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Enrichment Activities in Arithmetic, Social Studies, and Sciece for the Gifted Intermediate Graduate Student

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ENRICHMENT ACTIVITIES IN ARITHMETIC, SOCIAL STUDIES, AND SCIENCE FOR THE GIFTED INTERMEDIATE GRADE STUDENT

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I. THE PROBLEM

What can we do with our gifted students? Should we put them in groups, separate from the rest of the student body? Should we accelerate them, skip them ahead a grade or two? How about an ungraded primary to allow these students to progress at their own rapid rate? The flow of questions reaches torrent proportions; answers seem to trickle. While research and experimentation in these areas is being carried on in various parts of our country, and while brave new claims are being made by these researchers, the bulk of American teachers today still teach a heterogeneous group of youngsters and will probably continue to do so for years to come.

One of the most typical problems facing the teacher of a heterogeneously grouped intermediate grade class is what to do with the mentally gifted child or children in that class. Today, educators universally acknowledge the desirability of encouraging a youngster to develop academically, socially, and emotionally at as rapid a rate as possible. "Teach individuals, not a group," is the cry.

One way that teacher can help the academically talented youngster develop at his own rate is by providing enriched curricular activities for him to participate in. Too often, this author fears, the "enrichment" activities provided take the form of "busy work," activities specifically designed to "keep him out of my hair."

This paper is offered as a starting point for the teacher seeking challenging, creative activities for the gifted child. It is hoped that suggestions contained herein can be adapted to meet classroom situations and serve as inspiration for new and better activities.

Due to the limited space available, emphasis will be laid on enrichment activities in arithmetic, social studies, and science. The language and fine arts offer limitless opportunities for enrichment. Arithmetic, social studies, and science also offer excellent enrichment opportunities, but often these are not so evident as in other areas. For that reason, an effort will be made to identify some adaptable activities for the three above mentioned areas. It was not the intent of the author to place one phase of the curriculum above another in importance.

The purpose of this tudy, then, will be (1) to review the literature on definitions and objectives of an enrichment program, (2) to review the literature on general characteristics of gifted students, and (3) to identify some worthwhile enrichment activities for intermediate grades' arithmetic, social studies, and science programs.

II. DEFINITIONS OF TERMS USED

Gifted child. Authorities differ in their definitions of a gifted child. This paper will consider the gifted child as one who consistently shows outstanding performance in one or more curricular area. "Curricular area" will also encompass creativity. The terms "bright," "gifted," and "talented" will be synonymous, despite the fact that authors give differing shades of meaning for these terms.

Enrichment activity. This term will apply to any activity which serves to broaden and deepen a child's understanding, attitudes, or skills beyond the normal range of the basic curriculum.

CHAPTER II

REVIEW OF THE LITERATURE

I. DEFINITIONS OF ENRICHMENT

Each authority in the field of enrichment has his own idea as to just what enrichment and enrichment activities mean. In an attempt to show the varying concepts that do exist, several definitions will be presented here.

Abraham, looking at the problem negatively, says that fifth grade work for the fourth grader, twice as many questions or problems or extra homework is not enrichment (1:91).

"Extra long division problems are busy work," says Gallagher. A new way of arriving at an answer to those same problems is enrichment, he contends. Extra work is busy work unless "directed to the advancement of the particular intellectual skills and talents of the gifted child" (7:21).

The Portland, Oregon, public schools feel very definitely that enrichment is not adding more of the same content (15:81).

What, then, is enrichment?

Cutts tells us, "Enrichment may be defined as the substitution of beneficial learning for needless repetition or harmful idleness" (3:37). He, too, strongly rejects the much used practice of excessive drill or needless repetition.

Abraham feels that enrichment activities should grow from the instructional program for the whole class, as opposed to an activity picked

at random, with little connection to the instructional program of the room. He says, "Enrichment is based on the program for the entire group, and then extended in both breadth and depth" (1:90).

Says Gallagher, "Enrichment can be defined as the type of activity devoted to the further development of the particular intellectual skills and talents of the gifted child" (7:21).

The Portland, Oregon, schools, in their Gifted Child Project, give the following definition:

> The process of enrichment takes place when a child's understanding of a topic or concept is broadened and deepened beyond that usually considered normal for his grade and age. The child's understanding is made possible by the acquisition of greater knowledge, more facts, and increased skills. In this way, content is important to successful enrichment experience (15:81).

Willard Abraham gives us this admonition:

> Enrichment at its richest must be based on real understanding and not just the barren accumulation of facts. It must be willing to devote only the time that is absolutely necessary to drill, and realize that bright children get the idea fast and are ready to move on (1:185).

II. GENERAL OBJECTIVES OF ENRICHMENT

Anna G. Shepperd states that an enriched curriculum should be "a means of insuring better provisions for the individual needs and differences of the gifted." She feels that an enrichment program should be based upon that of the total group but should have greater depth commensurate with the superior abilities of the gifted student. Further, she lists six criteria a good enrichment program should try to meet. Experiences should present opportunities to:

1. increase skills and knowledges

2. deepen attitudes and appreciations

3. develop acceptance of social responsibilities

4. explore a wide and varied range of school and community resources

5. further initiative, originality, and creative aptitude through experimentation and research

6. use and extend leadership qualities to the fullest extent (18:221).

Cutts and Mosely list eight general objectives of enrichment, complete with annotations:

1. Challenge the full use of abilities. Challenge stimulates learning.

2. Broaden the base of knowledge. A breadth of knowledge covering many fields helps the pupil explore his aptitudes and choose the field, or fields, which interests him most.

3. Deepen understanding. The more thorough a student's knowledge of why a thing is so, the more quickly he learns not only that fact but also related facts.

4. Increase the level of skills. It should give the bright pupil the chance to apply practically and at increasingly high levels the knowledge he gains from all branches of the curriculum.

5. Develop a love of learning. If students enjoy the learning, they will retain more of what they learn, longer.

6. Inculcate desirable methods of learning, thinking and sharing. The bright pupil who is not encouraged to learn more than the curriculum requires is being shortchanged.

7. Encourage initiative. Initiative, like any other character trait, thrives on exercise.

8. Give play to creativity. Too often, due to pressures to conform, bright students lose the creativity which most of them once held so abundantly (3:42-44).

III. CHARACTERISTICS OF GIFTED STUDENTS

Each writer in this field also has his own idea as to just what a gifted student is. The descriptions of gifted children which follow are given for the purpose of pointing out the wide range of opinions on the subject. They are in no way intended to serve as guides to the recognition of the gifted; few "gifted" children would recognize themselves from the criteria here mentioned.

Quincy, Illinois, and Portland, Oregon, for the purposes of their Gifted Child Projects, consider gifted children to be those who have shown outstanding skill and talent in specific areas as well as children of high general ability (7:3-4). In cooperation with Reed College and under the sponsorship of the Fund for the Advancement of Education, the Portland people have developed a checklist for the purpose of evaluating each child's degree of "giftedness" or "non-giftedness." Each teacher is asked to rate each child on a 1 to 4 scale ("outstanding" to "below average"), on the following fifteen criteria:

1. Is alert beyond his years. Aware of what is going on, ready to respond to a question or other stimuli.

2. Has keen powers of observation. Sees and notes things in his reading in the classroom and school environment, and in his day-to-day living which are overlooked by the average.

3. He has a high degree of curiosity. Wants to penetrate more deeply into the "whys" and "wherefores": has an unsatisfied curiosity as the main drive for learning.

4. Is highly imaginative. Less inclined to follow organization and ideas of others. Usually adds ideas of his own.

5. Shows keen sense of humor. Does not reflect emotional insecurity by clowning, but can see the humorous side even though it affects himself.

6. Chooses difficult problems for his years. Is not satisfied with easy and superficial tasks.

7. Follows through on what he himself initiates. Perseveres, is not easily discouraged when faced with baffling problems, has tenacity of purpose.

8. Fulfills responsibilities which are assigned to him. Can be depended upon.

9. Discovers and corrects his own errors. Sets his own standards of high quality.

10. Discriminates between important and unimportant details. Has superior sense as to what is relevant.

11. Can form generalizations and use them in new situations. Employs logical reasoning.

12. Meets new experiences intelligently. Quickly adjusts to change.

13. Has longer attention span. Is not easily distracted.

14. Has deep and varied interests. Does significant things both in and out of the school motivated by his own interests and capacity for self direction.

15. Chooses original methods. Often arrives at correct answers through unorthordox methods (15:1).

The Educational Policies Commission concluded that if a child has and I. Q. of 137 or above, he is highly gifted, but if he has an I. Q. of from 120 to 137, he is only moderately gifted (2:1).

DeHaan and Havighurst propose that the gifted children are those in the top 10 per cent of their age group in one or more areas of talent. "We shall consider any child gifted who is superior in some ability that can make him an outstanding contributor to the welfare of and quality of

living in our society" (4:1).

Paul Witty feels that a child should be referred to as gifted "when his performance in a worth-while type of human endeavor is consistently remarkable" (24:312).

Likewise, the American Association for Gifted Children considers an academically gifted child to be one whose performance in any line of socially useful endeavor is consistently superior (2:1).

Generally, teachers agree that gifted children exhibit most or all of the following characteristics: they read well above grade level; they are more sensitive, self-critical and trustworthy; they are emotionally stable; they are superior in height, weight, and general health; they are interested in everything; want to find out, want evidence, seek evidence, seek proof, have depth, travel fast; they usually achieve easily; they are usually persistent; they are self directing and responsible; they want to work; and they enjoy working independently (11:63; 2:5). While this list by no means exhausts the characteristics of the gifted student, it is a fair summation of some of the more easily recognizable traits of the gifted.

IV. CAUTIONS TO BE OBSERVED IN AN ENRICHMENT PROGRAM FOR THE GIFTED

Many authors on the subject of enrichment programs are quick to point out one major pitfall. If the gifted are challenged with special materials and activities, other children in the class may feel they are not being allowed the same freedom as their gifted classmates. They

may resent the fact that their assignments and materials are not as exciting or even as interesting. Unless the situation is skillfully handled by the teacher, it can make the gifted child something of an odity or a teacher's pet. This criticism is stated by Pregler:

> Also, unless skillfully handled, special treatment for one or two children in the classroom can, in itself, create social cleavages. The large group of children may resent the amount of individual attention given by the teacher, the special assignments, and the books which are different from theirs. (16:243).

Another sobering thought was expressed by Henry H. Goddard, some thirty-four years ago. His admonition is one we can heed today:

> Who can say what will be the ultimate value of all this extra work carried on for 10 or 12 years of the elementary and high school course? It is easy to see the mass of information that is being acquired; but we must not let that blind us to the vastly more important and valuable acquisition of habits of thinking, of studying, of investigating, of judging, of seeing both sides of a question, of stating problems as well as solving them; the development of habits of self-control and of carrying responsibility. These are the real enrichments (8:102).

V. ENRICHMENT ACTIVITIES

Keeping in mind that enrichment activities should grow out of the regular course of study and be designed to broaden and deepen the understanding and skills of a gifted student in this study area, the following activities are suggested. It is hoped that these activities will be adapted to fit the individual classroom situation and that they will serve as a source of inspiration for more and better activities.

VI. ARITHMETIC ACTIVITIES

One type of activity that is usually of interest is a study of primitive numbers and number bases. A particularly popular study is the one given next.

Binary or base 2 system. In the binary system, the units are 1, 2, 4, 8, 16, 32, 64, and so on. To convert to the usual number system, begin with the 1's digit on the far right, the 2's digit next, the 4's digit next, and so on to what ever level is necessary. In this manner, 78 is written 1,001,110. The child soon learns he can find proper placement through a counting system or through a subtraction system. He has then increased the complexity of his understanding of the system as a system and is better prepared for quantitative thinking (6:300).

Left to right subtraction. This is an excellent activity for building a better understanding of our place value system. The following example should be self explanatory (22:28):

$$\begin{array}{r} 324 \\ -\,196 \\ \hline \end{array} = \begin{array}{r} 324 \\ -100 \\ \hline 224 \end{array} \qquad \begin{array}{r} 224 \\ -\,90 \\ \hline 134 \end{array} \qquad \begin{array}{r} 134 \\ -\,6 \\ \hline 128 \end{array}$$

Multiplying by using factors of the multiplier. The following dialogue would be used with the children: "Often when we have to multiply by a 2-place multiplier, we can change the example so that we need to multiply only by 1 place multipliers. Let's see how we might do that with this problem:

$$\begin{array}{r} 235 \\ \times 24 \\ \hline \end{array}$$

We know that 6 and 4 are factors of 24 (as are 3 and 8), since 6 x 4 = 24. So, to find 24 x 235, we could find 6 x 4 x 235. First find 6 x 234. Then multiply that product by 4.

$$\begin{array}{r} 235 \\ \times\ \ 6 \\ \hline 1,410 \\ \times\ \ 4 \\ \hline 5,640 \end{array}$$

Why won't this method work with 23 x 579?" (22:31).

A different way to divide. Louis A. Fleigler says that the gifted pupil should be given a variety of different ways to solve examples as well as to solve verbal problems. It is better to ask for three solutions to one example than to have the student solve three examples with a similar pattern (5:81). The example shown below helps break away from the idea of mechanical operations in arithmetic (22:33):

$$7\overline{)460} = 400 \div 60 \div 7$$

$$\begin{array}{r} 57\ 1/7 \\ 7\overline{)400} \end{array} \qquad \begin{array}{r} 8\ 4/7 \\ 7\overline{)60} \end{array} \qquad = \begin{array}{r} 57\ 1/7 \\ +\ 8\ 4/7 \end{array}$$

Be sure to write any remainder as a fraction.

Puzzles and "catch" problems. "Catch" problems and puzzles are usually intriguing to a child of superior ability. They challenge his abilities and thus stimulate his interests. They may even have real value in extending understanding. The following five examples are just a few of hundreds of such problems that can be devised.

Three boys, Don, Jack, and Bill ate their lunch together and spent 37¢, 49¢, and 49¢ respectively for which Bill paid with a $5 bill with the agree ment that they would adjust the proper amounts later. In change Bill received three one-dollar bills, a half dollar, a dime, and a nickel. Don had only a half dollar and two pennies and Jack had a single dollar bill. How can they make the proper change so each pays his correct amount? (9:48)

How can you use the figure 3 four times and show the value of 10? Answer: $3 \times 3 + \frac{3}{3} = 10$ (9:48)

Write any number you like. Multiply by 2, add 18 and then divide by 2. Now subtract the number with which you began. The answer will always be 9. Do you know why? (21:87)

Choose any number and multiply by 6, add 12 and divide by 2. Now subtract 6 and give the answer. Now I can tell you the original number. Key: Divide the answer by 3 to find the original number (21:87).

Is there any difference between a half dozen dozen and six dozen dozen? Prove it.

Magic squares. While children enjoy working magic squares, even more fun can be had from making their own magic square. An interesting assignment is to make a magic square, using only the numbers 1-9, one time each. Then, make another square, multiplying each number in the first square by three. Do you still have a magic square? Prove it (22:25).

Working with technical words and terms of arithmetic. The pupil demonstrates different levels of thinking in dealing with arithmetic concepts and terms. He may use the term in a sentence, give an illustration of the term, or formulate a concise statement of the meaning of the term. The latter represents a high level of operation in dealing with quantitative situations. This type of activity challenges the gifted pupil (5:81).

Designing a telescope. To help develop a concept of ratio, the very gifted arithmetic student might design a telescope to enlarge 100 times, 300 times, etc. (6:300).

Research and reports. Reports may be written and/or presented orally on topics such as the following; how our number system developed; what is meant by tolerance in weights and measures; a study of the metric system; our money system; and a study of pupil absences, complete with charts and graphs to illustrate cost to taxpayers, school district, etc.

Consumer education. A pupil might benefit from one or more of the following problems in consumer education; a report on cash vs. credit; keeping a record of the family budget for a month; calculation of various costs involved in purchase and upkeep of a house (insurance, taxes, depreciation, etc.); from a catalog, figuring the cost of refurnishing one room of his home; calculation of cost of conveniences in the home (light, heat, water, etc.); calculation of profits from the school store (21:84).

Miscellaneous activities. The short list of activities following is a small sampling of the many excellent activities that may be used by a creative teacher to enrich his curriculum:

1. Ask the student to develop original problems.
2. A slide rule could be used in multiplication and division problems.
3. Models can be constructed to illustrate fractions, area, volume, etc.
4. A dramatization of the use of arithmetic in everyday life.

5. Cooking from a recipe.
6. Computing multiple solutions to a problem.
7. Budget, audit and keep accounts for room funds.
8. Computation using Roman Numerals helps clarify the decimal or place value system.
9. Figure expenses of a field trip, refreshments for a party, or some other event requiring the use of money.
10. Various graphs and charts to illustrate numerical relationships.

VII. SOCIAL STUDIES ACTIVITIES

Anna G. Shepperd suggests that social studies presents almost unlimited opportunities for enriching the educational program of the gifted. He should study the same units or problems as the rest of the group but should be give additional opportunities to search for more profound understanding of historic, geographic, economic, social, and scientific truths (18:223).

Sheldon Rein counsels us to "Let the gifted child pick the things he wants to investigate. Give him encouragement and help him think through the problem he has formulated" (17:59). The job of the teacher here becomes one of raising questions to help develop the student's powers of critical thinking and reasoning.

Neighborhood map. After a field trip through the neighborhood, the teacher, with the help of the class, could draw an accurate outline map of the neighborhood, to be dittoed so that each class member could have a map. They would then be expected to fill in accurately the streets,

houses, etc. The more able students would probably wish to include street lights, fire plugs, traffic signs, and other details. This activity could be valuable for helping to teach map symbols and their use, as well as the concept of scale (21:57).

Historical interviews. To help students visualize scenes from history, an imaginary interview with a famous historical figure could be staged. Students would plan the questions to be asked and probably the answers, too, before the actual interview. Possibly a tape recorder could be used to record the interview.

Man on the street interview. A planned "Man on the Street" program could be used to emphasize current events and problems or to dramatize some historical event. Again, a tape recorder could be used (17:59).

Writing and dramatizing plays. Plays can be written on such things as life in a certain area of the world, great moments in history, or almost any other topic of interest to the class. Dramatization of this play could include dances and songs pertinent ot the subject being depicted (12:162).

Independent excursions. An independent excursion to some community facility affords the more able student an opportunity to observe situations that may not be of great interest to his classmates. He could report to the class on such things as a court in session, a museum, a hospital, an industrial plant, a bank, and so on (19:103).

Paper mache' globe. A large balloon makes an excellent base to apply the pasty strips of newspaper or paper towel. It is best to apply

paper for three separate days. The last layer of paper should be free of printing (paper towels as opposed to newspaper). Otherwise, the printing will show through the paint when it is applied. When time comes to draw the continents and islands, measurements should be kept as accurate as possible. This can require much mathematical calculation. When the final coat of paint has dried, a coat of clear shellac will make the globe more permanent (21:58).

Folk games and dances. In connection with a unit of study on a certain geographical area, a demonstration of folk games and dances of that area could be presented by the abler students to the rest of the group. The teacher may even wish to allow time for the demonstrators to teach the games and dances to the rest of the class (1:91).

Research and reports. The following topics are random samplings from a possible list of thousands. Each unit of study will contain many such topics which will lend themselves well to individual research and reporting:

1. Special items of world news.
2. Why do people live where they do in the world?
3. Acquiring knowledge of local trades and industries.
4. Local political organizations and recommendations for change.
5. The lives of great American men and women.
6. The lives of heroes of other countries.

7. A scientific solution for a famine area of the world.

8. The roll of government in flood prevention.

Miscellaneous activities. Again, the following list is but a sampling.

1. Drawing a mural, based on research.

2. Making political, relief or product maps.

3. Planning and constructing bulletin boards.

4. Making a time line.

5. Compiling an annotated bibliography, from the school library, for a coming unit of study.

6. Preparing biographies of great men and women.

7. Debating current controversial issues.

8. Locating source material for class use.

9. Reading at an advanced level on the classroom topic of interest.

10. A program of art, music, and literature to demonstrate the contributions of other nations and cultures to civilization.

11. Help the teacher prepare a pretest for a coming unit.

12. Participating in some community project such as a drive or campaign.

13. Surveying community resources for field trips, resource personnel, etc.

VIII. SCIENCE ACTIVITIES

Science corner. Most of the authors in this area agree that some

place should be provided in the room for a science corner, a place where experimental materials are available and where student' collections and results of experiments and work can be displayed (23:435). Room atmosphere should be such that a student will feel free to use this area whenever he has time.

Hobby shows and clubs. A hobby show within the classroom is a desirable activity. It helps members of the class, as well as the teacher, get better acquainted with pupils' interests and abilities. A school hobby club is advisable because it cuts across grade lines and makes it possible for a fair number of enthusiasts to get together (3:66).

Weather station. A weather station in the room could provide many opportunities for enrichment. Such things as an anemometer, a wind vane, a draft indicator, a hydrometer, a barometer, and a rain gauge could be constructed and used (20:91). Freehill feels that while an average student is demonstrating that air has weight, a gifted child may be asked to demonstrate a means for weighing it (6:334).

Fall seed collection. The gathering of seeds in the fall of the year can prove worthwhile. These seeds, through the use of science books and encyclopedias, can be classified by mode of travel, such as fly, steal a ride, etc. They can then be put in cellophane bags and placed on a large oak-tag chart. This same type of thing can be done with plants and tree leaves. They can be labeled with both their common

and their scientific names.

Soiless garden. Seeds planted in sponge, gravel, a moss basket, cotton, or sawdust can be easily observed in growth. This, of course, will further the study of how plants grow. It offers an excellent means of keeping track of the development of the seeds on a day-to-day basis, thus facilitating the recording of the step by step development that takes place (21:49).

Distance to the stars. An excellent study for the gifted student is finding the distances to some of the various stars in light years and interpreting that into miles for the rest of the class. Charts, graphs, and scale diagrams can be constructed to show comparative distances (12:163).

Diagrammatic drawings. Many gifted students would enjoy making diagrammatic drawings of such things as a telephone, a telegraph, a radio, a television set, or a radar operation. Emphasis should be placed on the principle involved, since the physical set itself is highly subject to change from year to year (12:163).

Telescopes. Diagrams could be made showing the differences between reflecting and refracting telescopes. They are both diagrammed in many of the children's books on astronomy. Another interesting activity would be to build a telescope from a kit. Such kits are available at varying prices. This activity would help build an understanding of

how a telescope works, as well as help develop manual skills useful in other scientific endeavors (5:148).

Soil types. On a large map of the United States, the various soil types could be located. Actual samples of the various soil types could be shown. It would probably also be of interest to study and use the various scientific terms involved (5:139).

Mobiles. A very intriguing mobile could be made depicting the sources of light. Included could be the sun, flame, stars, fireflys, radium paint, and an electric filament.

Dioramas. Large cardboard boxes with an end cut out can make excellent settings for dioramas. A suggested topic might be the strange fish found at the bottom of the sea (5:139).

Reports. These topics for reports should produce some interesting results:

1. What would happen if the sun burned out in a period of 100 years?
2. How a dam produces electricity.
3. A detailed study of local climate and geography.
4. How an aneroid barometer works.
5. The Beaufort Scale of Wind Speed.
6. How weather affects air transportation.

Miscellaneous activities. Under this would come:

1. A field trip to a junior or senior high school science fair.
2. A room or school-wide science fair.
3. A plaster of paris cutaway model of the human heart.
4. A mural and/or model of a dam and powerhouse.
5. Constructing a planetarium.
6. Growing cultures and observing them through a microscope.
7. Studying a major local problem (water supply, insect control, smog, etc.).
8. Building a crystal radio or a receiving set.

IX. CONCLUSIONS

As a result of this study, the author feels that the following list of materials and equipment, made available to a classroom teacher, would aid greatly any enrichment program. Naturally, the more aids a teacher has available, the better the quality of his enrichment program should be.

1. Newspapers in the library.
2. Reference books of all kinds.
3. Phamphlet collection.
4. Current magazines.
5. A circulating picture, map and record collection.
6. Piano and other band and orchestra instruments.
7. Phonograph, radio, television set and tape recorder.
8. Projectors of all sorts (overhead, filmstrip, opaque, etc.).

9. A variety of art materials (clay, paint, paper, etc.).

10. Schoolroom acquaria or terreria.

11. Weather observation equipment.

12. Shop tools (saws, hammers, etc.) and materials (leather, cloth, metal, etc.).

13. Scientific equipment of all sorts for experimentation.

14. Electric stove and oven.

15. Typewriters and calculating machines.

16. Sewing machines and looms.

It is hoped that this "Credo for Teachers," borrowed from Cutts and Moseley (3:10), could be adopted by every teacher: "I will not let lack of knowledge on my part interfere with my attempts to challenge these youngsters . . . . . I'll learn with them--and tell them so."

CHAPTER III

SUMMARY

Chapter I of this paper pointed out the need for a planned program of enrichment in a heterogeneously grouped class. In so doing, it emphasized that unless a teacher has available to him a source of worthwhile activities, the gifted child may not be given enrichment opportunities.

Chapter II first presented several definitions of enrichment and then discussed the general objectives of enrichment as seen by Anna G. Shepperd and Norma E. Cutts and Nicholas Moseley. Next, Chapter II pointed out the generally accepted characteristics of gifted students, with special emphasis given to the Portland Gifted Child Project and its checklist of characteristics. Since an enrichment program can present certain difficulties, some cautions in working with such a program were recommended. The remainder of Chapter II dealt with specific examples of enrichment activities in arithmetic, social studies, and science, giving a list of recommended materials and equipment for use in an enrichment program.

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