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ABSTRACT

This document represents the final report for an evaluation study of the Delaware Computer Inservice Program. The purpose of this program was to increase the use of computers in traditional subject areas. The program was pilot tested in three schools, each from a different district in Delaware, during the 1987-88 school year. The focus of the evaluation was on the study of the implementation of the program, its effectiveness, and its suitability for replication in schools throughout the state. This report begins by reviewing the background and purpose of the study and describing the program, including its goals and components. The three principal components are identified as training of trainers, inservice training, and implementation. The evaluation design and procedures are then presented. The evaluation focused on questions related to the three components, and the evaluation instruments used are described in detail by program area. The results and conclusions of the evaluation are presented for each component. On the basis of the evaluation data collected, recommendations are made in the areas of computer availability, computer literacy, program coordination, and focus of training. The evaluation forms used in the study are appended. (JLB)

DELAWARE COMPUTER INSERVICE PROGRAM EVALUATION

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BACKGROUND AND PURPOSE

This document represents the final report for an evaluation study of the Delaware Computer Inservice Program, designed to increase the use of computers in traditional subject areas. The program was pilot tested in three schools, each from a different district in Delaware during the 1987-88 school year. The three districts involved were: Capital, Red Clay, and Seaford. The evaluation was jointly undertaken by the Delaware Department of Public Instruction (DPI) and Research for Better Schools (RBS). RBS was to assume responsibility for design and analysis of evaluation instruments, while the DPI qualified schools for participation, monitored training and implementation, and administered and collected evaluation instruments. The focus of the evaluation was on the study of the implementation of the program, its effectiveness, and its suitability for replication in schools throughout the state.

As with any evaluation study, the validity of assumptions underlying implementation of the program studied as well as the actual quality and extent of implementation provide an important context for interpretation of evaluation findings. In the case of the present study, it should be noted that the program was fully implemented as planned in only one of the three participating school sites, although the other two sites completed the training required for implementation.

The balance of this report provides the background for the program and details the evaluation design and procedures. It also describes the evaluation findings and presents conclusions and recommendations drawn from these findings.

PROGRAM DESCRIPTION

The Delaware Computer Inservice Program had its beginnings in the spring of 1984. At that time, the Delaware Department of Public Instruction and Project DIRECT, with the assistance of Research for Better Schools, initiated a project to increase the use of computers in traditional subject areas. The project took the form of a two-year effort focusing on the development of two resource guides for instruction. One of these resource guides was for social studies, and one was for language arts. Each of the guides contained: an overview of how computers could be used to support instruction in the content area, an approach to developing instructional plans using computers, a framework for previewing software, an overview of management considerations to be addressed in computer use, and examples of potential use with software and resource groups.

In the fall of 1986, a model inservice program was designed for schools based on the resource guides. This program was initiated by the Division of Instruction and the Division of Computing Services (formally Project DIRECT) at the DPI in order to help school staff successfully implement the suggestions found in the guides. The model was to be pilot tested in three schools during the 1987-88 school year with the intention, if successful, to replicate it on a statewide basis. This report constitutes the evaluation of that pilot test.

Program Goals

In the conceptualization and design of the Delaware Computer Inservice Program, its originators were guided by five goals. These goals were as follows:

- to increase the use of computers for instruction by social studies and language arts teachers
- to increase the variety of available computer software used by social studies and language arts teachers
- to develop local training and support systems for facilitating increased computer use in social studies and language arts
- to develop a model, a process, and materials (including those matching software content to state standards) to facilitate increased use of computers in social studies and language arts
- to field test the model, process, and materials for possible statewide implementation.

In association with the achievement of these program goals, certain outcomes were anticipated involving positive impacts upon teacher behavior, student behavior, and other areas within the school setting. The above goals and their associated outcomes were incorporated into a set of evaluation questions which provided the focus for the evaluation study.

Program Components

The program had three principal components: training of trainers, inservice training, and implementation. The training of trainers was to be accomplished through a workshop conducted by state and RBS staff. Its purpose was to prepare a cadre of local school personnel who would serve as the inservice leaders. Next, these leaders were to provide inservice training to teachers in their own districts, in order to help them understand and apply the content of the guides. Finally, the leaders were to serve as local support persons, helping teachers to implement instructional plans that incorporated the use of computer technology. All three components of the program needed to be carried out effectively if the desired outcomes were to be realized.

Training of Trainers

A three-phase training workshop was to be given to school personnel selected to serve as trainers or inservice leaders for eventual training of teachers in use of the program. A number of objectives were to be accomplished through the training of trainers sessions.

First, they were expected to learn how to orient teachers to the different ways the computer can be used in their specific subject areas, how to explore different types of software programs, and how that software might be used in classroom lessons. In the first phase of training, they were expected to learn to describe the program's goals and objectives, help the district and school administrators prepare remarks for introducing the inservice program to teachers, and demonstrate major types of software programs. In the second phase, they were to learn to demonstrate the process of previewing software and of instructional planning. They were to learn to provide an overview of an approach to selection of software and to the development of instructional plans based on the Delaware Computer Resource Books. They were also to demonstrate the Delaware State Standards and Software Matching System. This system was designed to provide an indexing of computer software to the state standards for graduation and academic progress. They were to learn to describe how to use resources from the Educational Products Information Exchange (EPIE) in helping to accomplish these tasks and to learn to provide assistance and support in guided practice on tasks related to software previewing and instructional planning. In the third phase of the training, the trainers were to learn to help teachers develop and implement an instructional plan. They were to provide assistance and support to teachers in the selection of software and development of instructional plans consistent with the approach

demonstrated in the previous phase. They were to make arrangements for observation of teachers implementing their instructional plans, and provide feedback to teachers that would help them in revising their plans. They were also to facilitate teachers sharing ideas and experiences based on implementation of their instructional plans.

Inservice Training

The inservice training sessions were designed to fully train teachers to utilize the model program, to utilize computer hardware and software in their instruction, and to rely on available resources to facilitate this usage. Teacher inservice sessions were conducted over an extended period of time and involved not only workshop sessions but practicum experiences.

Specific objectives of the teacher training, in terms of what the teachers were expected to be able to do after the training, included the following:

- articulate the school's goals and objectives for the program
- understand the use of the computer and computer software in instruction
- understand and use the proper procedures for selection of software
- understand the process for developing an instructional plan that incorporates computer activity and use
- develop an instructional plan that matches specific curriculum objectives and incorporates computer use
- implement an instructional plan in the classroom
- critique the experience
- revise and implement instructional plans
- develop increased understanding of the range of computer uses for instruction
- identify ways of improving instructional plans

Implementation

Implementation of the program was to consist of the trained teachers in each of the three pilot schools assuming responsibility for: developing lesson plans which were to incorporate the use of computers, implementing those lesson plans, and reflecting upon their implementation experiences to modify the plans for future use. In order for these events to take place, it was essential for the necessary administrative support and resources to be made available to the teachers as well as follow-up technical assistance. Teachers needed access to the school's computers during their class sessions. They needed access to software relevant to their class lessons. They also needed administrative support from their principals and technical assistance from their trainers.

EVALUATION DESIGN AND PROCEDURES

The evaluation was designed to address both process and outcome aspects of the program, although incomplete implementation of the program served to make outcome evaluation efforts almost meaningless.

The evaluation was to focus on questions related to the three major program activities: training of trainers, inservice training, and implementation. It was to document the activities undertaken in connection with the program and to assess the quality and effectiveness of those activities. Feedback from the evaluation was expected to be useful to program administrators and staff in adjusting and fine tuning the program activities to make them more effective and for later use in future implementation.

Three schools were to be involved in the pilot test and hence the evaluation: one school each from the Capital, Red Clay, and Seaford districts. Each school site was to select trainers with certain qualifications and send them to the training of trainers workshop. Each was also to similarly identify teachers to be trained later by that trainer and to make available necessary resources at the local site to be able to implement the program as planned. DPI staff were to assume responsibility for site selection, compatibility, and for monitoring program implementation.

Evaluation Questions

Based on the goals of the Delaware Computer Inservice Program, and the outcomes anticipated from their achievement, seven evaluation questions were developed to serve as the focus for the evaluation study of the program. These questions were as follows.

- To what extent did the training of trainers process adequately prepare the trainers for their training and support role?

- To what extent did the inservice training sessions adequately prepare the teachers for implementing the program?
- To what extent was the program implemented as planned with the necessary time and resources available?
- To what extent did the program cause teachers to increase use of computer hardware and software in their instruction?
- To what extent did the program provide for an increase in student exposure to computer-based instruction?
- To what extent was the computer inservice model effective in accomplishing its goals and objectives?

Instruments and Procedures

Evaluation instruments and procedures were developed to be both compatible with intended program activities and relevant to addressing the above evaluation questions. Table 1 shows each of the three principal program activities, the evaluation questions associated with each, and the data sources used to address the questions. A more detailed description of the instruments and procedures used to evaluate each program activity is provided in the paragraphs that follow. Samples of the instruments are contained in the Appendix.

Training of Trainers

For evaluating the training of trainers activity, the following instruments and data sources were utilized.

- Training Feedback Form (II)
- Materials Feedback Form (II)
- Observations
- Trainer Interviews

In order to assess the quality and effectiveness of the training of trainers workshop, a training feedback form and materials feedback form were developed and administered to participants. These were distributed to

Table 1

Program Activities, Questions and Data Sources

Program Activity	Evaluation Question	Data Sources*
Training of Trainers	To what extent did the training of trainers process adequately prepare the trainers for their training and support role?	Training Feedback Form (post) (4) Materials Feedback Form (3) Observations Trainer Interviews
Inservice Training	To what extent did the inservice training sessions adequately prepare the teachers for implementing the program?	Teacher Inservice Evaluation Form (mid) (19) Teacher Inservice Evaluation Form (post) (9) Trainer Interviews
Implementation	To what extent was the program implemented as planned with the necessary time and resources available?	Teacher Inservice Evaluation Form (post) (9)
	To what extent did the program cause teachers to increase use of computer hardware and software in their instruction?	Teacher Log (43)
	To what extent did the program provide for an increase in student exposure to computer-based instruction?	Teacher Lesson Plans (39)
	To what extent was the computer inservice model effective in accomplishing its goals and objectives?	Trainer Interviews (3)

* Number in parentheses following each data source indicates total number of returned forms.

participants at the end of the third phase of the training of trainers workshop series and were designed for assessing the benefits of the workshop for performing their training roles.

The materials feedback form contained 21 items on adequacy of the materials provided in terms of supporting the trainer's role as trainer and technical assistance specialist. The items had a four-point Likert-type response format with the scale ranging from "not adequate" to "very adequate."

The training feedback form contained 17 items which were to be responded to on a four-point Likert scale. The items related to the various objectives of the training of trainers workshop series. Each rating scale represented a range from "not successful" to "very successful."

In addition, the questionnaire information represented by the above two forms was supplemented with limited observations of the training sessions by RBS staff assisting in the training. Also, one trainer from each site was interviewed at the conclusion of the pilot program year and asked to evaluate the training of trainers workshop series.

Inservice Training

The inservice training of teachers was evaluated using the following instruments and data sources:

- Teacher Inservice Evaluation Form (II)
- Teacher Inservice Evaluation Form (III)
- Trainer Interviews

In order to effectively evaluate the quality and effectiveness of the teacher inservice training, two teacher questionnaires were constructed and administered. One questionnaire was given mid-way through the inservice series, just prior to the practicum experience. The second was given at the

end of the program year. The first questionnaire contained 18 Likert-type items, while the second year-end questionnaire contained 11 Likert-type items. Comments and an open-ended question regarding suggestions for improvement were also provided for in this latter questionnaire.

Additionally, one trainer from each site was interviewed at year-end and asked questions evaluating the teacher inservice training he or she conducted.

Implementation

The instruments and data sources relevant to implementation of the program were as follows:

- Teacher Inservice Evaluation Form (III)
- Teacher Log
- Teacher Lesson Plans
- Trainer Interviews

Data on implementation were collected through the above end-of-year questionnaires as well as through telephone interviews with trainers. In addition, teacher logs and lesson plans were collected and reviewed for implementation evaluation purposes. These latter data sources were examined for evidence of increased frequency or intensity of computer usage by participating teachers. Interviews with trainers addressed, among other things, changes in the level of teacher comfort with use of computers, changes in attitude toward computer use, and changes in level of knowledge about available software and how to preview it.

RESULTS AND CONCLUSIONS

This section presents the results from the compilation and analysis of the data collected as part of the evaluation of the Delaware Computer Inservice Program. It also presents conclusions drawn from those results to address each of the initial seven evaluation questions posed by the study.

The numbers of evaluation forms returned for analysis are indicated in parentheses under the data sources column of Table 1. The returns were well below expectations. This was primarily due to the fact that, although all three sites participated in training of trainers and inservice training, the program itself was fully implemented at only one of the sites. Because of the low number of respondents, it was not feasible to analyze the data by individual sites. Instead, data were aggregated across sites for analysis purposes. Although there were inter-site differences in level of implementation of the program, the data collection instruments were specific enough to be able to match the level of implementation achieved. This attribute as well as the number of non-respondents to certain of the questionnaires insured that respondents were only returning forms appropriate to their level of program implementation.

Analyses of the data were conducted and yielded descriptive statistics for all items on all questionnaires. These are presented in the Appendix, on each evaluation form, in the form of response frequencies and mean responses to each item.

Training of Trainers

Eight school staff in all were selected to be trained as trainers. Three each were from Capital and Seaford school districts and two were from Red Clay school district. One Seaford trainer dropped out after taking

training because he had little or no background in computers. Of the 8 persons beginning training as trainers for the program, only four returned training feedback forms and only three returned materials feedback forms. Frequencies and item statistics for those respondents returning training feedback forms and materials feedback forms are presented in the Appendix.

A summary of the training feedback responses in terms of whether or not the training was successful in accomplishing the workshop objectives is presented in Table 2. This table displays the workshop objectives, organized by the categories of: orientation, preview and planning, and developing and implementing plan. Accompanying each are judgments about its accomplishment based on the data analysis. As can be seen, all but four of the objectives measured in the instrument were achieved by the training of trainers activity. Two of these items, which were not successfully accomplished, dealt with the state matching system and the use of EPIE resources. The state matching system was not fully developed at the time of training and was therefore never fully utilized by those who were trained at two of the three sites, while the EPIE resources were received too late in most cases to be used by the trainers in their own training. The other two objectives which were unsuccessfully obtained had to do with observing teachers implementing their instructional plans and providing feedback on those observations. Several of the trainers believed that this was not part of their responsibilities as trainers. Although originally planned as part of the program, they believed that this was changed because of their courseloads and the perceived inappropriateness of their supervising their colleagues in this manner. In all, 13 out of 17 of the training objectives assessed by the training feedback form were successfully attained by the training of trainers workshop series according to the respondents.

Table 2

Success of Trainers in Conducting Teacher Inservice Workshops

	Successful?
A. Orientation	
1. Introducing program goals and objectives	YES
2. Helping administrators prepare inservice opening remarks	YES
3. Discussing participant experiences with computers	YES
4. Demonstrating software program type	YES
5. Discussing uses of computers in subject areas	YES
B. Previewing and Planning	
1. Introducing approach to software selection	YES
2. Demonstrating Delaware Matching System	NO
3. Describing contents and use of EPIE resources	NO
4. Guiding software selection	YES
5. Guiding development of instructional plan	YES
6. Describing preparation for implementation	YES
C. Developing and Implementing Plan	
1. Providing assistance and support	YES
2. Reviewing and critiquing plans	YES
3. Observing teacher implementation plans	NO
4. Providing feedback on observation	NO
5. Helping teachers share and learn from their experiences	YES
6. Describing schedule of work in implementation	YES

The materials feedback form was returned by only three trainers. Results from the materials feedback form show 20 of 21 items rated as adequate in terms of inservice materials. The sole item rated not adequate was the planned demonstration of the Delaware Standards/Software Matching System. At the time of training, this system was not completed and was not available for use by most of the teachers as discussed earlier. The unavailability of this matching system was a disappointment to a number of the participants.

Informal observations of training by RBS staff as well as end-of-year interviews with one trainer from each participating district indicated that the training was quite adequate for the group as a whole. However, the training should be revised to provide greater depth. This was viewed as essential for those participants with little or no knowledge of computers.

Because of the apparent diversity of computer literacy levels evidenced by the prospective trainers at the outset of training, the training was adapted to meet the group needs, with more time spent on the basics of computer use than originally planned. With these changes, the training of trainers process was judged by the trainers to have adequately prepared them for their training and support roles as reflected in their responses to the training questionnaires. In addition, informal observations of the training made by RBS staff concur with these findings.

Inservice Training

Inservice training of teachers was conducted at each of the sites by the trainers participating in the training of trainers workshop. In all, at the three sites, a total of 30 teachers participated in inservice training. Fifteen teachers participated from Red Clay school district, 9 from Capital,

and 7 from Seaford. Teacher inservice evaluation forms were administered to participating teachers in the middle of the training program as well as at the end of training. A total of 19 respondents returned the mid-teacher inservice evaluation form, and only nine returned the post inservice evaluation form. Frequency distributions and individual item means are presented for each of these instruments in the Appendix.

A summary of the mid and year-end teacher inservice evaluation forms is presented in Table 3. This summary indicates for each of the training objectives whether or not that objective was successfully achieved based on respondents' answers to relevant items on the questionnaires. As can be seen in this table, all ten of the training objectives were indicated by the respondents to have been successfully attained. However, feedback from the participating teachers indicated the desire for more directed training on a more limited and selective array of software products and more modeling of instructional plans incorporating use of computers.

Year-end telephone interviews with selected trainers on the adequacy of inservice training indicated mixed feedback. The consensus among those trainers who implemented the program was that the training was indeed adequate. However, for those teachers with little or no previous experience with computers, the trainers felt that the training they provided was too short. The trainers also felt that for those teachers with little or no access to computers in their schools, the training was of little use. The training was designed with several assumptions in mind (including participant computer literacy and computer availability). Where these assumptions were met, the training proved more than adequate.

Table 3

Inservice Training Activity Success

Training Objective	Successful?
Describe school goals and objectives for the program	YES
Describe use of computer and software in instruction	YES
Describe process for software selection	YES
Describe process for developing instructional plan incorporating computer use	YES
Develop instructional plan matching curriculum objective and computer activity	YES
Implement plan in classroom	YES
Critique experience	YES
Critique instructional plans	YES
Develop understanding of computer use	YES
Identify ways of improving instructional plans	YES

Implementation

Documentation of the implementation of the program was accomplished through the collection of teacher lesson plans, teacher logs, year-end teacher inservice evaluation forms, as well as limited observations and telephone interviews with trainers. Of the 30 teachers involved in the program, 10 completed and submitted instructional plans and 13 submitted teacher logs. End-of-year telephone interviews were conducted with one trainer from each district.

Based on this data, it is apparent that the sites attained very different levels of implementation of the program. At one site the program was implemented as planned, but with additional time required to review software and apply it for use with students. At a second site, the program received very limited implementation, with the number of participants completing the program dropping from twelve to five because they could not implement their lesson plans due to time constraints and limited access to computers. At the third site, the program was not implemented because of problems with software availability in the computer lab, and no access by these teachers to computers in the lab. Thus, the program was fully implemented at only one of the three sites.

Despite the problems with implementation, based on the teacher logs, over 400 students experienced instruction through use of computers integrated into their classroom activities. These students were from grades 1 through 6 and 9 through 12. From examination of the lesson plans and teacher logs returned to DPI, it is clear that the program was implemented generally as planned for those teachers who were provided access to the necessary computers and software. It is also clear from this same data that the program caused teachers to increase use of computer hardware and

software in instruction over the level of use prior to the program. As a result, the program provided for an increase in student exposure to computer-based instruction. Responses by teachers to open-ended items included on the teacher log indicated that the program plan was implemented as written, that plan objectives were achieved, that the plan promoted student achievement, that the plan promoted student motivation, and that the plan proved more effective than regular instruction. This latter effect may have been due to its novelty and change of pace from traditional instruction. End-of-year telephone interviews with trainers generally indicated additional support for the above contentions.

With respect to the extent to which the program caused teachers to increase use of computer hardware and software in their instruction, the responses once again varied depending on availability of resources at the pilot site schools. At the first site usage of hardware and software increased, at the second site it did not because of the limited access to computers, and the third site reported little increase in use except for the computer lab teacher. Similar responses were obtained with regard to the question of increased student exposure to computer-based instruction and the enhancement of other areas of computer based instruction, as might be expected.

The extent to which the model was effective in accomplishing its goals and objectives was difficult to judge. Evaluation data indicate that both the training and implementation aspects of the model were effective in the one site which met all of the assumptions upon which the model was predicated. At the other two sites, responses to training evaluation forms indicated that the training processes were generally effective for all sites (though modifications are warranted). However, implementation at these

other two sites was limited due to insufficient levels of computer literacy, and little or no access to computers at the sites. Consequently, there was little increase in the use of computer-based instruction at these two sites. It should be noted, however, that the program is operating with software resources now at one of these two sites, now that the computer lab has been made more accessible to teachers.

Those trainers who were interviewed at all three sites felt that the program was needed and had potential, if the problems with preparation and access to computers could be remedied.

RECOMMENDATIONS

From its inception, the Delaware Computer Inservice Program was fraught with problems involving both training and implementation aspects of the program. The occurrence of these problems severely limited any assessment of outcomes for the program and led to serious questions regarding some of the assumptions made at the outset about the kind of training, site preparation, and monitoring necessary.

To the extent the program was implemented as planned, it apparently was favorably viewed by both teachers and students as evidenced by the data collected in this evaluation. It is therefore likely that this kind of a computer inservice program will be piloted again. On the basis of the process evaluation data collected as part of the present evaluation, several strong recommendations can be offered for future efforts of a similar nature in incorporating the use of computers in classroom instruction. These are presented and discussed below.

Computer Availability

A number of teachers commented that their access to computers for a try-out of their lesson plans was very limited. Some could not complete the five lesson plans agreed to because of this limited access. Some had no access at all. If computers are to be integrated into the instructional planning, much greater access must be provided. Therefore, the following recommendations are offered.

- Access to computers for more than one period per week be made a minimum prerequisite exposure level for any future program implementations involving the integration of computer use into instructional subject areas.
- During access periods, sufficient computers be provided such that there is at least one computer for every two students in the class.

Computer Literacy

For a number of teachers participating in the inservice training and in some cases the training of trainers workshop sessions, their prior familiarity and experience with computers was limited. During training, they not only had to absorb the contents of the training sessions but also become familiar with the computer hardware and software at the same time in order to get full benefit from the training. Their limited access to computers at their home schools further exacerbated the problem. The following recommendations are therefore offered:

- Participating teachers first receive inservicing on computers in general, emphasizing computer literacy.
- Program inservice sessions spend more time on familiarization with the computer hardware initially.

Program Coordination

Management and coordination of the program implementation at each of the sites was handled differently. The site which employed a local coordinator for the program seemed to work best in terms of general implementation, meeting timelines, sharing of information, and responsiveness to evaluation and other requests. Such a person can often serve as a local advocate for a new program and promote the kind of enthusiasm and task-directed orientation to keep implementation moving forward. The following recommendation is therefore offered:

- Each participating program site should be required to provide a local coordinator with appropriate release time to assist in coordinating implementation of the program and calling for state assistance and support where needed.

Focus of Training

The focus of the training programs for both trainers and teachers was on providing an awareness of software available for use, on how to preview and select the software, and on how to incorporate it into lesson planning. The assumption was that participants already had a familiarity with computers, had workshop time available to preview software, and had access to computers for previewing and learning software. These assumptions were unfounded. In many cases, both trainers and teachers did not have the time or equipment to preview the software and learn it to a level at which they could comfortably use it in instruction. Moreover, trainers did not have time to observe and critique teachers in their implementation of the program nor did they feel comfortable in doing so. Therefore, the following recommendations are offered.

- The training workshops for both trainers and teachers should be longer and should devote more time to learning, in-depth, several of the basic software programs capable of being used in the subject areas.
- The training of trainers workshops should de-emphasize the formal observation and critique of teachers in their implementation of the program and replace this emphasis with support and technical assistance activities.

CLOSING REMARKS

Despite its implementation problems at the school sites, the Delaware Computer Inservice program represented a step forward in integrating computer use into the social studies and language arts classrooms at all levels within the education system. As with any new initiative, planning, preparation and resources are critical to its implementation. For a model program to be effective, the assumptions upon which the model was built must be met. In this regard, the three sites implementing the computer inservice program were in different states of readiness to receive the program. The quality and effectiveness of implementation varied considerably. However, despite the obstacles encountered, the program met with a favorable reception by those staff and students who were able to gain access to computers and use them in their lessons.

The recommendations from the current evaluation study should help program administrators in making the necessary changes to the program to provide for its full implementation and to allow for a more meaningful assessment of its potential for promoting a better education for students throughout Delaware.

APPENDIX

RESULTS (N=19)

_____ Social Studies

_____ English/Language Arts

School: _____

District: _____

Date: _____

TEACHER INSERVICE EVALUATION FORM (II)

DPI would like some feedback from teachers participating in the Computer Inservice Program. This questionnaire addresses your experience with the first three phases of the program: orientation, demonstration of instructional planning, and development and implementation of an instructional plan with quidance. Please circle the appropriate response for each item and note any comments, where requested.

Thank you for your cooperation. The information that you provide will help DPI plan follow-up activities and improve future training.

A. Directions: Rate the extent to which the following objectives of the training program were achieved.

I can now:	Completely		%	Not At All	$\bar{x}$
• describe the district/school's plans regarding the use of computers and their expectations for the inservice program for the school	4 16	3 68	2 16	1	3.00
• describe the uses of computers and computer software for instruction in my subject area	4 42	3 53	2 5	1	3.53
• describe a process for selecting software for instruction using the Delaware State Standards Matching System, Delaware preview form, and software reviews	4 32	3 53	2 16	1	3.16
• describe a process for developing an instructional plan that includes use of computer software	4 63	3 32	2 5	1	3.74
• implement an instructional planning process (identify, preview and select software; develop a lesson plan to meet criteria; successfully implement the plan)	4 68	3 21	2 11	1	3.58

B. Rate the value of each of the following major activities of the inservice program with respect to your achieving the program's objectives. Wherever possible, provide explanatory comments.

	Very Valuable	%		Not At All Valuable	Did Not Occur	x
I found the:						
1. orientation, including discussion of experiences with software and demonstration of alternative uses of computers in a subject area	4 47	3 47	2 5	1	DNO	3.58
Comments:						
2. overview of developing an instructional plan, including demonstration of each of the planning steps	4 32	3 53	2 16	1	DNO	3.16
Comments:						
3. development of an instructional plan that incorporates the use of computers and receiving feedback from my colleagues	4 42	3 37	2 5	1	DNO 16	3.44
Comments: Not yet heard from colleagues.						
4. implementation of my instructional plans and receiving feedback from an observer	4 39	3 33	2 6	1	DNO 22	3.43
Comments: Saw none; Haven't worked yet in lab; Not been observed yet; Had no feedback for first three lessons.						
5. sharing of the implementation experiences with my colleagues	4 33	3 50	2 6	1	DNO 11	3.31
Comments: Haven't done this yet; Done informally.						

C. Rate the value of each of the major sections of the Delware Computer Resource Book with respect to your achieving the program's objectives. Wherever possible, provide explanation.

I found:	Very Valuable	%		Not At All Valuable	Did Not Read	$\bar{x}$
1. Section I. Using a Computer to Teach Social Studies (or Language Arts)	4 16	3 68	2 16	1	DNR	3.00
Comments:						
2. Section II. Designing Instructional Plans Which Incorporate Computer Programs	4 42	3 42	2 16	1	DNR	3.26
Comments: Not enough computers.						
3. Section III: Identifying and Previewing Computer Programs	4 57	3 32	2 11	1	DNR	3.47
Comments:						
4. Section IV: Management Considerations	4 16	3 68	2 11	1	DNR 5	3.06
Comments:						
5. The Appendices						
• Bibliography	4 29	3 47	2	1	DNR 24	3.38
Comments: Didn't use.						
• Descriptions of Centers/Offices	4 6	3 59	2 12	1 6	DNR 18	2.79
Comments: Didn't use.						

	Very Valuable	%		Not At All Valuable	Did Not Read	x̄
• Preview Form	4 39	3 61	2	1	DNR	3.39
Comments:						
• Software to Explore	4 56	3 33	2 6	1	DNR 6	3.53
Comments:						

General Comments

More credit should be awarded for this course -- I have invested far more than 15 hours.

RESULTS (N=9)

_____ Social Studies

_____ English/Language Arts

School: _____

District: _____

Date: _____

TEACHER INSERVICE EVALUATION FORM (III)

Earlier in the year you completed a questionnaire which focused on the first three phases of the Delaware Computer Inservice program. Now that you have completed the program, DPI would like to obtain some feedback concerning your experiences with phases IV and V: independently developing and implementing instructional plans using computers and computer software, and the sharing of these instructional plans.

Thank you for your cooperation. Your opinions are very much needed. If you would like to include suggestions for improvement, please do so in the last section of the questionnaire.

A. Directions: Rate the extent to which you feel you can implement each of the following steps in the instructional planning process.

I can now, without assistance:	Completely		%	Not At All	$\bar{x}$
• identify, preview, and select software to support instruction	4 67	3 33	2	1	3.67
• develop a lesson plan which integrates computer activities and meets the criteria	4 67	3 22	2 11	1	3.56
• successfully implement the lesson plan	4 67	3 22	2 11	1	3.56

B. Rate the value of each of the following major activities of the inservice program with respect to your achieving the program's objectives. Wherever possible, provide explanatory comments.

	Very Valuable			Not At All Valuable	Did Not Occur	
	4	3	2	1	DNO	
I found the:		%				
1. development of instructional plans and trying them out with my classes	67	33				3.67

Comments:
This gave me time to preview the disks that were available to me. Therefore, I was able to use more computer time incorporated into my lessons.

2. sharing of the instructional plans and implementation experiences with my colleagues	4 67	3 33	2	1	DNO	3.67

Comments:
By sharing comments about a particular disk I was able to pick and choose the ones that would be relevant to my situation.

C. Rate how accessible each of the following were with respect to your independently developing and implementing instructional plans.

	Very Accessible			Not Accessible	
	4	3	2	1	
I found the:		%			
1. computer software which I needed for developing instructional plans	56	44			3.56

Comments:
Sometimes others checked it out before I got there.

2. scheduling of five (or more) class periods with computers (lab)	4 67	3 11	2	1	3.44

Comments:
Had never used a computer before; Had one computer in my room all year.

I found the:	Very Accessible			Not Accessible	
3. computer disks and other related materials	4 44	3 44	2 11	1	3.33

Comments:

D. Rate the extent to which you would:

	Definitely	Probably	Unsure	
1. use next year the instructional plans that you developed	3 78	2 11	1 11	2.6

Comments

2. use next year some of the instructional plans that your colleagues developed	3	2 78	1 22	1.7

Comments:

3. develop new plans that integrate computer activities for use next year	3 78	2 22	1	2.7

Comments:

E. What suggestions do you have for improving this inservice program?
(continue comments on back of page)
More instruction on the printer;
Time it took teachers to review software was too time-consuming and prevented development of activities;
Have more printers available (2);
Allow us to preview disks for subjects we were interested in earlier (2);
(cont'd)

E. What suggestions do you have for improving this inservice program? (cont'd)

Obtain more computers (4);
More guidance in developing lesson plans that integrate computer use;
Include lessons on word processing during training (2);
Make disks more accessible for immediate use;
More practice with management system;
Make hardware more accessible;
Provide extended memory for computers;
More practice;
Need more teachers involved in training.

*Numbers in parentheses indicate number of respondents making that comment.

RESULTS (N=4)

____Social Studies

____English/Language Arts

School: _____

District: _____

Date: _____

TRAINING FEEDBACK FORM (II)

Directions: Rate how successful you feel you were in leading the various activities that make up the first three phases of the Delaware Computer Inservice Program by circling the appropriate responses. Also, note any comments, where requested.

	Very Successful		%		Not Successful	$\bar{x}$
A. PHASE I: ORIENTATION						
How successful were you in:						
1. Presenting the inservice program's goal, the logic of the five phases (and of the role that the leader(s) will play), the objectives of the phases, and the timeline for the phases	4 75	3 25	2	1		3.75
Comments:						
2. Helping the principal/central office administrator prepare his/her remarks for the beginning of the inservice program	4 75	3	2 25	1		3.50
Comments:						
3. Leading a discussion which draws out the participants' experiences using computers in their classrooms and their evaluation of those uses	4 75	3 25	2	1		3.75
Comments:						

Few participants had experience to relate.

	Very Successful		%		Not Successful	$\bar{x}$
4. Demonstrating the major types of software programs and eliciting from the participants:	4 50	3 50	2	1		3.5
• the potential learning outcomes possible from each program						
• the prerequisites, support, and follow-up required to achieve those outcomes						
• the advantages and disadvantages of the software in comparison to traditional classroom practices						
Comments:						
5. Leading a discussion summarizing primary uses of computers in a subject area, the advantages associated with such uses, and the conditions required to maximize the advantages and minimize the disadvantages	4 25	3 75	2	1		3.25
Comments:						

B. PHASE II: DEMONSTRATION OF PREVIEWING AND INSTRUCTIONAL PLANNING

How successful were you in:

1. Providing an overview of the approach to selecting software and developing instructional plans presented in the Delaware Computer Resource Book	4	3 100	2	1	3.0

Comments:
Delaware Selection System was incomplete and not in place; Had to use own selection process.

	Very Successful			Not Successful	$\bar{x}$
	4	3	2	1	
2. Demonstrating the Delaware State Standards Software Matching System			67	33	1.67
Comments: System Incomplete, Unavailable, Non-existant.					
3. Describing contents and use of EPIE Micro-Courseware PRO/File and Evaluation and TESS--The Educational Software Selector	4	3 33	2 33	1 33	2.00
Comments: Got my copy too late to use.					
4. Guiding a group through the task of previewing a selected piece of software	4 50	3 50	2	1	3.50
Comments:					
5. Guiding a group through the task of developing an instructional plan that incorporates the use of the software previewed and reflects the approach presented in the Delaware Computer Resource Book	4 25	3 75	2	1	3.25
Comments:					
6. Describing the preparatory task for Phase III, developing and implementing an instructional plan, with guidance	4 25	3 75	2	1	3.2
Comments:					

	Very Successful		%		Not Successful	$\bar{x}$
C. PHASE III: DEVELOP AND IMPLEMENT AN INSTRUCTIONAL PLAN WITH GUIDANCE						
How successful were you in:						
1. Providing the support teachers need to select software and develop an instructional plan consistent with the approach demonstrated in Phase II	4 50	3 25	2 25	1		3.25
Comments: Energy was high at the beginning and later waned.						
2. Reviewing and constructively critiquing draft instructional plans and/or facilitating a group review and critique of draft plans	4 67	3 33	2	1		3.67
Comments: Hard to criticize work of other teachers.						
3. Making arrangements for observations of teacher implementation of instructional plans and/or observing implementation in order to gather information useful for revision of plans	4	3	2	1 100		1.00
Comments: Thought we were relieved of this responsibility; Impossible due to class load; More comfortable doing exercises on own and sharing results.						
4. Providing feedback to teachers observed that helped them make revisions to their plans	4	3	2	1 100		1.00
Comments: No observation/no feedback.						

	Very Successful			Not Successful	
5. Helping teachers share and draw lessons from their implementation experiences	4 33	3 67	2	1	3.33

Comments:

6. Describing the schedule of work for Phase IV, that each teacher or teacher team needed to develop	4	3 100	2	1	3.00

Comments:

General Comments

Basically, I am excited about the concept of this workshop, but I honestly think we've tried to implement it too soon. There are a number of problems which need to be addressed:

1) Lack of teacher training/experience on computers
   - Many teachers are intimidated to try using them with students

2) Lack of student training/experience on computers
   - Before the computer can be used to teach vocabulary, reading, etc., some valuable educational time is inevitably cost when the English teacher must turn his/her English class into a computer course or a typing course.

3) Insufficient Equipment
   - Too few computers in schools -- often tied up by business and computer classes. Our own computer lab does not have enough computers for each student in an English classroom to have his/her own computer. The problem becomes even more severe if the project requires printing out a draft or information as there are even fewer printers available than computers.

There are also some problems in that some software programs are not conducive to fifty-minute periods. Most students cannot "finish up" at home and it is often difficult to find them computer time when not in class.

The concept of this workshop is essential as we rapidly approach the 21st century. But some attention does need to be paid to the foundation of the structure.

RESULTS (N=41)

____ Social Studies

____ English/Language Arts

School: _____

District: _____

Date: _____

DELAWARE COMPUTER INSERVICE PROGRAM

TEACHER LOG

Please fill out one teacher log for each instructional plan that you develop and implement during phase IV. Attach the log to its corresponding plan and submit it to the instructional leader upon completion of the lesson.

A. PLAN #1 #2 #3 #4 #5 (please circle)

B. PLEASE PROVIDE THE FOLLOWING INFORMATION ABOUT THIS PLAN:

1. Title of Plan:

2. Delaware Curriculum Standard Matched:

3. Software Used:

4. Date Implemented:

5. Time Implemented:

6. Number of Students and Grade Level:

C. PLEASE COMPLETE THE FOLLOWING EVALUATION OF THIS PLAN:

Rate the extent to which each of the following was accomplished:

	Fully	%		Not At All	$\bar{x}$
7. the plan was implemented as written	4	3	2	1	
	71	27	2	0	3.68

Comments:

I have access to a computer every three weeks; Not possible to do - only 1 disc and no printed matter for the program.

	Fully			Not At All	
8. the plan objectives were achieved	4 65	3 32	2 3	1 0	3.62

Comments:
All students improved scores by end of week; After using computer students were very enthusiastic about independent work

9. the plan promoted student achievement of standard	4 43	3 54	2 3	1 0	3.41

Comments:

10. the plan promoted student motivation (i.e., interest and enthusiasm)	4 74	3 26	2	1	3.74

Comments:
The children loved it (3); Very much so; Fun; They were quite enthused up to and beyond the bell; They were proud to be able to print their own stories.

11. the plan proved more effective than regular instruction	4 60	3 21	2 16	1 3	3.39

Comments:
Provided variety (2); Because of its novelty, was used enthusiastically but did not yield higher test scores for my really poor spellers; Helped with motivation; Kept interest; More effective and enjoyable; Non-typists were slow in using keyboard.

12. Do you have any additional suggestions for improving this instructional plan or the software used?

No, it worked well; Children used to be exposed to the computer more often and for longer time periods; Would like more; Need more time; More access to computer; Having to set up the equipment in 5 minutes before class and return all of it was a big inconvenience; One student used a password to enter his story - had trouble getting it back.

RESULTS (N=3)

School: _____

District: _____

Date: _____

MATERIALS FEEDBACK FORM (II)

Directions: Rate the adequacy of the inservice materials (inservice manual and resource books) for your use in each of the activities listed below. Also, space is provided under each of these activities for your suggestions/comments.

	Very Adequate			Not Adequate	$\bar{x}$
	4	3	2	1	
PHASE I: ORIENTATION					
How adequate were the inservice materials for:					
• Preparatory Activities	67	33			3.67
Suggestions/Comments:					
• Activity 1: Review inservice goals, objectives, and guidelines	67	33			3.67
Suggestions/Comments:					
• Activity 2: Explore uses of computer in instruction					
2.1: Discuss current teacher experience	4	3 67	2 33	1	2.67
Suggestions/Comments:					
As we were discouraged from talking about negative experiences, a basically inaccurate picture was drawn.					
2.2: Demonstrate software	4	3 100	2	1	3.00
Suggestions/Comments:					

	Very Adequate		%		Not Adequate	$\bar{x}$
• Activity 3: Assess teacher understanding of computer uses in instruction	4	3 67	2 33	1		2.67

Suggestions/Comments:

I don't recall much time/discussion being spent on this.

PHASE II: DEMONSTRATION OF PREVIEWING

How adequate were the inservice materials for:

• Preparatory Activities	4 33	3 33	2	1 33	2.67

Suggestions/Comments:

Generally because of the lack of necessary materials, this whole part of course was pretty weak.

• Activity 1: Provide a brief overview of selecting software and developing instructional plans	4 67	3	2 33	1	3.33

Suggestions/Comments:

Basically I'm still confused about where to locate software. I know what Dover High owns. I know that all MECC is available. But from whom? Where?

• Activity 2: Demonstrate an approach to selecting software					
2.1: Introduce the demonstration	4 33	3 33	2 33	1	3.00

Suggestions/Comments:

Social studies titles didn't fit into curriculum as expected.

2.2: Demonstrate Delaware Standards/ Software Matching System	4	3	2 67	1 33	1.67

Suggestions/Comments:

Standards and software didn't clearly match.

	Very Adequate			Not Adequate	$\bar{x}$
	4	3	2	1	
2.3: Review information provided in such resource as EPIE and TESS		67	33		2.67

Suggestions/Comments:
I don't recall seeing it in my training and got my school's copy after we completed Phase III; Need to emphasize these sources more.

	4	3	2	1	
2.4: Preview with a group, a selected piece of software	33	67			3.33

Suggestions/Comments:
Familiarization with software by demonstrator is crucial.

	4	3	2		
2.5: Decide whether to incorporate software into current instructional plans		100			3.00

Suggestions/Comments:
Need to encourage taking that extra step despite logistical problems.

	4	3	2	1	
2.6: Develop, with the group, a revised instructional plan	50		50		3.00

Suggestions/Comments:
Emphasize computer as a tool, not a replacement for instruction; I actually think this step should be omitted. The group plan did not really help in devising the independent plan. In retrospect, I think it would have been more helpful for each of us to have devised/implemented our own plan.

	4	3	2	1	
2.7: Review instructional plan(s) against criteria		100			3.00

Suggestions/Comments:

	4	3	2	1	
• Activity 3: Review preparatory activities for Phase III	33	67			3.33

Suggestions/Comments:

	Very Adequate			Not Adequate	$\bar{x}$
	4	3	2	1	
PHASE III: DEVELOP AND IMPLEMENT AN INSTRUCTIONAL PLAN WITH GUIDANCE					
How adequate were the inservice materials for:					
• Activity 1: Select software and develop an instructional plan	33	33	33		3.00
Comments: Lack of DSCSMS and value terms ("Instructional Plan," "Activity," etc.)					
• Activity 2: Share sofware previews and review instructional plan		100			3.00
Comments: People assess according to their success with the computers they use. Slight changes can make a difference.					
• Activity 3: Implement instructional plan	33	67			3.33
Comments:					
• Activity 4: Revise instructional plan	33	67			3.33
Comments:					
• Activity 5: Share implementation experience and revised instructional plan	33	67			3.33
Comments:					
• Activity 6: Review preparatory activities for Phase IV	67	33			3.67
Comments:					