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ABSTRACT

Recent national studies have pointed out the changing educational needs of young people as the United States moves from an industrial society to an information society. Selected middle school students in Ohio were involved in a two-year federally-funded program entitled "Learning for Leadership." The objectives of the program were: (1) to involve students in simulations and debates in established social studies content areas; (2) to involve the parents as part of the educational team; (3) to utilize technology in building student skills (e.g., critical thinking); (4) to provide participating teachers with incentives; and (5) to develop and publish a school-to-school and school-to-business partnership model. The establishment of theoretical perspectives for the project concerning students' moral development, students' intellectual and ethical development, and Jungian personality types helps to ground the research in a theoretical framework. The following activities were developed: (1) a variety of staff development opportunities; (2) classroom enrichment activities involving regularly scheduled classes and subject materials; (3) pilot projects; and (4) the formation of a community based advisory board to give advice and direction to the project, the importance of which cannot be stressed enough. Models for staff development, curriculum enrichment, and summer school projects are discussed. An appendix of nine "Learning for Leadership" materials, news clippings, and a bibliography of 17 references are included. (PPB)

FINAL EVALUATION OF THE "LEARNING FOR LEADERSHIP" PROJECT:

EDUCATION THAT MAKES A DIFFERENCE

A Project Involving Middle Schools

in the

Upper Arlington, Ohio and Worthington, Ohio

School Districts

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December 15, 1988

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SECTION ONE

INTRODUCTION

Recent national studies have pointed out the changing educational needs of young people as the United States moves from being an industrial society to an information society. These studies have emphasized the need for students to develop critical thinking skills, to have opportunities to be involved with the computer as a learning tool, and to have increased career education/career guidance experiences. Other studies have highlighted the need for increased interactions between the community and the schools in order to better prepare the student for the varied opportunities which await him/her.

In an effort to explore new ways to meet these needs, selected middle school students from the Worthington (Ohio) City School District and the Upper Arlington (Ohio) City School District - both located in the metropolitan Columbus area - were involved in a two year, federally funded program, entitled "Learning For Leadership." The program began in the fall of 1986 and concluded in the summer of 1988. Resources of both school districts, CompuServe (an international computer information network located in Columbus), state and local government, as well as various parents were utilized in the program.

The objectives of the program were as follows:

(1) to involve students in simulations and structured debates related to the study of established social studies content areas (including the use of computer data bases and student/staff exploratory placements);

(2) to involve parents as part of the educational team;

(3) to utilize technology in building student skills; (such as critical thinking, particularly as it relates to the traditional social studies content areas and the use of computers in gathering data);

(4) to provide participating teachers with incentives;

(5) to involve students in a variety of educational experiences;

(6) to develop and publish a school-to-school and school-to-business partnership model.

HISTORY

In 1985, Perry Middle School (Worthington) and Hastings Middle School (Upper Arlington) were commended by the U.S. Department of Education's Secondary School Recognition Program for their ongoing commitment to professional excellence and program improvement.

When approached about the possibility of participating in the "Learning for Leadership" project, the principals of both buildings viewed it as an opportunity to further enhance their schools' educational offerings and to build upon the collaborative potential of a school-to-school partnership. In addition, both schools, as well as the Worthington City and Upper Arlington City School Districts, had or were in the process of developing a comprehensive career education/career guidance program, K-12. The program being developed placed a high priority on school-business partnerships and community-based learning opportunities. The use of computers in education, both

as a managerial tool and as a learning tool, was also being emphasized in both school districts.

The project also offered a means for responding to a set of goals defined as "Critical Issues" facing the Worthington City School District. Finally, the project directly supported several key priorities on the state level, articulated by the Ohio State Board of Education in its "Master Plan for Excellence." Among the goals emphasized were:

(1) greater opportunities for teacher incentives;

(2) expansion of the K-12 Career Education Program to all students in Ohio;

(3) increased opportunities for community service by students;

(4) greater involvement in school-business partnerships.

A number of new programs, aimed at addressing the challenges raised by these goals, were already underway at the time the project application was made. Recommendations from several committees studying both middle schools and high school revealed several needs which might be addressed by this project. These included:

(1) a broad, flexible academic program that is current with the times;

(2) an atmosphere that encourages thinking critically, independently and creatively as well as promotes development of interpersonal and leadership skills;

(3) career education that helps students identify their interests and provides them with opportunities to explore;

(4) partnerships between the school and community;

(5) opportunities to learn "life or survival" skills and to interact with people of different ages, social and ethnic backgrounds.

It was hoped that the "Learning for Leadership" project would result in the following accomplishments:

(1) The development of a school-business partnership that serves the educational needs of students and provides a model for the development of other partnerships.

(2) The development of a school-to-school partnership that encourages the sharing of resources and expertise and engages students from different areas in educational activities.

(3) An increase in student knowledge and skills in designated social studies topic areas.

(4) Increased parent involvement in improving the quality of their children's education through their participation on the project planning team.

(5) Modernization and improvement of the teaching/learning process by the use of computer information services.

(6) Professional development incentives for teachers through participation in the summer paid community-based experience and the Washington, D.C. experience.

(7) Student motivation and achievement will have been increased by means of the strategies developed in the project.

(8) The publication of a curriculum/activity guide to be used for dissemination and replication purposes.

POPULATION TO BE SERVED

The area to be served by the Learning for Leadership program includes two surburban school districts in Franklin Country, sharing a Joint Vocational Planning District. Each of the two school districts -- Upper Arlington and Worthington -- is located in its own municipality with city services provided locally.

Upper Arlington - The Upper Arlington City School District currently has five elementary schools (K-5), two middle schools (6-8), and one high school (9-12), serving approximately 5,100 students. In 1987, the district's budget allowed for expenditures of approximately $4,500 per student.

Upper Arlington is a city of more than 35,000 residents and is located in central Ohio. The City's corporation limits are contiguous with those of metropolitan Columbus. Upper Arlington is considered a surburban setting with approximately 10,850 households. Each family is composed of 3.3 members, although a large majority of households do not currently have children enrolled in school. The community is economically stable, with an average family income of $34,000 per year and an average per capita income of $14,500. The minority population is quite limited.

The majority of students in Upper Arlington intend to attend a college or university after graduation, and 85-90 % of most graduating classes do, in fact, enroll in some form of higher education. As the educational intentions of the students indicate, most students plan to

prepare for employment in professional areas.

Special education services, programming for gifted students, federally funded Title I projects, staff development initiatives, K-12 guidance services, vocational education options, and a district-wide emphasis on career education help to support and enrich the instructional program. In addition, the district has a close affiliation with The Ohio State University and uses other nearby institutions as educational resources. Parents, community businesses, agencies, and civic organizations are utilized in a variety of ways as partners in education.

Worthington City Schools - The Worthington School District is located in a surburban Franklin County area, north of Columbus. The population of the school district is 35,500 and is characterized as above-average socioeconomically.

The district is made up of ten elementary schools, three middle schools, and one high school, with a total of 8,800 students. Voters in the district recently approved funds for the construction of a second high school to accomodate the needs of a rapidly growing student population.

Growth and continuing excellence are natural for the Worthington Schools. What attracts families to the school district today is the same feature which has appealed to families for many years. Worthington's early families made a commitment to excellence in education, and this commitment has been a cornerstone of the school

district's development ever since.

The school district's enrolled has increased by approximately 1,500 students in the last three years. It is expected this figure will continue to increase over the next several years. Population growth contributes to they dynamic nature of the school district and brings new ideas and resources. Worthington area families have demanded the best in education for their students, and the schools have responded. Through carefully planned programs, students gain basic skills in writing, reading and mathematics, as well as a better understanding of modern technology, the arts and creative thinking. While the stressing the basics, the curriculum has also incorporated new ways of learning.

In recent years the student population of both districts has been changing, Worthington's more rapidly than Upper Arlington's, with an influx of families from Hispanic, Black, and international backgrounds. As a result, the populations of both communities are becoming more diverse. This has increased the need for multi-cultural education and for programs which help students to understand and relate to people from different cultures.

THEORETICAL FRAMEWORK

For the purposes of evaluation, it was felt that a theoretical framework - though not part of the original project design - for examining what was done would be critical to the future replication of strategies developed in connection with this project. Three theoretical perspectives which were judged to have potential relevance to this project will be examined in this section.

Moral Development

In studies done by Kohlberg (1981) and others (Likona, 1976), the development of critical thinking skills has been found to depend upon two factors: the level of cognitive development and the level of social perspective-taking.

Levels of cognitive development follow a hierarchical, invariant sequence first identified by Piaget (1965). For the purposes of this project Piaget's final two stages are considered relevant. These are ***Concrete Operational Thought*** and ***Formal Operational Thought.***

> ***Concrete Operational Thought***, which first appears at about the age of six in most children, involves the ability of the child to solve conservation problems. Logical operations are developed, thereby allowing the individual to solve problems involving concrete situations or data by a process of serialization. Research indicates that 50-70% of adults never go beyond this form of thought.
>
> ***Formal Operational Thought***, which may appear at about the age of eleven, represents a qualitative change in the individual's ability to solve the problems with which he/she is confronted. The individual is no longer bound by concrete details and experiences. Abstractions are now possible, making it possible for the individual to "reason out" possible solutions and weigh their consequences.

By implication the "Learning for Leadership" project seems to be concerned with the possible t ·ıition from *Concrete* to *Formal Operational Thinking.*

Research (Rosen, 1980) indicates that the transition from *concrete operational thinking* to *formal operational thinking* is influenced by the individual's ability to "see things from other people's point of view," that is, by the individual's level of social perspective-taking.

From the perspective of social perspective-taking, the project is concerned with the transition from what Selman (Likona, 1976) has defined as the *"Concrete Individual Perspective"* or *"Mutual Role-Taking Perspective"*, in which the individual is aware that others have their own interests to pursue and that these are often in conflict - to the perspective of *"Social-Conventional Role-Taking."* The latter perspective enables the individual to put him/herself in the other person's shoes when trying to decide what to do. This perspective is composed of an integration of communally shared values, attitudes and beliefs which form a foundation for a social system perspective.

Research by Selman (Likona, 1976) and Kohlberg (1981) suggests that stages or levels of cognitive development and stages or levels of social perspective-taking are related to stages of moral development as follows: A given level of cognitive development is a necessary but not sufficient condition for a given level of social perspective-taking; which, in turn, is a necessary but not sufficient condition for a given

level of moral reasoning (Rosen, 1980).

This suggests that the "Learning for Leadership" project is primarily concerned with the transition from Kohlberg's stage of ***"Instrumental Purpose and Exchange"*** (Stage 2) to ***"Mutual Interpersonal Expectations, Relationships, and Inter-Personal Harmony"*** (Stage 3). This is born out by the observations of Hersh, Paolitto, and Reimer (1979) who have sugested that

> *Upper elementary and junior high school teachers find that for early adolescents, moral issues usually consist of conflicts surrounding friends, family, and other individuals or small groups close to them .... moral conflicts arise when a choice involving personal gain to oneself is pitted against a decision that mutually benefits one's friends or family.* (p. 135)

According to Kohlberg (1981), Stage 2 (ages 8 and up) morality is typically characterized by reciprocity: *"Be good to Mom and she'll be good to you." "I'll do you a favor if I know you'll do one for me in return."* While the individual can now see another's point of view and is able to take the other's intentions into account, "doing what is right" is defined in terms of looking after one's own interests first. Accordingly, human life and human welfare are viewed in terms of their economic or social utility. People are valued, not as people, but for what they can contribute.

Stage 3 (ages 12 and up) morality has often been called "the morality of the group." In moving from Stage 2 to Stage 3 the individual shifts the focus from his/her own needs to the needs of his/her peer group. The primary concern now becomes one of winning and

holding onto the approval of the group - whether it be family, teachers, church leaders, or peers. Solidarity with the group is paramount. Behavior at this stage is often conformist and conventional. Doing what is right is following the rules and conventions of society in order to gain approval and affirmation as a "good" daughter/son, student, member of the group/society. Because of the over-riding conern for group loyalty and harmony, Stage 3 morality can easily lead to stereotyping, sexism, racism, and other kinds of "WE-THEY" behavior.

Research by Kohlberg and others (Fenton, 1977) on the implications of Kohlberg's theory for civic education indicates that most American high school students do not understand the principles underlying the American Constitution. Rather than understanding it in terms of societal maintainance (Stage 5), or even in terms of maintainance of law and order (Stage 4), most people understand it as a document which outlines how good people should live (Stage 3). Furthermore, most students do not even have the necessary understanding of terms such as "the society" or "the nation." That is to say, many, if not most, lack the necessary social perspective to move beyond thinking of themselves strictly in terms of the groups to which they belong to an understanding of the needs of the wider society or the worldwide human family. Because few have had the opportunity to experience life from the point of view of those who are different, they lack the perspective to be able to do so.

Transition from Stage 2 to Stage 3 seems to depend heavily on the individual being exposed to a wide range of positive, growth-producing experiences, which invite him/her to look at and experience the world through the eyes of another. This suggests that teachers need to give careful consideration to what they actually do in the classroom to provide an environment in which moral development might occur. Research has shown that the teacher can be instrumental in creating conditions which foster moral development (Blatt and Kohlberg, 1975). The teacher has two principal functions in this process (Hersh, Paolitto, and Reimer, 1979):

(1) to create conflict, the kind that facilitates growth in students' patterns of thinking;

(2) to stimulate students' ability to take the perspective of others beyond their own.

Basic to this approach to cognitive growth is the assumption that a person's pattern of moral reasoning is self-generated by means of interactions with the social enviroment. Changes occur gradually, if at all, when cognitive conflict (challenging the individual's current way of thinking) is introduced by means of:

(1) student dialogue with self (journal and/or record keeping over a period of time);

(2) student dialogue with other students;

(3) student dialogue with the teacher;

(4) teacher attentiveness to conditions and behaviors that are necessary for stimulating effective interaction.

The second major function of the teacher is to stimulate students' ability to see the other person's point of view, that is, to take on the role of the other person. A variety of strategies - including discussion, role-playing and role-taking - all focusing on experiential, "hands-on" learning have been shown to facilitate this type of learning (Hersh, Paolitto, and Reimer, 1979).

Kohlberg (Fenton, 1977) has suggested the following goals for a well-rounded program of civic education:

> (1) knowledge about the political system and the way it works;
>
> (2) development of intellectual skills essential for solving civic problems (moving from concrete to formal operational thinking); includes being able to
>
> (a) define and understand the problem to be solved;
> (b) state all possible solutions;
> (c) evaluate the probable effects each solution might have and discard those that are harmful;
> (d) to choose appropriate policies and strategies.
>
> (3) development of other skills (such as a "mutual role-taking perspective") required for full participation in a democratic society; also includes data gathering and communication skills essential for playing an active role in society and basic skills in negotiation.
>
> (4) development of a value system compatible with the principles of a democratic society;
>
> (5) development of self-esteem so that an individual will feel worthy and able to participate in civic life.

To date efforts to utilize the findings of Kohlberg have been directed to high school rather than middle school populations. Projects underway include selected schools in the Boston and Pittsburgh areas (Fenton, 1977). A brief description of these projects follows.

Brookline, Massachusetts - Begun in 1974 at Brookline High School, as an attempt to introduce moral discussions into the high school social studies curriculum. The program involved training workshops for teachers, examination and revision of social studies curriculum to highlight moral education. Because the program had wide support within the school, it gained rapid acceptance. Within a year moral education materials had been incorporated into ten social studies and psychology courses in all four high school grades. In addition staff members began holding workshop sessions for interested middle school teachers.

Cambridge, Massachusetts - Also begun in 1974, by a group of parents who asked shool officials in Cambridge to open an "alternative" school. Kohlberg was hired as the consultant for the project. Lacking the support which has characterized the Brookline project, Kohlberg found that setting up a self-governing "school-within-a-school" at Cambridge was a very difficult task. Because the staff of the Cluster School had had no time to prepare a new curriculum in social studies, they chose to teach minicourses, partly in response to what the students requested. The Cluster School also involves weekly community meetings at which students and staff alike confront real-life moral dilemmas such as: How should you punish a student who has broken the rule against stealing when you know that other students have also stolen and not been caught?

The projects at Brookline and Cambridge each developed one major aspect of a comprehensive civic education program. Brookline tested a format for teacher preparation and curriculum development in the area of moral discussions; Cambridge established a program to prepare teachers for new roles in civic education by means of the "school-within-a-school" project (Fenton, 1977).

The Pittsburgh area program was built around key elements of Kohlberg's civic education program. The program includes both the social studies and the English curriculum and focuses on the development of a new three-year curriculum in both areas (Fenton, 1977). Teacher training is also included.

Intellectual Development

While William Perry's theory of intellectual and ethical development (1968) focuses mainly on development in college students, implications and applications of the theory by Widick and Simpson (Parker, 1978) offer some helpful insights into the ways in which educators might structure learning environments which offer a growth-enhancing balance of challenge and support.

Like Kohlberg, Perry's theory outlines an invariant sequence of hierarchical steps through which the individual passes in search of meaning and purpose. The nine positions identified by Perry are grouped into four broader categories - Dualism, Multiplicity, Relativism, and Commitment in Relativism - which are briefly described.

Dualism - Learner assumes that all knowledge is known and that there are right and wrong answers to all questions; learner's job is to learn. Authority is supposed to give answers. Student has difficulty with academic tasks requiring recognition of conflicting points of view because the student cannot compare and contrast or do abstract analysis. Lack of certainty is the fault of the teacher.

Multiplicity - Most knowledge is known; all knowledge is knowable. Diversity and uncertainty are now accepted as legitimate but temporary - given enough time or the right process the student still expects to find the answer. The absence of objective criteria for evaluation upsets many students.

Relativism - Knowledge valid only within a context; i.e., biology, history, and so on. Relativism is perceived as the common characteristic of all thought, all knowing, all of our relationships with the world. The challenge now is not how to find the right answers, but how to choose between equally good alternatives.

Commitment in Relativism - Involves taking responsibility for self, life style, commitments to others - after having experienced doubt. Probably does not occur until the mid-twenties for most adults, if at all.

If the assumption is made that middle school students "are" dualistic learners, then the findings of Widick and Simpson (Parker, 1978), with respect to the preferred learning environments for dualistic learners offer some useful clues to the proper design of a project such as this one. Their research, done with college students, suggests that dualistic learners learn best in environments characterized by:

(1) a moderate level of diversity which allows students to experience two or three conflicting, paradoxical, or alternative points of view. The experiencing should be as concrete as possible.

(2) Direct, experiential learning including, but not limited to, structured discussions, structured group experiences, role playing, role reversals, field trips with structured observations guides, and use of various sensory media.

(3) limited degrees of freedom, including such things as an outline with explicit goals, assignments, due dates. and grading procedures, outlines of each class session detailing readings, points to be covered, etc., and handouts on "how to do" unfamiliar assignments.

(4) a personal atmosphere in the classroom, fostered by such things as teacher self-disclosure about work and content, small group work, use of personal journals or logs with regular feedback from teachers and teacher availability to students.

Based on these suggestions, teaching strategies used in the "Learning for Leadership" project should include most, if not all, of these characteristics in order to have a positive impact on the learning of the students involved. If, for example, the level of diversity is too high or the content is presented in abstract rather than concrete ways, it is likely that students will report more difficulty in learning.

Myers-Briggs Personality Type

A third way of approaching the issue of how students learn is through Carl Jung's theory of psychological types (1971). This theory postulates the existence of four basic mental processes (sensing, intuition, thinking and feeling), used by everyone, but not equally preferred and developed (McCaulley, 1977). Every individual uses all four processes, but individuals are distinguished by their relative preferences for each of the four processes, and by the attitudes in

which they use them.

In normal development, individuals of each type tend to use the processes they prefer the most. Through repeated effort they develop expertise in the activities for which their preferred processes are particularly well suited. Efforts to "specialize" in preferred functions leads to characteristic habits, attitudes, and behavioral traits associated with that type.

It is also important to note, that for Jung (1971), types are not static but dynamic (Staude, 1981). In early life, the best development involves developing one's preferred function. This is done by deliberate efforts to meet the challenges of adolescence and young adulthood. This is a time for discovering and learning how and when to make appropriate use of the preferred processes. Jung's theory allows for continued growth and development by suggesting that, as the individual moves into his/her forties, he or she will increasingly be faced with the challenge of learning how to appreciate and make use of the opposite of his/her previously preferred learning processes (Staude, 1981).

Jung's theory has been operationalized by Isabel Briggs-Myers (1980) on the Myers-Briggs Type Indicator - hereafter MBTI - suggesting that there are four polar personality dimensions:

extraversion - introversion

sensing - intuition

thinking - feeling

judging - perceiving

The ***extraversion - introversion*** dimension is an indication of an individual's preferred way of interacting with his/her environment. ***Extraverted*** people (designated by the letter E on the MBTI) prefer to spend most of their time and energy interacting with the external world of people, events and things. ***Introverts*** (designated by the letter I on the MBTI) prefer to spend most of their time being alone with their thoughts. Whereas ***extraverts*** must experience life before they can understand it, ***introverts*** want to understand life (why this? why that?) before they can fully live it.

The second dimension (***sensing-intuition***) points to basic differences in learning styles raised by the question: "How does the individual become aware of what is going on in his/her world?" ***Sensing*** individuals (designated by the letter S on the MBTI) are primarily interested in what is going on here and now. They tend to focus their time and energy on what can actually be seen and heard; tending to be realistic, practical and observant. ***Intuitive*** individuals (designated by the letter N on the MBTI tend to focus primarily on meanings and future possibilities.

The third dimension (***thinking-feeling***) points to how individuals make decisions and commitments (designated by the letter T on the MBTI). ***Thinking-feeling*** individuals prefer to make decisions that are logically and impersonally based on cause and effect. ***Thinkers*** are usually more interested in things than in human relationships and tend

to define "fairness" as "impersonal adherence to rules and principles."

Feeling individuals (designated by the letter F on the MBTI tend to make decisions and commitments based upon prioritized values, including how they and others feel about the issue in question. Because consideration for the needs of others is important to them, "fairness" is typically defined as "standing up for the rights and needs of the individual, regardless of what the rules may be."

The fourth dimension (*judging-perceiving*) points to the kind of world in which the individual prefers to live. *Judging* individuals (designated by the letter J on the MBTI) prefer to live in a decisive, orderly and planned way. They are more oriented towards controlled life than towards experiencing it. In contrast, *perceiving* individuals (designated by the letter P on the MBTI) tend to live their lives in flexible, adaptable, and tolerant ways. They would rather experience life than control it.

The existence of four different preferences which result in sixteen different personality types (no one better than another) is amply supported by a growing body of empirical evidence. There is also a growing body of research which supports the hypothesis that the preferences are linked to visible (and measurable) differences in people's preferred learning styles (McCaulley, 1974); Lawrence, 1982). These findings are summarized in the Tables 1-4.

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	EXTRAVERSION	INTROVERSION
	Interest flows toward outer world of actions and persons	Interest flows toward inner world of concepts and ideas
Interests:	- More interested in happenings in the immediate environment than in the inner world of ideas and understanding. Likes to be interrupted, likes action, seeks group for work and sociability	- Interested in ideas that explain the world - Prefer to work alone or in small groups - Does not like to be interrupted
Learning Activities:	- Likely to be drawn to the new and to jump in without taking time to reflect - Gives more weight to external claims and conditions than to inner certainty - Adaptable - Learns best if experience and action come before concepts and ideas are taught	- Likely to think before acting, may not act at all - Gives more weight to inner realities than to external conditions - Finds it easier to change when new ideas explain new conditions - Learns better if concepts are presented before experience and action
Evaluation:	- May do better on oral than on written tests, and better on tests of applied rather than theoretical knowledge	- May do better on written tests than on oral tests, and better on tests of concepts than on tests of practical application
Suggestions for Teaching:	- Need movement and action -- they will benefit from cooperative and work-study kinds of programs where practical experience goes hand-in-hand with theories and concepts - Need balance of experiences where they are actively involved with groups and times when they work alone	- Need to be encouraged to enjoy the conventional social activities of their peers

Table One - Extraversion-Introversion Preferred Teaching/Learning Styles

	SENSING	INTUITION
	A preference for perceiving immediate, real solid facts of experience	A preference for perceiving possibilities, meaning and relationships of experiences
Interests:	- More interested in the real thing than in words or symbols describing reality; less intrinsic interest in words, meanings and reading than intuitive types - More interested in doing something with tangible objects than listening to what someone is saying	- Naturally interested in the new possibilities suggested by their imagination; natural interest in the meanings of words; symbols, communication and reading - More interested in the "big picture" than minute details
Learning Activities:	- Like to see all around a thing, observing and remembering its detail - Uncomfortable when they are required to deal with materials that are highly complex, abstract, theoretical, or imaginative - Learn best when given a principle, or rule, followed by many examples of variations in applying it	- Value flashes of insight and quickness of perception - Learn best when given a problem with the task of discovering the solution
Evaluation:	- With less natural aptitude for reading, and more interest in the real thing than the written word, they may be at a disadvantage in situations where knowledge of theory is required	- Tend to do well on tasks requiring them to develop meanings from words or symbols
Suggestions for Teaching:	- Need experience with the real thing before learning the symbols which describe reality - Connections between words and symbols need to be made explicit - Work at "stretching" their imagination	- Need to develop a healthy respect for facts; need to be challenged to find a basis for their insights - Assign intuitives to help other students learn (role models)

Table Two - Sensing-Intuition Preferrred Teaching/Learning Styles

	THINKING	FEELING
	A preference for making judgments objectively and impersonally, analyzing facts and ordering them in terms of cause and effect	A preference for making judgments subjectively and personally, weighing values and importance of choices for oneself and other people
Interests:	- Interested in finding objective truth; more interested in things than in human relationships.	- Interested in human relationships, the human side of issues, how people can be helped
Learning Activities:	- Like material presented in logical, systematic ways, may prefer lectures - More easily motivated by logic than by appeals to love - Tend to be critical, expecting others to be wrong	- Likely to be more interested if the material is presented from a human point of view - More easily motivated by appeals to friendship, group harmony or love, than by logic - Tend to be agreeable, assuming that others are probably right.
Evaluation:	- May have the edge over Feeling types in situations demanding logical thinking	- May have the edge when it comes to understanding people
Suggestions for Teaching:	- Provide tasks that help thinking students develop analytical abilities - Make cause-and-effect relationships explicit - Challenge them to consider feelings as facts	- Introduce new material from a human angle - Work on values clarification, developing concern for others, weighing long against short range good, and on determining what is more important and what is less important - Challenge them to take into account the probably consequences of their acts

Table Three - Thinking-Feeling Preferred Teaching/Learning Styles

	JUDGING	PERCEIVING
	A preference for living in a planned, orderly way, aiming to regulate and control events	A preference for living in a flexible, spontaneous way, aiming to understand and adapt to others
Interests:	- Related to <u>how</u> a person prefers to conduct his or her life, not to the content of his or her interests - More decisive than curious	- Related to <u>how</u> a person prefers to conduct his or her life, not to the content of his or her interests - More curious than decisive
Learning Activities:	- Like courses taught with system, order, defined tasks, structured assignments - Like to have a schedule and follow it - Learn more through application or duty than through curiosity	- Like courses that are free-wheeling, flexible, adapted to interests as they arise - Like to work "as the spirit" moves them - Learn more through curiosity than through application or duty
Evaluation:	- Grades likely to be higher than would be predicted by their aptitude scores	- Aptitude scores likely to be higher than their grades
Suggestions for Teaching:	- Will seek structure and organization - Like to know what they are accountable for and to be held to it - Need to be able to recognize when it is the right time to be open, curious and perceptive, and when it is time to stop looking and decide to act - Teachers should be alert for occasions where the need for system, order or closure keeps students from exercising a broader curiosity about subject matter	- More flexible learning settings will be needed - Strive for accountability within freedom, helping the student to learn to distinguish between useful open curiosity and self-defeating procrastination or refusal to make decisions - Teachers should be alert to occasions where seeking one more bit of information prevents student from an accomplishment which is within his or her ability had he or she been more decisive

Table Four - Judging-Perceiving Preferred Teaching/Learning Styles

More recently, Zeisset (1985) has outlined three different teaching strategies, growing out of three different ways of looking at students.

The first strategy involes grouping students into four quadrants: ***introverted-sensing (IS), introverted-intuitive (IN), extraverted-sensing (ES), and extraverted-intuitive (EN).*** Her findings suggest the following teaching strategies:

IS - introverts with sensing learn best through "hands-on" activities that can be done alone or with one other person.

ES - extraverts with sensing learn best through "hands-on" activities that involve more than one person.

IN - introverts with intuition learn best through conceptual activities that can be done alone or with with other person.

EN - extraverts with intuition learn best through conceptual activities that involve more than one person.

The second strategy involves grouping students into four temperaments: ***sensing-judging (SJ), sensing-perceiving (SP), intuitive-feeling (NF), and intuitive-thinking (NT).*** Her findings suggest the following teaching strategies:

SJ - needs to know those practical things which preserve social structure and help to prepare for the future. Learns best in a friendly, consistent, and hardworking atmosphere. Needs to be given clear expectations and specific procedures for accomplishing the task. Organized, dependable, and conservative.

SP - curious about the world around him/her. Learns through "hands-on" experience; performs best when constructing, operating, or manipulating objects.

NF - needs an atmospehere that is harmonious, personal, and democratic. Relies on hunches. Will do best when instructional methods provide opportunity for group discussion, small group projects, short-term independent projects, role-playing.

NT - abstract matters are of most interest. Atmosphere of exploration, invention, and discovery is best; long-term independent research projects ideal.

The third strategy involves grouping the students according to the four columns: ***sensing-thinking (ST), sensing-feeling (SF), intuitive-feeling (NF), and intuitive-thinking (NT).*** Her findings suggest the following strategies:

ST - have someone other than the student (probably the teacher or some other adult) demonstrate the skill to be mastered, break it down into small pieces, learn each piece, put it back together. Questions have right/ wrong answers. Feedback needs to be immediate.

SF - promote positive self-concept, communication skills and the ability to get along with others more effectively. Build upon the constructive aspects of peer pressure, such as praise, understanding, gratitude, empathy and freedom of expression.

NF - emphasize originality, creativity, and imagination, the ability to see old things in new ways, and new things in different ways. Teacher's role is supportive rather than directive.

NT - stress diversity of thought, rather than a single response or correct answer. Use thinking process to reach a conclusion. Critical thinking approach should be to encourage the active participation of listeners. Students should be encouraged to recognize assumptions or inferences in presentations; to judge and challenge these assumptions and inferences; and to resolve contradictions among them.

Bradley (1988) has developed a model which relates personality type to the preferred styles for ***sensing-thinking, sensing-feeling, intuitive-feeling, and intuitive-thinking*** teachers. The relationships are shown in Table Five.

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Summary

Taken together the theories discussed above suggest that a growth enhancing environment for students involved in the "Learning for Leadership" project would involve most, if not all, of the following characteristics:

(1) concern for development of **formal operational thinking** skills;

(2) concern for development of a **mutual interpersonal role-taking perspective**;

(3) the use of strategies which focus on experiential learning, with high structure, limited diversity, and personal, yet directive leadership from the teachers.

These characteristics suggest the following hypotheses:

(1) student involved in the project will report the most satisfaction when the learning process includes experiential, "hands-on" opportunities for learning;

(2) students will grow in their ability to take on the role/perspective of others through experience;

(3) the teaching stratagies developed in this project are appropriate for the developmental level of the students and the goals of the project.

	ST	SF	NF	NT
Role of the teacher:	• set example, role model • share knowledge & experience	• instruct, encourage, discipline • role model • serve others	• encourage inspire • provide variety, creativity • motivate students to develop	• encourage, inspire • help students develop as persons
Ideas for teaching come from:	• state and local curriculum guides, textbooks, and • experience	• curriculum guides, manuals, workshops • other teachers • experience	• concepts from content of course • course readings • knowledge of student development • "inspiration"	• concepts from content of course • knowledge of students' needs and development • synthesis of ideas
Teaching is planned by:	• making complete, detailed plans for year and term with specific objectives	• establishing complete objective & detailed teaching plans using yearly calender • consider students	• structuring plans around general goals, themes, students' needs • adapting plans to student needs	• plan according to an overall yearly structure • organize by concepts or themes
Typical Method of teaching:	• following daily routine • directing activities	• following ordered daily pattern adjusted for person-centered interactions	• using a flexible teaching pattern depending on topic and student need • person-centered interactions	• flexible daily routine depending on topic and student need • interactions based on order & learning
Students' work evaluated by:	• using points & percentages in a systematic way	• using points & percentages, plus • extra credit options	• using a number of factors, only one of which is grades	• using a number of factors
Teacher feels successful if:	• student grades and behavior improve	• behavior and grades improve • feeling of having contributed to students' education	• student learning & participation increased • feeling of having contributed to students' education	• students have increased involvement with learning

Table Five - Personality Type and Learning Styles

In the sections which follow, brief descriptions of activities connected with the "Learning for Leadership" project will be presented and discussed to see whether the successes and failures of the Project can be accounted for, on the basis of the theoretical model which has been proposed.

SECTION TWO

DESCRIPTION OF ACTIVITIES

Anticipated Outcomes

Based on the proposal submitted to and accepted by the U.S. Department of Education and upon the theoretical framework outlined in the preceding section of this report, the anticipated outcomes for the Learning for Leadership Project were as follows:

(1) the development of innovative instructional techniques that would

(a) enable students to achieve critical thinking skills appropriate to their level of cognitive development;

(b) increase student knowledge about and involvement in the American political system;

(c) motivate student learning

(2) the provision for computer technology and resources for application in the middle schools social studies curriculum;

(3) the provision for community-based experiences and other teacher incentives that promote professional and personal development in order to foster more creative teaching;

(4) the promotion of interaction with parents, business, community resources and other schools as a means to improve the quality of middle school education.

Actual Outcomes

In attempting to achieve these objectives, four different kinds of activities - each focusing on a different objective - were developed during the course of the Project. These included:

A. A variety of staff development opportunities.

B. Classroom 'enrichment' activities involving regularly scheduled classes and subject materials.

C. Pilot projects - such as the "Summer School Project" and the "Election Simulation."

D. Formation of a community based Advisory Board to give advice and direction to the Project.

The two year cycle of the Learning for Leadership Project resulted in a decision, by the Project Team, to let teachers wishing to be involved help to define the "shape" of the Project, particularly during its second year. As a result, the focus of the first year was more on identifying the kinds of specific activities and programs, falling under the broad guidelines of the Project proposal, in which teachers would be interested and the kinds of inservice programs that would be of help to them than on directives and advice from the Project Team. This led to the exploration of a wide range of possible activities and learning models; including a variety of staff development activities, establishing the ties with CompuServe, the formation of a community-based Advisory Board, and a number of successful classroom enrichment activities. The enthusiasm and commitment resulting from these activities served as the foundation for the second year of the Project.

Staff Development

As the Learning for Leadership Project was getting underway in the fall of 1986, a number of other concerns were also vying for the time and attention of teachers who had originally indicated an interest in participating.

In the Upper Arlington School District, two new principals were assigned to the participating middle schools. In addition, new staff moved up from elementary schools. This resulted in the temporary assignment of six teachers to social studies courses during the first year of the Project, each of whom made it very clear that they did not wish to teach in this area during the second year of the Project. Thus, staff continuity and commitment was a concern from the very beginning.

The Worthington School District had also been reorganized, resulting in new principals and some new staff at each of the participating middle schools.

Finally, during the first year of the Learning for Leadership Project, both districts were also preoccupied with preparations for Ohio State Board of Education inspections, which were to take place during the 1986-87 academic year.

One of the first activities held in connection with the Project was an informational inservice held in October, 1986, at the offices of CompuServe, a Columbus based computer information service. While the purpose of this inservice was to give potential participants an overall

picture of the possibilities of the Learning for Leadership Project, some teachers were "scared away" because of what they perceived to be a Project aimed primarily at developing and/or enhancing computer literacy skills. No doubt the decision to have this inservice at CompuServe contributed to this misperception. While the inservice received a favorable evaluation from the majority of those who attended, it did result in some confusion, which persisted well into the first year of the Project, as to the real focus of the Learning for Leadership Project.

Twenty teachers attended a second inservice, held in December, 1986, which focused on "experiential education." The program was favorably received, with teachers attending indicating a willingness to attend similar inservice sessions in the future. Teachers at this inservice also noted that, for them, the major attractions of the Learning for Leadership Project were

(1) the opportunity to develop and try out a variety of new classroom activities and

(2) the opportunity to share ideas and lesson units with teachers from other schools, within and outside their school district.

In an effort to clarify the focus of the Project and, in response to teacher requests for more concrete guidelines, the third inservice, held in April, 1987, focused on providing the structure necessary to ensure that some Project-related teaching activities would occur during the first year of the Project. While this inservice was offered to teachers of both school districts, only teachers from the Upper

Arlington School District were able to attend.

This inservice focused on an explanation of the 'Curriculum Activity Overview' (see Attachment A), a set of guidelines developed by the Project Team. The 'Overview' outlined a process for developing and implementing a variety of activities, utilizing Project strategies and Project themes, during the Spring of 1987. It was hoped that these activities would serve as models for other activities to be developed during the second year of the Learning for Leadership Project.

Possible curriculum activities included:

> (1) Replication of an existing teaching activity that already incorporates both a Project strategy and a Project theme (both content and process remain unchanged);
>
> (2) Enhancement of an existing teaching activity, falling within a Project theme, by incorporating one or more of the Project strategies (content remains the same; the process changes);
>
> (3) Development of a new unit or activity that utilizes a Project strategy and a Project theme (content and process both change).

This meeting resulted in requests for evaluation of four classroom activities - two which were developed specifically with the "Curriculum Activity Overview" in mind and two which were developed separately but which were judged worthy of evaluation and inclusion in the Learning for Leadership Project. These activities are discussed in greater detail in the next section of this report.

A proposed May inservice, intended to give participating teachers an opportunity to share activities, ideas and suggestions for the

coming year, was not held. Given the nature of the year-end schedules of those involved, it simply was not possible to bring participating teachers together with other potentially interested teachers.

The second year of the Learning for Leadership Project saw a number of changes in administration and in the focus of the inservice sessions. During the Spring of 1987, the original Project Consultants resigned and were eventually replaced by a new Project Consultant just before school began in the fall of 1987.

Feedback from teachers who had been involved in the first year of the Project indicated that inservice time could be better spent by bringing participating teachers together on a regular basis to share ideas, concerns, and frustrations connected with their participation in the Project. They also wanted more direction from the Project Consultant and the Project Evaluator as to what kinds of activities might be included under the "umbrella" of the Learning for Leadership Project and how these activities might be evaluated.

In order to integrate the new Project Consultant into the Project Team a series of meetings was held early in the fall of 1987. These meetings resulted in a decision on her part to make herself available to all participating teachers on a regular basis for consultation. Beginning in October, 1987, she met with each participating teacher. Subsequent to that, meetings were held as needed.

A series of meetings was also held involving Building Liaisons and the Project Team. These meetings afforded the Project Team an

opportunity to listen to the specific support needs of participating teachers, as well as to offer encouragement in their efforts to "recruit" new participants in the Project. Input from the Building Liaisons was also critical in determining the format and content of a monthly Project "newsletter," which was sent to all teachers whether they were involved in the Project or not.

These meetings, held on a monthly basis from September, 1987 - January, 1988, also afforded participating teachers a regular opportunity to get together to exchange ideas and resources as they developed activities for the winter and spring of 1988. The fall meetings focused on developing a process by which any interested teacher - regardless of whether they had participated in the first year of the Project - could apply for a "mini-grant" to help with expenses connected with activities they might like to develop. A formal application process (see Attachment B) was developed by the Project Team in conjunction with participating teachers.

This resulted in the submission of a dozen proposals which were evaluated by the Project Team and Building Liaisons at the December, 1987 inservice, in order to make recommendations to the Project Team as to which activities should be funded and at what level. Critical factors in the evaluation included:

+ whether the proposed activity was a replication or enhancement of an existing classroom activity or whether it represented something altogether new;

+ the possibility of collecting pretest and posttest data;

+ demographics of those involved;

+ the openness of teachers and students to take the Myers-Briggs Type Indicator and such other instruments as might be determined to be useful in the evaluation of the Project.

A more comprehensive description of the proposals submitted and approved is included in the next section of this report.

Teachers later reported that the opportunity to share "mini-grant" proposals and to exchange ideas was one of the highlights of their involvement in the Learning for Leadership Project. In effect the teachers became "curricular consultants" to one another. They also noted that these collaborative opportunities, especially outside their own building, have been few and far between in their previous teaching experiences. Nor has there typically been much administrative support, in the form of paid time off, to attend activities such as these planning meetings. Yet every teacher involved noted that these opportunities to get together were crucial to helping to build enthusiasm for the Learning for Leadership Project.

Inservice meetings were also held in April and May of 1988 to continue planning for the Summer School Project and a proposed Fall 1988 "Election Simulation."

During this period all participating teachers were asked to take the Myers-Briggs Type Indicator so that the data could be compared with previous research on relationships between personality type and preferred teaching/learning styles. An inservice explaining the results and the implications for the Project was offered for Building