AN APPRAISAL OF THE ELEMENTARY SCHOOL PROGRAM FOR THE
LE GRAND-DUNBAR-FERGUSON COMMUNITY SCHOOLS, 1963

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by
Keith W. Augspurger
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AN APPRAISAL OF THE ELEMENTARY SCHOOL PROGRAM FOR THE
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Approved by Committee:

[Signatures]

Dean of the Graduate Division
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CHAPTER I

INTRODUCTION

The modern school program should be such in content as to accommodate the levels of all students' needs and abilities. It must be relevant to the needs of the times and in effect provide the basic equipment which will make it possible for the student to meet new problems as he progresses into adulthood in a changing world.

In past years the problems of education were far fewer than those to be met at the present time. One of the reasons for this is the fact that formerly only the select few received a formal education. With the coming of free and compulsory education for all boys and girls, the situation became vastly changed.

With these facts in mind, it becomes necessary to choose the most applicable activities which will help to make each student a rational being, able to attack and solve the many varied problems of today.

Teachers like to know what they are responsible for teaching in their particular grade. They also like to know what the teachers before and after them are responsible for teaching. This gives them information about the continuity, the repetition, and the flow of content grade by grade.
I. THE PROBLEM

Statement of the problem. It was the purpose, then, of the writer to appraise the elementary program of the Le Grand-Dunbar-Ferguson Community Schools and to locate deficiencies in light of current trends, innovations, and recommendations of leading authorities in the areas of elementary education. Special attention was given to time allotments in the various subject areas as well as to changes in course content. Recommendations and proposals were developed which it is believed will help improve the school program in the school system under study.

Procedure. The procedure followed was to survey or review the available literature from books, periodicals, encyclopedias, and magazines pertaining to current trends in the subject areas of the elementary school programs giving special emphasis to course content and time allotments. A study was then made of the current practices, course content, and time allotments in the various subject areas of the Le Grand-Dunbar-Ferguson school system. This study was made by personal conferences with the teachers plus information taken from the elementary course of study. The literature reviewed was then compared with the material taken from the Le Grand-Dunbar-Ferguson school program. Recommendations
and proposals were then made to help improve the school program in the Le Grand-Dunbar-Ferguson school system.

**Importance of the study.** As was mentioned previously, it is constantly the concern of the teachers as well as the administrators to determine what subjects should be taught at particular grade levels and for what lengths of time these should be scheduled. It should be recognized more clearly that the daily or the weekly program is, in many respects, a reflection of the school's philosophy, its curriculum, and its plan of action.

It is hoped that this study of course content and time allotments in view of current trends and innovations, might be beneficial in helping to serve as a guide for teaching as well as in scheduling, and give an effective appraisal of the school system under study.

**Limitations of the study.** This study was limited to the Le Grand-Dunbar-Ferguson elementary school system for the purpose of determining how effective the educational program was in terms of current trends and innovations.

II. **DEFINITION OF TERMS**

**School program.** The school program refers to curricular areas in which the school offers formal instruc-
tion, namely: arithmetic, science and health, social studies, language arts, physical education, and the fine arts.

Language arts. Language arts includes the instructional areas of reading, foreign language, handwriting, spelling, and grammar.

Social studies. Social studies refers to the instructional areas of geography, history, and civics.
CHAPTER II

REVIEW OF THE LITERATURE

The following chapter is devoted to a review of the literature pertaining to changes in course content and time allotments in all curricular areas of the elementary school program.

I. ARITHMETIC

Hansen made the following statement with regards to arithmetic in present-day situations: "There is reason to believe that our most serious educational deficiency is in mathematics. The weaknesses are less noticeable than in reading, yet the problem is not wholly obscured."¹

The preceding paragraph refers to a particular school system in which the author was superintendent. However, this may well be the opinion of many others in the same academic area.

Price stated that the changes now taking place in mathematics are so extensive and far-reaching in their implications, that they can be described only as a revolution.²


In the past mathematics was taught in a fixed pattern and had the same meaning for all. Recently, the term "modern math" has entered the curriculum and the public are beginning to raise the question as to why the change. This is a very legitimate question and one which must be answered before the public will all accept the change.

Every day people are confronted with simple arithmetic problems. It is almost impossible to succeed in the realm of science without a sound working knowledge of arithmetic.

With regards to the purpose of teaching mathematics, Hansen stated the following:

The purpose of teaching mathematics, in a broader sense, is to supply every citizen with what he needs, as a member of a technological society, simply to do and understand those things required of him.1

School mathematics has degenerated over the past years because of an exclusive concern for teaching methods without any new content.2 MacLane also stated arithmetic has often been viewed as a mass of numbers and number facts and not as a meaningful structure. No reasons were given for the rules that were learned.3

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1Hansen, loc. cit.

2Saunders MacLane, "Teaching Modern Mathematics - The Reform has been Oversold," NEA Journal, LI (November, 1962), 45.

3Ibid.
In emphasizing the importance of new developments, it was not intended to imply that recent developments are the only important parts of mathematics. Many old subjects must continue to be taught, however, the emphasis might be placed on a different aspect of the subject or perhaps with different methodology.

The School Mathematics Study Group (SMSG) started work at Yale University in the summer of 1958, under a grant from the National Science Foundation. A year later, four textbooks were finished, one for each of the four high school grades. Since then, the School Mathematics Study Group has produced books for use in the elementary grades. Perhaps one curriculum change that might seem obvious to try would be to move course content down one grade level and teach the information one year earlier than before.

Noise states the following in connection with the preceding statement:

It is not practical to merely move the high school courses downward in most schools as the teachers would not be trained to teach them. The majority of elementary school pupils will be taking courses in "general mathematics" rather than ninth-grade algebra. These students frequently need fresh starts. For these reasons, much of the new elementary-school writing is in short units, largely independent of one another.1

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Many other study groups have been active in creating new mathematics programs. There is still continued controversy as to the validity of some of the programs as is evidenced by the following paragraph.

It is evident that a child can multiply in the first grade, learn geometry in the second, but why in the name of Arithmetic must such unrealistic demands be placed upon a child's time and ability. Many questions must be raised and answered before some arithmetic programs become acceptable.¹

Brogan made the following statement:

It is possible for six-year olds to compute in ways related to the Theory of Sets. To prove their point, the formalists are conducting experiments in which first-grade students do such computing. But where is the first-grade teacher in all this furor?²

MacLane stated, "Many of the reforms are good, but any crash program is likely to over-shoot."³ It was also stated by MacLane that the task of surveying all the new literature and of making judgement involves certain hazards as follows:

1. The new books seldom explain the reasons behind the methods that they use.
2. The new books try very hard to convey mathematical concepts.
3. A casual inspection of the new books may convey an impression that they neglect the traditional material, including the material useful in science,

³MacLane, loc. cit.
to replace it with "modern mathematics" of interest only to research mathematics. This is not true. Some of the changes are curricular; but most are merely changes in style of treatment.¹

With so many ideas on what to look for and what to expect the question arises as to just what content should be offered in an up-to-date elementary arithmetic program.

Swenson mentioned that the arithmetic meanings to be acquired by most children in the primary grades were briefly, certain mathematical concepts and processes. Often serious mistakes are made in assuming that primary arithmetic consists entirely of a routine counting, reading and writing of numerals, and routine oral or written repetition of simple arithmetic facts. The important words to be learned in the primary grades are "group, base, and place value."²

Ohlsen listed the following descriptions of learning outcomes for each grade level based on the experience of many teachers:

**Grade 1**
- Counting to 100 by 1's, 5's, 10's and 2's
- Read and write the numbers and learn meaning of place notation
- Experience in grouping objects
- Learn to use the clock and calendar
- Learn to count coins
- Many learn meaning of \( \frac{1}{2} \), \( \frac{1}{4} \), and 1/3, although no systematic study is usually given.

**Grade 2**
- Learn several addition and subtraction facts with small numbers whose sum is less than ten
- Count, read, and write numbers larger than 100
- Learn more about clock, calendar, and money
- Acquainted with several units of measurement such as feet, yards, pints, quarts, gallons, dozen, degrees of temperature
- Incidental learning about fractions such as \( \frac{1}{2} \), \( \frac{1}{4} \), 1/3

¹MacLane, loc. cit.
²Noise, op. cit., p. 86.
Grade 3
Add and subtract with three-digit numbers involving carrying and borrowing
Know meanings of the terms multiplier, product, divisor, quotient, etc.
Perhaps multiplication tables as 2's, 3's and 5's

Grade 4
Add and subtract large numbers and dollars and cents
Add a column of several numbers
Understanding multiplication with integers
Ready recall of multiplication tables through 10's
Multiplication problems with one and sometimes two-digit multipliers
Division problems with one-digit divisors, some with two-digit with and without remainders
Much attention on meaning of fractions and how to read and write them

Grade 5 and 6
New work with fractions and decimals
Learn meanings of fractions and the vocabulary connected with them and have considerable experience in adding and subtracting fractions and mixed numbers—with same and with different denominators
Sixth grade work with fractions continued—the pupils learn to multiply and divide fractions and mixed numbers
Introduction to decimals in fifth—add and subtract
Sixth grade extend learning to multiplication and division with decimals
Review previous work, teach simple geometric facts, and more about measurement
Help to develop problem-solving abilities

Conclusions from past research by noted writers in the field of mathematics gave Stutter the following concepts for first grade students in arithmetic:

1. Number reading; understanding of numbers to 9, writing numerals 1 to 100, developing the understanding of 10's and 1's, telling time by hour only, and understand that two halves make a whole

2. Writing numerals by 2's
3. Liquid and dry measure
4. Developing concepts of money
5. Number concepts through 6 possibly 9
6. Understanding of groups through 6 or 9
7. Need for arithmetic vocabulary

Neureiter and Wozencraft listed the following objectives to be carried out in a second grade arithmetic program:

1. Our decimal system of numeration with its features of place value and the zero
2. The exchanging between units of different order involved in carrying and borrowing
3. Such generalizations as the commutative and associative laws of addition, the relationship between inverse operations, and the possibility of using a number base other than ten

It was also noted that perhaps the curricular material in the arithmetic program should be redistributed between the primary and the intermediate grades because of overloading of new material in the third grade.

Objectives listed by Engler for the first to the sixth grades in arithmetic were as follows:

Grade 1
To provide each child with the experience and environment that will make him ready for systematic learning

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3 Ibid.
**Grade 2**

Begin second grade with a review and relearning the arithmetic taught in first grade—few new concepts taught, except, perhaps at the end of the year when some may develop readiness for new concepts in third grade.

**Grade 3**

Review—greater the mastery of these concepts, less work will be needed with materials—variation in children's mastery of these fundamentals becomes more apparent, especially when they try to move to new topics of grade three.

**Grade 4**

Review concentrating on understanding the fundamental operations and mastering basic number facts—representative materials will be used to reteach the meanings of addition and subtraction facts; all those multiplication and division facts taught in third grade and the meanings of fractions.

**Grade 5**

Nature of review determined by degree of success the group have made in previous learnings—review of number system, fundamental operations and number facts helpful, also review of fraction concepts is extensive, relearn meaning of fractional equivalents of fractions, addition and subtraction of like fractions and finding a fractional part of a number.

**Grade 6**

Same type of review as in fifth—emphasis on improving skills in computation and understanding of concepts and processes newly learned in grade five—special attention given to understanding all work that has been done on common fractions and decimal fractions.

Most authorities in the field of arithmetic now accept the meaning theory. Here, numbers are taught as a

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system rather than as isolated facts. Concept building through the use of concrete materials is emphasized and the relationships in arithmetic are recognized.¹

The "new" (1960's) version of learning contends that abstract ideas must be made concrete. Typical, in the "new" developments in teaching arithmetic is a series of plastic trays containing square pies cut from a rubber material. One of the pies is whole, one is cut in half, one in four quarters, and another in sixths and twelfths. A second tray offers the same lesson with circles, whole and divided.²

Lynch stated that another of the "new" items is the Cuisenaire's rods. These consist of a series of multi-colored sticks differing in lengths to help children learn through manipulation of the rods.³

It was also stated by Lynch that the so-called "new" items have been used for two or more decades but have recently been re-evaluated and brought back into use.⁴

Ragan emphasized that the trend in arithmetic has been toward eliminating seldom-used material and the postponing of more difficult topics until pupils have become mature enough to profit from such study.⁵

The last few paragraphs have indicated that not too

³Ibid., p. 15.
⁴Ibid.
⁵Ragan, op. cit., p. 291.
much course content has actually been changed of recent. The main emphasis has been placed upon learning for a reason rather than as isolated facts. Methodology or means of presentation have changed somewhat in an effort to make arithmetic more interesting and meaningful.

II. SCIENCE AND HEALTH

Many studies and plans for science instruction in the elementary schools have been made in the last few years. However, science instruction still remains immature and disorganized because of the "newness" of such in the elementary schools and the "downward" development of the science program. The teachers tend to shy away from the area of science possibly because of a weak background in the subject.

Fraser pointed out the following:

In considering proposals about the teaching of science, we must recognize that this area has been neglected in many elementary school programs. While some of the current proposals may be unrealistic in depth of study they help to redress an imbalance that has long existed in grades 1 - 12.1

Blough also made mention of the fact that there is still too much poor science teaching at every level of our school system, but that progress will come only through an

1Dorothy McClure Fraser, "What Content and When?" National Elementary Principal, XLII (January, 1963), 36.
analysis of needs and devising a program for meeting these.¹

One problem at this point might be then to find reasons as to why these areas have been neglected and what might be done to improve them.

Mallinson pointed out that the lack of a clearcut, easily-understood list of objectives that can be implemented by the classroom teacher is one cause for the present turmoil in elementary science.²

Fish emphasized the following with regards to the nature of science and science instruction:

Subject-matter areas have been emphasized in the science curriculums as a tradition for many years. Science is not a study of areas but rather a study of relationships and a search for fundamental principles through which these relationships can be explored and understood. Science is based on a fundamental structure that embraces all natural phenomena including the child himself, in a dynamic relationship that involves matter, energy, and change. For this reason, the science curriculum should be directed toward developing the child's awareness of this fundamental structure.³

Sellars stated that the chief implication of science for children of sixth grade or below is and must continue


to be social.¹

Much discussion has been brought about of late pertaining to the amount of time and emphasis that should be placed upon the physical and the biological sciences. It would seem logical that more emphasis should be placed upon the physical sciences, especially since the many recent technological advances along these scientific lines have been advanced.

The trend toward recognition of the physical sciences was well summarized by Nelson when he stated:

Certainly a single area such as insect-life or shell-collection is not to be thought of as constituting a course of study; neither is a warped science program where biological science is taught to the exclusion of physical science. As important to the child today are the physical sciences where the study of nature was current in days past. The biological sciences are not to be forgotten but there should be more of a balance with the physical sciences perhaps constituting 70% of the time and the biological sciences 30% at the upper-grade level and a ratio of 40-60 at the kindergarten and primary levels.²

The question then arises as to what course content and objectives should be contained in a modern elementary science course of study.

Mallinson listed the following as objectives for a science program in the elementary grades:

¹David Sellars, "Elementary Education is on the March - Science," The Instructor, LXIII (January, 1963), 36.

²Mallinson, loc. cit.
1. Functional information of facts about such matters as the universe, living things, and the human body.
2. Functional concepts such as: (1) space is vast, (2) earth is very old, (3) all life evolved from simpler form, and (4) all matter is probably electrical in structure.
3. Functional understanding of these principles: (1) all living things reproduce their kind, and (2) energy changes from one form to another.
4. Instrumental skills such as ability to read science content with understanding and satisfaction and to perform simple manipulatory activities.
5. Problem-solving skills, ability to sense a problem and make the best tentative explanation or hypothesis.
6. Attitude, open-mindedness, willing to consider new intellectual honesty, scientific integrity.
7. Appreciation of contributions of scientists and of the basic cause and effect relationship.
8. Interest in some phase of science as a recreational activity or hobby and in science as a field or vocation.

The following seven points were also listed by Mallinson as being what an elementary student should be able to "do better" as a result of science instruction:

1. Observe the objectives that exist and the phenomena that take place in his environment, and to report accurately what he observes; in other words the student should be taught to describe.
2. Compare objectives and phenomena with respect to their (a) likenesses, and (b) differences; these two skills are different from one another.
3. Rank information in terms of its importance.
4. Determine whether enough information is available to warrant making a conclusion or even tentative answer, or, decide how much of an answer can be made from the information available.
5. Determine what kind of information is still needed in order to formulate an answer to a question, or locate data for a problem.
6. Decide on most efficient way to obtain the needed information.

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1Mallinson, op. cit., p. 256.
7. Carry out an experiment with the material available, if it is decided that an experiment is the best way to obtain the answer to a problem.¹

Blough, Schwartz, and Huggett presented a very convenient classification of the content of the elementary school science program as follows:

<table>
<thead>
<tr>
<th><strong>Living Things</strong></th>
<th><strong>Matter and Energy</strong></th>
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<tbody>
<tr>
<td><strong>K-2</strong></td>
<td><strong>K-2</strong></td>
</tr>
<tr>
<td>How Animals and Plants Differ</td>
<td>How Machines Help Us</td>
</tr>
<tr>
<td>How Living Things Differ</td>
<td>How We Get Our Work Done</td>
</tr>
<tr>
<td><strong>3-4</strong></td>
<td><strong>3-4</strong></td>
</tr>
<tr>
<td>How Plants and Animals Live and Grow</td>
<td>How Work is Made Easier</td>
</tr>
<tr>
<td>How We Group the Things About Us</td>
<td>How We Use Magnets</td>
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<tr>
<td><strong>5-6</strong></td>
<td><strong>5-6</strong></td>
</tr>
<tr>
<td>How Living Things Live Together</td>
<td>What Makes Things Move</td>
</tr>
<tr>
<td>How Plants and Animals are Made Useful</td>
<td>What Things are Made Of</td>
</tr>
<tr>
<td>How Plant and Animal Bodies Differ</td>
<td>Why the Air is Important</td>
</tr>
<tr>
<td>What Rocks Tell Us about Plants and Animals</td>
<td>What Makes a Sound</td>
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<tr>
<td></td>
<td>Common Uses of Electricity</td>
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<td></td>
<td>How We Use Light</td>
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**Earth and Universe**

<table>
<thead>
<tr>
<th><strong>K-2</strong></th>
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<tbody>
<tr>
<td>Weather Changes</td>
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<tr>
<td>What We Know about Weather</td>
</tr>
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¹Ibid., p. 258.
Earth and Universe

3-4

What Makes the Earth's Surface
What Heavenly Bodies Can be Seen at Night
What the Sun's Family is Like

5-6

Constellations and Galaxies
Why Weather Changes
How the Earth's Surface is Changed

In a recent review of research in elementary science education, the following were listed as the "10 most essential units":

1. Electricity 6. Plants
2. Living Things 7. Animals
3. Weather-Climate 8. Magnetism
5. Simple Machines 10. Health

In an attempt to peer into the future, Johnson made the following statements concerning the development and trends in elementary science education:

1. From much subject-matter to less.
2. From one problem-solving method to many relatively unstructural methods.
3. From much use of one book in a series to the use of many books.
4. From much emphasis on accumulated knowledge to an emphasis on how to find and create knowledge.

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2 Mallinson, op. cit., p. 260.
5. From facts and factual concepts to skills in inquiry as teaching goals.
6. From teacher selected concepts as teaching goals to concepts as they arise in confirming and rejecting hypotheses.
7. From terms "elementary science" and "general science" to "science".
8. From reliance on qualitative observations to stress on making and recording quantitative observations.
9. From films that stress a body of knowledge to films that report one or a series of experiments.
10. From scientific experiences as preparation for secondary school science to experiences for the basic education of all pupils.
11. From science as something to be learned from books to something that grows out of a series of experiments.
12. From a program based on topics, limited concepts, and experiments, to one based on a more fundamental frame of reference.
13. From great attention to uses of science including technology to more attention to science.
14. From science built on a limited understanding of mathematics to science built on mathematics.¹

The California Public Schools list the following topics as ones to be covered in their elementary school science program:

1. What Life Needs
2. Weather Changes
3. Sound
4. Where We Get Our Energy
5. Possibilities of Space Travel
6. Forces Operating on the Earth
7. Sun, A Source of Energy
8. Earth, A Part of the Solar System
9. The Vastness of Space
10. Gravity
11. Balance of Nature
12. Elements, Compounds, and Mixtures

III. SOCIAL STUDIES

Many drastic and fundamental changes have already taken place in the United States and in the world in recent years, and it is evident that others are rapidly emerging. All areas of the curriculum have been affected, possibly science and mathematics the most. It has recently been the opinion of some educators that there should be revision in the social studies curriculum to better benefit the boys and girls who will be living out the rest of the twentieth century and the first part of the twenty-first. The question now arises as to what are some of the problems facing the social studies program at this time.

Gross and Allen made the following statements as to two major problems that have plagued the social studies curriculum for nearly half a century and these problems must be solved by the following methods:

1. Teaching the essential up-dated content and approaches found in history and the social science disciplines.
2. Carry out this instruction in the most appropriate organizational framework.2

1 Mallinson, op. cit., p. 262.

From the preceding paragraph, it would seem logical to assume that these men were inferring that not enough current content is being taught in history and the other academic areas of the social studies curriculum.

Kenworthy stated the following with respect to the material that should be contained in a current social studies program:

An up-to-date program calls for a continuous, cumulative, and comprehensive curriculum from the lowest grade levels up through college, with the unifying theme of the six basic segments of society; (1) the individual, (2) the family, (3) the neighborhood, (4) the large community, (5) the United States, and (6) the world.¹

It was also mentioned by Kenworthy that each segment could be studied in almost every grade, with emphasis depending on the maturity of the pupils.²

With much discussion as to the importance of combining history, geography, civics, etc. into what is now termed the social studies, it becomes an issue as to the validity of such a program or to just what the current trend is at this particular point.

Gross and Allen made mention of the following:

Traditionally, history and geography have dominated elementary social studies. Some of the other social

²Ibid.
sciences as economics, sociology, anthropology, etc. have gained importance. There is still continued controversy pertaining to some social study groups who continue to discuss the merits of separate discipline approach versus integrated courses. Others are concerned with the designation of essential generalizations in each of the social science disciplines. New courses of study are being launched in endless repetition by school administrators, state departments of education and others.¹

What are some of the units of study being initiated in the elementary social studies curriculum at this time is another issue.

Sowards and Scobey stated that a closer look at many present day elementary social studies programs in action would reveal the following observations with respect to developments in the curriculum:

**K-2**

The home, school, neighborhood, and local community. "Community Helpers" covered over all three years.

**Grade 2**

Consider a wider group of "helpers" than previous, various professional men being studied as well as the mailman and fireman.

**Grade 3**

Local community extends into grade three. Human activities of procuring food, clothing, and shelter. Indians.

**Grade 4**

Typically, the study of the state.

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Grade 5
United States and national neighbors (Canada, Mexico).

Grade 6
Western Hemisphere and Canada, Mexico, Central and South America or Eastern Hemisphere with Europe past and present.¹

Preston reported the following as the most common subject matter material in the elementary social studies program:

Grade 1
Home, School, Pets

Grade 2
Community Helpers

Grade 3
Food, Clothing, Shelter

Grade 4
Type Regions of the World
United States History, Community

Grade 5
United States Geography
United States History

Grade 6
Latin America
Canada
Asia
Europe²

McAulay listed the following material as topics to be covered at each grade level:

**Grades 1-2**

Family (description of its composition and function in the community).
Community (its organization and component parts).
Neighborhood Communities (farm or town, city or suburb, and about contrast).
Communities in Hawaii, Alaska, France, or Japan.

**Grade 3**

Overview of the local state, its importance, general location, topography, climate; industrial and chief historical figures; other areas having similar climate, topography, etc. would be contrasted and compared.

**Grade 4**

Survey the globe as a whole.
Relationship of the continents and oceans and their general characteristics.
Local area studied in relation to an over-all survey of the United States.

**Grade 5**

Develop understanding of Canada, Latin America, and their economic and political relation to the United States.¹

Kenworthy noted the following topics for an elementary social studies program:

**Grades K-2**

Focus on basic theme of "individual and family" as in the past only select individuals and families in other parts of the United States, and in a few parts of the world; this gives more breadth and content to social studies in these early years.

Grades 3-4

Selected communities in the United States and the world should supplement current emphasis on local community.

Grades 5-6

Selected countries in the world. 1

The following was listed as a modified typical program for initial testing by the National Curriculum Study Commission in the social studies:

Grades K-1

Home, School, Neighborhood, and Community.

Grade 2

Our Community: Producing, Processing, and Marketing Relationships.

Grade 3

Growth and Change Affect Our Citizens and Institutions.

Grade 4

Our State and Region: Backgrounds, Characteristics, Peoples, and Problems.

Grade 5

The Development of the United States and its Canadian Neighbors.

Grades 6-7

Latin America, Eurasia, and Africa (a 2-year study with units on representative regions and nations). 2

1Kenworthy, loc. cit.
The program just listed makes provision for a very adequate and well-constructed study in the social studies area over the entire elementary school period. A more complete program might be added through the high school by including more of the major social science areas. Also, a more comprehensive treatment of other areas of the world might be provided.

The Social Studies Committee of Santa Clara County, California developed a teacher guide for social studies in that system. The sequence of units was as follows:

Grade 1

Grade 2
Life in a Community, Life on a Farm.

Grade 3
Life in a Modern Community.
Life in a Contrasting Primitive Community.
Pueblo Indians.

Grade 4
Early California.
Mexico, Our Good Neighbor.

Grade 5
Period of Discovery.
The Colonial Period.
The Westward Movement and Pioneer Life.

Grade 6
Our Latin-American Neighbors.
Alaska.
Canada.
Aeronautics.  
Communication.  
Islands of the Pacific.  

Owen and Noon stated the following after many observations:

Supervisors in general forecast change in emphasis but not too much change in content. Fourth grade studies of "type" areas around the "world" are under fire as tending to develop stereotypes and point out differences rather than likenesses. In the content shuffle, geography is on the increase; economics, political science, and sociology are gaining toeholds; history is being pushed toward the high school.

The preceding paragraph assumes that little change will be made in course content in the social studies curriculum. This has also been found to be true by observations from the author. The grade level at which material should be introduced perhaps will change. It is the opinion of the author that more emphasis should continue to be placed on the "social" aspect of all the science areas and at all grade levels. As was indicated by the literature, the majority of content has not changed, however, more emphasis is being placed on the economic, political, and sociological aspects of the social sciences. This is a trend for promoting better relations among the peoples of the world and should add in the integration of the separate disciplines now considered in the social studies programs.

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1 Ragan, op. cit., pp. 243-244.  
2 Mary Owen and Betty Noon, "Elementary Education is on the March," The Instructor, LXXII (January, 1963), 36.
IV. LANGUAGE ARTS

One reason for the emphasis on language arts is that language is necessary to thinking. This program seeks to help develop skills of communication for learning, for living with others, and for becoming self-sufficient, productive citizens.

The major purpose of language arts in the modern program is to further personal and social developments, to help the individual live a better life in the democratic society and scientific-industrial culture.¹

Mackintosh made mention of the following:

In language arts, any and all programs should be geared to the needs of the learner. How are the needs to be defined now and in the years to come? Teachers have changed from a time when they taught separate subjects such as spelling, handwriting, literature, and oral and written expression, to a situation where they teach children to speak, to read, and to write in relation to the activities of the school day.²

There is relatively little new subject matter in the language arts program in comparison with science and mathematics. Pressure has been placed upon the schools by parents who are vitally interested in their children and reading. There is perhaps no one skill as fundamental as reading and perhaps this is the main reason for such concern.

¹Sowards and Scobey, op. cit., p. 219.
One issue, then, is what to do with reading in kindergarten since formalized reading is usually started in the first grade.

The Encyclopedia of Educational Research made the following statements with regards to the optimum time for learning to read:

An early study extending over a period of four years showed that children who began reading early (before six) did not as a rule make as rapid progress in reading or develop as great a liking for it as did children who were somewhat older when they began to read.¹

Following a critical analysis of 93 scientific studies, articles, and reports, it was concluded that reading should be delayed until the background of experiences and mental growth would enable children to find meaning in the tasks presented to them.²

The pressure to teach children to read in the kindergarten has probably stemmed from three main sources; (1) from parents of precocious children, (2) from some teachers of first grade and of kindergarten level, and (3) from some commercial firms.³

Hildreth stated the following regarding the readiness movement and the time of beginning reading instruction:

To a large extent, the readiness movement can be attributed to the mounting evidence that reading failure

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²Ibid.
has resulted from mass instruction of beginners without any concern as to the maturity and background of the students.¹

From the preceding paragraphs it would seem evident that a well-developed reading readiness program should be initiated in kindergarten with a formalized reading program beginning in grade one.

Another issue at this point might be the question as to what constitutes a good reading readiness program.

Ohlsen believed that the following pre-reading skills are developed during the readiness period:

1. Language ability and habit of working in a group.
2. Left-right directional sense.
4. Auditory memory and discrimination
5. Word meanings and concepts.²

Sowards and Scobey stated that an adequate reading readiness program involves two major developments; (1) development of a wholesome classroom atmosphere, and (2) a secure and friendly rapport between teacher and pupil.³

Sowards and Scobey also listed the following as criteria for determining the readiness of a child for reading:

²Ohlsen, op. cit., p. 235.
³Sowards and Scobey, op. cit., p. 230.
1. The eyes should be developed to the point where the child is able to see well and focus exactly.
2. The ears should be developed to the point where the child can hear distinctly, and can relate certain sounds to symbols or understandings.
3. The child should be able to speak correctly.
4. The child who is ready is socially a relatively happy child.
5. The mental development of the child who is ready to read indicates that he has a good understanding and use of concepts and word meanings, and the ability to organize and classify ideas.
6. To begin to learn to read, the child should have an adequate background of experiences.
7. Finally, the child who is ready to read must have a real interest in learning to read.1

Ohlsen stated the following pertaining to the first grade reading program:

In the first grade or in the primary reading program, the first period is usually devoted to the act of learning to read and the last period to developing skills, since the fundamental powers of reading have already been learned. It is usually during this second period that phonics is introduced as one of the skills, however, in some modern programs, phonics instruction begins early in the readiness program and continues as an important part of the word-recognition program in the primary and intermediate grades.2

It is the opinion of the author that much emphasis should be placed on phonics in the beginning reading program. In some schools this subject is taught separately and in other systems it forms an integral part of the basic reading program.

Gans stated the following with regards to phonics

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1Sowards and Scobey, loc. cit.
2Ohlsen, op. cit., p. 200.
instruction in the primary grades:

1. Special attention to variety of sounds they hear.
2. Special attention to words that are regular on charts, notices, and books.
3. Study phonetic suggestions in manuals.
4. Encourage child to see relationship in writing and spelling between letters and groups of letters.¹

Ohlsen listed the following steps in the phonics program for the primary grades:

**Grade 1**

Acquaint child with the sound and appearance of consonants in the final position in words, like l, t, m, s.
Recognition of sounds and appearance of ed and ing.
Recognition of words formed by adding these endings to roots of words and words themselves.
Recognition and relating sound and appearance of consonants appearing initially in words, such as h, b, s, m, n, t.

**Grade 2**

Continue work undertaken by the first grade teacher.
Introduce short vowels, long vowels, one vowel followed by l or w, governed by l or w (small, walk, caw), and vowel dipthongs.

**Grade 3**

Recognizing compound words made up of known words.
Recognizing inflectional variants of known words, possessive, plural nouns formed by adding s or es; verbs formed by adding s, es, d, ed, ing, n, en; forms made by adding er, or est, of comparison, ly, and y.
Recognizing contractions of words.
Determining use of dictionary skills.²

Hansen stated that in many schools a formalized

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¹Roman Gana, "How Shall We Teach Phonics," Grade Teacher, LXXX (November, 1962), 29, 110.
²Ohlsen, op. cit., p. 219.
phonics program is carried on in kindergarten through sixth grade. The lower grades are taught fundamentals and the upper grades change to structural analysis.¹

The preceding material on phonics instruction would indicate that every elementary curriculum should contain a formalized program in phonics.

Ohlsen also stated that throughout the primary grades individuals should become independent in word attack through meaning or context clues, word-form clues, structural analysis, phonetic analysis and the dictionary.²

Bond and Wagner made the following points as attributes of a good elementary reading program:

1. Word recognition.
2. Context clues.
5. Ability to synthesize the word parts into word wholes for smooth pronunciation (visual recognition).
6. Syllabication is helpful in both visual and sounding recognition of words.
7. Ability to visually analyze words takes time, must learn to recognize great numbers of word elements to help recognize words for more fluent reading.³

Because of the many types of reading programs and the ungraded primary being initiated in many school systems,

¹Hansen, op. cit., p. 118.
²Ohlsen, op. cit., p. 216.
subject-matter content for each grade level, for the most part, was omitted from this study.

As to methodology being employed, the following are descriptions of particular programs in more detail by some administrators in different localities:

1. New Jersey. "We use the basal 'reader program' emphasizing the whole-word approach, much supplementary phonics material, individualized reading in grades one and two, modified 'Joplin' plan in grade five, ... and reading laboratories in grade seven and eight."

2. Illinois. "We use a great deal of phonetics in the first four grades. Each first grader reads in class as many as thirty books (other readers)."

3. Texas. "We try to employ the best features of several methods of teaching reading. We teach through phonics, word association, and look-say method, and combine them into a very effective program."

4. Wisconsin. "We have reading-readiness in kindergarten, an intensified phonics program in grades one through four, and two remedial reading programs."

5. North Carolina. "We use many audio-visual aids, such as the controlled reader, reading laboratories, charts and so forth."

6. Michigan. "In our opinion the 'best' method is one which uses a combination of sight, phonetic, kinesthetic-tactile technique, with individual, group, and team teaching."

It would be the opinion of the writer at this point that there is no one method of teaching reading and that it

1"Large Minority is not Satisfied with Methods of Teaching Reading," The Nation's Schools, LIX (March, 1962), 94.
takes a combination of phonics, word identification and association skills, and much individualization when possible to complete the total reading program. The trend toward individualization in reading seems to be gaining more emphasis of late. As has been mentioned before, this is not something entirely new but has been now considered more a method of instruction based around individual guidance in reading.

Foreign language. There has been considerable discussion, experimentation, and controversy over instruction in a foreign language in the elementary school program.

The United States Department of Health, Education, and Welfare published an article in which the following statement was made regarding foreign languages: "For contemporary living, learning to read and speak in a foreign language is an integral part of education."

Following are quotations by a recent survey of administrators pertaining to the teaching of a foreign language within grades kindergarten through six:

1. Kansas. "Languages are more easily taught in the early elementary grades, before mental blocks have been established."

2. Colorado. "A second language in the elementary school lays the foundation so that the same language pursued in the secondary school becomes a workable, usable one."

3. California. "If a sound program in all other areas is in existence, if the program is truly optional, if qualified teachers can be hired, and if it can be carried on at least three years, then the foreign language should be taught in elementary grades."

4. Tennessee. "We are teaching Spanish as a second language to third and fourth grades . . . by direct TV. This is most satisfactory."

5. California. "Having taught a foreign language for many years, I have come to the conclusion that the earlier the child is familiarized with foreign words, the greater retention will be in later years."

Fraser stated that foreign language should not be undertaken unless:

1. It is an integral part of the school day.
2. It is an integral part of the total foreign language program in the system.
3. It is closely articulated with later foreign language learning that the child will experience.
4. There are enough teachers available with an adequate command of foreign language.
5. There is adequate learning material available.
6. The program has the support of the administrators of the system and of the secondary teachers of foreign language.

Birkmaier made the following comments regarding foreign language in the elementary school program:

1. There is steady growth of foreign language programs on the elementary level.

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1 Fraser, loc. cit.
2 Fraser, loc. cit.
2. Forty-three per cent of 269 schools sampled offered foreign language in at least one grade.

3. The introduction is made easily in the third or fourth grade with special teachers.

4. The television is one solution to the teaching problem.

5. Fifteen to twenty minutes daily or three times per week is a reasonable allotted time.\(^1\)

The NEA Journal stated the following concerning foreign language in the elementary school:

> It must be determined by the school which child will benefit from a systematic and continued program on the basis of their progress in other areas and their motivation for language study. The program should not include all the children in most elementary schools.\(^2\)

It would appear from the preceding paragraphs that the trend is definitely toward providing a foreign language for most elementary school students. It is the opinion of the writer that this is all right providing all other academic areas are well equipped, well staffed, progressing adequately, and have the finances and qualified personnel to permit a year after year continuous study in a particular foreign language. Then, the program should be on a voluntary basis, that is, be provided but not required of all individuals.

Handwriting. Petersen and Hayden pointed out the


following with regards to handwriting in the elementary school:

1. In modern language arts programs, handwriting is considered a tool and not an art.
2. The over-all trend has been away from emphasis upon handwriting as an end in itself toward the functional and utilitarian concept of handwriting as a necessary tool for expression of thought.
3. The three criteria for determining the quality of handwriting are: (1) legibility, (2) reasonable rate of speed, and (3) satisfactory style.

Haan stated the following regarding handwriting in the elementary grades:

The most significant development in handwriting is a product of a system of writing that can be learned with maximum independence of the teacher. In past years handwriting has been neglected because of a lack of a system in handwriting that could be learned efficiently and independently. The period should be short, no more than fifteen minutes and a system of manuscript writing should be maintained throughout the elementary grades even though cursive is introduced in the second or third grades.

Ohlsen says that the majority of schools introduce handwriting in grade one along with manuscript, but there may be a trend toward delay until reading is more fully developed.

The same writer stated that numerous contradictions over when to change from manuscript to cursive have been made. It was mentioned that one form was as fast

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3 Ohlsen, op. cit., p. 249.
as another when well learned and that the shift could take place after grade two. The common practice of using large size pencils in first and second grades, adult size pencils in the third and fourth grades, and pens in the fifth and sixth grades were also encouraged. The paper used in grades one and two should be unruled or inch-ruled and 5/8 inch lined paper in grade three. There is a de-emphasis of free fore-arm movement.\(^1\)

Dutton and Hockett list the following as important procedures to follow in the teaching of manuscript and cursive:

1. Use small groups for beginning instruction in handwriting. Much individual help must be given.
2. Provide accurate models for children's writing and develop clear images of letter forms.
3. Control the amount of writing work. Children in primary grades have limited writing needs.
4. Develop readiness for writing through finger painting, clay work, and handwork, which help in the development of eye and muscle coordination.
5. Remove rigid limitations on the size of the beginner's writing. Try to help him write comfortably and large enough to avoid finger cramping and strain.
6. Supervise the writing lessons carefully. Correct letter formation and correct direction of the strokes used in making letters are the important goals for grade one.
7. Keep adequate records of pupil progress in writing. Take samples regularly, date them, and file the copies in individual folders.
8. Use clear, legible handwriting for all work done at the chalkboard. Make your work neat.\(^2\)

Perhaps more emphasis should be placed upon handwriting and encouraging the student to want to improve.

\(^1\)Ibid.

Legibility and accuracy are perhaps two of the most important points to stress whether it be in manuscript or in cursive.

**Spelling.** Dutton and Hockett list the following as characteristics of a modern spelling program:

1. Growth in spelling is achieved gradually as pupils acquire linguistic ability appropriate to their developmental level.
2. Spelling is learned and used as an essential part of written work in content subject, school activities, and out of school activities.
3. Habits of independency in writing are encouraged. Children are directed in learning to use a dictionary or word list and to check the accuracy of spelling in all written work.
4. The instructional program is organized to provide for individual differences so that each pupil may progress at his own rate of learning.\(^1\)

Haan stated the following regarding spelling in the elementary school program:

It appears that learning to spell 2,000 of the most common words will meet 95% of the writing needs of children and adults. By adding another 1,000 words this might be raised to 98%. More and more schools are building their own lists as factors peculiar to the community, region, rural or urban community, and particular curriculum content which affect spelling expectations. Criteria for the selection of words might be: (1) adult needs, (2) child use now, and (3) curriculum demand.\(^2\)

The author would have to agree here that it is unimportant particularly at the lower grade levels to stress too many words that are not actually used at that particular

\(^1\)Dutton and Hockett, *op. cit.*, p. 128.

\(^2\)Haan, *loc. cit.*
level or words which will not be used at a later date. More teachers should be encouraged to build their own lists depending upon the grade level, difficulty, and frequency of use.

Wagner stated that the three basic patterns used in spelling today are as follows:

1. Formal weekly list provided by a workbook or textbook.
2. Selection of words based on spelling difficulty in subjects.
3. Combination of the two.

Wagner also pointed out some principles and practices serving as guidelines today such as:

1. Teacher emphasizes the desire to spell correctly.
2. Pupils develop the ability to sense incorrect spelling and look up in the dictionary.
3. Teacher adapts program to needs of group and needs of individuals.
4. Most programs today are in building word power.
5. Spelling games as motivators.
6. Dictionary important to spelling.
7. Pupils use spelling words in sentences, paragraphs, and stories.
8. Pupils acquire habit of proof-reading their written work.
9. Two traditions in use today are the (1) study-test, and (2) test-study (more advantageous).

Horn listed the following as material to be covered in the spelling program for grades one through six:

Grade 1

Children do write so they should spell appropriate words chosen from ones most frequently written by first graders.

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1Guy Wagner, "What Schools are Doing," Education, LXXXI (February, 1961), 381.
2Ibid., p. 382.
Grade 2

Choose among the words of high permanent importance the words most frequently written by children in the second grade regardless of difficulty.

Grade 3

Same as second grade plus a review of words difficult in the previous grade.

Grades 4-6

Same criteria (most frequent ones written plus ones not taught in the previous year and a review of the difficult ones). 1

Husbands listed the trends for continued improvement of the spelling program from grade to grade as follows:

1. To spell words often used in writing.
2. To learn permanent, easy words often misspelled at his age.
3. To learn to spell words that will be needed in carrying on writing activities in experience units.
4. To learn to spell interesting words used in speaking that might be used in writing if the spelling were known.
5. To develop interest in correct spelling in all written work.
6. To form effective habits of studying spelling. 2

The preceding paragraphs have pointed out many valid principles to follow in the teaching of spelling throughout the elementary grades. On most occasions it was emphasized


that words most often used at a particular grade level should be stressed at that level. It is also particularly important that good habits be taught at an early age so that students will see their mistakes and want to correct them. Teachers should correct spelling on all papers and hand them back so that the student may see the mistakes and correct them.

**Grammar.** Ohlsen stated that little or no attention is given to grammar as such in the elementary grades but rather the emphasis is being placed on usage and conventions.¹

Nemec and Pooley, authorities in the fields of both the English language and the teaching of it, expressed this viewpoint when they wrote:

> The foundations are best laid for spoken and written language in the first six grades without formal instruction in the terminology of grammar or practicing in identification and naming the parts of speech, or functions of the sentence. These conclusions are conclusions based on observation and research which may be summarized under the following heads:
> 1. Time spent upon formal grammar in the elementary grades is time taken from the practice of skills in the speaking and writing of English.
> 2. Formal grammar has very slight influence upon the usage habits of children.
> 3. Formal grammar has very little or no effect upon the skills of composition in the elementary grades.
> 4. Grammatical terms when not associated with specific utility, are easily confused and forgotten.²

¹Ohlsen, *op. cit.*, p. 81.

Hansen pointed out that beginning with the fourth grade, the study of grammar formally should be scheduled for direct teaching. This includes the diagramming of sentences to teach that sentences follow recognizable structure patterns to convey meaning. ¹

It is evident that there is a definite need for improving the skills of the English language both in speaking and in writing. Correct usage should continue to be emphasized at all grade levels. The parts of speech are perhaps not too significant at the lower elementary levels.

V. PHYSICAL EDUCATION

Much emphasis has been placed upon physical education recently. With the many reports, surveys, and observations it is evident that perhaps this emphasis will increase at all age levels, throwing a greater responsibility upon the schools to improve in this area. The question then arises concerning what should be contained in a modern elementary physical education program and exactly how much is expected of the schools.

Pearson stated the following with regards to physical education on the elementary level:

Very little research has been carried out to verify specific achievement standards for physical skills on any one grade level. However, one can recognize car-

¹Hansen, op. cit., p. 125.
tain motor skills that are necessary to all children of elementary-school age and certain other more advanced physical skills often developed in the middle-childhood years.¹

Among some of the skills listed by Pearson were the following:

1. Locomotor Skills  
   Grades K-1
2. Body Mechanics and Safety Skills  K-1
3. Game Skills  K-1
4. Rhythm Skills  K-1
5. Stunts and Self-Testing Skills  K-3
6. Skill Goals—Middle Childhood Level
   (a) Touch Football  4-5
   (b) Soccer-Type Skills  4-6
   (c) Volleyball Type  4-6
   (d) Basketball Type  4-6
   (e) Track and Field Type  4-6
   (f) Softball Type  5-6²

Cowell listed the following as items of the scope in physical education:

1. Games
2. Aquatics
3. Self-Testing Activities
4. Dance
5. Camping and Outdoor Activities
6. Body-Building and Corrective Activities³

The San Francisco school program listed items of

²Ibid., pp. 7-12.
their scope in physical education as follows:

1. Basic Skills  
2. Games  
3. Rhythmic Skills  
4. Stunts  
5. Posture

Miller and Whitcomb suggested the following as a seasonal program for the lower and upper elementary grades:

<table>
<thead>
<tr>
<th>Lower Grades (Fall)</th>
<th>Upper Grades (Fall)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class organization, forming lines, making</td>
<td>Class organization, forming lines, squads, etc.,</td>
</tr>
<tr>
<td>circles, spacing, numbering, etc.</td>
<td>attendance taking, numbering.</td>
</tr>
<tr>
<td>Warm-up activities (body mechanics), running,</td>
<td>Sport mimetics, calisthenics, running.</td>
</tr>
<tr>
<td>hopping, bending and stretching.</td>
<td>Team sports, skill drills, lead-up games, athletic</td>
</tr>
<tr>
<td>Low organization activity, running and tag</td>
<td>team games (soccer, tag, football).</td>
</tr>
<tr>
<td>games, simple ball skills and games, relays.</td>
<td>Low organization activities, games, relays.</td>
</tr>
<tr>
<td>Playground apparatus; jungle gym, slides,</td>
<td>Individual and couple games, rope skipping, etc.</td>
</tr>
<tr>
<td>etc.</td>
<td></td>
</tr>
<tr>
<td>Individual and couple activities; rope</td>
<td></td>
</tr>
<tr>
<td>skipping, marbles, etc.</td>
<td></td>
</tr>
<tr>
<td>Rhythmic activities, basic rhythms, singing</td>
<td></td>
</tr>
<tr>
<td>games.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lower Grades (Winter)</th>
<th>Upper Grades (Winter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm-up; stretching, bending, walking,</td>
<td>Sport mimetics, calisthenics, free play, basket</td>
</tr>
<tr>
<td>skipping, etc.</td>
<td>shooting.</td>
</tr>
<tr>
<td>Basic rhythm, singing, games, simple folk</td>
<td>Team sports; skill drills, lead-up games, athletic</td>
</tr>
<tr>
<td>dances.</td>
<td>team games (basketball and volleyball).</td>
</tr>
<tr>
<td>Low organization skills, games, relays</td>
<td>Low organizational activities, games, relays.</td>
</tr>
</tbody>
</table>

Tumbling, apparatus, and stunts; mats, balance beam, self-testing activities.

Rhythms; basic rhythms, folk square, and social dancing. Apparatus, tumbling and stunts; ropes, vaulting box, mats. Individual and couples; shuffleboard, rope skipping.

**Lower Grades (Spring)**

Warm-up activities plus skipping.

Low organizational activity; running and tag games, simple ball skills, games, relays.

Playground apparatus, jungle gym, seesaws, etc.

Individual and couple activities, rope skipping, tether ball, etc.

Singing games and simple folk dances.¹

**Upper Grades (Spring)**

Warm-up; sport mimetics, calisthenics, running.

Same only athletic tournaments (softball, track and field events).

Same.

Same.

In describing the scope of the physical education curriculum, Vannier listed these items:

1. Games of low organization
2. Rhythmical activities
3. Relays and mimetics
4. Story plays
5. Camping and outing
6. Athletic team games²
7. Aquatics and stunts²

Smith stated that the trend today in elementary physical education is for more activity for all children. Future curricula should provide teachers with a sequential

²Haan, op. cit., p. 267.
series of exercises to develop bilateral movement skills of children.\textsuperscript{1}

It is important that a well-planned and complete program in physical education be initiated on all grade levels in the elementary school. If possible a qualified physical education instructor should be in the system and available to all grades. In the past physical education has been taught rather carelessly without too much of an organizational pattern.

VI. FINE ARTS

Music. Music plays an important role in the elementary school curriculum and should continue to do so on all grade levels.

Haan stated that the curriculum maker has the problem in music of increasing the use of music by children for emotional and creative release.\textsuperscript{2}

It was also stated by Haan that freedom to enjoy music, to participate in, and to choose musical experiences has superseded the step-by-step curriculum that dulled so much interest in music in the past.\textsuperscript{3}

\textsuperscript{1}Paul Smith, "Physical Education in the Elementary School," Educational Leadership (March, 1963), 369.

\textsuperscript{2}Haan, op. cit., p. 265.

\textsuperscript{3}Ibid.
Perhaps more emphasis should be placed on music appreciation and less on the formality of note-learning, singing, etc.

Dutton and Hockett expressed their views when they stated that a well-rounded music program may be considered to comprise six aspects, namely the following:

1. Listening  
2. Singing  
3. Moving  
4. Creating  
5. Reading  
6. Playing instruments

Husbands wrote that each day a period should be set aside for the teaching of music. This should be in addition to the regular music period and should follow one of physical inactivity.

"What is new in the field of elementary music and what trends are current?" are two questions that have been partially answered by the preceding paragraphs.

Haan mentioned that the creative teacher uses listening and singing when the time is right and that four recent trends in the field of elementary music are as follows:

2. Rote singing is replacing note singing.  
3. Music supervision now functions as an aid to the teacher, helping teachers to learn about music.

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1Dutton and Hockett, op. cit., p. 391  
2Husbands, op. cit., p. 373.
4. Music therapy field (attention given to the relationship between personality growth and music).¹

Dutton and Hockett stated the following with regards to music instruction:

Music must not be thought of as a separate subject isolated from other arts, science, physical education, social studies, or communication skills. Considerable attention has been given to an integrated school program with particular emphasis on the significant place of music in social studies activities.²

It is evident that music should be incorporated into the school curriculum just as any other subject area. When possible a qualified music instructor should be responsible for the music program just as a mathematics teacher is responsible for the teaching of mathematics. It is the opinion of the author that instrumental as well as vocal music should be provided for the elementary school students. Some of these ideas will perhaps take some time before complete acceptance is reached and music is considered an academic subject in the organized curriculum.

Art. Art instruction is probably just as important as music or any other subject in the school curriculum. There is no doubt much discussion and some controversy to preceding statement. Children should be given the oppor-

¹Haan, loc. cit.
tunity to express themselves in more ways than what they normally have in the past and the regularly scheduled instruction in art is one way of accomplishing this goal.

There are some questionable practices that have been carried on according to Petersen and Hayden as they state the following:

1. Art contests are considered detrimental to a worthwhile art program.
2. Coloring books and prepared patterns are generally considered harmful to creative art.
3. "Gimmicks" or "tricks" have no place in a well-planned art program.\(^1\)

It is the opinion of the author that competition in art or in any other subject is good unless it threatens or tends to hinder creativity. Also, a certain amount of prepared material is necessary as coloring materials that have been commercially prepared still require a certain amount of manual dexterity and also help improve coordination of the hand and fingers, especially in the lower grades.

Dutton and Hockett listed the following as varied activities for enriching the art program:

<table>
<thead>
<tr>
<th>Experiences</th>
<th>Media</th>
<th>Grade Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Painting</td>
<td>Easel paints</td>
<td>1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Finger paints</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Water Colors</td>
<td>3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Tempera colors</td>
<td>3, 4, 5, 6</td>
</tr>
<tr>
<td>Drawing</td>
<td>Crayons</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Chalk (dry)</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Chalk (wet)</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
</tbody>
</table>

\(^1\)Petersen and Hayden, \textit{op. cit.}, p. 365.


<table>
<thead>
<tr>
<th>Experiences</th>
<th>Media</th>
<th>Grade Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modeling</td>
<td>Clay</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td>Cutting and tearing</td>
<td>Cut and torn paper</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Paper-bag puppets</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Paper mache</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td>Construction</td>
<td>Wood</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Puppets</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Paper sculpture</td>
<td>3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Cardboard Construction</td>
<td>3, 4, 5, 6</td>
</tr>
<tr>
<td>Printing</td>
<td>Potato block and stick printing</td>
<td>1, 2, 3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Block printing</td>
<td>4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Silk screen</td>
<td>5, 6</td>
</tr>
<tr>
<td>Weaving crafts</td>
<td>Weaving</td>
<td>3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Natural materials</td>
<td>3, 4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Scrap materials</td>
<td>4, 5, 6</td>
</tr>
<tr>
<td></td>
<td>Wire sculpture</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Mobiles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Textile decoration</td>
<td>4, 5, 6</td>
</tr>
</tbody>
</table>

VII. TIME ALLOTMENTS

The times allotted for instruction in the different subject areas varied somewhat from school to school which would tend to justify the flexibility of some of the many programs studied in the elementary field. It was the purpose of the author at this point to determine an average of the many schools studied in an effort to compare these results with those being used in the school system under evaluation. The opinions differ as to the importance of an allotment of time for each specific area, however, it is the opinion of the author that there must be some type of a guide or plan to help the teachers, especially the new ones unfamiliar with

\(^{1}\text{Ibid., p. 377.}\)
the scheduling of subject areas and the amounts of time to be allotted per period. Of course the time allotments may vary somewhat from class to class and from year to year, although, the purpose again here is to ascertain an average of many schools to be used for comparison with the school system being studied.

The following time allotments are averages taken from the: Goshen, Indiana; Tulsa, Oklahoma; Chicago, Illinois; Houston, Texas; and the California (15 districts) elementary school programs on a weekly basis:

<table>
<thead>
<tr>
<th>Subject</th>
<th>K</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arithmetic</td>
<td></td>
<td>112</td>
<td>132</td>
<td>214</td>
<td>210</td>
<td>234</td>
<td>234</td>
</tr>
<tr>
<td>Science-Health</td>
<td>70</td>
<td>66</td>
<td>75</td>
<td>89</td>
<td>102</td>
<td>122</td>
<td>132</td>
</tr>
<tr>
<td>Social-Studies</td>
<td></td>
<td>135</td>
<td>138</td>
<td>190</td>
<td>250</td>
<td>270</td>
<td>267</td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td>655</td>
<td>552</td>
<td>479</td>
<td>420</td>
<td>378</td>
<td>302</td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td>65</td>
<td>65</td>
<td>78</td>
<td>75</td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>Spelling</td>
<td></td>
<td>65</td>
<td>80</td>
<td>108</td>
<td>108</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>Grammar</td>
<td></td>
<td>87</td>
<td>77</td>
<td>108</td>
<td>130</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
<td>140</td>
<td>140</td>
<td>150</td>
<td>160</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Music</td>
<td></td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Art</td>
<td></td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

There were no listings of time on the kindergarten level except in the science-health area. This possibly allows much flexibility on the lower level. Also, the physical education allotments of time were exclusive of all recesses. In some states there are minimum amounts of time to be allotted for the different subjects. The average times allotted for physical education, music, and art were practically the same amount for each grade level. This perhaps indicates that they are equally important at all grade levels and therefore should be allowed the same instructional time.
CHAPTER III

REVIEW OF PRESENT PROGRAM IN THE LE GRAND-DUNBAR-FERGUSON
ELEMENTARY SCHOOLS

I. SOURCE OF INFORMATION

The source of the information listed here pertaining to a review of the present program in the Le Grand-Dunbar-Ferguson elementary schools was derived from teacher-principal conferences, reports submitted to the superintendent, and by information taken from the course of study written to fulfill a requirement from the state department.

II. ARITHMETIC

In surveying the present program in arithmetic in the school system under study, it was noted that two different series of textbooks were being used in grades one through six. Each series was approximately six years old by copyright date. Course content was similar although presented at different times in the two series. With the emphasis placed upon modern mathematics of one type or another it would appear evident that the texts currently in use are very much outdated.

The following materials as to course content were presented in the first grade:
Learning about the numbers to one hundred and counting by tens.

Component parts of a group of seven.

Comparing lengths and working with simple geometric forms.

Subtracting and adding one to and from a number.

Comparing sizes of objects.

Subtracting vertically, minuends to six.

Fractions, one half of an object.

Adding vertically, sums to six.

Coins: cent, nickel, dime.

Identifying measuring instruments; telling time on the hour.

The course objectives listed for arithmetic in the first grade were as follows:

1. To make arithmetic sensible to children as they learn it.
2. To insure proper, orderly progress in the development of quantitative thinking among children.
3. To develop meanings before we present written symbols and assure understandings before we assign drill.
4. To organize our materials for developmental learning but each learning segment must be extensive enough to assure understanding and skill for the material presented.
5. To see to it that children's activities harmonize with the purposes of arithmetic.
6. To present arithmetic as an object of natural interest to children.
7. To realize that the way children think of numbers and number operations is as important as is the results of that thinking.
8. To be sure that children will know both when and what they are to learn as well as how extensive they are learning it.
9. To teach at the rate at which children learn.

Time allocation amounted to 100 minutes per week as against 112 minutes as reported in the literature review.

On the basis of the Metropolitan Achievement Tests, the grade placement averaged two years for the group with the date of
testing being at one year and eight months. Course content compares favorably with the literature reviewed in most instances. There should be continued use of an arithmetic vocabulary to familiarize the student with terms which will be presented also at a later date. Emphasis should be placed upon the meaning behind each learning segment and why such an operation or activity is presented.

The second grade listed the following material as course content to be presented:

1. Inventory of first grade material.
2. Coins as the cent, nickel, dime, quarter, and dollar.
3. Even and odd numbers.
4. Liquid and linear measure.
5. Component parts of a group up to twelve.
6. Learning about seventeen and eighteen and the facts involved using these numbers.
7. Measure of weights as the ounce and pound.
8. Fourths of an object.
9. Introduction of meaning to multiplication and division facts.
10. Learning about numbers to one hundred.

The course objectives listed for the second grade were identical to the ones listed for first grade. The review of literature showed that emphasis was placed upon counting, reading, and writing numbers larger than one hundred. Also several units of measurement were stressed as the foot, yard, pint, quart, and gallon. The Metropolitan Achievement Test revealed the grade placement average at two years and eight months. This was also the date of testing so the second grade were at the average grade placement.
for this test. There were 125 minutes allotted for arithmetic instruction in the school system under study while the literature review showed that 132 minutes were the average time utilized.

The third grade program used the following items of course content:

1. Review of second grade material.
2. The meaning of two and practice in reading of three-place numbers.
3. Adding and subtracting two-place numbers.
4. Vertical and horizontal addition of three numbers.
5. Telling time by hour and minute.
6. Reading and writing money numbers as cents, nickels, dimes, quarters, and dollars.
7. Adding four numbers.
8. Weighing in ounces and pounds.
9. Carrying in addition.
11. Multiplying by two and three.
13. Roman numerals.
14. Fractions as 1/2, 1/4, 1/3, 1/5, 1/6, 1/8.

The course objectives listed for the third grade were as follows:

1. To help children understand the meanings inherent in the structure, organization, and operation of our decimal system, and in terms related to this system.
2. To help each child build psychological patterns of reading, observe thinking, and thinking that will make the number system more meaningful.
3. To help pupils discover the meaning of and relations between whole numbers, common and mixed fractions, as well as the meaning of terms used with each.
4. To help children learn to use with understanding each of the four fundamental processes in arithmetic, and the terms related to each.
5. To help develop the ability to solve problems particularly those which involve arithmetical factors and the application of arithmetic processes.
To help pupils to recognize the importance of and take steps to develop learning attitudes such as: awareness of the value of determining one's needs and of taking steps to meet them; recognizing the necessity of accuracy and precision in calculations; and learning to use the fundamental generalizations or basic rules of arithmetic.

Time allocation for arithmetic instruction in the third grade amounted to 150 minutes per week as against 214 minutes per week in the study of the literature. The average grade placement as indicated by the Iowa Basic Skills Tests placed the third grade at two years and nine months with the date of testing being at three years and six months. This is seven months behind the normal expectation for this grade. Course content for third grade again was comparable for the most part. It was noted that addition and subtraction involving three-digit numbers in carrying and in borrowing was suggested in the review of the literature, also, multiplication of fives, especially for the better students.

The fourth grade had listed the following course content items in an outline for instruction:

1. Review of third grade material.
2. Finding averages.
3. Division with four-place quotients, multiplication with a four-place multiplicand and a two-place multiplier.
4. Meaning of up to five-place numbers.
5. Adding and subtracting simple fractions; reducing.
6. Measures as dry, liquid, linear.
7. Changing units of temperature, time, weight.
8. Two-step problems.
9. Adding and subtracting with four-place numbers.
The course objectives listed for fourth grade were identical to the ones listed for third grade. Time allocation amounted to 300 minutes per week in the school system under study as compared to 210 minutes shown by the literature review. Course content was about the same as the literature revealed, perhaps more attention on fractions and their meanings and the ready recall of the multiplication of tables through tens were emphasized. It was noted that a great deal of time was spent in blackboard drill in the fourth grade in the school system under study. The Iowa Basic Skills Tests gave an average grade placement in arithmetic of four years and one month with the date of testing being at four years and six months.

Grade five had listed the following course content items to be presented in arithmetic:

1. Meaning, reading and writing numbers through millions.
2. Rounding whole numbers to tens, hundreds, thousands.
3. Counting by tenths, hundredths.
4. Roman numerals through M.
5. Addition and subtraction of five-place numbers.
6. Multiplication of three-four-place numbers by two-place.
7. Division with five-place by one-place number, four or five-place quotient.
8. Proper, improper fractions and mixed numbers.
9. Equivalents: halves, fourths, eighths, sixteenths; halves, thirds, sixths, twelfths; halves, fifths, tenths.
10. Meaning of graphs, scale.
11. Finding perimeter, area of rectangle and square.
12. Use of letter "n" to stand for missing term in processes with whole numbers.
13. Extending measures of time to century.

Course objectives listed were identical to the ones listed for third and fourth grades. Time allocation amounted to 325 minutes per week as against 234 minutes in the literature review. The course content as shown by the literature review presented an introduction to decimals in grade five, also, the finding of a fractional part of a number. The Iowa Basic Skills Tests gave a grade placement average of five years and four months with the date of testing being at the fifth year and sixth month. This would mean that the class was two months behind the average group of this grade level.

Grade six had listed the following material as course content to be presented in that grade:

1. Meaning, reading, writing numbers through billions.
2. Extending meaning of decimals through millionths.
3. Counting by tenths, hundredths, thousandths.
4. Rounding large whole numbers, mixed numbers and decimals.
5. Reteaching meaning of multiplication, division, fractions, decimals, scale drawings, graphs.
6. Use of letter "n" to stand for missing divisor or quotient with fractions or decimals.
7. Reteaching meanings of measuring instruments and terms related to each.

The course objectives listed for the sixth grade were as follows:

1. To increase the skill with the use of large numbers in addition, subtraction, division, and multiplication.
2. To increase the skill in addition and subtraction of fractions and to learn to multiply and divide fractions.
3. To learn to add, subtract, multiply, and divide decimals.
4. To increase skill in reading graphs, scales, and tables.
5. To learn to work with a missing number.
6. To increase the ability to work with measures.
7. To increase in the ability to solve written problems.
8. To increase an understanding of percentage.
9. To develop the ability to solve two-step problems.

The amount of time allocated the sixth grade for arithmetic instruction was 225 minutes per week as compared with 234 minutes in the review of the literature. The literature showed that more time should be spent in sixth grade with improving the skills in computation and understanding the concepts and processes newly learned in the preceding grade. More emphasis was given to learning the vocabulary connected with the use of fractions, also to the learning of simple geometric facts, in the study of the literature. The sixth grade class ranked with the average sixth grade class in the Iowa Basic Skills Tests in the field of arithmetic.

The kindergarten program was found to be placing most emphasis on the importance of recognizing numbers and how they were used from day to day. To learn about numbers through rational counting and rote was also stressed. Approximately 100 minutes per week were given to arithmetic instruction in the kindergarten class in the school system under study while the review of the literature showed no specific
amount of time was allotted for instruction. The literature did make mention of some instances where students were computing in ways related to the Theory of Sets but also mentioned that this was probably not the ideal situation in most cases.

II. SCIENCE AND HEALTH

A review of the science and health program indicated that there were two different series of texts in use in the science program. Both of these were seven years old by copyright date. Only one grade had a complete set of health texts. The others were using a few texts from several different series. In most cases the health program was integrated with the science and many units or chapters dealing with biology were designated health units or chapters. A portable laboratory was noted in the science room with each grade having access to it when possible. One or two field trips were usually taken each year by each grade and an evaluation was made after each trip.

The kindergarten program placed most emphasis on the seasons and their changes. Plants and animals and their homes were also discussed. An effort was made to help create interest in and an appreciation for the world in which they live as well as helping to develop the beginning of scientific attitudes. Each week 75 minutes were allotted for in-
struction. The literature showed that 70 minutes were allotted on the average of the schools studied. Course content followed very closely to what was being used in the school under study.

Grade one had listed the following topics as units for instruction in the program:

1. Water
2. Young Animals and their Homes
3. Magnets
4. Air around You
5. The Sky
6. Rocks and Land near You
7. Plants and the Soil

Course objectives listed were as follows:

1. To help the child develop meaningful curiosity, a scientific attitude, and an appreciation for the things in nature about him.
2. To help the child become familiar with various fruits, vegetables, and flowers.
3. To develop a knowledge of changes in the weather and how they affect life.
4. To lead the child to recognize various machines.
5. To help the child recognize various birds and trees.
6. To increase the vocabulary of the child.
7. To teach the directions; north, south, east, west.
8. To lead the child to recognize changes in temperature by using a thermometer.
9. To lead the child to realize the force of a magnet.

The first grade allotted 100 minutes each week for instruction as compared to 66 minutes in the review of literature. Course content and units of instruction were very similar to what the literature revealed.

Grade two used the following topics as units for instruction in their program in science and health:
1. Summer, Autumn, Winter, Spring
2. Our Earth and the Sky
3. Air, Water, Weather
4. Friction
5. Care of the Farm
6. The Human Body

Objectives listed by the second grade in the science and health program were as follows:

1. To develop a scientific way of thinking.
2. To give the child a scientific background of facts.
3. To create an open and inquisitive mind for further knowledge of the scientific world.
4. To develop the ability of using the information to see and establish relationships.

Time allocation amounted to 100 minutes each week for instruction as compared to 75 in the literature review. Course content again compared very favorably with what the literature presented.

Grade three had the following units listed to be presented in the program:

1. How Animals are Different
2. How Animals get Food
3. How Animals Escape from Enemies
4. Magnets
5. Electricity
6. The Air around You
7. The Earth above You
8. The Sky above You
9. Using Water Wisely

Course objectives listed for the third grade science-health program were as follows:

1. Understanding and interpreting the scientific happenings which affect their lives.
2. Appreciating intelligently the natural and physical universe and the discoveries of scientists.
3. Recognizing and using the scientific method.
4. Learning and applying the scientific method.
5. Acquiring accurate, useful science concepts.
6. Broadening their interests and enriching their experiences.

Time allocation amounted to 150 minutes each week as compared to 89 minutes on the average by the literature review. About one-half of the time used each week was in the laboratory. Course content and objectives were similar in comparison with all the literature reviewed.

Grade four used the following topics as units for instruction in the science-health program:

1. The Seasons
2. Animals and the Seasons
3. Plants and the Seasons
4. Where Plants Grow
5. The Earth
6. Air We Live In
7. Sounds We Hear
8. How Plants Grow
9. Learning about Animals
10. Working with Electricity
11. The Waters of the Earth
12. Studying Rocks and Minerals
13. Using Materials Wisely

The following course objectives were cited in the fourth grade science-health program:

1. To help children become aware that there are changes taking place on the earth at all times.
2. To develop an understanding of the reasons for and why of our scientific ways of living.
3. To develop an understanding of the earth, sun, and stars as a part of the universe.
4. To develop an understanding of how animals and plants adapt themselves to their surroundings and to the changing seasons.
5. To develop an understanding of the different kinds of weather, its cause and effect.
6. To help children learn about sound in concrete and meaningful situations.
7. To gain more knowledge of and an appreciation for the different means of communication.
8. To develop an understanding of what electricity is and its effect on the world today.
9. To develop a fuller realization of the need of conservation and how they may help.
10. To understand the importance of the pull of gravity, its uses and its resulting problems.

The time allotted each week for science-health instruction in the fourth grade was 150 minutes as compared to 102 minutes in the review of the literature. Again, as in grade three, about one-half of this time was spent in the laboratory of the school system under study. Course content continues to be very similar to all the literature reviewed.

Grade five used these topics for units in the science-health program:

1. Plants are Protected
2. Heat Causes Changes
3. The Weather Today and Tomorrow
4. Changes in the Sky
5. Plants and Animals Now and Then
6. Chemicals Everywhere
7. Animals Grow and Change
8. About Balance and Shape
9. Wind and Water Change the Earth
10. Electricity all about Us
11. Animals Live Together
12. We Live and Work Together

Course objectives listed for the fifth grade science-health program were as follows:

1. To gain knowledge and appreciation from the great men of science and their contributions to our way of living.
2. To develop understanding of the earth as a part of our universe and its dependence on the sun for existing conditions of the earth.
3. To increase the use and understanding of special science vocabulary words.
4. To develop skill in arriving at reasonable conclusions from proven facts.
5. To develop an appreciation for and an understanding of our scientific ways of living.
6. To develop a broader concept of the ever changing world; the natural phenomena both inside and outside the earth as well as social industrial, and scientific development and change.
7. To develop an understanding of the importance of our scientific knowledge, atomic energy, etc., being used for the good of all mankind.
8. To increase our knowledge and appreciation for the natural life surrounding us.
9. To develop an understanding of the different kinds of weather, its cause and effect.
10. To learn the different sources of power used in the world today.

The time allotted for instruction in the fifth grade in science and health amounted to 200 minutes each week as compared to 122 minutes in the study of the literature. One-half of the instructional time of the school system under study was again utilized in the laboratory with a qualified science instructor as the teacher. In this particular grade, the twelfth unit listed on the preceding page was one designated as a health unit. Again, the units covered were comparable with ones advocated in the review of the literature.

Grade six listed the following units as material to be presented in that grade for science-health instruction:

1. Energy Everywhere
2. Why the Seasons Change
3. Energy and Plant Growth
4. Animals and Seasonal Change
5. The Milky Way and Beyond
6. Light Energy All around Us
7. Plants and Animals Live in Communities
8. Using Water, Soil, and Forests Wisely
9. Our Earth--A Huge Magnet
10. Machines to Direct Energy
11. The Earth's Airways and Beyond
12. Making the World a Healthful Place

The twelfth unit above was also one unit designated for health instruction, again supplemented by other units pertaining to health from other texts. The amount of time allotted for instruction in the science-health program of the sixth grade was 200 minutes each week compared to 132 minutes listed as an average in the review of the literature. The units in grade six tend to follow the trend as shown in the literature review in that they are mainly physical rather than biological science units. The list of units mentioned as being presented in many schools throughout the country are contained in most of the grade levels in the school system under study. Much more time was spent on science-health instruction in the school being studied than what the literature revealed.

III. SOCIAL STUDIES

In the social studies program was found a fairly recent adoption of textbook series in grades four through six. The primary grades were still utilizing textbooks from two different sources. It was noted that the books in use in the primary grades were copy-righted seven years ago and
the books being used in the intermediate grades were copyrighted three years ago.

The kindergarten program consisted of helping to develop the child's awareness of things about him and in helping to make him to become a secure member of his class group. No textbooks were used in this grade and approximately 100 minutes were allotted each week for instruction. No specific time allotment was noted in the review of the literature on the kindergarten level. However, the main course content of the literature reviewed leaned toward developing units around topics as the individual and the home or family.

Grade one emphasized the importance of the family both at home and at school. The need for working and playing together as a group was also stressed. The main objectives in this grade were:

1. To help the child adapt to the social groups of which he is a part (at home, school, and in the neighborhood).
2. To increase the child's appreciation, knowledge, and understanding of the contributions of various helpers.
3. To make a beginning in developing basic geographic concepts by developing some understanding of direction, distance and location in relation to the home, school and the neighborhood.
4. To correlate social studies with reading, literature, language, numbers, and other subjects wherever possible.

The amount of time allotted for instruction in grade
one was 110 minutes each week as compared to 135 minutes in the literature reviewed. The literature also showed that the main course content for this grade level was upon "community helpers" and their part in the community. Also, it was mentioned that the selection of individuals and families in other parts of the United States and the world might give more breadth and content to social studies in the early primary years.

Grade two stressed the importance of friends and neighbors and how they work together. Emphasis was placed upon the helpers in the community in this grade also except in more detail. Objectives cited in the second grade were as follows:

1. An adequate knowledge of and an appreciation for the services and contributions of workers within the community.
2. To help children make better adjustments in their homes, their schools, and in their neighborhoods.
3. To help make social studies interesting for the child.
4. To help children recognize property rights and understand that their own and other people's property should receive proper care.

Each week 150 minutes were allotted for class instruction. The literature reviewed showed that the average amount of time given to instruction in the schools surveyed was 138 minutes each week. Emphasis was placed upon helpers in the community but to a much greater extent. Instead of the proverbial policeman and fireman, professional people
were now being considered. The holidays, flags, pledge, and birthdays of famous Americans were also considered in this grade.

Grade three stressed the importance of living and working together in a community. They studied the problems that people are faced with in a community and ways of solving these problems. A unit was also studied on Indians and Pioneers. The main objectives noted in grade three were as follows:

1. To develop an adequate knowledge of the geographical, historical, and social affairs which can be used for a better understanding of the community in which he lives.
2. To develop an appreciation for the American heritage and an attitude of thinking critically about problems in our state and nation and of a willingness to assume the responsibilities for contributing to their solution.

Approximately 150 minutes were allotted each week for instruction as compared with 190 minutes in the literature reviewed. The course content as shown by the literature reviewed placed emphasis on the local community and of human activities of procuring food, clothing, and shelter. An overview of the local state, its topography, historical and industrial significance, etc. were also compared with other regions of the same conditions.

Grade four gave emphasis on exploring near and far. The units included living in hot, wet, rain forests; deserts; on wheat lands; in a Norwegian village; in a manufacturing
city; and in a Japanese port. Emphasis was placed upon map study and the geographical terms related to different areas. One of the main objectives was to become more capable of getting information about a certain area through utilizing a progressive and well-rounded map program. The amount of time allotted for social studies in the fourth grade was 200 minutes each week compared to 250 minutes allocated in the literature review. Also, the literature revealed that an overall survey of the United States be studied in relation to a local area. It was mentioned that a survey of the globe as a whole might be taken and to study the relationships of the continents and oceans and their general characteristics.

Grade five placed emphasis upon the study of our country, its different regions, and its neighbors to the north and south. Much time was spent in this grade upon map study and with geographical terms related to such. It was one main objective to learn to use the tools of geography such as maps, charts, globes, pictures, diagrams, and a vocabulary. Likenesses and differences in parts of our country were discussed. Some time was spent upon learning the natural resources of our country and where each was obtained. Each week 300 minutes were allotted for instruction as compared to 270 minutes shown by the literature re-
viewed. Course content reviewed on the fifth grade level placed emphasis upon United States geography and history as well as the development of our country and its neighbors on each side.

Grade six spent most of the allotted time of 225 minutes each week on exploring the old world. The study of the world long ago along with the progression of man through the ages in Europe, Asia, Australia, and Africa was also discussed. An atlas, reference tables, and a dictionary of geographical terms was used to help familiarize the student with the area being studied. The review of the literature showed that an average of 267 minutes each week were spent on social studies instruction on the sixth grade level. Course content consisted of either the study of the Western Hemisphere with Canada, Mexico, Central and South America or the Eastern Hemisphere with Europe past and present. This would depend on the fifth grade course content or whatever might be presented in the seventh and eighth grade program. Other areas outside the United States with their economic and political relations to the United States were the main content of the sixth grade level study and in some cases selected countries with their likenesses and differences were also compared to the United States.
IV. LANGUAGE ARTS

A sequential series of textbooks were used in the reading, spelling, and language programs throughout grades one through six. It was noted that all texts were copyrighted within the past five years with a few newer editions being initiated as the copies were published.

The kindergarten program placed emphasis upon stimulating interest in many types of literature and in broadening concepts through pictures and stories. Auditory and visual discrimination were promoted as a means toward developing the reading-readiness program. About 60 minutes were allotted each week for instruction. The review of the literature did not specify any time allotment for instruction in the kindergarten of the language arts. Much pressure was being applied to the schools pertaining to the teaching of reading in the kindergarten as was shown by the literature. The majority of studies showed that no particular advantage was derived from the teaching of kindergarten children to read. It was mentioned that a well-rounded reading readiness program should begin in this grade with emphasis upon developing the eyes, ears, and the speech of the child. Also, it was advocated that a background of experiences should be provided when possible to help create a real interest in wanting to learn to read.
Grade one utilized the whole-word approach in their beginning reading classes with strong emphasis placed upon phonics. Previous to this a unit was studied on readiness to help the students develop their skills; in discriminating between sounds of spoken words, in using oral context to supply a missing word, and in using a beginning sound together with oral context to supply a missing word. One of the main objectives was to promote each child's growth in interpretative skills and comprehension through picture clues, context, organization, evaluation, etc. It was also an important objective to advance each child's growth in word perception skills by using phonetic analysis and structural-analysis skills. To assist the child to develop a sight vocabulary of from one to four hundred words was another goal in the first grade program. Approximately 600 minutes were allotted each week for instruction in phonics and in beginning reading as compared to 655 in the literature review. In writing and spelling the child was gradually introduced to letter forms and simple words with emphasis upon legibility and correctness. Fifty minutes were allotted in both areas (spelling and writing) as compared to 65 minutes in the literature review. The main objectives in the language program for first grade students were:

1. To learn by listening.
2. To give attention to identifying specific listening skills.
3. To learn to write.
4. To develop competence in handwriting and in spelling.

About 50 minutes were allotted for instruction in grammar as compared to 87 minutes in the literature review. The review of literature compared very closely to what was being used as material for instruction in the reading, spelling, writing, and grammar program for the first grade. It showed that a variety of methods were used throughout the different school systems but the general course content was about the same. Word recognition, context clues, word identification and discrimination, and the ability to synthesize the word parts into word wholes were the main attributes to a good elementary reading program. Emphasis should continue to be placed upon phonics instruction at this level.

Grade two stressed the importance of language, both oral and written. Emphasis was placed upon the correct usage of verbs. Phonics continued to be very important in the reading program. Objectives in the reading program were to read for comprehension by reading to get the main idea from a short selection and in helping children to use context to figure out the meaning of certain words within a sentence. To use punctuation marks as an aid to getting the meaning as well as the dictionary were also objectives.
stressed in the second grade reading program. About 400 minutes were allotted each week for reading instruction in the second grade as compared to 552 minutes in the review of the literature. Writing and spelling became more formalized with a specific period set aside for the instruction of each. In spelling emphasis was placed upon the teaching of syllabication, contractions, developing concepts of homonyms, antonyms, suffixes and prefixes. One other objective was to teach to recognize new words in other places. This in turn helped to develop generalizations in spelling and also help to build spelling power. About 100 minutes were allotted each week for spelling and 100 for writing as compared to 80 for spelling and 65 minutes for writing in the review of the literature. Time allotted for language or grammar instruction was 100 minutes as compared to 77 minutes in the literature review. The main objectives in language or grammar instruction were to help the student to become a good listener, to carry on a good conversation, to tell a story, and to make a good beginning in hearing and using simple basic rules in grammar.

Grade three stressed the desire for wider reading as well as getting the meaning from the printed symbols. The reading and phonics program were integrated with no separate period designated for phonics instruction. The objectives of the reading program and instruction in phonics
were as follows:

1. Mastery of phonetic elements; consonant blends, vowel combinations, endings, prefixes, etc.
2. Mastery of reading and listening skills.
3. Mastery of context to get the special meaning of a word.
4. Ability to interpret certain punctuation marks and multiple meanings of words.

Time allotted for reading and phonics instruction in the third grade amounted to 250 minutes each week as compared with 479 minutes in the literature review. Language or grammar instruction was based upon correct use of and practice in recognizing and making good sentences. The mechanics of writing were stressed. The change from manuscript to cursive was being brought about in the writing program. The necessary skills were taught and correct posture was emphasized. Spelling words were being taken from the text and more emphasis was placed upon developing the concepts of suffixes and prefixes, and upon antonyms and homonyms. About 100 minutes were allotted for language instruction, 75 for spelling, and 60 for writing. The review of the literature showed that an average of 108 minutes were spent on language instruction, 78 minutes for writing, and 108 minutes for spelling. The literature reviewed showed that handwriting may be introduced at grade one, two, or even grade three without too much difficulty in making the change. If it is introduced in grade one, especially, there should definitely be a limit to the amount of writing they do as
their writing needs are rather limited. Also, it was shown that spelling should consist of the words most often used in grade three along with a review of the words which gave the most trouble to individuals in grade two.

Grade four used the following as objectives for their reading and language program:

1. To establish independence in identifying strange words by using phonetic elements in conjunction with use in the context.
2. To develop independence in coping with meaning difficulties and in studying informative material more effectively.
3. To provide training in reading for different purpose.
4. To visualize events and anticipate possible outcomes to a story.

The time allotment amounted to 200 minutes each week for reading instruction in grade four as compared with 420 minutes in the literature review. The language or grammar instruction consisted of placing emphasis on correct usage of verbs and introduced picture words or adjectives. In spelling, emphasis was placed upon transferring word-analysis skills taught in reading to attacking spelling problems. One main objective was to develop the skill of connecting meaning with every word they learn to spell. In writing, the instruction was based upon size, shape, slant, and spacing as well as legibility. Language or grammar instructional time amounted to 100 minutes each week, 75 minutes for spelling, and 50 minutes for writing in grade four. The literature review showed 130 minutes were allotted for gram-
mar, 108 minutes for spelling, and 75 minutes for writing in grade four. Course content followed closely to the literature review of topics or units.

Grade five stressed reading for meaning and the developing of skills in recognizing familiar words rapidly. Helping the child to read independently was also an important objective. Another objective was to help develop the child's ability to attack strange words by means of phonetic, structural analysis, and context. Reading time allotted amounted to 225 minutes each week as compared to 378 minutes in the literature review. Most of the time was actually used for free-choice reading in the school system under study. Spelling consisted chiefly of developing the skills in learning the diacritical markings and in establishing the meaning of every word learned to spell. To develop within each child a sincere desire to spell correctly was an important objective. Most of the language or grammar instruction consisted of discussing nouns, verbs, parts of a friendly letter, word meaning and proper usage, and the usage of homonyms and correct spelling. In spelling the main emphasis was placed upon helping students to appreciate and understand the purpose of correct spelling and to develop good study habits. Strengthening spelling patterns into which the words or syllables are found was also stressed. In writing, most
emphasis was placed upon writing legibly, accurately, and with reasonable speed. Language or grammar instructional time amounted to 160 minutes, 100 minutes for spelling, but no specific time allotment for writing. The literature reviewed showed 160 minutes allotted for grammar instruction, 80 minutes for spelling, and 63 minutes for writing in grade five.

Grade six placed most emphasis upon promoting more growth through reading. Developing comprehension, efficient reading habits, and strengthening certain interpretative skills were the other main objectives. Very little phonics instruction was noted at the sixth grade level in the school system being studied except that the students were using the basic skills developed in their earlier phonics training. In spelling, the main objectives were to help the child increase his spelling vocabulary, emphasize the sound-to-symbol process in spelling, understand the place that the prefix and suffix hold with respect to the root word, and to insist that the child listen to a word so that he may identify the various sounds that are helpful in spelling the word. In language or grammar instruction, considerable emphasis was placed upon the introduction of pronouns, the concept of subject-verb agreement, the adjective and the adverb, and the beginning of sentence structure through noun
and verb recognition and use. No objectives were listed for
writing, however, the language or grammar program and writing
program were integrated at this particular level. Reading
time amounted to 225 minutes each week, language instructional
time was 160 minutes, and 140 minutes were allowed for in-
struction in spelling. The literature review showed that
an average of 305 minutes were allowed each week for reading
instruction, 160 minutes for grammar, 63 minutes for writing,
and 90 minutes for spelling on the sixth grade level.

V. PHYSICAL EDUCATION

The course content noted in the physical education
program was very brief in terms of anything concrete. It
was noted that each teacher had charge of their own program.
On the primary level, a selection of the activities utilized
were as follows:

1. Group games
2. Relays
3. Lead-up and team games
4. Combat and rhythmic activities
5. Individual and dual games

The intermediate level listed the following topics
as activities:

1. Soccer
2. Basketball
3. Volleyball
4. Softball
On every grade level, 60 minutes of instruction were allotted every week. This was exclusive of all recess time. The literature review showed that an average of 140 to 160 minutes were allotted each week for physical education instruction. This was also exclusive of recess time. The literature reviewed also listed a number of skills to be developed in the lower and middle-childhood years. Among some of the skills were the following:

1. Locomotor skills
2. Body Mechanics and Safety Skills
3. Game Skills
4. Rhythm Skills
5. Stunts and Self-Testing Skills
6. Skill Goals-Middle Childhood Level

Each skill listed gave a particular grade level in which this skill should be developed. As was also mentioned in the literature review, the trend today is for more activity for all children and that future curricula should provide the teachers with a sequential series of exercises to help develop bilateral movement skills of children.

VI. FINE ARTS

Music. The elementary music program was directed by a special teacher certified for the teaching of music. Course content consisted chiefly of singing and listening to music on records both for enjoyment and appreciation. Different games and dances were introduced as a means to
help develop coordination and rhythm as well as to help learn to have an appreciation for the subject. Each week 90 minutes were allotted for instruction. The literature reviewed gave an average time allotment of 70 minutes each week. The literature also advocated that a special period should be utilized daily for the teaching of music. This should be in addition to the regularly scheduled music period.

**Art.** Art instruction was provided by the regular classroom teacher on all grade levels. The course content seemed to follow the seasons for ideas on which to base their program. In the primary grades emphasis was placed upon free expression through the use of different materials which in turn helped develop coordination in the handling of tools. Few art concepts were developed until in the later intermediate grades where qualities of imagination, originality, and creativity were established. To guide and encourage the child to fulfill his desire for self-expression by developing his creative abilities was the main objective. Time allocations ranged from 45 to 90 minutes each week with some grades not designating a specific time allotment or period for art instruction. The literature reviewed gave an average time allocation of 80 minutes each week in grades one through six.
CHAPTER IV

COMPARISON OF PRESENT PROGRAM WITH THE RELATED LITERATURE AS TO COURSE CONTENT AND TIME ALLOTMENT

I. ARITHMETIC

In comparing the total arithmetic program in the school system being evaluated with the literature that was reviewed, it was evident that there were no grades teaching any of the so-called modern mathematics concepts. The literature reviewed showed much discussion on the topic with conservative ideas on the adoption of any modern program.

In grade one, the course content seems to compare very favorably in that both have related units on: counting numbers by ones and tens to one hundred; learning to use the clock for telling time on the hour; coins such as the cent, nickel, and dime; experience in grouping; and in learning to build and use an arithmetic vocabulary. The literature reviewed showed that numbers and their meanings should be learned for numbers up to and including nine, and that fractions of $\frac{3}{4}$, $\frac{3}{4}$, and $\frac{1}{3}$ should also be introduced. The time allotment for instruction in the literature review showed that twelve minutes more were allocated there than in the school system being studied.
The second grade course content as listed in the literature reviewed showed that several units of measurement were stressed as the foot, yard, pint, quart, gallon, and that emphasis was placed upon reading, writing, and counting numbers larger than one hundred. More incidental learning about fractions was also emphasized. The time allotment was seven minutes more each week in the literature review than was listed in the school system being studied.

Grade three emphasized the processes involved in the addition and subtraction of three-digit numbers with carrying and borrowing in the literature reviewed. Also multiplication by fives was listed. The literature reviewed showed that sixty-four more minutes each week were allotted for instruction than what was being allocated in the school being studied.

The course content for fourth grade was similar except the literature reviewed showed that more attention was given to fractions and the multiplication tables through tens. The school system being evaluated listed instructional time at ninety minutes more each week than what the literature review revealed.

Grade five presented an introduction to decimals, also finding a fractional part of a number in the literature reviewed that was not listed in the course content of the
school system being studied. Time allotment amounted to ninety-one minutes more each week in the school system being evaluated than what the literature study revealed.

Grade six allotted nine minutes more each week as was shown by the review of the literature than what was allotted in the school system being evaluated. The literature also showed that more emphasis was being placed upon the learning of a vocabulary connected with fractions and the learning of simple geometric facts. Also shown by the literature studied was that more emphasis should be utilized on the improving of skills in computation and understanding the concepts and processes newly learned in the previous grade.

In the kindergarten arithmetic program, the review of literature showed that many types of programs were in existence but that any idea to step into a modern program should be carefully considered. It mentioned also that many programs were being experimented upon at the present time and that some contained nothing more than a down-grading of present material into the next lower grade level. No specific time allotment was given in the literature review but the school system being evaluated listed that about one hundred minutes were allotted each week for instruction.
II. SCIENCE AND HEALTH

In the science and health program, the review of the literature showed the trend is toward placing more emphasis upon the physical sciences on most all grade levels. It was mentioned that possibly seventy per cent of the time should be spent on physical science instruction in the upper elementary grades and thirty per cent on biological sciences; while on the lower elementary grades about forty per cent should be allotted for physical science instruction and sixty per cent for biological science. It was also advocated that perhaps the implications for science in the sixth grade and below is and should continue to be social. Many points were listed as being attributes of a good elementary science program but they were not limited to one particular grade level in most instances. Most of the course content consisted of units or topics to be discussed within a two to three year span of time depending on the maturation of the students.

The kindergarten, grade one and grade two listed units centered around animals, plants, weather, machines, and work. These were units presented in the review of the literature as compared to plants, animals, water, seasons, magnets, earth, and the human body. The time allotments in the kindergarten reviewed showed that science-health instructional time amounted to five minutes less each week than what was being
practiced in the school under study. Grade one utilized forty minutes more each week than what was advocated in the literature reviewed. Grade two listed twenty-five less minutes of instructional time allotted in the review of literature than what was being utilized in the school under study.

Grades three and four listed units to be taught on these levels as ones very similar to the units already being taught in the school under study. More about electricity, the air, earth and sky, and rocks and minerals were also advocated. Instructional time in the literature review showed that sixty-one minutes less were utilized in grade three and forty-eight minutes less in grade four than what was practiced in the school under study.

The fifth and sixth grades advocated further study of the same units as were mentioned in grades three and four with additions of what makes things move and what things are made of. The same units as listed in grade three and grade four were studied in more detail in the fifth and sixth grades. Also, the galaxies and constellations were part of the course content advocated on these grade levels. Instructional time amounted to seventy-eight minutes less in the fifth grade and sixty-eight minutes less in the sixth grade in the literature reviewed than what was being allotted in the school being evaluated.
III. SOCIAL STUDIES

The social studies program seemed to compare with the literature reviewed in most instances as to course content. Some discussion was given to the validity of integrated courses versus separate disciplines but the majority of literature reviewed showed that the integrated program was still favored.

Kindergarten and grade one continued to emphasize the importance of the home and family. This was found to be true in both the related literature and in the school being studied. The literature also showed that the neighborhood should be considered on the first grade level. Time allotments in the literature review were twenty-five minutes more on the first grade level, however, no specific time was allotted on the kindergarten level.

Grade two emphasized the importance of helpers in the community in both the school under study and the review of literature. The literature advocated a more comprehensive list of helpers such as the doctor, lawyer, teacher, etc. It was also mentioned in the literature reviewed that the life in the community might be contrasted with life on a modern farm or city. The time allotted for instruction in the literature review was twelve minutes less each week than
what was being practiced in the school under study.

Grade three placed stress upon living and working together both in the literature review and in the school under study. The literature advocated the study of human activities and methods of procuring food, clothing and shelter. Life in a modern community was also contrasted with life in a primitive community. Time allotment was 40 minutes longer each week in the literature review than what was being utilized in the school under study.

Grade four studied different type regions of the world and surveyed the globe as a whole to determine the relationship of the continents and oceans and their general characteristics. The literature also made mention of the study of a local area in relation to an over-all survey of the United States. The literature showed that 50 minutes more each week were allotted for instruction than what was being practiced in the school system under study.

Grade five continued to place emphasis upon the United States and its neighbors to the north and south. The literature review showed that more countries should be studied to contrast with the United States and to more fully develop historical, geographical, civic and economic concepts of the United States, its island neighbors and Mexico. Time allotment amounted to 30 minutes more each week in the school under study than what was advocated by the literature review.
Grade six allotted 42 minutes more each week for instruction according to the literature reviewed. It also revealed that the political and economical relations of other countries to the United States were very important and that the likenesses and differences might also be contrasted with different countries.

IV. LANGUAGE ARTS

The kindergarten program in language arts was composed of a good reading-readiness program with much emphasis upon developing the eyes, ears, and the speech of the child. It was also advocated that a wide background of experiences be provided whenever possible. The literature reviewed showed no specific time allotment for language arts instruction the kindergarten grade.

The literature reviewed on the first grade level in the language arts program indicated that a wide and varied list of methods for teaching beginning reading might be employed depending upon the maturation and readiness of the children. The introduction of phonics and the special attention to the variety of sounds heard and words that were seen regularly were all emphasized in the review. Fifty-five more minutes were utilized each week for instruction according to the literature review. Fifteen more minutes were allotted for writing and spelling each week and 37 more
minutes in grammar instruction were allotted according to the literature review. The spelling words were ones taken from ones most often missed by first graders plus others that were often used on this grade level.

Grade two utilized 152 minutes more each week for instruction according to the literature reviewed than what was used in the school under study. About twenty more minutes were used for spelling and thirty-five more for writing in the school under study than what the average in the literature review revealed. Grammar instruction amounted to 23 minutes less each week in the literature review as compared with the school being studied. The literature showed that long and short vowels should be introduced with continued work on word identification, recognition, and discrimination. Spelling and writing should also consist of words used and missed most often on this grade level. Handwriting possibly should be introduced at this level according to the literature reviewed.

Grade three allotted 229 more minutes each week for reading and phonics instruction in the literature reviewed than was being utilized in the school under study. It was mentioned that the recognition of compound words, inflectional variants, possessive and plural nouns, and contractions should be emphasized at this particular level. Again,
spelling words should be taken from the different texts of the words most often misspelled on this grade level. About eight minutes more each week were spent on language instruction, eighteen minutes more for writing, and thirty-three minutes more in spelling according to the literature review than what was being practiced in the school system under study. Spelling words again should consist of a number of words often misspelled on this grade level plus ones which were difficult in the past year as review.

Grade four allotted 220 minutes more each week in the literature review than what was allotted in the school under study for reading instruction. The review also showed that 30 minutes more each week were allotted for language instruction, 33 minutes more for spelling, and 25 minutes more for writing instruction than what was being practiced in the school under study. Course content compared favorably on this particular grade level in the language arts program.

Grade five utilized 153 minutes more each week for reading instruction according to the literature review than did the school under study. The review also showed that 20 minutes less each week were allotted for spelling instruction and that the same amount was being utilized in language instruction in both the school under study and in the literature review. No specific time was allotted for writing in the school being studied but the literature reviewed showed
that 63 minutes were allotted each week for this purpose. Course content was very similar on this grade level in the language arts program both as shown by the review of the literature and as was indicated in the school under study.

Grade six allotted 80 minutes more each week for reading instruction according to the literature reviewed. The literature also showed that 50 minutes less were allotted each week for spelling instruction. In the school being studied and according to the literature reviewed, both utilized 160 minutes each week for language instruction. The literature review also showed that 63 minutes were allotted for writing instruction while the school being evaluated integrated their language and writing periods into one. The course content, again, on this level was very similar. No specific discrepancies were noted.

V. PHYSICAL EDUCATION

The literature reviewed pertaining to physical education disclosed that from 80 to 90 minutes more each week were being utilized for instruction than what was being practiced in the school being evaluated. Also listed in the literature review were a number of particular skills to be developed in the lower and middle-childhood years according to the age and maturation of the child. It also pointed
out that the trend is for more activity for all children and that a teacher well qualified should become a part of all future physical education programs.

VI. FINE ARTS

**Music.** The literature reviewed with regards to music instruction showed that 20 minutes less were allotted each week than what was being allotted in the school under study. It was also mentioned that a specific period should be set aside daily for some type of music expression. This was in addition to the regularly scheduled music period. Rote singing is in the process of replacing note singing according to the literature review and music should be integrated instead of set aside from the other subject areas.

**Art.** Art instructional time as revealed by the literature review showed that an average allotment of 80 minutes weekly were sufficient in grades one through six. The school being evaluated was utilizing between 45 and 90 minutes each week for art instruction. The literature also listed many activities for enriching the art program such as drawing, painting, modeling, cutting and tearing, printing, construction, and weaving crafts. It listed different media and the grade placement for each to be used as a guide in developing a good art program at any and all grade levels.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The purpose of this study was to appraise the elementary school program of the Le Grand-Dunbar-Ferguson school system in light of current trends, innovations, and by recommendations of leading authorities in the areas of elementary education. Special attention was to be given to course content and time allotments in the various areas. Course objectives were listed in different areas in an effort to determine whether or not these were being fulfilled. In some instances, results of the Iowa Basic Skills Tests and the Metropolitan Achievement Tests were mentioned and used in an effort to help appraise the quality of the educational program being presented to the school system under study. A review of the related literature was presented in chapter IV for comparison with the present program being initiated in the school under study.

II. CONCLUSIONS

Arithmetic. The arithmetic program lacked much of the so-called modern mathematics concepts that are becoming so prevalent of late. However, there still remains much
controversy as to what extent modern mathematical concepts should be included in a modern mathematics program. Previous references cited in this study indicate that there is a need for revision of the mathematics program throughout the country due to many reasons. The school under study was utilizing textbooks somewhat outdated although much of the course content compared closely to what the literature review revealed. Time allocations for mathematics were comparable in grades one, two, and six with much more time being spent in grades three and four according to the literature reviewed. The comparison of time allotments was listed on previous pages. Results of the tests that were given showed that grades one and two ranked slightly above normal grade placement at the date of testing while the other grades ranked from one to seven months below normal grade placement. The results of the tests were mentioned previously in this study. It was also noted that a different test was given the two grades that ranked above normal grade placement than was given the other grades. This could have made some difference on the outcome.

Science-Health. The science-health program was integrated in the school system under study in that the science textbooks were used with biological science units being designated as health units. Textbooks were from two differ-
ent sources, each being approximately seven years old. Occasionally, supplemental books were used to help develop health units. Greater emphasis was placed upon the physical sciences rather than the biological sciences in the literature reviewed which also was true in the school under study as was shown previously in the study. Current studies indicated that much of the course content is being "downgraded" by a year or two as was shown. What was once taught in fourth grade is now being taught in the second or third grade. The course content by units seemed to compare in the school under study with what the literature showed was being presented in many schools. These comparisons of course content have been previously listed. Some studies indicated that similar topics should be studied each year but in greater depth than the previous year. Time allocations showed that the school under study was spending from twenty-five to eighty minutes more each week in science instruction than what the average of the literature reviewed showed.

Social studies. The course content by units as was shown in the literature review compared very closely to the units being presented in the school under study. Earlier in the study it was mentioned that educators forecast change in emphasis in the social studies with little change in actual course content. It was also noted in the research that some
educators advocate the use of separate disciplines while others still encourage integrated courses. New studies are being launched in an effort to find some solution. The time allotments in the school under study showed that more time was spent in social studies instruction in the second and fifth grades and less time was spent in grades one, three, four, and six than by comparable grades as was shown on previously cited pages of this study.

Language arts. Most emphasis was placed upon reading instruction in the language arts program. This was found to be true in the school under study as well as in the literature reviewed. Research shows on previous pages that a well-rounded readiness program should be initiated in either kindergarten or in early beginning first grade depending on the maturation of the individuals. It was also indicated that there is no particular reading program to suit all students. A variety of methods are being used throughout the country in teaching beginning reading as was shown earlier. Phonics played an important part in some areas of the country while less emphasis is placed on phonics instruction in other areas according to research. The school under study began teaching reading-readiness in the second semester of the kindergarten year stressing auditory and visual discrimination through pictures and stories. Left to right sequence
instruction followed. The first grade continued with building a sight vocabulary and learning different beginning sounds of the letters. Phonetic and structural analysis skills were learned and emphasized to promote each child's growth in interpretation, perception, etc. Comprehension was a major goal at every grade level. The time allotments used for reading instruction showed that grade one utilized fifty-seven more minutes each week, grade two 152 minutes more each week, grade three 229 minutes more each week, grade four 220 minutes more each week, grade five 153 minutes more each week, and grade six eighty minutes more each week according to the literature reviewed than what was being allotted in the school system under study. The time allocations were listed on earlier pages for the averages as shown by the literature review.

Foreign language. No foreign language instruction was noted at the elementary level in the school under study. Research indicated that many schools are beginning to offer a foreign language on the elementary level if it is an integral part of the total schools foreign language program.

Handwriting. Research indicated that less emphasis is being placed upon handwriting as an end in itself toward the functional and utilitarian concept of handwriting as a
necessary tool for expression of thought. There is contradiction as to what age cursive should replace manuscript writing according to the literature reviewed. Most researchers place a time somewhere between the first and the second grades. Time allotments were very similar in most instances with the school under study, however, no specific times were allotted in the fifth and sixth grades for handwriting, as such.

**Spelling.** Spelling programs in modern schools, according to the study, emphasize the desire to spell words correctly on each individual's own grade level. That is, the instructional program is varied to provide for individual differences so that each child may progress at his own rate. Research indicated also that the three basic patterns used in spelling today are formal weekly lists, selection of words based on spelling difficulty in subjects, and/or a combination of both. The school under study used a formal weekly list occasionally supplemented with a list from words often misspelled in other subject areas. On an earlier page of this study researchers indicate that the two traditions in use today are the test-study and the study-test type, the test-study being more advantageous. The school under study was currently using the study-test type at the time of the study. It also utilized more time in grades two, five, and six and less time in grades one, three, and four than the
average shown by research.

**Grammar.** In the research pertaining to grammar it was evident that little attention is being given to grammar as such in the elementary grades. The emphasis is being placed upon usage and the skills used in speaking and writing. The school system under study was also placing the most emphasis upon correct usage as was indicated on an earlier occasion. Time allotments varied, however, grades five and six each allotted 160 minutes each week for language or grammar instruction in the school under study as well as in the literature review. Grade one utilized thirty minutes less each week for grammar instruction than the literature review showed. Grade two utilized twenty-three more minutes each in the school under study than what was indicated by the review of literature. Grades three and four utilized eight and thirty minutes less each week, respectively, than the amounts designated by the literature review.

**Physical education.** The physical education program in the school system under study was very inadequate in that no specific activities were planned or initiated with regard to improving certain physical skills. As indicated in the literature review, there are certain motor skills necessary to all children of elementary age. It was also mentioned
that the trend in physical education today is for more activity for all children. A sequential series of exercises to develop different skills should become a part of every program. The time allotted for physical education instruction in the school under study amounted to sixty minutes per grade each week exclusive of recesses. The average weekly time allotment shown by the related literature amounted to from 140 to 160 minutes each week.

**Music.** In a review of the literature pertaining to music it was mentioned that a special period should be set aside each day for musical instruction. This is in addition to the regularly scheduled music period. More emphasis should be placed upon the enjoyment and appreciation for music. Music should be included in the regular curriculum integrated with the other subject areas instead of isolated from them, according to research. The time allotment for music instruction in the school under study amounted to ninety minutes each week while the average time spent for music instruction according to the related literature amounted to only seventy minutes per week.

**Art.** The related literature indicated many activities for enriching the art program in a school system. Experiences such as printing, drawing, construction, etc. were listed along with the proper media and also the grade place-
ment or level at which these experiences were to take place. The school under study had no specific patterns or guides to follow but rather followed the seasons of the year to get ideas from which to base their program upon. The time allotments varied from forty-five to ninety minutes in the school under study as compared with an average of eighty minutes each week in the literature review. No specific time was allowed for art instruction in grade six in the school under study.

III. RECOMMENDATIONS

Arithmetic. The arithmetic program should be revised from the kindergarten level through sixth grade. The textbooks are somewhat outdated especially with the current trends moving in the direction of "modern math" or at least to a modified version of the traditional program. This should further be discussed by a committee who would make more extensive studies of current programs to determine to what degree the school system should adopt modern mathematics. If the traditional program is kept for a few years, then other recommendations should be considered. Since the course content appears very similar in most instances it then would seem logical to look for other weak areas. More time should be allotted for arithmetic instruction in grades three and six since these show below average time allotments. More
emphasis should be placed upon making arithmetic more meaningful at all grade levels. Some of the material usually presented in grade three should be added to the course content of the second grade as this grade seems to be more of a review of first grade work and without too much challenging material toward the latter part of the semester. This would also alleviate the amount of work usually crowded into the third grade program. More emphasis should be placed upon solving written problems step by step. This area has always shown up weak in the past.

Science-health. New textbooks should be adopted in the science program from kindergarten through grade six. Emphasis should continue to be placed upon the physical sciences on the upper elementary level and the biological sciences in the lower elementary grades. More experiments should be performed on all grade levels. The portable laboratory mentioned in the review of the present curriculum should be used by more grades when possible. More emphasis should be placed upon recognizing and using scientific methods in problem-solving situations. With the ever increasing technological age emphasis should continue to be placed upon a sound scientific vocabulary at all grade levels. It would also be the recommendation of the author that the health program be integrated with the present
physical education program at this time. Good science training films should continue to be used whenever possible. The time allotments should be shortened by twenty-five minutes each week on the first and second grade level and by fifty minutes each week in grades three, four, five, and six according to the literature reviewed.

**Social studies.** The course content of the social studies program appears very similar to the review of the literature on most grade levels. More map and graph work should be utilized in grades three through six. Grade two should consider a wider group of "community helpers" other than the traditional mailman and policeman. More emphasis should be placed upon the many problems that face communities and countries and how everyone must accept their responsibilities as citizens to help solve them. More time should be allotted for social studies instruction in grades one, three, four, and six. This should be increased by thirty minutes weekly on these levels. More extensive weekly current events should be employed on all grade levels to insure up-to-date factual information on happenings around the world. There are also many excellent training films that could be shown.

**Language arts.** More emphasis should continue to be placed upon reading and comprehension at all levels. Read-
ing-readiness should be initiated at the kindergarten level with a continuing program into first grade. The pupils should possibly be grouped from the kindergarten level through grade six in order to keep each progressing at approximately the same rate as the other. A combination of methods should be continued in the teaching of reading according to the progress made by the individuals concerned. This will vary from group to group and from situation to situation. Phonics instruction should continue at all grade levels with most emphasis being placed upon the first few years in the elementary grades. A remedial reading class should be initiated in the reading program. This would allow students of all levels to help further their development of reading skills. This service is not available at the present time. As students become more independent in their reading abilities it would also seem logical that a well-equipped library be made available for all. The SRA Reading Laboratory or the Controlled Reader should be used to a greater advantage in helping each student to become more efficient and independent in the skills of reading and comprehending. More time should be allotted on all grade levels for reading instruction. This time should amount to about 655 minutes weekly on the first grade level, 550 minutes each week on the second grade level, 480 minutes each week on the third grade level, 420 minutes
each week on the fourth grade level, 375 minutes weekly on
the fifth grade level, and 300 minutes each week on the sixth
grade level.

Foreign language. No foreign language should be
taught at the present time on the elementary level because
of a lack of continuity in the program at the junior high
level.

Handwriting. Cursive writing should continue to re-
place manuscript writing somewhere between the second and
the third grade. Not too much emphasis should be placed
upon the form or style of writing but rather stressing
accuracy and legibility of spelling.

Spelling. In the spelling program it is recommended
that every grade level adopt the test-study method. This
would eliminate spending useful time on words possibly well-
known to some students and would allow more time for those
words not so familiar. Words should be taken from the texts
of other subject areas. This should then comprise the
spelling list for a certain period of time. Words should
also continue to be used in context as well as just written
for correct spelling. More emphasis should be placed upon
correct spelling in all other subject areas besides spelling.
That is, it should be required that correct spelling be a
part of all written work regardless of what subject the student is working on.

**Grammar.** In grammar, the emphasis should be concentrated upon the proper usage of words and the skills involved in speaking and writing. More time should be allotted in grades one and four while the other grades should continue to utilize the same amount as they have in the past. It is also important that punctuation and capitalization be stressed in all writing at all levels.

**Physical education.** The physical education program should be based upon certain games and activities which would help to develop and improve certain physical skills. There should be a sequential program of activities from kindergarten through grade six with a qualified instructor to take charge of the program. More time should be allotted at all grade levels. This should amount to 150 minutes each week on all grade levels exclusive of recesses. More calisthenics and body-building activities should be stressed at all levels. A qualified physical education instructor to supervise the entire program in the elementary grades would insure a much more integrated program throughout the entire school system.

**Music.** Time allotted for music instruction is adequate
at all grade levels. It is recommended that each teacher set aside a short period every day when some type of musical expression may be utilized. This is in addition to the regularly scheduled music period. More emphasis should be placed upon listening and developing an appreciation for music at all levels.

Art. It is recommended that a specific period be set aside for art instruction on all grade levels. More time should be spent in grades two, three, five, and six. Approximately eighty minutes each week are recommended for art instruction on all grade levels. Again, as in physical education, a program should be initiated on all grade levels that would help each child to develop to the maximum according to his potential. A well-qualified art instructor should be employed to help stimulate and promote creativity in each individual.
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