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Project Interweave, a 3-year federally funded pilot project, not only provides inservice education for Illinois teachers in District 63, but also endeavoirs to train a number of teachers to assist participating schools with any type of inservice program. During the project's first year (1967-68), television lessons, which had been planned during the summer by committees of teachers, were broadcast once a week to teachers in participating schools in the fields of science, mathematics, and social sciences. (Language arts skills permeated all the lessons as the "interweave" tool.) The lessons illustrated an inquiry approach to teaching, and their viewings in each school were followed by seminars led primarily by members of the planning committees. The planning committee for social studies also developed four instructional tools, including a simulation game in economics for primary pupils. Alterations have been made for the second year of the project in scheduling and lesson format. For example, subject matter lessons now use an interdisciplinary approach, and other lessons are available on innovative practices such as nongrading. The effectiveness of the inservice project will be determined through systematic observation and reports by principals. Difficulty has been experienced in finding tests which will measure pupil growth under the new teaching methods. (LP)



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IN-SERVICE EDUCATION FOR TEACHERS Frank A. Dagne

In its broadest concept inservice education may apply to all school personnel activities which are designed to increase professional competence. However, from a more pragmatic point of view we shall perceive inservice education as the systematic programs or activities promoted by a local school system to increase professional competence. from research clearly point out the need for extensive and systematic programs for inservice education. In the past, teachers were not as educationally prepared as teachers are today, and this was the rationale for inservice training at that time. A major problem encountered by local school districts today is the difficulty that faculty members have in working together. This is largely due to fact that teachers trained at various universities have divergent viewpoints regarding philosophies of education and the purposes of educa-Add to this divergent character of educational backgrounds the mobility factor of teachers, we can realize why a continuous inservice educational program is an essential part of any well-functioning school system.

In public education, change and obsolesence are at Some positions are being eliminated, some skills once sufficient for a jcb, are no longer adequate, while new positions are constantly being created. It is frustrating, indeed, to discover that while we're doing all the running we can to keep in the same place, we discover that the same place isn't good



enough. Basically, the overall purpose of inservice education is the improvement of the professional competence and functioning of the teacher. We may ther think of four specific goals or objectives closely related to this basic purpose:

- 1. One of the objectives of inservice education is to continue on-the-job learning.
- 2. Inservice education also helps to cover the gaps left by the university preservice programs. This filling in of the gaps is referred to as the remedial function of inservice education.
- 3. Another objective of inservice education is to keep the teacher abreast of methods, materials, techniques, and their educational implications.
- 4. A specific objective of inservice education programs should be to increase the classroom teacher's efficiency in dealing with day-to-day classroom problems.

In order now to move to the implementation level, it is necessary to organize the inservice education activities into meaningful frames of reference. We need to answer four questions:

be proficient in, and understand? Technical skills would include everything related to our "tools" of the profession. These would include reports, fire drills, field trips, schedules, selection of textbooks, how to organize a classroom or school, teaching methods, processes, etc.

- 2. What are the "human" skills that teachers need to work effectively with groups, and as members of a team?
- 3. What are the "conceptual" skills needed by teachers to deal with abstractions and to see relationships between the school and needs of society?
- 4. What inservice mediums are to be considered to achieve our purposes? How and in what combination will we use the following mediums:
  - a) Workshops
  - b) Seminars, Discussion groups
  - c) Demonstrations
  - d) Case Studies
  - e) Group Dynamics (T-Groups)
  - f) Writing
  - g) Reading
  - h) Freewheeling or instructional seminars
  - i) Self-evaluation

A broadly conceived and well-planned inservice education program must involve in the planning procedure the teachers who are to be exposed to the various activities or services.

With the financing of a third of a million dollar federal grant (under Title III of the E.S.E.A. Act of 1965) for a three-year pilot program, School District #63 has become a forerunner for teacher inservice programs across the country. The inservice program, titled Operation Interweave, was preceded by Operation Bootstrap, a pilot planning grant conducted on a

small scale in the district during the 1966-67 school year.

District #63 for the 1967-68 school year used UHF television (Station WFLD Channel 32) to broadcast weekly hourlong lessons to its staff members and also to teachers of participating public and parochial schools within a 50-mile radius of Chicago.

Project Interweave is designed to make available to all teachers in District #63 scholarly information on improved materials and teaching techniques being developed across the country in the areas of science, mathematics, and social studies instruction.

During the summer of 1967, three planning committees

(in the area of Mathematics, Science, Social Studies) formulated

plans to present master demonstration lessons via television

UHF Channel 32. The Language Arts skills permeate all inservice

training programs and are the "Interweave" tools of communication.

The summer planning committees were organized as follows:

Social Studies Committee - 12 members from Mark Twain and Nathanson

Schools.

Mathematics Committee - 12 members from Ballard and Wilson Schools.

Science Committee - 12 members from the Melzer and Oak Schools.

Language Arts - The "Interweave" vehicle - Washington and Nelson Schools.

The first television mathematics inservice training program was aired on Thursday, September 7, 1967 at 2:30 P.M. After the television presentation stimulating small group follow-up seminar sessions related to the ideas presented in the



television lesson were conducted in the various schools by members of the Mathematics Committee and teacher leaders from the two math pilot schools. The follow-up small discussion meetings were carefully planned by the members of the seminar planning committees in order to stimulate and encourage discussion and participation from all teachers in the seminar group. The Mathematics Committee planned a block of four such programs during the subsequent Thursdays. The Science and Social Studies followed the Mathematics Committee with their segment of four programs in that respective order. This entire sequence was then repeated on two other occasions by all three committees.

Project Interweave does stress a definite "approach" to the teaching of mathematics, science, and social studies.

Our approach is the inductive, inquiry, experiential-discovery approach or process to teaching. It involves or implies somewhat of a different relationship between a teacher and students. It is an approach based on the belief that all children have an innate capacity for learning and that it is the task of teachers and educators to understand and nurture this capacity. The pupil is viewed as a unique individual with the potential (to some degree) for independent study, self-discipline, self-reliance and responsibility for his own learning. The teacher is viewed not as the dispensor of knowledge, but as the controller of the learning environment.

## A Teacher Comments on Interweave:

Mrs. Bonnie Caspari, primary teacher at Mark Twain



School, has had five years teaching experience. She has taught four years in District #63. She has both a B.A. degree and a master's in education. Mrs. Caspari was selected at random from among teachers who have been involved in the inservice program since its inception.

Mrs. Bonnie Caspari is an enthusiastic person. She's especially enthusiastic about the District's program to individualize instruction - and about Interweave.

It all came bubbling out.

"It's the most creative program I've ever been in.

It's challenging, mentally fatiguing, but at the same time rewarding."

Mrs. Caspari was a member of the 1966 summer workshop which met prior to the introduction of Operation Bootstrap, a member of the social studies committee for Bootstrap during the 1966-67 school year and a member of the planning committee for Interweave during the past summer. And she is currently a demonstration and discussion leader in social studies.

Mrs. Caspari chose to join the inservice committees because she feels, as a teacher, that participating in the inservice committee work is "extremely beneficial."

During the past summer, Mrs. Caspari and 11 other teachers from Mark Twain and Nathanson schools together laid the foundations for 12 television lessons and follow-up sessions on social studies instruction for the Interweave inservice program.

They put together four (two primary, two intermediate) involved projects which are being offered to teachers in District



#63 this year as tools for instructing children in the principles of history, geography, political science, economics, sociology and anthropology.

"We prepared these ourselves," Mrs. Caspari says.

"No one publishing house can offer what we've developed. But they're just ideas, springboards for many avenues of activities. A teacher in the District can take these ideas and develop them in whatever way she thinks is best for her class. If her students don't understand one aspect, then she can branch off to cover that aspect in greater detail."

One project, the "park game" (an example of the use of simulation in teaching the concepts of social studies), is designed to teach children in primary grades the simplified principles of supply and demand, ocial values, decision making, the social fabric of a community, community resources, economic competition and skills of group cooperation.

The class is divided into three groups: park commissioners, suppliers and wholesalers. A problem is presented: a park for an entire community must be built. The children compete to see which team can construct the most well-planned park. Each child is provided with a packet of items (toy park equipment, planning maps or paper money) needed to fulfill his function. The park commissioners plan the park and buy equipment - from suppliers, who, in turn, make purchases from the wholesalers.

When the planning committee tested the "park game" in an experimental class during the summer (as they did for all materials developed), Mrs. Caspari says, "It was so great. The children picked it up immediately with absolutely no operational



problems or snags. It worked perfectly."

The University of Chicago has developed a similar game emphasizing economics for upper grades.

Mrs. Caspari emphasized that the suggestions the social studies committee makes are only ideas to demonstrate to teachers the kind of projects which can be used. "It's not a packaged deal, "she says. "Teachers may utilize the specific projects in many ways. It's only a beginning."

The entire program is a "Beginning". But it is a beginning with which Mrs. Caspari agrees. "I like it. I get totally involved. There is a challenge for growth. Like at Mark Twain this year, we're comparing Chicago with Tokoyo, London, San Francisco and Cairo. It's very exciting. It's in-depth learning. We're using an open-ended approach to the subject. The teacher can make any changes she thinks best."

A fellow social studies committee member sitting nearby joined in: "When I told my roommates, who teach in other districts, that I was going to be teaching economics and banking in the first grade, they just about flipped."

Mrs. Caspari says she feels that many teachers have been "groping toward something" (better ways of teaching). Inservice, she says has provided teachers in the district with the time and general direction for change.

One of the greatest benefits of the summer planning committee work was a chance for teachers to work together on projects, especially teachers of various grade levels, Mrs. Casparisays. "A terrific understanding and insight developed."



She admits that not all teachers in the district are as enthusiastic as she about the inservice program (though quite a few are). Some teachers are admittedly tired on Thursday afternoons, after a full day of teaching without a noon break.

(Illinois state law requires students to attend school five hours each day. Most states, recognizing the importance of inservice programs, provide time for such programs during the school day. Superintendent McGuigan appeared before the House Education Committee in Springfield on May 16, 1967 seeking approval for a bill to provide such time. The bill died in committee; however, chances for passage by the next Legislature appear good.)

But despite the necessarily poor timing of the inservice programs late Thursday afternoon, Mrs. Caspari believes the project is definitely having an impact upon teachers in the district.

"I'll certainly never look at children the same way," she says, "and I'll never teach social studies the same way."

The evaluation of programs pushing into relatively new areas is always difficult. The programs tend to develop more rapidly then the tests needed to measure them. This is a major problem faced by District 63 in measuring Interweave.

The District, however, will have an indication as to what degree during the year the teachers appear to have increased their skills in the techniques of inductive (or problem solving or experiential-discovery) teaching.

These techniques require the teacher to view each student within her class as a unique individual to be taught as a unique individual.



Observational techniques developed by the Cooperative Educational Research Laboratory, Inc. (CERLI) in Northfield, Ill., a federally funded project, will be the primary tool used to measure the change in teaching within the District.

Trained observers will observe some 48 district teachers chosen at random to include as many variables (age, teaching experience, sex) as possible, three times during the year.

The observers have been trained to look for certain kinds of behavior by teachers in the classroom which will be recorded in codified form on a standardized data sheet. Teachers will be asked to plan an important part in the evaluation of the program.

The data collected by the observers will be analyzed at the end of the school year at the University of Illinois.

The impact of the inservice Interweave program will be reflected by information collected during the two observations. Teachers are expected to show greater skill in individualized instruction at the third observation (toward the end of the year) than at the first.

The district hopes to gain a variety of information from this analysis in addition to the degree of change in teaching in the District. The analysis, for instance, could indicate whether experienced teachers are more or less receptive to inservice training than say first-year teachers. Such information could be very valuable in recruiting teachers in the future.

The CERLI test is the only tool for evaluation which District #63 has been able to find to measure the particular traits

of individualized-inductive teaching being encouraged in the District.

Principals will also make subjective evaluations of the change in teaching approach among teachers within their particular schools.

The District will test children through the regular testing program, in addition to teacher-made tests.

These tests, however, are all structured to measure pupil growth by the old methods of presenting subject matter.

The difficulty, is that children, for instance, will be introduced to fractions at a much earlier age in District #63 (research by social scientists shows that children have for many years not been introduced to fractions at the most receptive age), but no tests are available to measure the students understanding of fractions at this age.

The District 63 curriculum services committee is in the meantime searching for more informative and thorough tests in these areas, and it is hoped that such tests will be available by next year.

## Project Interweave for the 1968-69 School year.

We are presently in our second year of operation under our federally funded project "Interweave". Needless to say, we did encounter problems during the first year of Project Interweave - the 1967-68 school year. Committees of teachers, consultants, and administrators carefully identified and analyzed the problems which occurred during the 1967-68 school year, and formulated specific procedures aimed at resolving as many of these problems as possible.



For example, we desperately wished to improve and increase the participation of schools and school districts within the 50-mile radius of our impact area. It was also necessary that we develop ways in which we (District #63) could better serve and assist the surrounding school districts with their inservice training programs - or assist them in organizing and initiating such programs in their schools. We also discovered that our transmission time of 2:30 P.M. was too early for our out-of-district participating schools, for school was in session until 3:00 P.M. We were also made aware that many of our hour-long television presentations were too long, and the 4:30 P.M. dismissal time for our teachers was not very popular with many of our staff members. Feedback from our teachers also revealed that most teachers preferred to participate in inservice training programs during the early part of the week. As a result of a comprehensive survey of our staff members, we decided to make the following improvements for the 1968-69 school year:

- 1. We will transmit at 3:00 P.M. thereby permitting more out-of-district participation.
- 2. Our television lesson presentations will be 30-minutes in length with a carefully planned follow-up until 4:00 P.M.
- 3. We will broadcast on Tuesdays instead of Thursdays.
- 4. During the summer of 1968 we trained a total of 104 teachers from District #63 in the areas of Mathematics, Science, Social Studies and Language Arts. The teachers were selected from our ten



schools in the district. We also trained several teachers from the surrounding districts.

- 5. Instead of telecasting every week as we had done during the 1967-68 school year, we decided to broadcast every other week. Although we will not transmit a television lesson during the alternate week, it nevertheless will be used as a building inservice training session specifically designed to meet the needs of that particular building.
- 6. Instead of continuing with the separate disciplines concept, we decided to develop television presentations utilizing the interdisciplinary unit method of instruction. At the present time we have developed eighteen television lesson presentations with the necessary pre-program and after-program follow-up activities. Nine of our programs develop and depict the interdisciplinary approach to learning, and the remaining nine television programs inform, elaborate, and demonstrate such innovative concepts as nongradedness, team teaching, testing, pupil personnel services, and in-depth understanding of the teaching-learning process.

Our basic purpose in District #63 may be briefly summarized as follows. It is our intent to have available in our district adequately trained resource personnel in each of the four disciplines (math, science, social studies, language arts) who may be called upon to assist any participating school

or school district in any type of inservice training activity. This goal or purpose may appear to be realistically unattainable or unrealistic. Nevertheless, District #63 welcomes the interest and participation of schools and school districts. Interested persons may write to:

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