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ABSTRACT

The report of tne Memphis component of Project CLUE (Cooperative Leadership for Urban Education) which serves 600 academically gifted children in grades 4, 5, and 6 with a seminar program requiring 2 half day sessions weekly is presented, and the current expansion of the program into the junior high and first grade levels is noted. The centers are reported to be located in 11 area schools and to have as a major objective the provision of highly challenging learning experiences not available in the regular classroom curriculum. Described among program activities are brain teasers, group dynamics, experiences, independent study, logic problems, mini-courses, the study of propaganda, discussions, fieldtrips, and creative activities. Discussed are staff requirements and development, physical facilities, and cost (per pupil expenditure of $216). Continuous evaluation of the program is reported. Also provided is a model of student involvement used in the program which stresses active rather than passive involvement in a process which includes the discussion group, research, production, and evaluation. A chart outlines the process of involvement in terms of teacher preparation, establishment of seminar environment, and increasing student involvement. For related information see EC 060 311. (DB)

REPORT FOR DIFFUSION

Project CLUE
Memphis Component

June 14, 1973

Mrs. Jo Patterson, Coordinator

REPORT FOR DIFFUSION

Project CLUE
Memphis Component

HISTORY

In an effort to find solutions to the many problems which plagued the nation's cities, representatives from the four major cities in Tennessee met in April of 1969 to formulate a program whereby they could cooperatively seek to examine and deal with the various problems which limit the educational opportunities of students in urban environments.

From this group emerged Project CLUE (Cooperative Leadership for Urban Education) which was funded through a Title III grant of the Elementary and Secondary Education Act. The first of three annual grants by the U.S. Office of Education was effective December 1, 1969. The Metro Nashville system was the grantee. A full staff was formed which consisted of a State Director for the overall project, and a component coordinator for each of the four participating cities: Memphis, Nashville, Knoxville and Chattanooga.

Although the state-wide program funded under Title III will end June 30, 1973, plans have been made by the four cities involved to continue their respective programs through funding provided by their local boards of education. The Memphis component will not only continue but will undergo a major expansion of its program. Beginning July 1, 1973 the Memphis program for gifted students will be under the Division of Special Education. The program will include 9 junior high positions and 18 elementary positions. The four cities will also continue the inter-city sharing aspects of the CLUE program.

TARGET POPULATION

The Memphis Component of Project CLUE is designed to meet the needs of academically talented students in grades four, five and six. Approximately 600 students from 51 schools are presently being served at 11 designated CLUE centers. This represents an increase of five elementary centers from the previous year due to an expansion of the program and an increase in our teaching staff from six to ten.

In addition, during the 1972-73 school year two experimental first grade classes were established to serve approximately 20 first graders. We also expanded our program into the junior high level. Four junior high schools were served by two teachers working under the Division of Special Education.

PROGRAM DESIGN

The Memphis program for elementary gifted students is operated on a semi-separation basis. Each week identified students attend two half-day sessions at a designated center which serves several neighboring schools. These classes are scheduled for alternate morning and afternoon sessions which keeps students from missing the same regular classroom segment more than once a week. During the remainder of the week students remain in their regular classroom.

The designated centers are located in elementary schools in 11 areas of the city representing a cross-section of socio-economic levels. Students in four of the present centers are working in an integrated situation. Because of massive busing proposed for our school system this fall, we anticipate that this number will increase. Transportation to and from the designated centers is provided by the parents.

A variety of grouping patterns is used in the composition of the seminar classes including cross-grade and grade level groups. The class size ranges from sixteen to eighteen students per class. From our experience, we have found that a class size of more than eighteen students is too large for the seminar teacher to adequately meet the varied needs, interests and demands of these special students. When at all possible, we would recommend a class limit of sixteen students per class.

Continuous effort by the Memphis Component to redefine its method of identifying gifted students has resulted in a more effective process of identification each year. At the present time a computer print-out is being used to locate the academically gifted and talented population. The Computer Services Division of the Memphis Board of Education is identifying all students in grades 4, 5 and 6 who are reading 2 grade levels above their school median as well as students who score 15 points above the school median on a standardized group I. Q. test. The names of these students are sent to the principals along with a short form which includes the characteristics of gifted students. The classroom teachers are asked to fill out this form assessing the qualities of identified students.

Principals and teachers may also recommend other students they would like to have considered for the program. A rating scale containing all of the identification criteria is used in the final selection of these students.

PROGRAM OBJECTIVES OF THE MEMPHIS COMPONENT

A major objective of the Memphis program is to achieve a more effective process of identification of gifted urban students in grades 4, 5 and 6 and to design and implement an educational program to meet their educational needs. The program is also designed to involve the students, both as a

group and as individuals, in learning experiences that would result in self-actualization and effective participation in society. The Memphis program seeks to provide the superior learner with new and highly challenging learning experiences that are not ordinarily included in the regular classroom curriculum.

The specific student objectives of the Memphis Component and illustrative evaluative techniques are listed below:

1. Students will increase their thinking ability as indicated by their performance on the Torrance Test of Creative Thinking and assessment of this skill will be made by using student, parental, and teacher evaluation forms.

2. Students will develop interest in areas not taught in the regular classroom curriculum as measured by parental evaluation and teacher observations.

3. Students will develop skills in group processes as measured by parental evaluation, teacher observation and student self-evaluation.

4. Students will become proficient in creative research techniques as indicated by the organizational processes used in completion of independent projects.

GENERAL STUDENT OBJECTIVES FOR STATE-WIDE PROJECT

1. Students will develop their ability to comprehend the urban environment of which they are a part.

2. Students will develop skills for responding effectively to alternatives for modifying their environment.

3. Students will develop skills for responding in terms of prescribed goals through interaction with both individuals and groups (students, teachers, parents, administrators, lay citizens).

4. Students will demonstrate the ability to apply acquired learning skills independently.

5. Students will develop a commitment to active and positive involvement in the CLUE seminar learning activities.

6. Students will develop a realistic self-concept and a sense of personal worth.

7. Students will develop a realistic self-concept in relation to academic and vocational potential and opportunities.

8. Students will develop skills in leadership.

9. Students will develop skills for involvement of appropriate persons in decision-making processes.

ACTIVITIES

The activities included in the Memphis program are designed to involve the students as active participants in their own learning and to aid them in the development of processes and skills that they can use in their life-long pursuit of knowledge. These activities are also designed to allow for the maximum development of the academically talented child's thinking, learning and creative abilities. To achieve this end the activities are geared to involve the students in experiences such as: interpreting data, summarizing information, stimulating the imagination, decision-making, problem-solving, making discoveries, formulating hypotheses, analyzing propaganda techniques and developing logical thinking.

A brief overview of the various CLUE activities follows:

Brain Teasers:

Games, puzzles, language, math or logic elimination problems are some of the activities included under this broad title. A wide variety of material is used in an effort to satisfy the broad interest of students and to allow for a greater measure of success. While the students find these activities enjoyable, the real purpose is to stimulate thinking and to develop logical thought processes.

Group Dynamics:

Group dynamics activities are designed to involve the students in decision-making as they work in groups in attempting to solve problems. The

students engage in divergent as well as convergent thinking as they seek to find the best solution to a problem. Sub-groups within the group ensure all children, even the very shy, the opportunity to share their ideas. We have found this to be one of the best methods to actively involve students and encourage total group participation.

Independent Study:

The development of research and organizational skills is an important factor in the program. Opportunities are provided for various kinds of research, from the more conventional book oriented study to the man-on-the-street interview. The nature of the independent study determines the nature of the research. Students interview resource people, take field trips, use reference books, current written material and films in their search for relevant information. Some students select creative projects which also require research. The students sometimes work in pairs or threesomes. They are provided opportunities to gather information with both movie cameras and slide cameras. Video taping equipment is available as are portable tape recorders. The seminar teacher serves as an instructor in the utilization of electronic equipment, and as a constant resource person as the young researcher pursues his objective. Transparencies, models, movies, slide-tape presentations or the video-tape recorder are used to present the results of their work.

Logic:

Logic elimination problems, elementary sentence logic and Piaget's symbolic logic are taught to all the students to improve reasoning ability. These activities require the application of native mental ingenuity in the solution of problems rather than the simple recall of stored information.

Mini-Courses:

A special feature in seminar classes is the mini-course which is a series of lessons on a praticular topic not usually taught in the regular classroom. Etymology, anatomy, astronomy, oceanography, physics and psychology are typical of some of the mini-courses offered during the year. When at all possible, the discovery method is used to present the curriculum to the student. The students often suggest subjects that are of special interest to them which are developed into mini-courses. Many of them continue to pursue this interest in their independent study. These mini-courses serve as an excellent vechicle to offer students an insight into potential career possibilities and/or avocational interests.

Propaganda:

Propaganda is a subject of great concern to our society today, perhaps more so than in any other society in history. With the advent of television as a complement to the other communications media now available to us, the opportunities to use propaganda in disseminating information, expounding ideas, and offering opinions have increased considerably. And, unfortunately, it is far too often the case that propaganda is used to make us accept questionable points-of-view, to make us vote for men who may be unfit for public office, and to make us buy products which are useless and sometimes even dangerous. Therefore, to make the student aware of the various techniques and devices which are used to influence him to believe certain ideas and to follow certain courses of action, he is taught how to recognize and analyze various propaganda techniques.

Discussion Group:

The discussion group in all its forms, from free to probing, is a central feature in the seminar class, for it is here that some of the basic skills in communication are learned and cultivated. The informal group setting also provides experiences for the cultivation of awareness of the feelings of self and others, and of observing how these feelings are expressed by different persons. The discussion group often includes the entire class of fifteen to eighteen members. At other times smaller groups are formed. Each has its place in the learning and improving of communication skills. In the group context much can be learned, much can be shared, and many skills can be practiced.

Fieldtrips and Resource People:

Most of the many field trips taken and resource people invited in are related to the mini-courses being studied. Sometimes, however, a trip may be taken or someone invited in to speak on a totally unrelated subject that will create an interest or add to the background of these students. The community is our classroom.

Creative Activities:

Creative activities are undertaken in the CLUE classes to nurture the imaginative and creative abilities of our students. All such activities, from a cinquain to a droodle, involve the student in exploring, questioning, imagining and modifying, as new ideas are created and expressed in verbal or figural form.

For a more detailed description of the CLUE activities, consult the handbook published by our staff for teachers of the Academically Gifted and

Talented, Why Doesn't An Igloo Melt Inside?

THE MODEL (The Model is enclosed)

STAFF REQUIREMENTS

The staff of the Memphis program includes:

1 full-time coordinator

1 full-time teacher for each 60 - 65 students

1 part-time resource/seminar teacher

1 full-time secretary

The prime responsibility of the project coordinator is to provide leadership in all activities that pertain to the component. A second duty is to keep abreast of developments in other components and assist in the transplanting of the local program to other component cities. Other duties include the general administration of the program through staff development and public relations. The coordinator also acts as the liason between the total project and the Memphis component staff as well as with the Memphis City Schools administrative staff, instructional consultants and principals of participating schools. The coordinator further serves in the most important role as being someone to whom the seminar teachers could go who would be knowledgable of their needs.

The resource/seminar teacher serves as an assistant to the coordinator and divides her time between teaching seminar classes and working with the other seminar teachers.

Teachers holding valid teaching certificates who are presently employed by the Memphis City Schools, and who have at least three years successful teaching experience are considered for participation in the CLUE program. The teachers are also chosen when it is felt that they

possess certain characteristics considered desirable for those who work with the academically talented and gifted. Among these characteristics are the following:

Sense of humor
Flexibility
Patience, warmth
Consistent behavior
Personal magnetism
Cooperative and democratic attitude
Sensitivity to others
Curiosity and desire for
additional knowledge
Wide interest
Knowledge in several fields

In analyzing the type of teacher that is needed, it would soon become obvious that an authoritative dispenser of knowledge would not be able to meet the many demands made by these students. Instead, a person who is willing to serve as a facilitator, guide, moderator and confidant is necessary. A teacher who has an understanding of the developmental stages of children will more likely be able to provide these students with meaningful experiences that will help them develop to their fullest potential both cognitively and affectively.

The teacher of the gifted must be comfortable in using the various techniques needed in teaching for the development of higher levels of thinking. He should be able to accept the nonconforming ideas that characterize intellectual competence. The instructor who is threatened by a sense of inferiority and feels a sense of competition with these bright learners will not do well in the seminar classroom.

In addition, the teacher should be knowledgable of the uses of the various media and/or be willing to learn to use them as they often serve as vehicles through which many of the learning experiences within our program occur.

Through experience we have also discovered that teachers who have taught more than ten years and are opposed to change have found it most difficult to accept the drastic changes and innovative approaches involved in our program. We would also recommend that the teachers have at least three years teaching experience.

STAFF DEVELOPMENT

In the summer of 1970 the teachers chosen to work in the project participated in an intensive 6 week training program in preparation for their new roles as seminar teachers in the fall. Each summer thereafter, our summer CLUE program for gifted students has provided a laboratory situation to train new teachers coming into the program and was available to a limited number of other teachers who were interested in acquiring ideas useful for working with gifted students in their regular classrooms. The summer program has also served to reinforce the current staff and provide them with new ideas and materials that they could utilize when they returned to the seminar classroom.

One of the major problems we faced at the beginning of our program and throughout was that no college or university in our area offered any training in working with the academically gifted and talented. We were, therefore, forced to organize a staff development program of our own. It is essential that any school system interested in establishing a similar program devise its own program for staff development if one is not available. We cannot emphasize too strongly the importance of adequate staff development as one way to insure success of your program. During the 1971-72 school year, a maternity leave request at mid-year forced us to hire a teacher who had no prior training for the position. The semester was a

totally frustrating one for the new teacher and the students involved.

As part of our staff development program, we have used well-known authorities who have shared with us their expertise in various areas of working with the gifted. Some of the consultants that we hav d who have rendered invaluable assistance are listed below:

1. Dr. Walter B. Barbe, Editor
   Highlights for Children
   803 Church Street
   Honesdale, Pennsylvania 18431

   Dr. Barbe provided ideas for our inital program development.

2. Dr. Marvin Gold
   Chairman, Department of Special Education
   University of South Alabama
   Mobile, Alabama 36688

   Dr. Gold explained to the teachers Guilford's "Structure of the Intellect" and Bloom's "Taxonomy of Cognitive Domain". He presented practical application of Bloom's Taxonomy using children in a demonstration.

3. Dr. Frank Williams, Professor
   Portland State University
   3760 Dallas Road
   Salem, Oregon 97304

   Dr. Williams conducted a workshop on creativity and demonstrated various techniques using students. He also demonstrated his "Theory of the Intellect."

4. Mr. M.R. Newton, Director
   Adolescent Resource Center
   206 Church Street
   Sumter, South Carolina 29150

   Mr. Newton worked in developing a cooperative and sharing attitude among the staff members. He performed the very important function of developing group cohesiveness.

5. Dr. Russell French
   Claxton Building
   University of Tennessee
   Knoxville, Tennessee

   Dr. French worked in the area of non-verbal communication.

6. Dr. Edward C. Frierson
   Executive Director
   Nashville Learning Center
   201 Fairfax Avenue
   Nashville, Tennessee 37212

   Dr. Frierson conducted several workshops dealing with characteristics and unique learning abilities of the gifted

7. Dr. William G. Vassar, Consultant
   Gifted and Talented Programs
   Connecticut State Department of Education
   P.O. Box 2219
   Hartford, Connecticut 066115

   Dr. Vassar conferred with the planning staff offering advice and help in the mechanics at the beginning of our program. He also demonstrated to the teachers how Frank Williams "Theory of the Intellect," J.B. Guilford's work and Bloom's Taxonomy worked together.

8. Mr. R. C. Turnbull, Consultant
   Great Books Foundation
   115 Morningside Drive
   Kansas City, Missouri 64113

   Mr. Turnbull demonstrated different questioning techniques with special emphasis on probing as a means of developing thinking ability in students.

9. Dr. Virgil Ward
   Professor of Education
   The Curry Memorial School of Education
   University of Virginia
   Charlottesville, Virginia 22903

   Dr. Ward shared with the project staff ideas for curriculum development especially designed to meet the needs of the gifted.

The Memphis coordinating and teaching staff will also be available to serve as consultants to anyone interested in establishing a program similar to ours.

In addition to our summer staff development program, each Friday has been set aside for staff development during the regular school year. At this time the CLUE teachers share ideas, experiences and problems and utilize the remainder of the time to prepare activities and plan for the week. Because our program does not have textbooks and because the curriculum is planned entirely by the seminar teacher, the success of our program has been partially due to allotting time for adequate staff development and planning on Fridays.

Because of the unique position which the CLUE teacher holds within the regular school setting - no one else really understands what you are doing - the Fridays have served to not only maintain group cohesiveness but our sanity as well.

FACILITIES

Classroom

A regular classroom is satisfactory but because we serve students from neighboring schools we have found it most desirable and convenient to have our rooms located near one of the entrances. Also, because of the noise level that sometimes prevails in the informal atmosphere that we try to maintain, it is even more desirable to be somewhat isolated from the regular classrooms. We do not, however, advocate the use of outdoor portable classrooms. The larger the classroom the better, because of the various activities which are often conducted simultaneously in the seminar setting.

Furniture

We have found that the use of the traditional classroom desk-type furniture restricts considerably the mobility which is both desired and

essential in the seminar setting. We would therefore recommend, when at all possible, the use of round tables and plastic chairs. However, this does not mean the program cannot be successful with the use of conventional furnishings.

EQUIPMENT

Our program makes extensive use of the media as a means for allowing students to express their creative abilities and/or as a means of sharing results of their independent study. Specific audio-visual equipment made available for these purposes include the tape recorder, video tape recorder, Ektagraphic Visualmaker, super 8 movie camera, slide projector and 8mm projector. Other equipment we have used that was available through the schools where the centers were located included the overhead projector, microscopes, opaque projectors and record players.

To function at an optimal level, it would be desirable if each teacher had each piece of equipment previously mentioned. However, it is not essential to the fulfillment of the over-all goals and objectives of the CLUE program. To cut costs, several teachers could use the same equipment on a rotating basis as has been done in the Memphis program.

Our Knoxville transplant has had tremendous success during the two years they have had our program with only the Ektagraphic Visualmaker, which is used in making slide and tape productions, and other equipment which was available through the center school.

MATERIALS

Selected materials have been purchased to be shared within the various centers. This has included simulated games such as "Economic System", "Acquire" and "Democracy"; materials to stimulate thinking such as "The

Thinking Box" and "Mirror Cards" and thinking games such as "Wff N Proof," "Tac-Tickle," "Queries and Theories," "Propaganda" and the "Attribute Game." Various publications with activities designed to stimulate creative abilities have also been purchased. A limited amount of reference material of a type not usually found in an elementary school library has also been supplied.

Other materials utilized include those used in the regular classroom such as poster board, magic markers, glue, scissors, etc.

COST: basic to optimum

Operational costs for the Memphis Component of Project CLUE are reasonable. The major expense incurred involved that for teachers' salaries. The program does make extensive use of various audio-visual equipment but another system interested in establishing a similar program could successfully do so without the equipment. We would recommend, however, that at least a tape recorder per teacher be provided and that an Ektagraphic Visualmaker be made available to be shared by several teachers.

Our staff consists of one coordinator, one part-time resource/seminar teacher, nine full-time seminar teachers and one secretary. Other than meeting the salary of the staff and providing minimum audio-visual equipment, other cost areas would include consumable supplies and materials, staff travel, and staff development.

Our current operational budget is $129,553. Of this amount $39,669 is secured from Title III funds, $59,400 from state funds and $30,484 from the local school budget. This represents a per pupil expenditure of $216.

EVALUATION

Program evaluation is a continuous process using both formal and informal instruments involving teachers, students, parents, a component evaluator and the state monitoring team.

Student self-evaluation as well as peer evaluation is ongoing. Students are trained in the process of critiquing so that they are better able to evaluate both written and oral activities engaged in by individuals and groups. Students also participate in the mid-term and year-end written evaluation of the program. Based upon their evaluations, the original student objectives of our program were changed to more adequately meet their needs.

The mid-year program evaluation involves both parents and classroom teachers. The data collected acts as a reinforcement or directs changes needed in the program.

The component evaluator has met with the CLUE staff to guide them in the evaluation processes and in analyzing data collected and its relation to the program. The evaluator is responsible for the year-end written evaluation of the program.

Periodic visits have been made by the state monitoring team to observe the program. The visits were followed by a meeting with the Memphis CLUE staff with time provided for a discussion of what was observed, possible solutions to problems being experienced by the program, and to make recommendations for change.

Continuous evaluation by students, parents, teachers, etc., has resulted in many valuable suggestions being made which have been used to improve our program.

A MODEL

FOR

STUDENT INVOLVEMENT

Project CLUE
Memphis Component

Mrs. Jo Patterson, Coordinator

INTRODUCTION

The Memphis component of CLUE is concerned with the involvement of "gifted students" at the elementary level only, grades 4, 5, 6. Its program for effecting involvement is therefore geared to the needs of students at this age level.

Skills whereby one is effectively involved must be acquired and nurtured at varying levels. To this end, the seminar centers in Memphis CLUE provide for the learning of these skills in various areas. The operation of the more common kinds of electronic media used in the storing and disseminating of information is an exciting part of the student's experiences. Skills in speaking and listening are also cultivated, including the ability to speak logically and listen critically. The need for skills required in research and the organization of materials is also met in the experiences afforded the young participants.

Ideally, in the seminar setting the student operates as a self-motivated learner, the teacher, as a nonauthoritarian helper. (No grades are given, no threats are used. The student is in the program by choice, and may leave when he pleases.) Actually, one of the skills which generally must be acquired by the students, even the "gifted", is the skill of generating ideas and pursuing them in the school setting. To this end, the seminar teachers bend all their efforts, usually with good results.

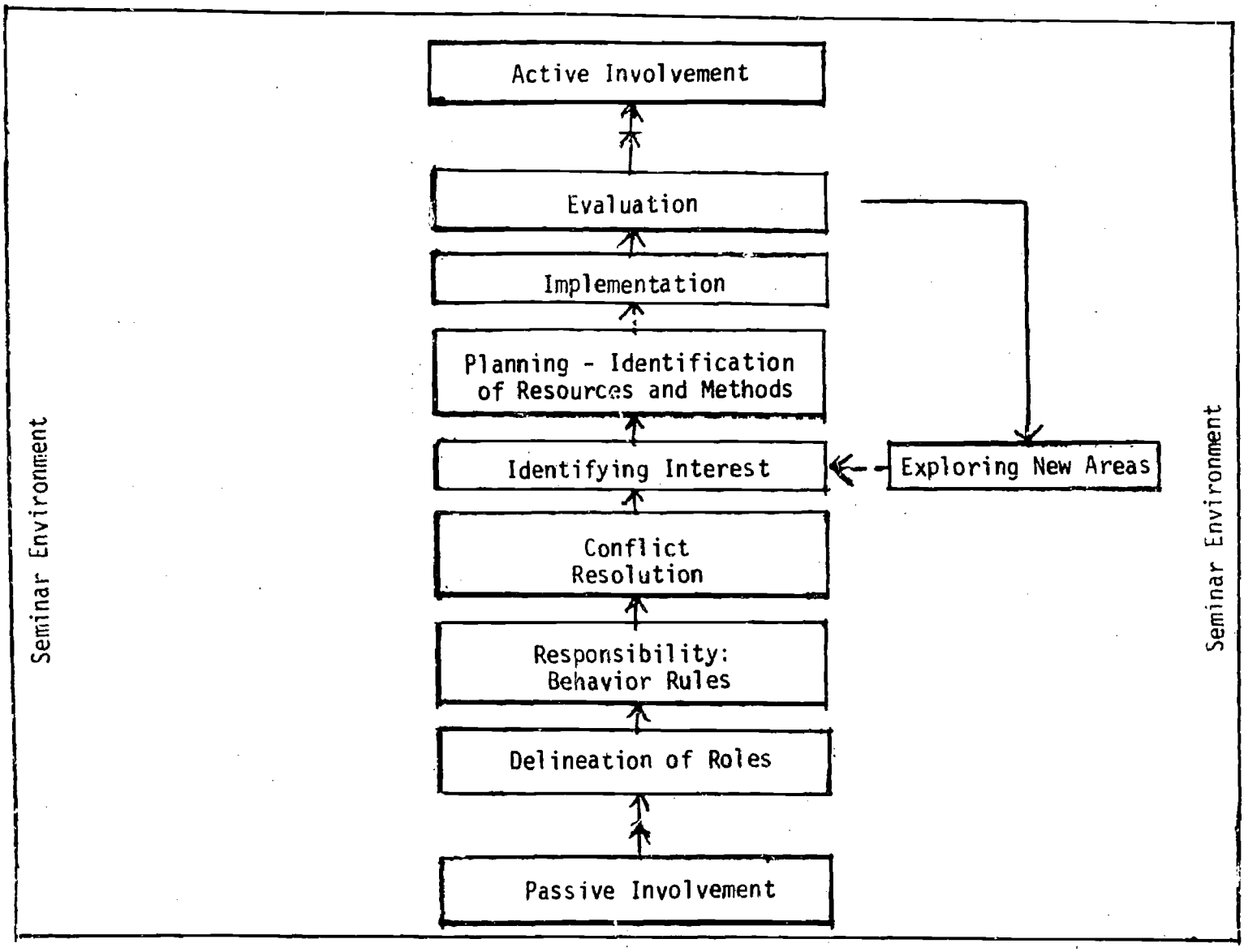
An emphasis on creativity is an integral part of the seminar environment. The informal atmosphere of the seminars plus the "new" role of the seminar teacher is conducive to creative growth. Activities stressing divergent or creative thinking whether they involve written responses, verbal responses, or non-verbal responses are made available. Student productions (see definitions) are another means for the student to express creative ideas.

Once launched on their respective ventures the seminar participants become involved at increasingly higher levels. They then begin to make their own decisions individually, and/or in groups concerning the kinds of learning experiences they will pursue in the seminar centers. Such decision-making by the students is basic to Memphis CLUE.

Passive involvement as recipients of information is not enough. Active involvement that presupposes the assumption by each student of a fair share of the responsibility for making decisions and carrying out plans is the goal of the component.

Coupled with this process is growth in the ability of the students to evaluate objectively their productions in the light of their objectives, and to alter either the objectives or the methods of production, or both, as they may see fit.

STRATEGIES FOR INCREASING
THE LEVEL OF
STUDENT INVOLVEMENT



THE SEMINAR CLASS AND THE INVOLVEMENT OF STUDENTS

Roles:

Teacher - a nonauthoritarian, a motivator, a stimulator, a counselor, a learner, a member, an example, a facilitator, a sharer, a decider, a negotiator

Student - an explorer, a searcher, an interactor, a questioner, a communicator, an observer, a sharer, a creator, a leader, a follower, a decider, a negotiator

Groups provide opportunities for both teacher and students to play more skillfully any of the roles enumerated above that involve other persons.

During a two hour seminar, each student may exercise his right to choose from various kinds of activities, depending on his interests. The teacher plays various roles, but always in terms of the definitions listed above, and always in an attempt to respond to individual student needs and interests. Reasonable effort is made by the teacher to provide each student with opportunities to engage in group activities as well as independent activities.

DISCUSSION GROUP

The discussion group is a central feature in the seminar class, for it is here that some of the basic skills in communication are learned and cultivated. The informal group setting also provides experiences for the cultivation of awareness of the feelings of self and others, and of observing how these feelings are expressed by different persons. The discussion group is often the entire class of twelve to twenty members. Often smaller groups are formed. Each has its place in the learning and improving of communication skills.

In the group context much can be learned, much can be shared, and many skills can be practiced. This is particularly true when the group is used for

decision-making. Each session some decisions are made, while other decisions may require several sessions, depending on the nature of the question to be resolved. Decisions involving resolution of conflict are made jointly by the students and the teacher. Negotiation is used until a mutually satisfying decision is reached. Numerous small decisions may be made by individuals or small groups. Some will quite naturally be made by the teacher. The ability to correctly assess the situation and to decide when to speak in the group and in what way to express herself demands the best a teacher has in the art of motivating student growth.

The decisions that have to do with a long term, whole group project are not to be made hastily, for a certain level of group agreement must be attained each member actually is to feel a part of the activity. In such a discussion the teacher is called upon to play her role with artfulness as she nurtures growth for each student, the quiet as well as the vocal. Much restraint is exercised by the teacher, even allowing students to learn through failure.

RESEARCH

Opportunities are provided for various kinds of research, from the more conventional book oriented study to the man on the street interview. The nature of the project determines the nature of the research.

Students are provided opportunities to gather information with both movie cameras and slide cameras. Video taping equipment is available as are portable tape recorders. The seminar teacher serves as an instructor in the utilization of electronic equipment, and as a constant resource person as the young researcher pursues his objective.

The necessity for some orderly arrangement of information gathered may not be left to chance. Here the teacher as an "expert advisor" makes sure that the

student learns without undue frustration that the ability to retrieve information gathered is essential. Various alternative methods are presented.

PRODUCTION

The understanding of production as used in the context of this design necessitates defining words which have special meanings attached to them.

1. Learning

Learning may simply be an awareness, an understanding, a knowledge, or an enlightment that is acquired. Learning may or may not involve a production or a product.

2. Product

A product is a visible evidence of the application of knowledge.

3. Production

The word production as used in the seminar setting is a student-coined word. A production is a process involving implementation, application, and synthesis. It may involve a terminal or semi-terminal type of evaluation. A production is one of the means that a student may use to demonstrate acquisition of knowledge.

The production, regardless of its nature is the very essence of involvement. It is the product of "communication," "knowledge," and "research". It is the tangible for evaluation. Drama, short story, movie, animated cartoon, filmstrip production, art show, slides and tape, each at the end is viewed by its own creators, sometimes with great pride and satisfaction, sometimes with disappointment.

In the course of production the support processes of communication and research continue, a skill is learned, it is applied and a higher level of skill is attained, as students work alone and in groups. In putting together for public showing a filmstrip on "School Vandalism" innumerable decisions are required, some of them

minor, some major. Will it be based on snapshots or original drawings? Will it be color or black and white? Will there be narration against a background of sound or simple narration? Which member of the group will be responsible for which part of the production? What are the facts on school vandalism? What community resource persons would be helpful? How much will it cost? How long shall we make it?

The big question, so far as the level of student involvement is concerned must still be answered: What role does the teacher play? In Memphis CLUE the seminar teacher is committed to the role delineated by the terms defined on page three.

EVALUATION

The seminar teacher assumes his/her responsibility to assure students ample time to think together on the general question, "How are we doing?" This is an ongoing exercise but has points at which final appraisals of specific projects are made. In the continuing evaluation the "How are we doing?" is applied to such things as logical thinking, easily understood speaking, fair mindedness, listening, and assuming responsibility.

In evaluating a "production" the students are encouraged to consider its effectiveness, to consider the investment made in it and to look back at alternatives considered at the time the basic choices were made. The teacher's role here includes that of conveying to the students that in her opinion this evaluating themselves and their productions is serious and rewarding business.

PROCESS OF INVOLVEMENT

I. Preparation of Seminar Teacher

Step	Method	Outcome
Teacher acts as guide and moderator.	Questioning Discussion Inquiry Critiquing	A. Teacher cuts down teacher talk drastically. (Students use Flanders Interaction Analysis.) B. Teacher improves questioning skills. 1. Does not ask questions that require a one-word answer. 2. Does not repeat student's answer. 3. Does ask questions that elicit responses from more than one pupil. 4. Does ask probing questions. Probing - to develop inquiry, to place responsibility of the learning on child, teacher is facilitator. a. Attempts to clarify ex.: Can you explain that further? b. Elicits rationale from student ex.: Why do you think this is true? c. Refocuses student response ex.: How is that like ..... ? Compare that to ..... . d. Prompting or hint giving ex.: If student says I don't know, teacher gives hint. For example, if he/she can't answer the question, "Why do you think the Nile was so important to the Egyptians?", the teacher may say, "Could it have something to do with the geography of the land?" C. Does ask questions that require higher cognitive skills of knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom's Taxonomy, Guilford Model, Williams' Dimensions of the Intellect)

II. Establishing Seminar Environment

Steps	Method	Outcome
A. Students and teacher share ideas about their respective roles in CLUE classrooms.	Discussion 1. Teacher led 2. Student led 3. Jointly led Group Interaction	Children learn discussion techniques. 1. Handraising eliminated 2. Interact with other students as well as teacher 3. Learn to listen to peers, to address self to peers, to respond to peers Teacher reinforces and redirects child's comments to peers, not to her. 4. Eliminate looking to teacher for reassurance 5. Develop understanding that peer opinions are to be respected Teacher uses reassurances such as, "I'm glad, Joe, that you looked at Bob when you supported his opinion." 6. Opinions may be accepted or rejected. a. Responsibly not rudely b. Argumentative tactics weaken one's position. Teacher reassures and reinforces. ex.: "Although Joe and Bob disagree, isn't it mature that they don't shout but express their disagreement in an intelligent manner?"
B. Students discuss behavior limits.	Discussion Conferring Critiquing	Children may: 1. Write reminders to self (contract type agreements) 2. Team up for discussion 3. Negotiate - (give-push-pull) (accept-reject-finalize) 4. State opinions on behavior limits

Steps	Method	Outcome
C. Teacher begins assuming role as non-authoritarian figure. (Positve vs. Negative) a sharing of responsibility	Large group discussion Questioning Probing Hypothesizing Negotiation	Emphasis on group responsibility. Teacher does not say no. Teacher probes - asking questions. ex.: "How should a teacher operate in CLUE?" Permission is not required to sharpen pencil, to use restroom, to walk around room, to move, to talk, etc. Child has the responsibility for his own actions. Student assumes responsibility - exercising freedom for own originality and initiative.
D. Students and teacher delineate exactly their responsibilities.	Discussion Negotiation	Students and teacher negotiate. There is giving - probing (questioning by teacher). When asked question concerning student responsibility, teacher may say, "I don't know. What do you think would be the best way to handle this?" Teacher insists to the point that child is willing to assume responsibility. Consensus is reached.
E. Students and teacher share ideas on how to resolve conflict.	Group discussions Brain-storming Critique sessions Conferences Student-Student Teacher-Student Triads - group interaction Outside person (nonpartisan)	Student can seek illumination from one individual. Student can call for group discussion. Student can use teacher as resource. Students can use nonpartisan for help. Problem can be written, and triads can be set up in order to throw more light on solution. Negotiation among peers-teacher may be used. Teacher exercises restraint. Child may learn through failure.
F. Students and teacher indicate type of involvement each will have in seminar setting. a synthesizing - launching off of learning activities	Small group discussion Large group discussion	Understanding is reached. Clear understanding of respective roles is delineated. Informal atmosphere of classroom established.

III. Increasing Student Involvement

Steps	Method	Outcome
A. Opportunites are provided for students to learn techniques of working with others to reach common goal.	Group interaction May be grouped in small groups with problem to solve as a group. Problem solving Reasoning problems Critique sessions Chairing committees Student-led class discussions Debates Role-playing Field research	1. Students increasingly feel free - relaxed to take part in seminar sessions 2. Problem solving situation - children are in small groups with problem. ex.: Using 5 straight lines make ten triangles, or you are responsible for selecting twenty people from earth to settle a new world - whom would you select - why? Solutions explored - all opinions valued - everyone encouraged to take part - solutions mutually agreed upon
B. Students identify and develop interests.	Brainstorming Group interaction Discussions Mini-lessons Field trips Community resource people Interviewing Hobbies Individual interests	1. Student defines interests. 2. Student asks of himself, "What am I after?" "What are my objectives?" 3. Student decides on scope of study. 4. Student decides methods to use. 5. Re-evaluate purposes, goals, needs, media ex.: "Is this really my interest?" "Will this project further my interests?"
C. Planning: Identification of resources and methods	1. Outside resource people 2. Field trips 3. Interviews 4. Guest speakers 5. Critique sessions	1. Student may or may not select some form of media (movies, filmstrips, slides) as a visual evidence of his learning. 2. Student develops plans a. Planning board - may be a large sheet of paper divided into sections, showing sequence of events with topical headings b. Index cards - numbered in order with big points to be covered

Steps	Method	Outcome
		3. Student completes details of planning. 4. Student seeks feedback from peers and teacher during planning.
D. Opportunites are provided to work independently in producing, and evaluating.	Group projects Independent projects 1. Student learns how to use media. 2. Student producing of: * a. Filmstrips b. Animated movies c. Movies d. Documentaries e. Slide-tape presentations f. Books g. Inventions or models	1. Student does research a. Reading b. Observing c. Interviewing d. On-scene study (museums, businesses, etc.) e. Compare with other similar products ex.: If a creative endeavor - may involve incubation periods - looking at similar finished products - animated cartoons, filmstrips, etc. 2. Student seeks feedback from peers and teacher about project. 3. Student finishes project.
E. End of project evaluation	1. Question-answer period 2. Critique session 3. Discussion 4. Group evaluation 5. Personal evaluation	Student evaluates project 1. Shares learning with group 2. Shows product if any 3. Has question-answer period 4. Evaluates results independently 5. May ask for critique session 6. May ask for group evaluation 7. Personal evaluation a. "Have I done what I set out to do?" b. "How did I involve the community in my project?" c. "Did I learn things from this experience?" d. "What kind of techniques did I gain?" e. "Was this project of value to me?"

*Nature of his projects preclude visible product. Learning which occur could be shared with group in various ways.

Steps	Method	Outcome
F. Opportunties are provided to explore new areas.	Mini-lessons (archaeology, physics, psychology, etc.) of participatory nature are offered. Student choice - not compulsory Discussions	1. Teacher develops mini-lesson as outgrowth of student interest. (optional) 2. Student may choose to participate in course of his own choosing. 3. Student interests may be developed as a result of introduction to new lesson. 4. Discussion - ex.: Should the Federal government put the expressway through the zoo?