentioned was "the teacher asked you to come," which supports the staff's prior commitment of agreeing not to tell children where to go during any periods. See Table SVI for a list and the rank order of these items. The rank order was computed by using the same procedure of weighted scores used in Tables XIV and XV.

When surveyed as to in which school, summer school or last year's school, they made the most decisions, twenty-eight of forty-three children (65%) indicated summer school. No obvious pattern existed to support the notion that older or younger children had to make more or less decisions in either type of school.

When asked if they enjoyed making decisions regarding their education, forty of forty-four children (91%) replied, "Yes." A high proportion of children at every age level favored making their own decisions.

As the final question of the interview form, the children were asked, "What kind of help would you like to have in learning how to make decisions regarding your own education?" The most commonly mentioned item was "None." The second and third most commonly mentioned items were: "need more descriptive information prior to decision," and "how to decide what my needs are or what things are best for me," respectively.

TABLE XVI

THE RANK ORDER OF THE ITEMS CHILDREN CONSIDERED
PRIOR TO CHOOSING CURRICULAR AREAS

Item	Weighted Score	Rank Order
a. it is something you need	14	5
b. a study you are interested in	61	1
c. your friend will be going there	4	7
d. the announcement makes it sound interesting	49	2
e. your parents asked you to go	3	8
f. a teacher asked you to come	0	9
g. you wanted to finish something you started earlier	24	3
h. because you feel like you will learn something	23	4
i. other*	13	6

* "Other" comments include: "Where the action is (math-science)!" "Freedom to make up your own mind." "Try something new." "Where it's quiet so I can get some reading done." "Decide whether the announcement may be misleading." "Your previous experience in a subject." "Will I do a good job on it?"

See Table XVII for further details regarding kinds of help children felt they needed to improve their decision-making process.

Conclusions

Based on the findings of this study, several conclusions were drawn concerning the reactions and the preferences of the children who attended a summer school which used a self-determining curriculum.

1. As a group, the children generally preferred the HES summer school over their last year's school.
2. In general, the opportunity to choose what they wanted to study was the basis for most preferences indicating the desirability of summer school.
3. When given an opportunity to state their criteria for decision-making, most children were able to do so.
4. In general, the children felt they made more decisions in summer school than they did in their last year's school.
5. As a group, the children strongly favored making their own decisions.

Implications and Recommendations

The conclusions from this investigation seem to support the notion that the decision-making process was in action. If it can be assumed that the ability to make sound decisions is a crucial asset to

TABLE XVII

A LIST OF THE TYPES OF HELP CHILDREN FELT THEY NEEDED
TO ENABLE THEM TO MAKE BETTER DECISIONS
REGARDING THEIR EDUCATION

Item	Frequency
None	7
Need more descriptive information prior to decision	6
How to decide what my needs are or what things are best for me	5
Someone to make me go where I know I should	2
Wider selection of activities	2
Have the teacher tell me everything to do	2
Someone to tell me what I really need	1
A good resource person in the area of my interests	1
More teachers	1

insure effective adjustment and productivity in life, then perhaps educators and lay people should begin to consider the alternatives mentioned when the implications in Part II were discussed.

It is recommended that further study be undertaken to determine to what degree, if any, children make more and better decisions when they attend a school which utilizes a self-determining curriculum than when they attend schools which utilize other types of curriculum.

CHAPTER V

SUMMARY

This paper presented the hourly curricular choices of ninety-eight elementary children every day of a particular summer session, the feelings of the parents of these children about their child's attending a school which used a self-determining curriculum, and the feelings of these children who attended this type of school.

This study was designed to investigate the advantages and disadvantages of a self-determining curriculum.

It is hoped that this study will contribute to the fund of knowledge about children's curricular preferences and a self-determining curriculum.

BIBLIOGRAPHY

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APPENDIX A

DESCRIPTION OF CURRICULAR AREAS

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DESCRIPTION OF CURRICULAR AREAS

I. THE ARTS-MANIPULATIVE ITEMS CURRICULAR AREA

Staffed by an experienced primary teacher and two student-teacher aides, the arts-manipulative area was located in two adjoining rooms. Since one room had a sink, it served as an area for water play and wet art activities. The other room contained most of the manipulative items and served as both an area in which dry art activities such as puppet clothing and seed mosaics could be constructed and an area in which all sorts of small group games were played.

In the painting area, one could typically find the following activities: easel painting, murals being planned, water play with flexible plastic gadgets, daily experiences such as splatter or toe painting, play-dough, and pottery making. In the other room, small groups of children representing all ages could be found working together; some playing games like checkers or scrabble, others involved in the game of the hour, which was described in the morning announcements, and still others enjoying independent activities such as puzzles, lotto games, tinkertoys, etc. Also, in one area of this room, children could be found making art constructions from wood, metal, plastic, paper, or cloth pieces. Here one commonly saw puppets and marionettes being

assembled, mobiles being balanced, and flowers, collages, and art items being attached with various types of adhesives.

The activities scheduled were of several types, ranging from spontaneous use of basic room equipment such as dominoes and word games to a two-week project of planning, constructing, and decorating puppets and then writing a script, rehearsing it, and finally presenting a puppet show. Other types of activities included: a game of the hour-- usually with teacher participation, and special daily options like wire sculpture, which terminated at the end of the day.

Although working with a variety of activities and with multi-aged children, the teachers constantly attempted to relate these activities to other areas of the curriculum. This permitted the opportunity to present concepts, such as counting by fives or reading and interpreting directions, which may be directly related to other curricular areas.

Even such concepts as perseverance and commitment were stressed by making it clear to children that the room environment provided several alternatives, but if they decided to participate in a group that had gathered for preplanned purposes, they needed to honor their commitment by staying in that activity until they were excused.

The following information was solicited by the investigator, but written by Mrs. Louise Lampman, HES librarian, who was a teacher in the reading-language arts-social studies area.

II. READING-LANGUAGE ARTS-SOCIAL STUDIES AREA

Coordinating with the other three option areas in the program, the library served as center for social studies, language arts, and library activities. So completely integrated were these three aspects of the learning pattern, it is difficult to describe any one in isolation. Perhaps it is best to describe the total operation as learning skills and discipline divisions merged.

Following the total summer school pattern, this center was staffed by two professionals and two student teacher-aides. Responsible for social studies-language arts interests (if they could be separated) was a specialist in all aspects of reading, who was also an experienced teacher with social studies background. Under his guidance an area was stocked with remedial and developmental materials (Sullivan, Dolch, etc.), word games, programmed books, skill patterning materials and challenges.

The library, staffed by an experienced professional librarian with media interests and skills and instructional materials competence, offered a 16 mm. film program, story hour, listening posts with programs of recorded stories at one location and recorded music at another, opportunity to select and view film strips--often with read-aloud experiences--and

the full range of recreational browsing-selection and reading. Reference and research consulting and guidance were available and were utilized.

Integration of disciplines was especially evident in selection of 16 mm. films for the full range of interests and study areas in the entire summer session program, freedom to choose from the total filmstrip collection, use of the total resources to support special projects and areas of inquiry.

Student self-motivation and guidance were notable: many of the films were suggested by students; all film programs used student operators; participants sought opportunities to present story sessions; volunteers read to and helped non-readers with books and filmstrips; game groups taught one another; project book users paced and corrected each other's work.

Notable were the cross-age group activities and cooperation, the projection of one interest into another, the development of levels of accomplishment and maturity.

Professionals and aides assembled materials, coordinated activities, and were available as consultants. The entire program, however, was student-centered, student-sought.

III. MUSIC-DRAMA-RHYTHMS CURRICULAR AREA

Staffed by two experienced primary teachers with music backgrounds and assisted by two student-teacher aides, this area utilized two adjoining rooms, one for instruments including musical manipulative devices, and the other, a large empty area, in which songs, pantomimes, dramatizations, and creative rhythms were presented.

As in the other curricular areas, special daily activities were listed in the morning announcements. Sometimes a different activity would be planned for each period or, on occasion, when an extremely large demand was anticipated, the same activity would be planned for two consecutive periods.

Exploration and experimentation occurred frequently as the teachers programmed the environment with many kinds of instruments, representing the strings, percussion, and brass, for children to manipulate. On occasion, the teachers invited resource people to demonstrate the use of these instruments to the children.

Many times children and teachers first met in groups to learn new songs and later dispersed to rehearse segments of these songs. Then, through different forms of dramatization, these songs were presented "in concert" to the rest of the children at the end of the period.

The emphasis here, as elsewhere in the building, was on involvement. Children and music needed to be brought together in active fashion.

To do this, one had to plan activities with less difficult parts and yet still provide challenge and stimulation for more advanced students. Many times this type of approach occurred by having the more advanced children leading the more sophisticated parts of the singing, while others provided the chorus and background music, and still others dramatized parts of the song as it was being sung.

IV. SCIENCE-MATH CURRICULAR AREA

This area, staffed by two intermediate teachers and two student-teacher aides, was housed in two adjoining rooms, one of which was equipped with math materials and the other containing science manipulative items.

Even though science and math are usually taught as separate subjects, an attempt was made to correlate every possible science experience with math and vice-versa. For example, while on a one-hour field trip, the teacher asked, "How far do you think it is to the end of the block?" After several moments of deliberation, the students began to estimate, measure a stride, pace and count, and multiply. The teacher felt that awareness of distance as a concept had been presented interestingly, not to speak of the active involvement on the youngsters' part to solve this problem.

Some times science experiences would focus on both science content and process, while other times, like the race to see who could get their air rocket to go the fastest in miles per hour, science and math were so interrelated they could not possibly be separated.

The teachers planned experiments, described in the morning announcements, which utilized science apparatus and equipment. Occasionally, there was free time in which youngsters might explore and experiment with the apparatus.

Occasionally, math experiences such as counting in different number systems (base numbers) were presented to groups, though usually children worked in small groups and individually. Manipulative and counting devices, as well as SRA math labs and Cuisenaire rods, were distributed throughout the room. Games such as Monopoly were used to help develop reasons to count money, apply basic math processes, and compute percentages. Children were encouraged to see which things they could work, and which other things gave them trouble. This presented a "learnable moment" for a teacher to share new concepts or expand old ones.

APPENDIX B

REMINDER NOTE TO PARENTS

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July 26, 1968

Dear Parents:

According to our records, we haven't received the questionnaire sent to you during the last week of summer school. In order to complete our evaluation and because of the different organizational structure of summer school, we are most interested in your feelings and comments about the summer school program. We would appreciate receiving your questionnaire at your earliest possible convenience.

If you have returned the questionnaire by the time you receive this note, please disregard this reminder.

Thank you.

Roger Gray

Summer School Coordinator

APPENDIX C

HEBELER SUMMER SCHOOL ATTITUDE INVENTORY

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HEBELER SUMMER SCHOOL ATTITUDE INVENTORY

Dear Parents:

Would you please let us know how you feel about the summer school program? In what ways has it helped or hindered your child or children while attending?

You are encouraged to respond to the questions jointly, but are requested to make only one mark to represent your consensus. If more than one child was enrolled, fill out a form for each child.

- Please:
- (1) Fill out the inventory and return it to Hebeler by Thursday, July 18.
 - (2) Be completely frank.
 - (3) Answer all questions. (Consider each question carefully and mark your answer on the basis of the question as it stands. Some of the questions call for general impressions of broad areas, each containing a number of separate factors. While you may feel differently about some factors than others, please respond with just one mark (X) per question. This mark should reflect your over all impression of the item.)
 - (4) Feel free to comment on any or all of the questions in the spaces provided.
 - (5) Identify yourself only if you wish.

Thank you for your cooperation.

Roger Gray
Summer School Coordinator

Richard J. L. Covington
Director, HES

Child's Age _____

Please express your feelings about each of the following statements. To do this, place a mark (X) at any point along the line so that the mark reflects the strength of your feeling or attitude about the statement. For example, if you feel that your child greatly decreased in self-direction, please place your mark on the 1; if you feel no change has occurred, place your mark on the 3; and if you feel that self-direction has greatly increased place your mark on 5.

1. How do you feel about your child's ability to direct himself in all types of situations as a result of attending summer school?

1	2	3	4	5	
Ability to direct himself has decreased very much.			Midpoint	Ability to direct himself has increased very much.	

Comment:

2. How do you feel about your child's awareness of: (1) what is around him, (2) how he affects other people, and (3) what is available and happening to him as a result of attending summer school?

1	2	3	4	5	
Awareness has decreased very much.			Midpoint	Awareness has increased very much.	

Comment:

3. How do you feel about your child's ability to communicate (receive as well as give) both verbally and non-verbally as a result of attending summer school?

1	2	3	4	5	
Ability to communicate has decreased very much.			Midpoint	Ability to communicate has increased very much.	

Comment:

4. How do you feel about your child's ability to realistically appraise his potential abilities and adjust his behavior to attain those abilities as a result of attending summer school?

1	2	3	4	5
Ability to realistically appraise and attain potential has decreased very much		Midpoint		Ability to realistically appraise and attain potential has increased very much

Comment:

5. How do you feel about your child's ability to behave socially in accordance with the rules and laws of his society as a result of attending summer school?

1	2	3	4	5
Ability to behave socially has decreased		Midpoint		Ability to behave socially has increased

Comment:

6. How do you feel about your child's ability to inquire (voluntarily raise questions, project ideas; seek information and accept, reject or modify those ideas) as a result of attending summer school?

1	2	3	4	5
Ability to inquire has decreased very much		Midpoint		Ability to inquire has increased very much

Comment:

7. How do you feel about your child attending a school based upon options (Free choices) for pupils?

1	2	3	4	5
Option idea is very poor		Midpoint		Option idea is very good

Comment:

8. How do you feel about your child's attitude toward learning in summer school?

1	2	3	4	5
Attitude in summer school is very poor			Midpoint	Attitude in summer school is very good

Comment:

9. How do you feel about your child's feeling of personal security during summer school?

1	2	3	4	5
Feeling of security has decreased very much			Midpoint	Feeling of security has increased very much

Comment:

10. How do you feel about your child's feeling of frustration, if any, during summer school?

1	2	3	4	5
Feeling of frustration has decreased very much			Midpoint	Feeling of frustration has increased very much

Comment:

11. How do you feel about your child's interest in learning during summer school?

1	2	3	4	5
Interest in learning has decreased very much			Midpoint	Interest in learning has increased very much

Comment:

12. How do you feel about your child's growth in the three R's (reading, writing, and arithmetic) during summer school?

1	2	3	4	5	
Growth in three R's has decreased very much			Midpoint	Growth in three R's has increased very much	

Comment:

13. How do you feel about your child's growth in the "other" curricular areas during summer school?

1	2	3	4	5	
Growth in "other" areas has decreased very much			Midpoint	Growth in "other" areas has increased very much	

Comment:

14. How do you feel about the summer school program meeting your child's "needs"?

1	2	3	4	5	
"Needs" weren't met at all			Midpoint	"Needs" were met very well	

Comment:

15. How do you feel about your children and older children having social contact with each other during school?

1	2	3	4	5	
It is a very poor idea			Midpoint	It is a very good idea	

Comment:

APPENDIX D

CHILDREN'S INTERVIEW FORM

APPENDIX D

CHILDREN'S INTERVIEW FORM

Age: 6, 7, 8, 9, 10, 11, 12
(as of June)

Name _____

Date of Interview: _____

Boy _____

HES _____

Girl _____

Non-HES _____

1. Which do you like the better, this summer school (____) or regular school last year (____)?

Why?

2. Which things do you like most about this summer school?
Now, rank the top three in order of preference.

- a. chance to choose the areas you want _____
- b. materials _____
- c. films _____
- d. chance to learn what you want _____
- e. the teachers _____
- f. snack/recess _____
- g. art center _____
- h. music center _____
- i. math/science center _____
- j. library center _____
- k. 1/2 day _____
- l. other _____

3. Which things do you like least about this summer school?
Now rank the top three in order of preference.
- chance to choose the areas you want_____
 - materials_____
 - films_____
 - chance to learn what you want_____
 - the teachers_____
 - snack/recess_____
 - art center_____
 - music center_____
 - math/science center_____
 - library center_____
 - 1/2 day_____
 - other_____
4. When you choose an area or activity, what things do you think about?
What things do you consider to help you make up your mind? Which three, in order, occur most often?
- it is something you need_____
 - a study you are interested in_____
 - your friend will be going there_____
 - the announcement makes it sound interesting_____
 - your parents asked you to go_____
 - a teacher asked you to come_____
 - you wanted to finish something you started earlier_____
 - because you feel like you will learn something_____
5. In which school did you have to make the most decisions?
this summer school_____ last year's school_____
6. Do you enjoy making decisions regarding your education?
Yes_____ No_____
7. What kind of help would you like to have in learning how to make decisions regarding your own education?