The Education Coalition

Star Schools

TEAMS: Project IMPACT
(Improving Achievement Through Converging Technologies)

TEAMS Distance Learning
Los Angeles County
Office of Education

1997-1998
Program Evaluation
U.S. Department of Education

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1997-2002 Evaluation Design

The 1997-2002 Project IMPACT (Improving Achievement Through Converging Technologies) Star Schools Project evaluation plan is designed to provide data from the project as a whole, and in-depth data from 36 designated evaluation sites across the country. The design will focus on answering questions about:

- The impact of Project IMPACT on each of its audiences: students, parents and teachers

- The adoption and institutionalization of Project IMPACT in each partner area, (California Metropolitan, Mid-Southern, Western Councils and Communications Group) and its impact on systemic reform

- The impact on student learning brought about by a distributed learning system which includes satellite distance learning and asynchronous, World Wide Web based applications for students

- The impact on teacher learning brought about by a distributed learning system which includes satellite distance learning and asynchronous, World Wide Web based applications for students

- How Project IMPACT promotes the National Educational Goals

Evaluation activities for the first year evaluation begin in October 1997 and were completed September 30, 1998.   According to new OERI requirements, the Project

IMPACT Annual Report will be filed by September 30 during the second through fourth years of the grant.

Basis of the Evaluation Design

The 1997-2002 Project IMPACT Evaluation Design is based on the CIPP (Context, Input, Process, Product) Evaluation Model developed by Daniel Stufflebeam, et. al. It also contains the major elements of CBAM (Concerns Based Adoption Model) which measures the adoption of an innovation, and was developed by Gene Hall and Susan Loucks.

Part I: Overview of Project IMPACT Evaluation Design

A. Project Goals and Objectives

Components of the evaluation for each year will address the major goals of Project IMPACT and how the project met the goals. Assessment questions are listed under each goal. In Section B, the same questions are incorporated into the CIPP and CBAM evaluation models.

Goal 1: Design, develop and implement a distributed learning system for the enhancement of student instruction and teacher training that supports national educational goals and priorities.

Question: Were the project goals implemented in accordance with the proposed timelines?

Question: Did the project meet its objectives?

Question: Was the laboratory school (VITAL site) created?

a) Was it used for the formative/summative testing of TEAMS on-air and on-line programs, projects and activities?

b) Did it provide an appropriate method to test the efficiency and effectiveness of the distributed delivery system.

c) Did TEAMS distance learning teachers collaborate with site teachers to develop programming?

d) Were innovations in programming and/or teaching techniques developed which were tested in the laboratory school setting?

e) Were clinical teaching experiences provided and evaluated?

f) How was the site used to provide personalized, in-depth, educational staff development on curriculum, technology and teaching strategies.

Question: How are the programs used in schools - live, interactive or videotape? Is there a modality that is more effective under certain circumstances?

Question: How effectively was the distributed learning system implemented at all Participating sites and how regularly was it used by students and teachers?

a) What was the impact of Tier 1 - Televised Instruction?

b) What was the impact of Tier 2 - Televised Instruction and Multimedia?

c) What was the impact of Tier 3 - Televised Instruction, Multimedia and Web Support?

d) What was the impact of Tier 4 Televised Instruction, Multimedia, Web Support, Cybrid CD (CD-ROM and Web Links), and Web On-line Instruction.

Question: What academic progress do students show because of Project IMPACT? Is there an increase in learning (unexpected percentile growth between grades) that was unexpected; can any growth be attributed to the impact of the distributed learning system? Is there a difference in learning which can be attributed to the Tier Level of the Distributed Learning System?

Question: What changes have been observed in student attitude and behaviors (attendance, disciplinary referral, and grades) which can be attributed to Project IMPACT?

Question: What academic progress do teachers show because of Project IMPACT? Is there an increase in their learning and an increased adoption of the new system for students because of their satisfaction with it for their individual learning; can growth and satisfaction be attributed to the impact of the distributed learning system?

Goal 2: Design, develop and produce live, interactive distance learning programs using a distributed learning model in support of Goals 2000 and high state standards.

Question: How successfully has Project IMPACT connected teachers and students via the distributed learning system.

Question: What is the criteria used at the site to determine success of a teacher-to-teacher/student-to-student distributed learning network?

Question: Are the distributed learning system activities directly related to the instructional content of the programs? How does the design facilitate discussion, information dissemination, information gathering, and mentoring?

Question: How does asynchronous (not in real time) feedback affect student learning? Is the success of the asynchronous feedback, age dependent?

Question: Has the distributed learning system been accepted by teachers and is it valued as an extension of the instructional programs?

Goal 3: Provide preservice and inservice professional development for teachers.

Question: What changes have there been in teacher attitude and behaviors (enthusiasm in teaching, use of cooperative groups, interest in reform in subject areas, and collaboration with other teachers) because of Project IMPACT preservice and inservice?

Question: What changes have there been in student teacher attitudes and classroom methodology as a results of:
a) their participation in college methods classes using distance learning as a vehicle to instruct,
b) their assignment to the classroom of a master teacher using Project IMPACT mathematics and science programs, and
c) participation in the laboratory school (VITAL site)?

Question: What are the teachers' stages of concern and their level of use of the programs?

a) Is there a positive or negative difference in the teacher's stages of concern and use of the distance learning programs which can be attributed to the Tier Level which they use (Tiers 1-4).

b) Do previous users of the TEAMS programs progress through the levels of use more quickly when they are using Tier 4 multiple technologies.

c) Do teachers find it easy to immediately begin using Tier 4 multiple technologies or is there a progression in the use of technologies that should be followed?

Question: What configurations of innovation are in place at school sites?

Goal 4: Provide training and information opportunities for parents and community stakeholders through collaboration with other federal, state and local projects.

Question: How successfully did Project IMPACT provide training and information opportunities for parents?

Question: How successfully did Project IMPACT provide training and information opportunities for the community stakeholders?

Question: What was the impact on students of their parents participating in Project IMPACT?

Question: What types of collaborations with other federal, state and local projects were successful?

a) At sites where other technology projects were in place, was the implementation and adoption of Project IMPACT easier or more successful?

Question: Has the student/teacher involvement in Project IMPACT increased due to collaboration? What are the other impacts of the collaboration with federal, state and local projects.

Goal 5: Build and expand on the national partnerships of TEAMS Distance learning to assure that all students in the partnership will have access to exemplary distance learning programs that support challenging standards.

Question: Has Project IMPACT been effective in expanding its activities to new partnerships?

Question: Do all students in the partnership have equitable access?

Question: Does Project IMPACT provide equity of access to underserved and at-risk student populations in its rural and urban partnerships?

Question: What differences can be evaluated between new sites with new teachers and students and former TEAMS sites where teachers and students have participated in TEAMS?

Question: How successfully did Project IMPACT provide ownership at the former and new sites for the new programs?

Goal 6: Implement, manage, and evaluate the project so as to realize the maximum potential and benefits for each partner.

Question: What has been the impact of Project IMPACT in districts, schools and at a regional and national level?

Question: What benefits to the partners see in participating in a national project?

Question: Does the project design provide flexibility, incentives and a regional service orientation to adequately support an expanded, multistate student and teacher population?

B. Overall Project - CIPP and CBAM Assessment Questions

    1. Context: How is the project organized?

                   How is each partner region organized for Project IMPACT?

                   How has Project IMPACT developed in that region?

    2. Input: What resources has Project IMPACT provided in each region?

What resources were added through Communications Group?

What resources were added through the collaborations

What resources were added through partnerships?

What resources have states, regional agencies, districts, schools and
others provided?

3. Process:

Installation:

How have districts, schools, teachers been selected to participate?

What are patterns of beginning implementation of Project IMPACT?

What specific methods were successfully used to implement the distributed
learning system?

Implementation:

How have Project IMPACT programs been delivered?

What technical assistance has been given to sites?

What support materials and process are available?

What is the level of teacher involvement in the project.

How are former TEAMS users and first, second, third, fourth and fifth year
teachers involved with Project IMPACT?

4. Product (Outcomes)

How many participants, districts, states have received services?

What services were received?

What are their demographic characteristics?

What is the difference in using live or tape versions?

What types of interaction create greatest benefits?

What have been the benefits to teachers, students, parents and administrators?

What are the effects of being part of a national telecommunications project?

What are the effects of being part of a distributed learning system?

What outcomes resulted from the collaborations?

What outcomes resulted from other partnerships?

Part II: Evaluation Procedures

A. Questionnaire Instruments

Appropriate questionnaire instruments will be prepared and administered to each major group of users of Project IMPACT; teachers, principals, coordinators, parents, students and partners.

In-depth questionnaire instruments will be prepared and administered at evaluation sites. These instruments and questions will be used for teachers, principals, coordinators, parents, students and partners.

Timeline: October-November of each grant year - questionnaire preparation

April of each grant year - questionnaires will be mailed to all sites

B. Student "Report" Card

A student progress form will be used to track the improvement of students. The same form was used in the 1993-97 evaluation. The data from this form will provide a basis of comparison and correlation between early and new users who have access to a distributed learning   system. It provides extensive evaluation of student growth and learning. The form asks the instructor to rate (on a scale of one to four, where four is high), the growth of the student which is directly attributable to Project IMPACT.

Timeline: October-November of each grant year - questionnaire preparation

April of each grant year - report cards will be mailed to all sites

C. Site Evaluation Visits and Electronic Evaluation Conferencing:

Forty sites will be selected as in-depth evaluation participants. Site visits will take approximately two months to complete during each year of the grant.   Sites will be evaluated for the level of adoption of Project IMPACT, their success in using the distributed learning network and the level of connectivity that was attained in accessing other educational resources available through on-line methods.

Sites will be evaluated in person at the site and through the distributed learning system according to the Tier (1-4) level of use of the distributed learning system to determine the capacity that has been developed at the site and the skill in working with the system by students and teachers.

Ten sites will be Tier 1 distributed learning users

Ten sites will be Tier 2 distributed learning users

Ten sites will be Tier 3 distributed learning users

Ten sites will be Tier 4 distributed learning users

Timeline: February -May beginning in the second year of the grant.

D.   Data Collection and Analysis

Questionnaire instruments will be statistically analyzed for significance to determine the impact of Project IMPACT. Focus site interviews will be transcribed and used to collect corroborating and anecdotal evidence of the level of the project's success and adoption

Timeline: May of each year of the grant.

Criteria Tied to Student Performance

How Performance Outcomes Will be Demonstrated Over Time

At the end of each TEAMS module, teachers will fill in a student report card which will specifically report on each individual student's performance in the class. The form will also collect basic information on gender and participation in Title 1, LEP, Gifted, and Special Education programs.

The form will ask the TEAMS teacher to describe the degree of the outcome for each student that could be attributed solely to using TEAMS. The scale of one to four will be used where four is a great degree and one is none. The following are the basic questions:

Improved Content Knowledge and Skills

Improved Critical Thinking and Problem Solving

Improved Language Skills

Increased Interest in the Subject Area

Improved Quality of Work

Increased Interest in School

Improved Attendance

Improved Behavior

Takes Responsibility for Own Learning

Greater Confidence as Learner

Higher Self-Regard

There will be additional questions that will deal with the Tier (1-4) level of the distributed learning system and student performance. The basis of the project is that Project IMPACT creates, develops and implements a distributed learning system that supports a combination of the best features of time-dependent video-based instruction, and time-independent multimedia resources and computer access to the Internet. The model is based on blending the instructional technologies of classroom-

based multimedia, distance learning, and Web-based instruction. It allows schools and classrooms at any level of technology readiness, access to exemplary instruction. It buildings on the proven, cost-effective infrastructure of satellite delivered television programming, public broadcasting, cable and ITFS.

The distributed learning design offers a rich array of multimedia and distance learning opportunities for teachers, students, and parents As they move through the tiers, they are exposed to ever increasing resources to aid their learning acquisition. Every student is able to make a valuable contribution to the group.

At a different level, the project enjoins schools to move from Tier 1 to Tier 4 because there is a projection and perception that multiple technologies when used well, will increase learning. The following are the Tiers and associated technologies.

Tier 1 level of technology where the classroom has only a television set through which to receive the TEAMS signal via satellite, cable, ITFS, or open-air broadcast.

Tier 2 level of technology where the classroom has a television set, video cassette recorder, and non-Internet connected computers. This tier adds multimedia applications modeled by distance learning instructors on the televised programs referenced in the field support materials and incorporated by teachers into classroom instruction.

Tier 3 level of technology where the classroom has a television set, video cassette recorder, and Internet connected computers and the Tier 2 multimedia applications modeled by distance learning instructors on the televised programs referenced in the field support materials and incorporated by teachers into classroom instruction. This Tier adds Web-based components that support, enhance, and extend the televised instruction; including general information resources and TEAMS Electronic Classrooms.

Tier 4 level of technology where the classrooms have televisions, video cassette recorder, Internet connected computers and productive instructional technology support.   The levels moves to a truly synchronous and asynchronous distributed learning system by building on the existing three tiers and adding Web-based instruction for students, teachers and parents.   The fourth tier provides active, meaningful instruction through a variety of instructional technologies from interactive satellite programs to online projects, activities, resources and courses on the Internet.

The statistical analysis of choice to determine significance and impact and is a multivariate analysis of variance (MANOVA). A MANOVA employees two or more dependent measures to compare populations. It uses regression-like procedures to remove extraneous (nuisance) variation in the dependent variables due to one or more uncontrolled metric independent variables (covariates). The covariates are generally assumed to be linearly related to the dependent variables. After adjusting for the influence of the covariates, a standard MANOVA is carried out. This adjustment process usually allows for more sensitive tests of treatment effects.

MANOVA is concerned with differences between groups (or experimental treatments). MANOVA is termed a multivariate procedure, since it is used to assess group differences across multiple metric dependent variables simultaneously (i.e., in MANOVA, each treatment group is observed on two or more dependent variables.)

As statistical inference procedures, MANOVA is used to assess the statistical significance of differences between groups. The null hypothesis tested is the equality of vectors of means on multiple dependent variables across groups.

MANOVA is particularly useful when used in conjunction with experimental research designs in which one or more independent variables are directly controlled and manipulated to determine the effect on two or more dependent variables. It proves the tools to judge the reliability of any observed effects (i.e., whether an observed difference is due to a treatment effect or to random sampling variability.)

This research design will allow the project to determine:

A. Level of educational impact on students based upon each tier (1-4) of technology

B. Level of satisfaction with the technology based upon the tier (1-4 of technology

C. Level of professional development required by teachers in order to feel a comfort level with the technology tier (1-4)

D. Level of educational impact based on Tier (1-4) technology and student learning style

E. Level of improved content knowledge and skills based on technology tier (1-4)

F. Level of improved critical thinking and problem solving based on technology tier (1-4)

G. Level of improved language skills based on technology tier (1-4)

H. Increased Interest in the subject area based on technology tier (1-4)

I. Improved quality of work based on technology tier (1-4)

J. Increased interest in school based on technology tier (1-4)

K. Improved attendance based on technology tier (1-4)

L. Improved behavior based on technology tier (1-4)

M. Taking responsibility for own learning based on technology tier (1-4)

N. Greater confidence as a learner based on technology tier (1-4)

O. Higher self-regard based on technology tier (1-4)

The project has a rich and complex content and technology array to offer. The evaluation design will enable the project to determine the impact on all of the above variables. As an example of the importance of the learning style, Chris Dede in his "Implications of Hypermedia and Cognition and Communication," (1991) "...if a person is asked to recall his childhood home, this information is not stored as one large node of knowledge in his memory system. Instead, bits and pieces of knowledge about this home are distributed in various locations throughout his cognitive structures. These memory stores do not shape spatial proximity; however, when challenged with such a request, the mental retrieval system can search out these required fragments. Through

this retrieval process, which is not well understood, a complete mental representation of the house (including the floor plan, the color of the walls, the type of floor covering, number of windows) can be reconstructed.

In the same way, students are asked to retrieve information about what they have learned in their coursework. Depending upon their preferred learning style and how the information was presented at the time of learning, they may or may not be able to retrieve the information acceptably. If technology enables quicker learning because it meets more learning styles than may be possible in the traditional classroom without integrated technology, what level of technology is needed to ensure that all students will learn equally well from the same system. For students with highly developed independent learning skills, the diversity of a Tier 4 system may provide strong educational benefits. However, it will not be apparent whether the system or the student's learning style and independent qualities influenced and impacted significant learning. The MANCOVA statistical analysis will enable the project to better pinpoint the significant variables.

To a great extent, the haves and have not arguments about providing equitable access to technology for all students is recreated in this project. A very basic level of technology is provided in Tier 1 where students have access only to television. The 'haves" are represented in Tier 4 which provides the highest level of technology access through synchronous and asynchronous systems of technology. The research design will help the project to determine whether there is a significant difference in learning between the haves and have nots enrolled in TEAMS courses. It will help the project determine whether there is an optimum group of technology which foster significant learning at a lower cost which would be more affordable for all schools.

Student Performance Tied to Standardized or State-Administered Tests

The evaluation has worked with two states - Missouri and Arizona - during the past year to determine the impact that TEAMS has had on student levels of learning as tested by Standardized State-Administered Tests.

Currently, both states are in the process of developing and testing criterion-referenced tests as they have determined that the old tests were not meeting the needs of educators to show that learning occurred. Once these tests have been properly validated by their respective states and it is determined that the tests will be administered on a yearly basis, the evaluator will work with the Missouri and Arizona Departments of Education to determine the next steps.

These two states were the only two of the existing partners that tested students on a yearly basis. Tests that are given only at wide spread grade levels - such as fourth, eighth, and twelfth - do not enable the research to show a clear path of learning that is solely attributable to TEAMS. TEAMS is offered to schools as modules. Teachers can select to use part of a module, all of a module, or all of a program of four modules. Unless at least three modules are used, it is unlikely that an educational impact will be detectable.

This aspect of the evaluation will continue to be monitored.

Strategies to Provide Site Feedback

A number of evaluation feedback provisions have been built into the project. Because the evaluation is built on the basis of a formative research design, feedback is an inherent part of the design.

a) A formative evaluation will be conducted to determine problems. The formative evaluation will be provided to all users.

b) Feedback to educators, administrators, site coordinators and regional coordinators will continue to be given during the site visit for in-depth research sites.

c) Feedback will be provided to the regional coordinators at the regional meetings in

the form of a formal report on the findings.

    d)   Feedback in the form of articles and formal reports will be posted on the TEAMS web site so that anyone who needs the information can download it.

    e)   Through monthly meetings scheduled with the project director, discussions will be held about problems found at any site, and possible solutions.

    f)   After problems have been identified, the site will be monitored at an appropriate time to allow the problem to have been corrected. An analysis will be done to determine how well the solutions worked.

    g)   All sites will have access to the evaluator through e-mail, telephone, or postal mail to report problems.

Part III: Products of the Evaluation

    A. Report on Organization, Installation, Implementation and Impact of Project IMPACT

    B. Project IMPACT School Intervention Plan

    C. Teacher Involvement and Use of Project IMPACT by Year in Program

    D. Successful Project IMPACT School Site Models

Additional Basis of the Evaluation Design

The Evaluation Design also takes into consideration the research design recommended in the PEP (Program Effectiveness Panel) guidelines compiled by OERI. All four of the claim types are addressed for the TEAMS program, while claim types two and three are more appropriate for the Project IMPACT programming during the first and second year.

Claim Type 1 - Academic Achievement - Change in Knowledge and Skills

    A. Rival Ho_1 -- Can results be explained by:

        1)   Teacher ability

        2)   Experience (but checking on program experiences)

        3)   Hawthorn effect

        4)   Maturation of teacher

B. Look at the size of the gains

    1)   Compare to similar programs

    2)   Compare to last year's program

Claim Type 2 - Improvements in Teachers' Attitudes and Behaviors

A. Has there been an increase in the time that science or math is taught by the teacher:

Increase is measured in minutes per week.

Compare years: Is there an average increase in each year of the grant

B. Change in instructional strategies: Examples include:

    1)   Interest

    2)   Enthusiasm

    3)   Increase in methods for student participation

    4)   Voluntary teacher participation

    5)   Increase in number of voluntary teachers in the school, district, or

             program.

    6)   Collaborative teaching

    7)   Collaborative learning

    8)   Cluster seating for students

C. Change of emphasis in the discipline

    1)   Less use of worksheets

    2)   Okay not to give student the answer

    3)   Probing student - what does student think will happen - problem solving

D. Expectations of students - higher standards

    1)   Increase in standards for student after in-service and observation of the

             role model television teacher

    2)   Showed standards increase through more assignments, harder grading,

student planning, group leaders.

<u>Claim Type 3 - Improvements in Students' Attitudes and Behaviors</u>

A. Ask several groups the same questions.

        Teachers

        Principals

        Parents

        Students

        RTCs

    Suggests doing a non-treatment questionnaire for the same schools

    Was teacher pre-treatment the same for TEAMS and non-TEAMS groups.

B. Ask more about unintended effects

C. Ask more about similar programs to determine if TEAMS is the cause of the change that is seen rather than another district or school program.

D. Multiple measures

        Ask questions through surveys

        Conduct observations in the classrooms

        Conduct focus group meetings of respondents

E. Expansion of the program

    If internal and external marketing is low, then teacher word of mouth is leading to the adoption.

    Questions to ask

        How did you learn about TEAMS

What made you decide to become a TEAMS teacher

For Principal - what made you decide to support TEAMS

Is the program a fad or a trend - which is defined as a long-term change

F. Examples of Claims

Increase in attendance

Decrease in drop-out rates

Positive attitude about learning

Change in attitude about the value of a subject

Realistic course selection for career direction

Claim Type 4 - Improvements in Instructional Practices and Procedures

A. Appropriate when the project meets the following conditions

1) Aimed at the immediate effect of producing changes in the school, system, or institution, and or/changes in a general population or service area

2) Consists of a coherent set of procedures that can be transferred to similar institutions

3) Postulates that the outcomes will contribute to student achievement some time in the future.

B. Claim Examples

1) Improvement in service to particular client groups such as satellite delivery reaching many sites at a low cost per student

2) Unique practice - addresses different goals and claims from any seen previously. There may be no legitimate comparison for the claims.

Research Design Analysis of PEP Claim Types

All four PEP claim types are applicable but Claims 2 and 3 are the most applicable to the information that can be gathered for Project IMPACT.

Claim Type 1 is the traditional claim which requires measurement of learning and the comparison of growth to an appropriate control group or normative standards, as well as a convincing demonstration that overall change is educationally significant.

Analysis: As TEAMS/ Project IMPACT is not responsible for all curriculum in a subject area at any site, it is not feasible to attribute all student learning in a subject area to the project.

Claim Type 2 focuses on the change in teacher's attitudes and behaviors to improve the teaching process. This requires demonstration of changes in attitudes or behaviors, and presentation of a reasonable link between the results and an educationally important goal.

Analysis: We have access to this information through surveys of teachers and principals and can correlate the responses to substantiate the claim

Claim Type 3 focuses on changes in students' attitudes and behaviors that in the long term lead to educationally desirable outcomes. Use of this claim requires data showing positive change in the target group and strong logical or empirical evidence that this change is large enough to be educationally meaningful.

Analysis: We have access to this information through surveys of teachers, principals, coordinators, student focus groups and observations. Survey responses can be correlated to substantiate the claim empirically and qualitative evidence can be provided through student focus groups and observations.

Claim Type 4 is the hardest to document as it requires documentation of change on a system wide basis and a suitable comparison standard must be established. It covers unique practices or practices that can be easily transferred to similar institutions.

Analysis: This claim is most suitable for third, fourth, and fifth year TEAMS teachers since a basis of comparison has been established through previous research and evaluation.

1997-1998 TEAMS Evaluation Synopsis

During the 1997-1998 grant year, a number of evaluation activities were conducted. Surveys were created and sent to all sites by the TEAMS office. Surveys were returned directly to the evaluation office.

Focus interviews were conducted at a number of sites throughout the United States. Some interviews were conducted via audio conference.

Metadata Analysis of Student Progress Attributed to TEAMS from 1992-1998

A series of multiple linear regressions were performed on the data. For all of the student results, no noted change in a variable did not mean that the student was working at an F grade level. TEAMS programming is seldom used as the only source of mathematics or science education in the classroom. Teachers may have been unable to see a change which was directly attributable to TEAMS programming and thus recorded a score of one (no change due to TEAMS) rather than a score of two to four showing change due to TEAMS. For example, many teachers noted on their survey instruments that students always came to class and there was little room for improvement in the question about increased attendance. Other teachers noted that the behavior in their classrooms was always good and thus, a score of one for no change, was not to be a considered a bad mark or a poor reflection on TEAMS. Simple regressions were conducted using "improved content knowledge and skills" as the dependent variable. All independent variables were significant at the level of $P=.0001$

In the multiple linear regression which used "improved content knowledge and skills" as the dependent variable, ten independent variables were found to be significant at $P= .05$ and above. Improvement was significant for Chapter 1, LEP and Special Ed TEAMS students. Teachers throughout the United States saw improvement for these students in improved critical thinking and problem solving, language skills, increased interest in the subject area, improved attendance and behavior, and improvement in the responsibility the students took for their own learning as well as a positive increase in student self regard.

A multiple linear regression was done using "increased interest in the subject area" as the dependent variable. Nine independent variables were significant in this procedure. TEAMS teachers saw improvement for special education and gifted students in improved critical thinking and problem solving, quality of work, increased interest in school, improved attendance and behavior, and improvement in the confidence students had in themselves as learners

To determine specifically what improvements teachers were attributing to the four groups of students, multiple linear regressions were performed for each of the four groups individually (as the dependent variable) and using the twelve assessment criteria as independent variables. Aggregated data was used for this part of the analysis so that a metadata analysis could be conducted using all student data from 1992 through 1998.

Chapter 1 Students Metadata Analysis

For Chapter 1 students, the independent variables in the 1992-94 study that were significant were improved content knowledge and skills, improved critical thinking and problem solving, improved language skills, improved quality of work, improved attendance, and a higher self-regard.

For Chapter 1 students, the independent variables in the 1994-97 study that were significant were improved content knowledge and skills, improved critical thinking and problems solving, improved language skills, increased interest in the subject area, increased interest in school, improved attendance, improved behavior, taking responsibility for own learning, and higher self-regard.

The 1997-1998 research shows improvement for Chapter 1 students in content knowledge and skills, critical thinking and problem solving, language skills, interest in the subject area, interest in school, attendance behavior, taking responsibility for learning, greater confidence as a learner and higher self regard (see Table 1). This is an increase of one significant variable over the previous study.

Table 1: Metadata Analysis of TEAMS Chapter 1 Students

Variables	1992-4	1994-7	1997-8
1. Improved content knowledge and skills?	yes	yes	yes
2. Improved critical thinking and problem solving?	yes	yes	yes
3. Improved language skills?	yes	yes	yes
4. Increased interest in the subject area?		yes	yes
5. Improved quality of work?	yes		
6. Increased interest in school?		yes	yes
7. Improved attendance?	yes	yes	yes
8. Improved behavior?		yes	yes
9. Takes responsibility for own learning?		yes	yes
10. Greater confidence as learner?			yes
11. Higher self-regard	yes	yes	yes

Gifted Students Metadata Analysis

For gifted students, the independent variables that were significant in the 1992-4 study were gender, improved critical thinking and problem solving, improved language skills, increased interest in the subject area, improved quality of work, increased interest in school, improved attendance, improved behavior and a higher self-regard.

The independent variables that were significant in the 1994-7 study for gifted students were improved content knowledge and skills, improved critical thinking and problem solving, improved quality of work, improved attendance, taking responsibility for own learning.

For gifted students, the 1997-98 research shows improvement in content knowledge and skills, critical thinking and problem solving, quality of work, attendance, taking responsibility for learning, and higher self-regard (see Table 2). This is an increase of one variable over the previous study.

Table 2: Metadata Analysis of TEAMS Gifted Students

Variables	1992-4	1994-7	1997-8
1. Improved content knowledge and skills?		yes	yes
2. Improved critical thinking and problem solving?	yes	yes	yes
3. Improved language skills?	yes		
4. Increased interest in the subject area?	yes		
5. Improved quality of work?	yes	yes	yes
6. Increased interest in school?	yes		
7. Improved attendance?	yes	yes	yes
8. Improved behavior?			
9. Takes responsibility for own learning?		yes	yes
10. Greater confidence as learner?			
11. Higher self-regard	yes		yes

Limited English Proficient Students Metadata Analysis

For limited English proficient (LEP) students, the independent variables that were significant in the 1992-4 study were improved content knowledge and skills, improved critical thinking and problem solving, improved language skills, increased interest in the subject area, improved quality of work, improved attendance, an increase in taking responsibility for their own learning, and a higher self-regard.

The independent variables that were significant in the 1994-7 study for LEP students were improved critical thinking and problem solving, improved language skills, increased improved quality of work, increased interest in school, improved attendance, improved behavior, taking responsibility for own learning, greater confidence as a learner, and higher self-regard.

The significant variables for the 1997-98 research for LEP students were critical thinking and problem solving, language skills interest in the subject area, quality of work, attendance, confidence, and higher self regard (see Table 3).

Table 3: Metadata Analysis of TEAMS Limited English Proficient (LEP) Students

Variables	1992-4	1994-7	1997-8
1. Improved content knowledge and skills?	yes		
2. Improved critical thinking and problem solving?	yes	yes	yes
3. Improved language skills?	yes	yes	yes
4. Increased interest in the subject area?	yes		yes
5. Improved quality of work?	yes	yes	yes
6. Increased interest in school?		yes	
7. Improved attendance?	yes	yes	yes
8. Improved behavior?		yes	
9. Takes responsibility for own learning?	yes	yes	
10. Greater confidence as learner?		yes	yes
11. Higher self-regard	yes	yes	yes

Special Education Students Metadata Analysis

For special education students, the independent variables that were significant in the 1992-4 study were improved content knowledge and skills, improved critical thinking and problem solving, an increase in taking responsibility for their own learning, and a greater confidence as a learner.

For the 1994-7 study, the independent variables that were significant for special education students were critical thinking and problem solving, improved attendance, improved behavior, and taking responsibility for own learning.

For special education students, the 1997-98 research the significant variables included critical thinking and problem solving, language skills, attendance, behavior and takes responsibility for learning (see Table 4).   This is an increase of one variable over the earlier study.

Table 4: Metadata Analysis of TEAMS Special Education Students

Variables	1992-4	1994-7	1997-8
1. Improved content knowledge and skills?	yes		
2. Improved critical thinking and problem solving?	yes	yes	yes
3. Improved language skills?			yes
4. Increased interest in the subject area?			
5. Improved quality of work?			
6. Increased interest in school?			
7. Improved attendance?		yes	yes
8. Improved behavior?		yes	yes
9. Takes responsibility for own learning?	yes	yes	yes
10. Greater confidence as learner?	yes		
11. Higher self-regard			

The intercept P on each of these groups of students shows that the TEAMS program is significantly impacting the learning of these students.

Analysis of Teachers' Reports of Student Attitudes and Behaviors

During the period of the evaluation, three hundred sixty-six teacher surveys were returned and recorded, reflecting teachers' opinions about the attitudes and behaviors of 8,263 students. The survey questions focused on assessing the degree of outcomes for students that were attributed by the teachers to TEAMS, using a weighted-scale response of 4=great dgree, 3=some degree, 2=very little, and 1=none. This is a Claim Type 3, with survey responses needing to be correlated to substantiate the claim. In addition, analysis was performed to evaluate whether the responses varied for different student populations.

The questions asked of teachers about students were about the degree to which any of the following statements about each student could be attributed to TEAMS:

1. Improved content knowledge and skills?   (coded "f Con" on the output tables)

2. Improved critical thinking and problem solving?   ("g Crit")

3. Improved language skills?   ("h Lang")

4. Increased interest in the subject area?   ("I Int")

5. Improved quality of work?   ("j Qual")

6. Increased interest in school?   ("k Sch")

7. Improved attendance?   ("l Atten")

8. Improved behavior?   ("m Beh")

9. Takes responsibility for own learning?   ("n Resp")

10. Greater confidence as learner?   ("o Conf")

11. Higher self-regard?   ("p Regard")

Mean values reported for each qualitative variable are shown in Table 5.

Table 5:   Qualitative Variable Descriptive Statistics

	Mean	Std. Dev.	Std. Error	Count	Minimum	Maximum	# Missing	Mode
f Con	3.088	.790	.006	16299	1.000	4.000	37	3.000
g Crit	3.041	.793	.006	16299	1.000	4.000	37	3.000
h Lang	2.761	.888	.007	16312	1.000	4.000	24	3.000
i Int	3.150	.817	.006	16312	1.000	4.000	24	3.000
j Qual	2.803	.846	.007	16294	1.000	4.000	42	3.000
k Sch	2.841	.894	.007	16303	1.000	4.000	33	3.000
l Atten	2.330	1.070	.008	16274	1.000	4.000	62	1.000
m Beh	2.415	1.019	.008	16251	1.000	4.000	85	3.000
n Resp	2.736	.932	.007	16269	1.000	4.000	67	3.000
o Conf	2.872	.883	.007	16265	1.000	4.000	71	3.000
p Regard	2.809	.923	.007	16244	1.000	4.000	92	3.000

Using a median score in the range of 2.50 to 3.49 equating to a scaled response of 3, the conclusion is that these teachers report improvement in all areas except attendance and behavior to be related to the TEAMS programming. Using the mode score, all areas except attendance are related.

In addition, the teacher was asked to report demographic information about the student:

1. Female or male?   (F=0, M=1)

2. Chapter 1?   (Y=1, N=0)

3. LEP (limited English proficient)?   (Y=1, N=0)

4. Gifted?   (Y=1, N=0)

5. Special education?   (Y=1, N=0)

Table 6:   Student Group Demographics

	Mean	Count	# Missing
a F/M	.505	16336	0
b Ch1	.347	16292	44
c LEP	.145	16193	143
d Gifted	.103	16293	43
e SpEd	.088	16333	3

In the data base of 16,336 students presented here, 50.5 percent of the students are male, 34.7 percent are Chapter 1, 14.5 percent are LEP, 8.8 percent are Special Education, and 10.3 percent are in Gifted programs.

Student Attitudes and Behaviors

1. Improved content knowledge and skills

Measurement of content knowledge/skills and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 3.088 (standard deviation = .790). Further, the variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .683, F = 3502.157, with a confidence level of $p < .0001$.

Table 7: Regression: Improved Content Knowledge/Skills vs. 10 Independents

Regression Summary
f Con vs. 10 Independents

Count	16230
Num. Missing	106
R	.827
R Squared	.683
Adjusted R Squared	.683
RMS Residual	.445

ANOVA Table
f Con vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	6927.401	692.740	3502.157	<.0001
Residual	16219	3208.180	.198		
Total	16229	10135.581			

Regression Coefficients
f Con vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.364	.015	.364	23.588	<.0001
g Crit	.530	.007	.531	77.731	<.0001
h Lang	.072	.006	.080	11.461	<.0001
i Int	.197	.006	.204	30.403	<.0001
j Qual	.047	.007	.050	6.912	<.0001
k Sch	.036	.006	.041	5.795	<.0001
l Atten	-.037	.005	-.050	-6.922	<.0001
m Beh	-.039	.006	-.050	-6.480	<.0001
n Resp	.002	.006	.002	.310	.7569
o Conf	-.018	.008	-.020	-2.274	.0230
p Regard	.103	.007	.120	14.403	<.0001

In this survey, teachers' reports of students' improved content knowledge and skills were related at the p< .0001 level of confidence with results for measures of improved critical thinking and problem solving, improved language skills, increased interest in the subject area, improved quality of work, increased interest in school, improved attendance, improved behavior, and higher self-regard. Additionally, a relationship existed at the p< .025 level for taking greater confidence as a learner.

From the above table it should be noted that standardized coefficients for the variables of improved attendance, improved behavior, and greater confidence as a learner were somewhat negative as compared to reported improvement in content knowledge and skills. While the data are silent on this phenomenon, a reasonable supposition could be that students doing well in content knowledge and skills are already students with better attendance, behavior, and confidence. Put differently, students showing improvement in the areas of improved attendance, behavior and greater confidence as a learner might not yet show large gains in content knowledge and skills.

Correlations between reported scores for greater content knowledge/skills and the other variables in the model are as follows:

Table 8: Correlation of Greater Content Knowledge/Skills with 10 Variables

Correlation Matrix

	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
f Con	1.000	.790	.608	.682	.584	.549	.311	.348	.512	.582	.563
g Crit	.790	1.000	.635	.667	.603	.557	.344	.385	.551	.622	.554
h Lang	.608	.635	1.000	.589	.666	.615	.537	.542	.579	.600	.637
i Int	.682	.667	.589	1.000	.612	.604	.331	.362	.505	.589	.556
j Qual	.584	.603	.666	.612	1.000	.676	.540	.580	.627	.624	.622
k Sch	.549	.557	.615	.604	.676	1.000	.558	.579	.623	.645	.622
l Atten	.311	.344	.537	.331	.540	.558	1.000	.766	.538	.485	.543
m Beh	.348	.385	.542	.362	.580	.579	.766	1.000	.642	.587	.602
n Resp	.512	.551	.579	.505	.627	.623	.538	.642	1.000	.760	.712
o Conf	.582	.622	.600	.589	.624	.645	.485	.587	.760	1.000	.815
p Regard	.563	.554	.637	.556	.622	.622	.543	.602	.712	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

2. Improved critical thinking and problem solving

Measurement of critical thinking/problem solving and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 3.041 (standard deviation = .793).

Further, the variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .696, F = 3709.545, with a confidence level of p< .0001.

Table 9: Regression: Improved Critical Thinking Skills vs. 10 Independents

Regression Summary
g Crit vs. 10 Independents

Count	16230
Num. Missing	106
R	.834
R Squared	.696
Adjusted R Squared	.696
RMS Residual	.437

ANOVA Table
g Crit vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	7097.767	709.777	3709.545	<.0001
Residual	16219	3103.310	.191		
Total	16229	10201.077			

Regression Coefficients
g Crit vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.253	.015	.253	16.542	<.0001
f Con	.512	.007	.511	77.731	<.0001
h Lang	.140	.006	.157	23.111	<.0001
i Int	.121	.006	.125	18.603	<.0001
j Qual	.062	.007	.066	9.405	<.0001
k Sch	-.004	.006	-.004	-.630	.5287
l Atten	-.011	.005	-.015	-2.087	.0369
m Beh	-.022	.006	-.028	-3.705	.0002
n Resp	.051	.006	.059	7.995	<.0001
o Conf	.170	.008	.189	21.791	<.0001
p Regard	-.097	.007	-.113	-13.840	<.0001

In this survey, reports by teachers for students' improved critical thinking and problem solving were related at the p< .0001 level of confidence with results for measures of improved content knowledge and skills, improved language skills, increased interest in the subject area, improved quality of work, taking responsibility for own learning, greater confidence as a learner, and higher self-regard. Additionally, relationships existed at the p< .04 level for improved attendance and p<.001 level for improved behavior.

For this variable of reported improved critical thinking and problem solving, slightly negative standardized coefficients are derived for the variables of increased interest in school, improved attendance, improved behavior, and higher self-regard. Once more, as a supposition, this might be resulting from improvements in critical thinking for those who need little improvement in their interest in school, behavior, attendance, or self-regard. Correlations between reported scores for greater critical thinking/problem solving and the other variables are as follows:

Table 10: Correlation of Improved Critical Thinking Skills with 10 Variables

Correlation Matrix

	g Crit	f Con	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
g Crit	1.000	.790	.635	.667	.603	.557	.344	.385	.551	.622	.554
f Con	.790	1.000	.608	.682	.584	.549	.311	.348	.512	.582	.563
h Lang	.635	.608	1.000	.589	.666	.615	.537	.542	.579	.600	.637
i Int	.667	.682	.589	1.000	.612	.604	.331	.362	.505	.589	.556
j Qual	.603	.584	.666	.612	1.000	.676	.540	.580	.627	.624	.622
k Sch	.557	.549	.615	.604	.676	1.000	.558	.579	.623	.645	.622
l Atten	.344	.311	.537	.331	.540	.558	1.000	.766	.538	.485	.543
m Beh	.385	.348	.542	.362	.580	.579	.766	1.000	.642	.587	.602
n Resp	.551	.512	.579	.505	.627	.623	.538	.642	1.000	.760	.712
o Conf	.622	.582	.600	.589	.624	.645	.485	.587	.760	1.000	.815
p Regard	.554	.563	.637	.556	.622	.622	.543	.602	.712	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

3. Improved language skills

Measurement of language skills and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.761 (standard deviation = .888). Further, the variability in this variable were accounted for by the other measures in the model at an adjusted R squared value of .607, F = 2501.659, with a confidence level of $p< .0001$.

Table 11: Regression: Improved Language Skills vs. 10 Independents

Regression Summary
h Lang vs. 10 Independents

Count	16230
Num. Missing	106
R	.779
R Squared	.607
Adjusted R Squared	.606
RMS Residual	.557

ANOVA Table
h Lang vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	7759.204	775.920	2501.659	<.0001
Residual	16219	5030.523	.310		
Total	16229	12789.727			

Regression Coefficients
h Lang vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	-.079	.020	-.079	-4.012	<.0001
f Con	.112	.010	.100	11.461	<.0001
g Crit	.227	.010	.203	23.111	<.0001
i Int	.090	.008	.083	10.800	<.0001
j Qual	.201	.008	.192	24.205	<.0001
k Sch	.071	.008	.071	9.131	<.0001
l Atten	.126	.007	.152	19.028	<.0001
m Beh	.039	.008	.044	5.119	<.0001
n Resp	.010	.008	.010	1.199	.2305
o Conf	-.067	.010	-.066	-6.618	<.0001
p Regard	.188	.009	.196	21.215	<.0001

In this survey, reports by teachers for students' improved language skills were related at the p< .0001 level of confidence with results for measures of improved content knowledge and skills, improved critical thinking and problem solving, increased interest in the subject area, improved quality of work, increased interest in school, improved attendance, improved behavior, greater confidence as a learner, and higher self-regard. The only factor with no reliable relationship to improved language skills was increased responsibility for own learning. Correlations for improved language skills with other model variables follow:

Table 12: Correlation of Improved Language Skills with 10 Variables

Correlation Matrix

	h Lang	f Con	g Crit	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
h Lang	1.000	.608	.635	.589	.666	.615	.537	.542	.579	.600	.637
f Con	.608	1.000	.790	.682	.584	.549	.311	.348	.512	.582	.563
g Crit	.635	.790	1.000	.667	.603	.557	.344	.385	.551	.622	.554
i Int	.589	.682	.667	1.000	.612	.604	.331	.362	.505	.589	.556
j Qual	.666	.584	.603	.612	1.000	.676	.540	.580	.627	.624	.622
k Sch	.615	.549	.557	.604	.676	1.000	.558	.579	.623	.645	.622
l Atten	.537	.311	.344	.331	.540	.558	1.000	.766	.538	.485	.543
m Beh	.542	.348	.385	.362	.580	.579	.766	1.000	.642	.587	.602
n Resp	.579	.512	.551	.505	.627	.623	.538	.642	1.000	.760	.712
o Conf	.600	.582	.622	.589	.624	.645	.485	.587	.760	1.000	.815
p Regard	.637	.563	.554	.556	.622	.622	.543	.602	.712	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

4. Increased interest in the subject area

Measurement of interest in the subject area and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 3.150 (standard deviation = .837).

Further, the variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .590, F = 2340.519, with a confidence level of p< .0001.

In this survey, reports by teachers for students' improved interest in the subject area were related at the p< .0001 level of confidence with results for measures of improvement in all the other variables.

Table 13: Regression: Improved Interest in Subject Area vs. 10 Independents

Regression Summary
i Int vs. 10 Independents

Count	16230
Num. Missing	106
R	.769
R Squared	.591
Adjusted R Squared	.590
RMS Residual	.524

ANOVA Table
i Int vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	6419.105	641.910	2340.519	<.0001
Residual	16219	4448.220	.274		
Total	16229	10867.325			

Regression Coefficients
i Int vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.521	.018	.521	28.911	<.0001
f Con	.273	.009	.264	30.403	<.0001
g Crit	.173	.009	.168	18.603	<.0001
h Lang	.079	.007	.086	10.800	<.0001
j Qual	.160	.008	.165	20.346	<.0001
k Sch	.184	.007	.201	25.670	<.0001
l Atten	-.039	.006	-.052	-6.273	<.0001
m Beh	-.066	.007	-.082	-9.320	<.0001
n Resp	-.034	.008	-.038	-4.450	<.0001
o Conf	.105	.009	.113	11.087	<.0001
p Regard	.040	.008	.045	4.677	<.0001

Correlations of increased subject matter interest with other variables follow:

Table 14: Correlation of Increased Interest in Subject Area with 10 Variables

Correlation Matrix

	i Int	f Con	g Crit	h Lang	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
i Int	1.000	.682	.667	.589	.612	.604	.331	.362	.505	.589	.556
f Con	.682	1.000	.790	.608	.584	.549	.311	.348	.512	.582	.563
g Crit	.667	.790	1.000	.635	.603	.557	.344	.385	.551	.622	.554
h Lang	.589	.608	.635	1.000	.666	.615	.537	.542	.579	.600	.637
j Qual	.612	.584	.603	.666	1.000	.676	.540	.580	.627	.624	.622
k Sch	.604	.549	.557	.615	.676	1.000	.558	.579	.623	.645	.622
l Atten	.331	.311	.344	.537	.540	.558	1.000	.766	.538	.485	.543
m Beh	.362	.348	.385	.542	.580	.579	.766	1.000	.642	.587	.602
n Resp	.505	.512	.551	.579	.627	.623	.538	.642	1.000	.760	.712
o Conf	.589	.582	.622	.600	.624	.645	.485	.587	.760	1.000	.815
p Regard	.556	.563	.554	.637	.622	.622	.543	.602	.712	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

5. Improved quality of work

Measurement of quality of work and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.803 (standard deviation = .846). Further, the variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .626, F = 2721.970, with a confidence level of $p < .0001$.

Table 15: Regression: Improved Quality of Work vs. 10 Independents

Regression Summary
j Qual vs. 10 Independents

Count	16230
Num. Missing	106
R	.792
R Squared	.627
Adjusted R Squared	.626
RMS Residual	.517

ANOVA Table
j Qual vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	7265.445	726.544	2721.970	<.0001
Residual	16219	4329.152	.267		
Total	16229	11594.597			

Regression Coefficients
j Qual vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.118	.018	.118	6.488	<.0001
f Con	.063	.009	.059	6.912	<.0001
g Crit	.087	.009	.082	9.405	<.0001
h Lang	.173	.007	.182	24.205	<.0001
i Int	.156	.008	.151	20.346	<.0001
k Sch	.189	.007	.200	26.744	<.0001
l Atten	.054	.006	.068	8.649	<.0001
m Beh	.096	.007	.115	13.662	<.0001
n Resp	.101	.007	.111	13.561	<.0001
o Conf	-.002	.009	-.002	-.234	.8153
p Regard	.033	.008	.036	3.998	<.0001

In this survey, reports by teachers for students' improved quality of work were related at the p< .0001 level of confidence with results for measures of improvement in all the other variables except improved confidence as a learner. Perhaps students having higher quality work already have high confidence.

Correlations of improved quality of work with other variables follow:

Table 16: Correlation of Improved Quality of Work with 10 Variables

Correlation Matrix

	j Qual	f Con	g Crit	h Lang	i Int	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
j Qual	1.000	.584	.603	.666	.612	.676	.540	.580	.627	.624	.622
f Con	.584	1.000	.790	.608	.682	.549	.311	.348	.512	.582	.563
g Crit	.603	.790	1.000	.635	.667	.557	.344	.385	.551	.622	.554
h Lang	.666	.608	.635	1.000	.589	.615	.537	.542	.579	.600	.637
i Int	.612	.682	.667	.589	1.000	.604	.331	.362	.505	.589	.556
k Sch	.676	.549	.557	.615	.604	1.000	.558	.579	.623	.645	.622
l Atten	.540	.311	.344	.537	.331	.558	1.000	.766	.538	.485	.543
m Beh	.580	.348	.385	.542	.362	.579	.766	1.000	.642	.587	.602
n Resp	.627	.512	.551	.579	.505	.623	.538	.642	1.000	.760	.712
o Conf	.624	.582	.622	.600	.589	.645	.485	.587	.760	1.000	.815
p Regard	.622	.563	.554	.637	.556	.622	.543	.602	.712	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

6. Increased interest in school

Measurement of interest in school and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.841 (standard deviation = .894). Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .605, F = 2488.529, with a confidence level of p< .0001.

Table 17: Regression: Improved Interest in School vs. 10 Independents

Regression Summary
k Sch vs. 10 Independents

Count	16230
Num. Missing	106
R	.778
R Squared	.605
Adjusted R Squared	.605
RMS Residual	.562

ANOVA Table
k Sch vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	7855.388	785.539	2488.529	<.0001
Residual	16219	5119.753	.316		
Total	16229	12975.141			

Regression Coefficients
k Sch vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.082	.020	.082	4.147	<.0001
f Con	.057	.010	.051	5.795	<.0001
g Crit	-.006	.010	-.006	-.630	.5287
h Lang	.072	.008	.072	9.131	<.0001
i Int	.212	.008	.194	25.670	<.0001
j Qual	.223	.008	.211	26.744	<.0001
l Atten	.127	.007	.152	19.052	<.0001
m Beh	.063	.008	.071	8.190	<.0001
n Resp	.084	.008	.088	10.348	<.0001
o Conf	.141	.010	.139	13.914	<.0001
p Regard	.010	.009	.010	1.103	.2699

In this survey, reports by teachers for students' increased interest in school were related at the p< .0001 level of confidence with results for measures of improved content knowledge ,improvement in language, interest in the subject area, quality of work, improved attendance and behavior, increased responsibility for own learning, and improved confidence as a learner. Perhaps students having better critical thinking and problem solving skills and high self-regard already have high interest in school.

Correlations for improved interest in school and the other variables follow:

Table18: Correlation of Improved Interest in School with 10 Variables

Correlation Matrix

	k Sch	f Con	g Crit	h Lang	i Int	j Qual	l Atten	m Beh	n Resp	o Conf	p Regard
k Sch	1.000	.549	.557	.615	.604	.676	.558	.579	.623	.645	.622
f Con	.549	1.000	.790	.608	.682	.584	.311	.348	.512	.582	.563
g Crit	.557	.790	1.000	.635	.667	.603	.344	.385	.551	.622	.554
h Lang	.615	.608	.635	1.000	.589	.666	.537	.542	.579	.600	.637
i Int	.604	.682	.667	.589	1.000	.612	.331	.362	.505	.589	.556
j Qual	.676	.584	.603	.666	.612	1.000	.540	.580	.627	.624	.622
l Atten	.558	.311	.344	.537	.331	.540	1.000	.766	.538	.485	.543
m Beh	.579	.348	.385	.542	.362	.580	.766	1.000	.642	.587	.602
n Resp	.623	.512	.551	.579	.505	.627	.538	.642	1.000	.760	.712
o Conf	.645	.582	.622	.600	.589	.624	.485	.587	.760	1.000	.815
p Regard	.622	.563	.554	.637	.556	.622	.543	.602	.712	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

7. Improved attendance

       Measurement of attendance and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.330 (standard deviation = 1.070). Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .627, F = 2728.702, with a confidence level of p< .0001.

Table 19: Regression: Improved Attendance vs. 10 Independents

Regression Summary
I Atten vs. 10 Independents

Count	16230
Num. Missing	106
R	.792
R Squared	.627
Adjusted R Squared	.627
RMS Residual	.653

ANOVA Table
I Atten vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	11632.162	1163.216	2728.702	<.0001
Residual	16219	6913.985	.426		
Total	16229	18546.147			

Regression Coefficients
l Atten vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.117	.023	.117	5.071	<.0001
f Con	-.080	.012	-.059	-6.922	<.0001
g Crit	-.024	.012	-.018	-2.087	.0369
h Lang	.173	.009	.144	19.028	<.0001
i Int	-.061	.010	-.047	-6.273	<.0001
j Qual	.086	.010	.068	8.649	<.0001
k Sch	.172	.009	.144	19.052	<.0001
m Beh	.637	.007	.607	86.701	<.0001
n Resp	.002	.009	.002	.230	.8183
o Conf	-.140	.012	-.116	-11.882	<.0001
p Regard	.135	.011	.116	12.830	<.0001

In this survey, reports by teachers for students' increased interest in school were related at the $p < .0001$ level of confidence with results for measures of improvement in content knowledge, improved language, improved interest in school, improved behavior, improved confidence as a learner, and higher self-regard, and at the $p < .04$ level for critical thinking.

Correlations for improved attendance are:

Table 20: Correlation of Increased Attendance at School with 10 Variables

Correlation Matrix

	l Atten	f Con	g Crit	h Lang	i Int	j Qual	k Sch	m Beh	n Resp	o Conf	p Regard
l Atten	1.000	.311	.344	.537	.331	.540	.558	.766	.538	.485	.543
f Con	.311	1.000	.790	.608	.682	.584	.549	.348	.512	.582	.563
g Crit	.344	.790	1.000	.635	.667	.603	.557	.385	.551	.622	.554
h Lang	.537	.608	.635	1.000	.589	.666	.615	.542	.579	.600	.637
i Int	.331	.682	.667	.589	1.000	.612	.604	.362	.505	.589	.556
j Qual	.540	.584	.603	.666	.612	1.000	.676	.580	.627	.624	.622
k Sch	.558	.549	.557	.615	.604	.676	1.000	.579	.623	.645	.622
m Beh	.766	.348	.385	.542	.362	.580	.579	1.000	.642	.587	.602
n Resp	.538	.512	.551	.579	.505	.627	.623	.642	1.000	.760	.712
o Conf	.485	.582	.622	.600	.589	.624	.645	.587	.760	1.000	.815
p Regard	.543	.563	.554	.637	.556	.622	.622	.602	.712	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

8. Improved behavior

Measurement of behavior and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.415 (standard deviation = 1.019).

Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .679, F = 3436.356, with a confidence level of p< .0001.

Table 21: Regression: Improved Behavior vs. 10 Independents

Regression Summary
m Beh vs. 10 Independents

Count	16230
Num. Missing	106
R	.824
R Squared	.679
Adjusted R Squared	.679
RMS Residual	.577

ANOVA Table
m Beh vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	11436.425	1143.643	3436.356	<.0001
Residual	16219	5397.793	.333		
Total	16229	16834.218			

Regression Coefficients
m Beh vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.086	.020	.086	4.226	<.0001
f Con	-.066	.010	-.051	-6.480	<.0001
g Crit	-.038	.010	-.030	-3.705	.0002
h Lang	.042	.008	.036	5.119	<.0001
i Int	-.080	.009	-.065	-9.320	<.0001
j Qual	.119	.009	.099	13.662	<.0001
k Sch	.066	.008	.058	8.190	<.0001
l Atten	.497	.006	.522	86.701	<.0001
n Resp	.221	.008	.202	27.023	<.0001
o Conf	.121	.010	.105	11.652	<.0001
p Regard	.055	.009	.050	5.908	<.0001

In this survey, reports by teachers for students' increased improvements in behavior l were related at the p< .0001 level of confidence with results for measures of improvement in all areas except improvements in critical thinking and problem solving, and it was at the p=.0002 level.

Correlations for behavior are:

Table 22: Correlation of Improved Behavior with 10 Variables

Correlation Matrix

	m Beh	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	n Resp	o Conf	p Regard
m Beh	1.000	.348	.385	.542	.362	.580	.579	.766	.642	.587	.602
f Con	.348	1.000	.790	.608	.682	.584	.549	.311	.512	.582	.563
g Crit	.385	.790	1.000	.635	.667	.603	.557	.344	.551	.622	.554
h Lang	.542	.608	.635	1.000	.589	.666	.615	.537	.579	.600	.637
i Int	.362	.682	.667	.589	1.000	.612	.604	.331	.505	.589	.556
j Qual	.580	.584	.603	.666	.612	1.000	.676	.540	.627	.624	.622
k Sch	.579	.549	.557	.615	.604	.676	1.000	.558	.623	.645	.622
l Atten	.766	.311	.344	.537	.331	.540	.558	1.000	.538	.485	.543
n Resp	.642	.512	.551	.579	.505	.627	.623	.538	1.000	.760	.712
o Conf	.587	.582	.622	.600	.589	.624	.645	.485	.760	1.000	.815
p Regard	.602	.563	.554	.637	.556	.622	.622	.543	.712	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

9. Takes responsibility for own learning

      Measurement of responsibility for own learning and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.736 (standard deviation = .932). Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .662, F = 3177.707, with a confidence level of p< .0001.

Table 23: Regression: Greater Responsibility for Own Learning vs. 10 Independents

Regression Summary
n Resp vs. 10 Independents

Count	16230
Num. Missing	106
R	.814
R Squared	.662
Adjusted R Squared	.662
RMS Residual	.542

ANOVA Table
n Resp vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	9331.642	933.164	3177.707	<.0001
Residual	16219	4762.866	.294		
Total	16229	14094.509			

Regression Coefficients
n Resp vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.026	.019	.026	1.374	.1694
f Con	.003	.010	.003	.310	.7569
g Crit	.078	.010	.066	7.995	<.0001
h Lang	.009	.008	.009	1.199	.2305
i Int	-.036	.008	-.032	-4.450	<.0001
j Qual	.111	.008	.101	13.561	<.0001
k Sch	.078	.008	.075	10.348	<.0001
l Atten	.001	.007	.002	.230	.8183
m Beh	.195	.007	.213	27.023	<.0001
o Conf	.405	.009	.383	43.607	<.0001
p Regard	.136	.009	.135	15.687	<.0001

In this survey, reports by teachers for students' increased responsibility for own learning were related at the p< .0001 level of confidence with results for measures of improvement in critical thinking, interest in subject matter, quality of work, increased interest in school, improved behavior, confidence as a learner, and self-regard. No predictive relationship was shown with language skills or attendance.

Correlations for responsibility for own learning are:

Table 24: Correlation of Increased Responsibility for Own Learning with 10 Variables

Correlation Matrix

	n Resp	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	o Conf	p Regard
n Resp	1.000	.512	.551	.579	.505	.627	.623	.538	.642	.760	.712
f Con	.512	1.000	.790	.608	.682	.584	.549	.311	.348	.582	.563
g Crit	.551	.790	1.000	.635	.667	.603	.557	.344	.385	.622	.554
h Lang	.579	.608	.635	1.000	.589	.666	.615	.537	.542	.600	.637
i Int	.505	.682	.667	.589	1.000	.612	.604	.331	.362	.589	.556
j Qual	.627	.584	.603	.666	.612	1.000	.676	.540	.580	.624	.622
k Sch	.623	.549	.557	.615	.604	.676	1.000	.558	.579	.645	.622
l Atten	.538	.311	.344	.537	.331	.540	.558	1.000	.766	.485	.543
m Beh	.642	.348	.385	.542	.362	.580	.579	.766	1.000	.587	.602
o Conf	.760	.582	.622	.600	.589	.624	.645	.485	.587	1.000	.815
p Regard	.712	.563	.554	.637	.556	.622	.622	.543	.602	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

10. Greater confidence as learner

Measurement of responsibility for own learning and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.872 (standard deviation = .883). Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .759, F = 5104.294, with a confidence level of p< .0001.

Table 25: Regression: Greater Confidence as Learner vs. 10 Independents

Regression Summary
o Conf vs. 10 Independents

Count	16230
Num. Missing	106
R	.871
R Squared	.759
Adjusted R Squared	.759
RMS Residual	.434

ANOVA Table
o Conf vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	9611.132	961.113	5104.294	<.0001
Residual	16219	3053.957	.188		
Total	16229	12665.089			

Regression Coefficients
o Conf vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.058	.015	.058	3.821	.0001
f Con	-.017	.008	-.016	-2.274	.0230
g Crit	.167	.008	.150	21.791	<.0001
h Lang	-.040	.006	-.041	-6.618	<.0001
i Int	.072	.006	.067	11.087	<.0001
j Qual	-.002	.007	-.001	-.234	.8153
k Sch	.084	.006	.085	13.914	<.0001
l Atten	-.062	.005	-.075	-11.882	<.0001
m Beh	.069	.006	.079	11.652	<.0001
n Resp	.259	.006	.274	43.607	<.0001
p Regard	.455	.006	.476	75.354	<.0001

In this survey, reports by teachers for students' increased confidence as a learner were related at the p< .0001 level of confidence with results for measures of improvement in all the variables except content knowledge and quality of work, though improved content knowledge was significant an the p<.03 level. There is the possibility that students exhibiting high scores in these variables already have high confidence as a learner. Correlations for higher confidence as a learner follow:

Table 26: Correlations: Higher Confidence as a Learner vs. 10 Variables

Correlation Matrix

	o Conf	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	p Regard
o Conf	1.000	.582	.622	.600	.589	.624	.645	.485	.587	.760	.815
f Con	.582	1.000	.790	.608	.682	.584	.549	.311	.348	.512	.563
g Crit	.622	.790	1.000	.635	.667	.603	.557	.344	.385	.551	.554
h Lang	.600	.608	.635	1.000	.589	.666	.615	.537	.542	.579	.637
i Int	.589	.682	.667	.589	1.000	.612	.604	.331	.362	.505	.556
j Qual	.624	.584	.603	.666	.612	1.000	.676	.540	.580	.627	.622
k Sch	.645	.549	.557	.615	.604	.676	1.000	.558	.579	.623	.622
l Atten	.485	.311	.344	.537	.331	.540	.558	1.000	.766	.538	.543
m Beh	.587	.348	.385	.542	.362	.580	.579	.766	1.000	.642	.602
n Resp	.760	.512	.551	.579	.505	.627	.623	.538	.642	1.000	.712
p Regard	.815	.563	.554	.637	.556	.622	.622	.543	.602	.712	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

11. Higher self-regard

Measurement of higher self-regard and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.802 (standard deviation = .923). Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .724, F = 4248.742, with a confidence level of p< .0001.

Table 27: Regression: Higher Self-Regard vs. 10 Independents

Regression Summary
p Regard vs. 10 Independents

Count	16230
Num. Missing	106
R	.851
R Squared	.724
Adjusted R Squared	.724
RMS Residual	.485

ANOVA Table
p Regard vs. 10 Independents

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	10014.531	1001.453	4248.742	<.0001
Residual	16219	3822.912	.236		
Total	16229	13837.444			

Regression Coefficients
p Regard vs. 10 Independents

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	-.015	.017	-.015	-.866	.3867
f Con	.123	.009	.105	14.403	<.0001
g Crit	-.120	.009	-.103	-13.840	<.0001
h Lang	.143	.007	.138	21.215	<.0001
i Int	.034	.007	.030	4.677	<.0001
j Qual	.029	.007	.027	3.998	<.0001
k Sch	.007	.007	.007	1.103	.2699
l Atten	.075	.006	.086	12.830	<.0001
m Beh	.039	.007	.043	5.908	<.0001
n Resp	.110	.007	.111	15.687	<.0001
o Conf	.570	.008	.545	75.354	<.0001

In this survey, reports by teachers for students' increased confidence as a learner were related at the $p < .0001$ level of confidence with results for measures of improvement in all the variables except increased interest in school. Possibly students exhibiting high scores in these variables already have high self-regard without further improvement of interest in school. Correlations for higher self-regard are:

Table 28: Correlation of Higher Self-Regard with 10 Variables

Correlation Matrix

	p Regard	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf
p Regard	1.000	.563	.554	.637	.556	.622	.622	.543	.602	.712	.815
f Con	.563	1.000	.790	.608	.682	.584	.549	.311	.348	.512	.582
g Crit	.554	.790	1.000	.635	.667	.603	.557	.344	.385	.551	.622
h Lang	.637	.608	.635	1.000	.589	.666	.615	.537	.542	.579	.600
i Int	.556	.682	.667	.589	1.000	.612	.604	.331	.362	.505	.589
j Qual	.622	.584	.603	.666	.612	1.000	.676	.540	.580	.627	.624
k Sch	.622	.549	.557	.615	.604	.676	1.000	.558	.579	.623	.645
l Atten	.543	.311	.344	.537	.331	.540	.558	1.000	.766	.538	.485
m Beh	.602	.348	.385	.542	.362	.580	.579	.766	1.000	.642	.587
n Resp	.712	.512	.551	.579	.505	.627	.623	.538	.642	1.000	.760
o Conf	.815	.582	.622	.600	.589	.624	.645	.485	.587	.760	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

Student Demographics

1. Female or male

There are no statistically predictive relationships between gender and these variables to report, although the following correlation matrix reveals a consistent series of slightly negative correlations between being male and having scores reporting improvement in the categories. This might also relate to well-known studies of teacher attitudes toward male children.

2. Correlations of demographics with overall scores

The following table displays correlation statistics for the student demographic data with the eleven variables. Due to the fact that the input is not disaggregated by demographic category, no conclusions can be drawn from the results in this format. Following sections of this report disaggregate and analyze the data by demographic category.

Table 29: Correlation of Gender with 10 Variables

Correlation Matrix

	a F/M	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
a F/M	1.000	-.048	-.041	-.046	-.030	-.061	-.020	-.027	-.034	-.071	-.050	-.059
f Con	-.048	1.000	.790	.608	.682	.584	.549	.311	.348	.512	.582	.563
g Crit	-.041	.790	1.000	.635	.667	.603	.557	.344	.385	.551	.622	.554
h Lang	-.046	.608	.635	1.000	.589	.666	.615	.537	.542	.579	.600	.637
i Int	-.030	.682	.667	.589	1.000	.612	.604	.331	.362	.505	.589	.556
j Qual	-.061	.584	.603	.666	.612	1.000	.676	.540	.580	.627	.624	.622
k Sch	-.020	.549	.557	.615	.604	.676	1.000	.558	.579	.623	.645	.622
l Atten	-.027	.311	.344	.537	.331	.540	.558	1.000	.766	.538	.485	.543
m Beh	-.034	.348	.385	.542	.362	.580	.579	.766	1.000	.642	.587	.602
n Resp	-.071	.512	.551	.579	.505	.627	.623	.538	.642	1.000	.760	.712
o Conf	-.050	.582	.622	.600	.589	.624	.645	.485	.587	.760	1.000	.815
p Regard	-.059	.563	.554	.637	.556	.622	.622	.543	.602	.712	.815	1.000

16230 observations were used in this computation.
106 cases were omitted due to missing values.

Title 1 Student Demographics and Results

By disaggregating the input statistics, results for students classified as Title 1 by their teachers may be analyzed and relationships observed that might otherwise be lost in the mass of data for all students. Such relationships may be analyzed to determine if they are similar to, less than, or greater than those for the population as a whole. The Title 1 student population is slightly more male (51.5percent) than the population as a whole (50.5percent). Approximately one-third of the Title 1 population was LEP, 3.9percent Gifted, and 7.2percent Special Education. The demographics for the Title 1 students follow:

Table 30: Demographics of Title 1 Students

Descriptive Statistics
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Mean	Count	# Missing
a F/M	.511	5650	0
c LEP	.333	5605	45
d Gifted	.039	5649	1
e SpEd	.072	5649	1

Mean values reported for each qualitative variable were:

Table 31: Descriptive Statistics of Title 1 Students

Descriptive Statistics
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Mean	Std. Dev.	Std. Error	Count	Minimum	Maximum	# Missing	Mode
f Con	3.031	.829	.011	5643	1.000	4.000	7	3.000
g Crit	2.987	.837	.011	5643	1.000	4.000	7	3.000
h Lang	2.864	.875	.012	5647	1.000	4.000	3	3.000
i Int	3.171	.834	.011	5647	1.000	4.000	3	4.000
j Qual	2.853	.822	.011	5629	1.000	4.000	21	3.000
k Sch	2.939	.882	.012	5628	1.000	4.000	22	3.000
l Atten	2.521	1.077	.014	5599	1.000	4.000	51	3.000
m Beh	2.505	1.030	.014	5596	1.000	4.000	54	3.000
n Resp	2.743	.914	.012	5614	1.000	4.000	36	3.000
o Conf	2.876	.888	.012	5600	1.000	4.000	50	3.000
p Regard	2.830	.914	.012	5600	1.000	4.000	50	3.000

Using a median score in the range of 2.50 to 3.49 equating to a scaled response of 3, the conclusion is that these teachers report improvement in all areas to be related to the TEAMS programming. This is in contrast to the aggregated population, where attendance and behavior improvement did not rise to that level.

Title 1 Student Attitudes and Behaviors

1. Improved content knowledge and skills

Measurement of content knowledge/skills and the degree of growth for the Title 1 students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 3.031 (standard deviation = .829), equivalent to the disaggregated population. Further, the variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .720, F = 1440.641, with a confidence level of p< .0001., all similar to the aggregated data.

Table 32: Regression: Improved Content Knowledge/Skills vs. 10 Independents

Regression Summary
f Con vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.849
R Squared	.721
Adjusted R Squared	.720
RMS Residual	.439

ANOVA Table
f Con vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	2774.638	277.464	1440.641	<.0001
Residual	5585	1075.657	.193		
Total	5595	3850.294			

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Regression Coefficients
f Con vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only
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	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.209	.025	.209	8.294	<.0001
g Crit	.526	.011	.531	45.707	<.0001
h Lang	.066	.011	.069	5.898	<.0001
i Int	.231	.011	.232	21.047	<.0001
j Qual	.049	.012	.049	3.966	<.0001
k Sch	.018	.011	.020	1.644	.1002
l Atten	-.042	.009	-.054	-4.412	<.0001
m Beh	-.014	.010	-.018	-1.415	.1572
n Resp	.004	.012	.004	.300	.7645
o Conf	-.025	.014	-.027	-1.856	.0635
p Regard	.121	.013	.133	9.463	<.0001

In this survey, teachers' reports of students' improved content knowledge and skills were related at the p< .0001 level of confidence with results for measures of improved critical thinking and problem solving, improved language skills, increased interest in the subject area, improved quality of work, improved attendance, and higher self-regard. Additionally, a relationship existed at the p=.1 level for increased interest in school, and for greater confidence as a learner. This is in contrast to the disaggregated population where there was less relationship with increase in self-regard, but more relationship with increase in improved behavior and confidence as a learner..

From the above table it should be noted that standardized coefficients for the variables of improved attendance, improved behavior, and greater confidence as a learner were somewhat negative as compared to reported improvement in content knowledge and skills. While the data are silent on this phenomenon, a reasonable supposition could be that students doing well in content knowledge and skills are already students with better attendance, behavior, and confidence. Put differently, students showing improvement in the areas of improved attendance, behavior and greater confidence as a learner might not yet show large gains in content knowledge and skills.

Correlations between reported scores for greater content knowledge/skills and the other variables in the model are higher for Title 1 students, as follows:

Table 33: Correlation of Greater Content Knowledge/Skills with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
f Con	1.000	.811	.662	.711	.647	.599	.394	.392	.557	.599	.591
g Crit	.811	1.000	.691	.673	.667	.613	.413	.411	.585	.630	.568
h Lang	.662	.691	1.000	.633	.711	.637	.547	.495	.579	.583	.627
i Int	.711	.673	.633	1.000	.660	.651	.417	.387	.522	.584	.568
j Qual	.647	.667	.711	.660	1.000	.691	.583	.565	.632	.617	.632
k Sch	.599	.613	.637	.651	.691	1.000	.624	.575	.623	.661	.635
l Atten	.394	.413	.547	.417	.583	.624	1.000	.773	.567	.520	.594
m Beh	.392	.411	.495	.387	.565	.575	.773	1.000	.663	.611	.640
n Resp	.557	.585	.579	.522	.632	.623	.567	.663	1.000	.781	.768
o Conf	.599	.630	.583	.584	.617	.661	.520	.611	.781	1.000	.818
p Regard	.591	.568	.627	.568	.632	.635	.594	.640	.768	.818	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

2. Improved critical thinking and problem solving

Measurement of critical thinking/problem solving and the degree of growth for the Title 1 students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.987 (standard deviation = .837), equivalent to the aggregated population. Further, the variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .729, F = 1509.797, with a confidence level of p< .0001.

Table 34: Regression: Improved Critical Thinking Skills vs. 10 Independents

Regression Summary
g Crit vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.854
R Squared	.730
Adjusted R Squared	.729
RMS Residual	.436

ANOVA Table
g Crit vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	2865.916	286.592	1509.797	<.0001
Residual	5585	1060.152	.190		
Total	5595	3926.067			

Regression Coefficients
g Crit vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.120	.025	.120	4.798	<.0001
f Con	.518	.011	.513	45.707	<.0001
h Lang	.185	.011	.193	17.082	<.0001
i Int	.055	.011	.055	4.915	<.0001
j Qual	.103	.012	.100	8.388	<.0001
k Sch	.031	.011	.033	2.839	.0045
l Atten	-.015	.009	-.019	-1.594	.1111
m Beh	-.034	.010	-.042	-3.351	.0008
n Resp	.073	.012	.079	6.233	<.0001
o Conf	.181	.013	.192	13.693	<.0001
p Regard	-.139	.013	-.151	-10.985	<.0001

In this survey, reports by teachers for students' improved critical thinking and problem solving were related at the p< .0001 level of confidence with results for measures of improved content knowledge and skills, improved language skills, increased interest in the subject area, improved quality of work, taking responsibility for own learning, greater confidence as a learner, and higher self-regard. Additionally, relationships existed at p<.001 level for improved behavior, at the p<.005 level for increased interest in school (all better than the aggregated population), and at only the p=.1 level for improved attendance (worse than the aggregated population).

For this variable of reported improved critical thinking and problem solving, slightly negative standardized coefficients are derived for the variables of improved attendance, improved behavior, and higher self-regard. Once more, as a supposition, this might be resulting from improvements in critical thinking for those who need little improvement in their behavior, attendance, or self-regard. Correlations between reported scores for greater critical thinking/problem solving and the other variables are higher than the disaggregated population for greater content knowledge and skills, improved language, greater interest in the subject matter, equivalent for greater interest in school, and lower for the rest, as follows:

Table 35: Correlation of Improved Critical Thinking Skills with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	g Crit	f Con	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
g Crit	1.000	.811	.691	.673	.667	.613	.413	.411	.585	.630	.568
f Con	.811	1.000	.662	.711	.647	.599	.394	.392	.557	.599	.591
h Lang	.691	.662	1.000	.633	.711	.637	.547	.495	.579	.583	.627
i Int	.673	.711	.633	1.000	.660	.651	.417	.387	.522	.584	.568
j Qual	.667	.647	.711	.660	1.000	.691	.583	.565	.632	.617	.632
k Sch	.613	.599	.637	.651	.691	1.000	.624	.575	.623	.661	.635
l Atten	.413	.394	.547	.417	.583	.624	1.000	.773	.567	.520	.594
m Beh	.411	.392	.495	.387	.565	.575	.773	1.000	.663	.611	.640
n Resp	.585	.557	.579	.522	.632	.623	.567	.663	1.000	.781	.768
o Conf	.630	.599	.583	.584	.617	.661	.520	.611	.781	1.000	.818
p Regard	.568	.591	.627	.568	.632	.635	.594	.640	.768	.818	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

3. Improved language skills

Measurement of language skills and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.864 (standard deviation = .875), better than the aggregated population. Further, the variability in this variable was accounted for by the other measures in the model at an adjusted R squared value of .607, F = 2501.659, with a confidence level of p< .0001.

Table 36: Regression: Improved Language Skills vs. 10 Independents

Regression Summary
h Lang vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.800
R Squared	.640
Adjusted R Squared	.639
RMS Residual	.525

ANOVA Table
h Lang vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	2729.892	272.989	991.353	<.0001
Residual	5585	1537.944	.275		
Total	5595	4267.836			

Regression Coefficients
h Lang vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.062	.030	.062	2.064	.0391
f Con	.094	.016	.089	5.898	<.0001
g Crit	.268	.016	.257	17.082	<.0001
i Int	.089	.014	.085	6.561	<.0001
j Qual	.267	.014	.251	18.543	<.0001
k Sch	.067	.013	.068	5.014	<.0001
l Atten	.115	.011	.142	10.285	<.0001
m Beh	-.031	.012	-.036	-2.535	.0113
n Resp	.004	.014	.004	.253	.8005
o Conf	-.092	.016	-.093	-5.679	<.0001
p Regard	.182	.015	.191	12.002	<.0001

In this survey, reports by teachers for students' improved language skills were related at the p< .0001 level of confidence with results for measures of improved content knowledge and skills, improved critical thinking and problem solving, increased interest in the subject area, improved quality of work, increased interest in school, improved attendance, greater confidence as a learner, and higher self-regard (similar to the aggregated population), and at the p=.0113 level for improved behavior (less related than the aggregated population). The only factor with no reliable relationship to improved language skills was increased responsibility for own learning. Correlations for improved language skills with other model variables show greater correlations for improvements for the Title 1 students for all areas except behavior, greater confidence as a learner, and responsibility for own learning, as follows:

Table 37: Correlation of Improved Language Skills with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	h Lang	f Con	g Crit	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
h Lang	1.000	.662	.691	.633	.711	.637	.547	.495	.579	.583	.627
f Con	.662	1.000	.811	.711	.647	.599	.394	.392	.557	.599	.591
g Crit	.691	.811	1.000	.673	.667	.613	.413	.411	.585	.630	.568
i Int	.633	.711	.673	1.000	.660	.651	.417	.387	.522	.584	.568
j Qual	.711	.647	.667	.660	1.000	.691	.583	.565	.632	.617	.632
k Sch	.637	.599	.613	.651	.691	1.000	.624	.575	.623	.661	.635
l Atten	.547	.394	.413	.417	.583	.624	1.000	.773	.567	.520	.594
m Beh	.495	.392	.411	.387	.565	.575	.773	1.000	.663	.611	.640
n Resp	.579	.557	.585	.522	.632	.623	.567	.663	1.000	.781	.768
o Conf	.583	.599	.630	.584	.617	.661	.520	.611	.781	1.000	.818
p Regard	.627	.591	.568	.568	.632	.635	.594	.640	.768	.818	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

4. Increased interest in the subject area

Measurement of interest in the subject area and the degree of growth for the Title 1 students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 3.171 (standard deviation = .834), equivalent to the disaggregated population. Further, the variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .619, F = 910.734, with a confidence level of p< .0001.

Unlike the disaggregated population where results were related at the p<.0001 level for all variables, in this survey, reports by teachers for Title 1 students' improved interest in the subject area were related at the p< .0001 level of confidence with results for measures of improvement in seven of the 11 variables, at p<.001 for two variables, and at p<.1 for one variable.

Table 38: Regression: Improved Interest in Subject Area vs. 10 Independents

Regression Summary
i Int vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.787
R Squared	.620
Adjusted R Squared	.619
RMS Residual	.516

ANOVA Table
i Int vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	2422.934	242.293	910.734	<.0001
Residual	5585	1485.843	.266		
Total	5595	3908.777			

Regression Coefficients
i Int vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.516	.029	.516	17.814	<.0001
f Con	.319	.015	.316	21.047	<.0001
g Crit	.078	.016	.078	4.915	<.0001
h Lang	.086	.013	.090	6.561	<.0001
j Qual	.191	.014	.187	13.315	<.0001
k Sch	.222	.013	.235	17.391	<.0001
l Atten	-.018	.011	-.024	-1.659	.0972
m Beh	-.071	.012	-.088	-5.982	<.0001
n Resp	-.049	.014	-.053	-3.510	.0005
o Conf	.078	.016	.083	4.926	<.0001
p Regard	.052	.015	.057	3.426	.0006

Correlations of increased subject matter interest with other variables such as increased content knowledge, improved language, quality of work, greater interest in school, improved attendance, improved behavior, and greater responsibility for own learning, are higher for Title 1 students, while other variables are similar, as follows:

Table 39: Correlation of Increased Interest in Subject Area with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	i Int	f Con	g Crit	h Lang	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
i Int	1.000	.711	.673	.633	.660	.651	.417	.387	.522	.584	.568
f Con	.711	1.000	.811	.662	.647	.599	.394	.392	.557	.599	.591
g Crit	.673	.811	1.000	.691	.667	.613	.413	.411	.585	.630	.568
h Lang	.633	.662	.691	1.000	.711	.637	.547	.495	.579	.583	.627
j Qual	.660	.647	.667	.711	1.000	.691	.583	.565	.632	.617	.632
k Sch	.651	.599	.613	.637	.691	1.000	.624	.575	.623	.661	.635
l Atten	.417	.394	.413	.547	.583	.624	1.000	.773	.567	.520	.594
m Beh	.387	.392	.411	.495	.565	.575	.773	1.000	.663	.611	.640
n Resp	.522	.557	.585	.579	.632	.623	.567	.663	1.000	.781	.768
o Conf	.584	.599	.630	.583	.617	.661	.520	.611	.781	1.000	.818
p Regard	.568	.591	.568	.627	.632	.635	.594	.640	.768	.818	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

5. Improved quality of work

Measurement of quality of work and the degree of growth for the Title 1 students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.853 (standard deviation = .822), equivalent to the disaggregated population. Further, the variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .667, F = 1119.725, with a confidence level of p< .0001.

Table 40: Regression: Improved Quality of Work vs. 10 Independents

Regression Summary
j Qual vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.817
R Squared	.667
Adjusted R Squared	.667
RMS Residual	.474

ANOVA Table
j Qual vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	2511.152	251.115	1119.725	<.0001
Residual	5585	1252.520	.224		
Total	5595	3763.672			

Regression Coefficients
j Qual vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.164	.027	.164	6.036	<.0001
f Con	.057	.014	.058	3.966	<.0001
g Crit	.121	.014	.124	8.388	<.0001
h Lang	.217	.012	.231	18.543	<.0001
i Int	.161	.012	.164	13.315	<.0001
k Sch	.151	.012	.163	12.689	<.0001
l Atten	.069	.010	.091	6.778	<.0001
m Beh	.068	.011	.085	6.187	<.0001
n Resp	.098	.013	.109	7.722	<.0001
o Conf	-.035	.015	-.038	-2.378	.0174
p Regard	.022	.014	.024	1.576	.1151

In this survey, reports by teachers for Title 1 students' improved quality of work were similarly related at the p< .0001 level of confidence with results for measures of improvement in all the other variables and except for p<.02 for improved confidence as a learner, but less related at p=.1151 for higher self-regard.

Correlations of improved quality of work with other variables for Title 1 students were much more related for improved content knowledge, critical thinking, improved language skills, interest in the subject area, interest in school, and improved attendance, while similar for other variables, as follows:

Table 41: Correlation of Improved Quality of Work with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	j Qual	f Con	g Crit	h Lang	i Int	k Sch	l Atten	m Beh	n Resp	o Conf	p Regard
j Qual	1.000	.647	.667	.711	.660	.691	.583	.565	.632	.617	.632
f Con	.647	1.000	.811	.662	.711	.599	.394	.392	.557	.599	.591
g Crit	.667	.811	1.000	.691	.673	.613	.413	.411	.585	.630	.568
h Lang	.711	.662	.691	1.000	.633	.637	.547	.495	.579	.583	.627
i Int	.660	.711	.673	.633	1.000	.651	.417	.387	.522	.584	.568
k Sch	.691	.599	.613	.637	.651	1.000	.624	.575	.623	.661	.635
l Atten	.583	.394	.413	.547	.417	.624	1.000	.773	.567	.520	.594
m Beh	.565	.392	.411	.495	.387	.575	.773	1.000	.663	.611	.640
n Resp	.632	.557	.585	.579	.522	.623	.567	.663	1.000	.781	.768
o Conf	.617	.599	.630	.583	.584	.661	.520	.611	.781	1.000	.818
p Regard	.632	.591	.568	.627	.568	.635	.594	.640	.768	.818	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

6. Increased interest in school

Measurement of interest in school and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.939 (standard deviation = .882), equivalent to the aggregated population. Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .646, F = 1023.399, with a confidence level of p< .0001.

Table 42: Regression: Improved Interest in School vs. 10 Independents

Regression Summary
k Sch vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.804
R Squared	.647
Adjusted R Squared	.646
RMS Residual	.526

ANOVA Table
k Sch vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	2830.440	283.044	1023.399	<.0001
Residual	5585	1544.658	.277		
Total	5595	4375.099			

Regression Coefficients
k Sch vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.125	.030	.125	4.139	<.0001
f Con	.026	.016	.025	1.644	.1002
g Crit	.046	.016	.043	2.839	.0045
h Lang	.067	.013	.066	5.014	<.0001
i Int	.231	.013	.218	17.391	<.0001
j Qual	.186	.015	.172	12.689	<.0001
l Atten	.209	.011	.255	19.000	<.0001
m Beh	.004	.012	.005	.346	.7293
n Resp	.036	.014	.037	2.517	.0119
o Conf	.208	.016	.209	13.031	<.0001
p Regard	-.032	.015	-.033	-2.055	.0399

In this survey, reports by teachers for students' increased interest in school were related at the $p < .0001$ level of confidence with results for measures of improvement in language, interest in the subject area, quality of work, improved attendance and behavior, increased responsibility for own learning, and improved confidence as a learner, with improved content knowledge at $p = .1$, and critical thinking at $p < .01$, unlike the aggregated population, where these were at $p < .0001$.

Correlations for improved interest in school for Title 1 students were more closely correlated than the aggregated population in the following areas: improved attendance, improved quality of work, interest in the subject area, improved language, improved critical thinking and problem solving, and increased content area knowledge and skills. They were similar in the other measures, as follows:

Table 43: Correlation of Improved Interest in School with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	k Sch	f Con	g Crit	h Lang	i Int	j Qual	l Atten	m Beh	n Resp	o Conf	p Regard
k Sch	1.000	.599	.613	.637	.651	.691	.624	.575	.623	.661	.635
f Con	.599	1.000	.811	.662	.711	.647	.394	.392	.557	.599	.591
g Crit	.613	.811	1.000	.691	.673	.667	.413	.411	.585	.630	.568
h Lang	.637	.662	.691	1.000	.633	.711	.547	.495	.579	.583	.627
i Int	.651	.711	.673	.633	1.000	.660	.417	.387	.522	.584	.568
j Qual	.691	.647	.667	.711	.660	1.000	.583	.565	.632	.617	.632
l Atten	.624	.394	.413	.547	.417	.583	1.000	.773	.567	.520	.594
m Beh	.575	.392	.411	.495	.387	.565	.773	1.000	.663	.611	.640
n Resp	.623	.557	.585	.579	.522	.632	.567	.663	1.000	.781	.768
o Conf	.661	.599	.630	.583	.584	.617	.520	.611	.781	1.000	.818
p Regard	.635	.591	.568	.627	.568	.632	.594	.640	.768	.818	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

7. Improved attendance

Measurement of attendance and the degree of growth for the Title 1 students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.521 (standard deviation = 1.027), higher than for the aggregated population. Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .669, F = 1130.297, with a confidence level of $p< .0001$.

Table 44: Regression: Improved Attendance vs. 10 Independents

Regression Summary
I Atten vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.818
R Squared	.669
Adjusted R Squared	.669
RMS Residual	.619

ANOVA Table
I Atten vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	4337.263	433.726	1130.297	<.0001
Residual	5585	2143.120	.384		
Total	5595	6480.384			

Regression Coefficients
l Atten vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	-.072	.036	-.072	-2.009	.0446
f Con	-.083	.019	-.064	-4.412	<.0001
g Crit	-.030	.019	-.024	-1.594	.1111
h Lang	.161	.016	.131	10.285	<.0001
i Int	-.027	.016	-.021	-1.659	.0972
j Qual	.118	.017	.090	6.778	<.0001
k Sch	.290	.015	.238	19.000	<.0001
m Beh	.614	.012	.587	52.109	<.0001
n Resp	-.036	.017	-.031	-2.180	.0293
o Conf	-.189	.019	-.156	-10.005	<.0001
p Regard	.168	.018	.143	9.344	<.0001

In this survey, reports by teachers for students' increased interest in school were related at the p< .0001 level of confidence with results for measures of improvement in content knowledge, improved language, improved interest in school, improved behavior, and improved confidence as a learner, as was the aggregated population. The Title 1 students' scores for improved quality of work were related at the p<.0001 level, unlike the aggregated population, and also had lower relation of higher self-regard scores.

Correlations for improved attendance for Title 1 students are considerably more closely related for improved interest in the subject area , improved content knowledge, improved critical thinking and problem solving, improved interest in school, improved self-regard, greater confidence as a learner, and improved quality of work. The scores were somewhat more related for improved language skills and improved behavior, and less closely related for taking responsibility for own learning, as follows:

Table 45: Correlation of Increased Attendance at School with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	l Atten	f Con	g Crit	h Lang	i Int	j Qual	k Sch	m Beh	n Resp	o Conf	p Regard
l Atten	1.000	.394	.413	.547	.417	.583	.624	.773	.567	.520	.594
f Con	.394	1.000	.811	.662	.711	.647	.599	.392	.557	.599	.591
g Crit	.413	.811	1.000	.691	.673	.667	.613	.411	.585	.630	.568
h Lang	.547	.662	.691	1.000	.633	.711	.637	.495	.579	.583	.627
i Int	.417	.711	.673	.633	1.000	.660	.651	.387	.522	.584	.568
j Qual	.583	.647	.667	.711	.660	1.000	.691	.565	.632	.617	.632
k Sch	.624	.599	.613	.637	.651	.691	1.000	.575	.623	.661	.635
m Beh	.773	.392	.411	.495	.387	.565	.575	1.000	.663	.611	.640
n Resp	.567	.557	.585	.579	.522	.632	.623	.663	1.000	.781	.768
o Conf	.520	.599	.630	.583	.584	.617	.661	.611	.781	1.000	.818
p Regard	.594	.591	.568	.627	.568	.632	.635	.640	.768	.818	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

8. Improved behavior

Measurement of behavior and the degree of growth for the Title 1 students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.505 (standard deviation = 1.030), higher than for the aggregated population. Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .686, F = 1222.479, with a confidence level of p< .0001.

Table 46: Regression: Improved Behavior vs. 10 Independents

Regression Summary
m Beh vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.828
R Squared	.686
Adjusted R Squared	.686
RMS Residual	.577

ANOVA Table
m Beh vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	4071.005	407.101	1222.479	<.0001
Residual	5585	1859.874	.333		
Total	5595	5930.879			

Regression Coefficients
m Beh vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.119	.033	.119	3.563	.0004
f Con	-.025	.018	-.020	-1.415	.1572
g Crit	-.059	.018	-.048	-3.351	.0008
h Lang	-.037	.015	-.032	-2.535	.0113
i Int	-.089	.015	-.072	-5.982	<.0001
j Qual	.101	.016	.080	6.187	<.0001
k Sch	.005	.015	.004	.346	.7293
l Atten	.533	.010	.557	52.109	<.0001
n Resp	.261	.015	.232	17.282	<.0001
o Conf	.162	.018	.140	9.195	<.0001
p Regard	.071	.017	.063	4.212	<.0001

In this survey, reports by teachers for Title 1 students' improvements in behavior were not related at the p< .0001 level of confidence with results for measures of improvement in all areas except improvements in critical thinking and problem solving, as they were for the aggregated population. Here close relationships for Title 1 students' improved behavior were evident at p<.0001 for only six variables, and at the p<.001 level for two more variables.

Compared to the aggregated population, correlations for behavior for Title 1 students were more closely related to improvements in behavior, except for the categories of improved language and improved interest in school, as follows:

Table 47: Correlation of Improved Behavior with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	m Beh	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	n Resp	o Conf	p Regard
m Beh	1.000	.392	.411	.495	.387	.565	.575	.773	.663	.611	.640
f Con	.392	1.000	.811	.662	.711	.647	.599	.394	.557	.599	.591
g Crit	.411	.811	1.000	.691	.673	.667	.613	.413	.585	.630	.568
h Lang	.495	.662	.691	1.000	.633	.711	.637	.547	.579	.583	.627
i Int	.387	.711	.673	.633	1.000	.660	.651	.417	.522	.584	.568
j Qual	.565	.647	.667	.711	.660	1.000	.691	.583	.632	.617	.632
k Sch	.575	.599	.613	.637	.651	.691	1.000	.624	.623	.661	.635
l Atten	.773	.394	.413	.547	.417	.583	.624	1.000	.567	.520	.594
n Resp	.663	.557	.585	.579	.522	.632	.623	.567	1.000	.781	.768
o Conf	.611	.599	.630	.583	.584	.617	.661	.520	.781	1.000	.818
p Regard	.640	.591	.568	.627	.568	.632	.635	.594	.768	.818	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

9. Takes responsibility for own learning

Measurement of responsibility for own learning and the degree of growth for the Title 1 students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.743 (standard deviation = .914), equivalent to the aggregated population. Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .703, F = 1326.584, with a confidence level of p< .0001.

Table 48: Regression: Greater Responsibility for Own Learning vs. 10 Independents

Regression Summary
n Resp vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.839
R Squared	.704
Adjusted R Squared	.703
RMS Residual	.498

ANOVA Table
n Resp vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	3295.869	329.587	1326.584	<.0001
Residual	5585	1387.581	.248		
Total	5595	4683.450			

Regression Coefficients
n Resp vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.025	.029	.025	.882	.3779
f Con	.005	.015	.004	.300	.7645
g Crit	.095	.015	.087	6.233	<.0001
h Lang	.003	.013	.003	.253	.8005
i Int	-.045	.013	-.041	-3.510	.0005
j Qual	.108	.014	.097	7.722	<.0001
k Sch	.032	.013	.031	2.517	.0119
l Atten	-.023	.011	-.028	-2.180	.0293
m Beh	.195	.011	.219	17.282	<.0001
o Conf	.345	.015	.335	23.536	<.0001
p Regard	.259	.014	.259	18.282	<.0001

Reports by teachers for Title 1 students' increased responsibility for own learning were related at the $p< .0001$ level of confidence with results for measures of improvement in critical thinking, quality of work, improved behavior, confidence as a learner, and self-regard, and at the $p<.001$ level for interest in the subject matter. Unlike the aggregated population however, the increased interest in school was at a lower level of relationship, while there was a low level of predictability associated with increased attendance. No predictive relationship was shown with improved language skills.

Correlations for taking responsibility for own learning for Title 1 students were more closely related for 7 of the 11 variables, and equivalent for the other three, as follows:

Table 49: Correlation of Increased Responsibility for Own Learning with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	n Resp	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	o Conf	p Regard
n Resp	1.000	.557	.585	.579	.522	.632	.623	.567	.663	.781	.768
f Con	.557	1.000	.811	.662	.711	.647	.599	.394	.392	.599	.591
g Crit	.585	.811	1.000	.691	.673	.667	.613	.413	.411	.630	.568
h Lang	.579	.662	.691	1.000	.633	.711	.637	.547	.495	.583	.627
i Int	.522	.711	.673	.633	1.000	.660	.651	.417	.387	.584	.568
j Qual	.632	.647	.667	.711	.660	1.000	.691	.583	.565	.617	.632
k Sch	.623	.599	.613	.637	.651	.691	1.000	.624	.575	.661	.635
l Atten	.567	.394	.413	.547	.417	.583	.624	1.000	.773	.520	.594
m Beh	.663	.392	.411	.495	.387	.565	.575	.773	1.000	.611	.640
o Conf	.781	.599	.630	.583	.584	.617	.661	.520	.611	1.000	.818
p Regard	.768	.591	.568	.627	.568	.632	.635	.594	.640	.818	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

10. Greater confidence as learner

Measurement of responsibility for own learning and the degree of growth for the students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.876 (standard deviation = .888), higher than the aggregated population. Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .761, F = 1779.706, with a confidence level of $p < .0001$.

Table 50: Regression: Greater Confidence as Learner vs. 10 Independents

Regression Summary
o Conf vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.872
R Squared	.761
Adjusted R Squared	.761
RMS Residual	.434

ANOVA Table
o Conf vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	3358.299	335.830	1779.706	<.0001
Residual	5585	1053.887	.189		
Total	5595	4412.186			

Regression Coefficients
o Conf vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.097	.025	.097	3.858	.0001
f Con	-.025	.013	-.023	-1.856	.0635
g Crit	.180	.013	.170	13.693	<.0001
h Lang	-.063	.011	-.062	-5.679	<.0001
i Int	.055	.011	.052	4.926	<.0001
j Qual	-.029	.012	-.027	-2.378	.0174
k Sch	.142	.011	.141	13.031	<.0001
l Atten	-.093	.009	-.113	-10.005	<.0001
m Beh	.092	.010	.107	9.195	<.0001
n Resp	.262	.011	.270	23.536	<.0001
p Regard	.450	.011	.464	40.201	<.0001

Like the aggregated population, in this survey, reports by teachers for Title 1 students' increased confidence as a learner were related at the p< .0001 level of confidence with results for measures of improvement in all the variables except content knowledge and quality of work, though improved content knowledge was significant an the p<.1 level. There is the possibility that students exhibiting high scores in these variables already have high confidence as a learner.

As compared to the aggregated population, correlations for higher confidence as a learner for Title 1 students were higher for content knowledge, responsibility for own learning, improved attendance, and improved behavior. The correlations were lower for improved language skills, increased interest in the subject area, and quality of work. They were equivalent for improved critical thinking, increased interest in school, and higher self-regard, as follows:

Table 51: Correlations: Higher Confidence as a Learner vs. 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	o Conf	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	p Regard
o Conf	1.000	.599	.630	.583	.584	.617	.661	.520	.611	.781	.818
f Con	.599	1.000	.811	.662	.711	.647	.599	.394	.392	.557	.591
g Crit	.630	.811	1.000	.691	.673	.667	.613	.413	.411	.585	.568
h Lang	.583	.662	.691	1.000	.633	.711	.637	.547	.495	.579	.627
i Int	.584	.711	.673	.633	1.000	.660	.651	.417	.387	.522	.568
j Qual	.617	.647	.667	.711	.660	1.000	.691	.583	.565	.632	.632
k Sch	.661	.599	.613	.637	.651	.691	1.000	.624	.575	.623	.635
l Atten	.520	.394	.413	.547	.417	.583	.624	1.000	.773	.567	.594
m Beh	.611	.392	.411	.495	.387	.565	.575	.773	1.000	.663	.640
n Resp	.781	.557	.585	.579	.522	.632	.623	.567	.663	1.000	.768
p Regard	.818	.591	.568	.627	.568	.632	.635	.594	.640	.768	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

11. Higher self-regard

Measurement of higher self-regard and the degree of growth for the Title 1 students in the classes receiving TEAMS curriculum delivery was reported by the teachers to be attributable to TEAMS at a mean score of 2.830 (standard deviation = .914), higher than the aggregated population. Further, the degree of variability in the scores on this variable were accounted for by the other measures in the model at an adjusted R squared value of .750, F = 1682.423, with a confidence level of p< .0001.

Table 52: Regression: Higher Self-Regard vs. 10 Independents

Regression Summary
p Regard vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

Count	5596
Num. Missing	54
R	.866
R Squared	.751
Adjusted R Squared	.750
RMS Residual	.457

ANOVA Table
p Regard vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	DF	Sum of Squares	Mean Square	F-Value	P-Value
Regression	10	3514.638	351.464	1682.423	<.0001
Residual	5585	1166.725	.209		
Total	5595	4681.363			

Regression Coefficients
p Regard vs. 10 Independents
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	Coefficient	Std. Error	Std. Coeff.	t-Value	P-Value
Intercept	.004	.026	.004	.143	.8862
f Con	.131	.014	.119	9.463	<.0001
g Crit	-.153	.014	-.140	-10.985	<.0001
h Lang	.138	.012	.132	12.002	<.0001
i Int	.041	.012	.037	3.426	.0006
j Qual	.020	.013	.018	1.576	.1151
k Sch	-.024	.012	-.023	-2.055	.0399
l Atten	.092	.010	.108	9.344	<.0001
m Beh	.045	.011	.050	4.212	<.0001
n Resp	.218	.012	.218	18.282	<.0001
o Conf	.498	.012	.484	40.201	<.0001

Like the aggregated population, reports by teachers for Title 1 students' increased confidence as a learner were related at the $p < .0001$ level of confidence with results for measures of improvement in all the variables except increased interest in school. In addition, increased interest in the subject area was also at the $p<.001$ level, while quality of work was only related at the $p=.1151$ level.

For Title 1 students, correlations for higher self-regard are significantly higher for increased responsibility for own learning and improved attendance, slightly higher for all the rest except lower for improved language skills, as follows:

Table 53: Correlation of Higher Self-Regard with 10 Variables

Correlation Matrix
Inclusion criteria: Criteria 1 from TEAMS 92-98 Ch 1 STUDENTS Only

	p Regard	f Con	g Crit	h Lang	i Int	j Qual	k Sch	l Atten	m Beh	n Resp	o Conf
p Regard	1.000	.591	.568	.627	.568	.632	.635	.594	.640	.768	.818
f Con	.591	1.000	.811	.662	.711	.647	.599	.394	.392	.557	.599
g Crit	.568	.811	1.000	.691	.673	.667	.613	.413	.411	.585	.630
h Lang	.627	.662	.691	1.000	.633	.711	.637	.547	.495	.579	.583
i Int	.568	.711	.673	.633	1.000	.660	.651	.417	.387	.522	.584
j Qual	.632	.647	.667	.711	.660	1.000	.691	.583	.565	.632	.617
k Sch	.635	.599	.613	.637	.651	.691	1.000	.624	.575	.623	.661
l Atten	.594	.394	.413	.547	.417	.583	.624	1.000	.773	.567	.520
m Beh	.640	.392	.411	.495	.387	.565	.575	.773	1.000	.663	.611
n Resp	.768	.557	.585	.579	.522	.632	.623	.567	.663	1.000	.781
o Conf	.818	.599	.630	.583	.584	.617	.661	.520	.611	.781	1.000

5596 observations were used in this computation.
54 cases were omitted due to missing values.

TEAMS Teachers

TEAMS Distance Learning Staff Development Model

A major focus of the national TEAMS evaluation is to determine the instructional impact of TEAMS Distance Learning programs on teachers. Data to assess TEAM effectiveness was obtained from questionnaires and focus interviews with teachers and administrators. In the years 1992-1997, the TEAMS evaluation documented and validated the significance of a new practice of simultaneous student instruction and teacher training, which effects changes in teaching methods and student progress. Evaluation revealed the following significant changes:

- Increases in student skills in mathematics and science content that teachers directly attribute to students viewing TEAMS programming and using TEAMS materials

- Teachers say that TEAMS instructional methods have become natural components of their teaching style and that they use the methods in all content areas that they teach

- Teachers report more usable information on new instructional methods through TEAMS programming than through in-service seminars and so are involved in ongoing inservice without being away from their class or incurring additional expenses to their school or district.

- Teachers report many students say mathematics and science are now "favorite" subjects

- Teachers are more enthusiastic and confident about teaching mathematics and science.

Teachers value the TEAMS instructional design because of the following significant factors:

- TEAMS provides more cooperative learning experiences

- There are greater hands-on learning and greater use of manipulatives in the upper

grades

- The design is student centered learning which emphasizes problem solving and critical thinking

- Students are exposed to new technologies and different teaching styles

- Students are exposed to experiences and resources which they would not otherwise be able to access in the conventional classroom

TEAMS focuses on a Three-Tier Distance Learning Staff Development Model for teachers. The approach includes:

1. Theoretical Training: information, theory, demonstration and two-way communication about the theoretical basis of the TEAMS instruction and training

2. Implementation Training: theory, demonstration, practice and peer discussion of curriculum and instructional methods involved in the student programming, providing training to implement the student programs.

3. Simultaneous Teacher Training and Student Instruction: teacher training through in-class experience, practice and support from the studio team-teacher, through live, interactive student instructional programs. For TEAMS, this three-tiered approach has provided answers for problems associated with traditional staff development design.

- It is long term, sequential training

- It fosters immediate transfer of learning, with new skills becoming a part of the teacher's repertoire of instructional methods

- It is primarily conducted in the teacher's classroom during the regular school day

- It creates immediate changes in the roles of the teacher and student

- It provides opportunities for teachers to see students being successful with a rich and challenging curriculum. This allows them to change attitudes and behaviors related to instruction and expectations of their students.

- It provides motivation for teachers to participate in other staff development after the regular school day because it is directly related to their classroom program

TEAMS teachers viewed the studio teacher as a role model. As a result, they were able to move easily through the CBAM seven levels of adoption. Using TEAMS effectively provided teachers with new methods which they use because they have watched the television teacher demonstrate the methods. Immediately after viewing the program, they apply the methods with their students. These results were reported across the US.

The staff development research (Joyce & Showers, 1988) provides compelling data on the relationship between training outcomes and specific training components. They analyzed the relationship between the training outcomes of knowledge, skill and transfer of training for participants engaged in training programs options providing:

1. Information
2. Theory
3. Demonstration
4. Theory and demonstration
5. Theory and practice
6. Theory, demonstration and practice
7. Theory, demonstration, practice and feedback
8. Theory, demonstration, practice, feedback and coaching

Their research clearly shows that training which provides only information and theory produces only increased knowledge in participants. That encompassing any of options numbers four through eight shows greater knowledge and skill outcomes. Option eight provides the greatest outcomes in knowledge, skills, and transfer of training. Practice, feedback, and coaching can be considered an in-classroom, on the job, experiential and support component. With its three tiers, TEAMS provides a distance learning alternative to option eight. It clearly provides theory, demonstration and practice. Although distance learning cannot provide a full face-to-face feedback and coaching component, part of what

feedback and coaching provides is an in-class support system. That is provided through the in-class team teaching with the studio instructor.

In retraining of teachers, TEAMS staff found that teachers reported the factors which contributed to their success were: a sound theoretical basis; experience and practice with the particular curriculum and instruction being adopted/adapted; a support system designed specifically to their needs;   convenience, with training during the school day and at their own site when possible; training with no expense to the teacher. The simultaneous in-class training component of TEAMS meets all of these criteria.

The Rand Corporation found that successful projects had these common characteristics for staff development (Berman and McLaughlin, 1978):

1. Training is concrete, continual, and tied to the world of the teacher
2. Local resource personnel provide direct follow-up assistance
3. Peer observation and discussion provide teachers with reinforcement and encouragement
4. School leader participates in staff development
5. Regular meeting held with teachers for problem solving and adapting techniques and skills of the innovation
6. Released time used for teacher staff development
7. Staff development planned with teachers prior to and during the project

Other findings similar to the Rand study but with additional information include:

1. Individualized staff development activities are more effective than large-group activities
2. Programs using demonstrations, trials, and feedback of ideas are more effective than lecturing and reading.
3. Staff development programs are more successful when teachers are active planners and help each other.

Jones and Woodcock (1984) describe these adult learning principles:

1. The adult is a partner with the instructor in the learning process

2. Adults are capable of taking responsibility for their own learning

3. Adult learners gain through two-way communications

4. Adults learn through reflection on their and others' experience

5. Adults learn what they perceive to be useful in their life situations

6. Adults' attention spans are a function of their interest in the experience

7. Adults are most receptive to instruction that is clearly related to their daily problems

8. Adults learn best when they are treated with respect

9. Adults do not typically see themselves as learners

10. Adults learn better in a climate that is informal and personal

11. Adult learners apply learning's that they have been influential in planning

12. Adults learn when they feel supported in experimenting with new ideas and skills

13. Adults may have somewhat fixed points of view that make them closed to new ways to think and behave

14. Adults learn to react to the differential status of group members

15. Adults are internally motivated to develop increased effectiveness

16. Adults filter their learning through their value system

Levels of Use

There are seven Levels of Use identified in the Concerns Based Adoption Model (CBAM), and staff who are adopting an innovation will move up these levels in seven different areas. During this evaluation, TEAMS teachers were surveyed and interviewed to determine at what level of use they were working. By determining their level of use and the time each takes to move through the levels, it may be possible to plan an implementation strategy that will reduce the time to adopt the innovation of distance learning, and specifically TEAMS programming. The levels and areas are as follows.

0: **Non-use:** State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.

I: **Orientation:** State in which the user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demand upon user and user system.

II: **Preparation:** State in which the user is preparing for first use of the innovation.

III: **Mechanical Use:** State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than client needs.

IV A: **Routine:** Use of the innovations stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.

IV B: **Refinement:** State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations are based on knowledge of both short and long term consequences for clients.

V: **Integration:** State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.

VI: **Renewal:** State in which the user re-evaluates the quality of use of the innovation, seeks major modifications of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.

The TEAMS Model of Teacher Training

The pattern that emerged during the 1992-1997 and that has been validated as continuing to be effective in the 1997-1998 evaluation created a model for teacher pre-service and in-service. TEAMS teachers reported that they viewed the TEAMS television teacher as a role model. As a result, they were able to move easily through the levels of adoption.

First year TEAMS teachers continued to report that there was a great deal of preparation. They read the printed materials provided, set out the materials for students, and watched the programs with students. First year TEAMS teachers who used the program on videotape usually previewed the tape. First year TEAMS teachers reported that they felt that the programs required extensive study by them to learn the new instructional methods. However, they felt the time was profitable because their students were learning so much more and enjoyed the new instructional methods. First year TEAMS teachers move through the third level of use.

Second year TEAMS teachers reported that because they now had an understanding of the instructional methods as well as TEAMS, they spent significantly less time preparing for programs. Their higher level of comfort with the methods gave them the confidence to use the methods in other math or science classes with their students. These methods included hands on, discovery, and collaborative group learning. Many teachers described the television instructor as a role model. They gained confidence in their skills because the television teacher provided step by step guidance in presenting material to students. Teachers reported that they received more usable information on new instructional methods through TEAMS programming than through in-service seminars. Second year TEAMS teachers are in the IV A level of use - routine.

Third year TEAMS teachers continued to report that they were very comfortable with programming and instructional methods. They spent a small amount of time gathering the class materials for programs. This group also reported that the instructional methods had become a natural extension of their teaching style. They use the new instructional methods across the curriculum and appear to have fully adopted the methods. Third year TEAMS teachers are in the IV B level of use - refinement.

Fourth year TEAMS teachers reported that they have fully adopted the instructional methods embodied in the TEAMS programming. They continue to use the TEAMS programs because

students enjoy it and learn from it. They continue to use their new methods across the curriculum. These instructors have also become mentors to new TEAMS instructors at their schools. Fourth year TEAMS teachers are in the V level of use - integration. Some have moved to the VI level of use - renewal. Schools and teachers continued to use TEAMS in the fifth year because it fulfilled its original promise.

Using TEAMS has effectively provided teachers with new methods which they use because they have watched the television teacher demonstrate the methods. Immediately after viewing the program, TEAMS teachers apply the methods with their students. These results were reported across the United States at all evaluation sites as well as in the surveys. Principals also noted these changes in teachers saying that TEAMS teachers showed more enthusiasm for math/science, a higher use of interactive and hands-on methods, and that teachers were more confident of their ability to teach math and science.

TEAMS teachers continued to report an increase in the ability to teach heterogeneous groups, teach math/science in an active learning environment, manage a class of students using manipulatives, use cooperative learning in math/science instruction, involve parents in their child's math/science education, use the textbook as a resource rather than as the primary instructional tool, use a variety of alternative assessment strategies, and follow national mathematics standards/science recommendations.

Teachers, students, principals, and site coordinators reported that they liked TEAMS programming and that it was increasing the time allocated to mathematics and science in the classroom. Teachers increased their class time in mathematics and science by an average of four hours per week.

The model that has evolved from TEAMS has many facets. A comparison of the existing professional development model and the TEAMS distance learning professional development model is shown below.

Table: 54
TEAMS Distance Learning Professional Development Model

Existing Professional Development Model	TEAMS Distance Learning Professional Development Model
Face -to-face	Distance learning delivered
In-service day (2-4 per year): 8-24 per year	Weekly 1-1/2-2 hours per week: 64 hours per year
Travel to in-service site	Delivered to teacher's classroom/site
In-service instructor has a limited ability to develop as a role model for the teacher	Role model provided to teacher by distance learning instructor
Large in-service group	One-to-one
Short demonstration	Full step-by-step and frequent demonstration
Limited examples	Variety of examples
Very limited hands-on	Twice weekly hands-on role modeling by DLI
Support: Limited access to follow-up with in-service provider	Support: Direct and frequent access to distance learning instructor via television, telephone, fax, computer
Limited opportunity to process information/apply it	Provides opportunity to process information/apply it
Limited application of new information	Immediate application of new information
Students are seldom included in in-service	Provides opportunities for teachers to see students being successful; allows attitude and behavior changes related to instruction and expectations of their students.
Print materials limited to handouts	Full print materials which provide theory, information, methods, and implementation for student programs
Instructional materials are not provided	All instructional materials are provided
Use text as the primary instructional tool	Used the text only as a resource
General instructions	Content specific instructions
No opportunity to review	Tape review
Costs: non-teaching days or substitute	Costs: nothing additional Two for one - students and teachers
Instruction only for the teacher	Simultaneous teacher training and student instruction:
Results: Limited	Results: Significant change
Little change in teaching methods	Significant change in teaching methods
Limited increase in content teaching time	Increase in content teaching time
Limited gain in non-specialty content area	Significant gain in non-specialty content area knowledge and comfort level
Limited gain confidence to teach non-specialty areas	Significant gain confidence to teach non-specialty areas
Limited increase in use of instructional methods across the curriculum	Uses new instructional methods across the curriculum
Limited increase in mentoring	Become mentors to new instructors
Limited movement to higher levels of use	Moves teachers to higher levels of use
Technology is beginning to be integrated into the curriculum	The levels of technology are easily integrated into the curriculum through the use of satellite, telephone, Internet, Fax, TAMS web pages and other technology

1997-98 TEAMS Teachers Results

There were 73 respondents to the survey. Twenty-three of the TEAMS teachers responding reported that they were in urban locales, 19 were in suburban locales, and 28 were in rural areas(see Table 55).

Table 55: TEAMS School Setting

23 Urban   19 Suburban   28 Rural
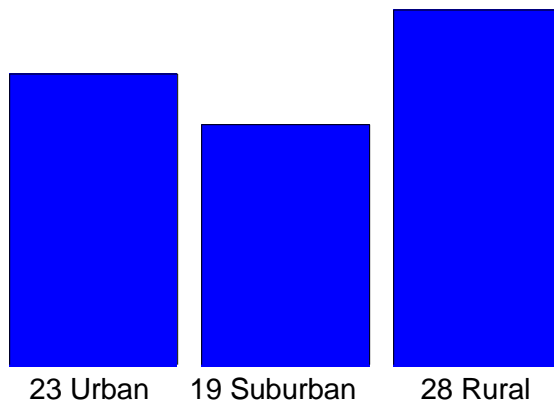
TEAMS Students

Teachers responding reported that there were 44,248 students in schools where TEAMS was available. Of that available student body, 5,048 used TEAMS programming (see Table 56).

Table 56: Students in Schools and Students Using TEAMS

44,248 Students   5,048 Using TEAMS
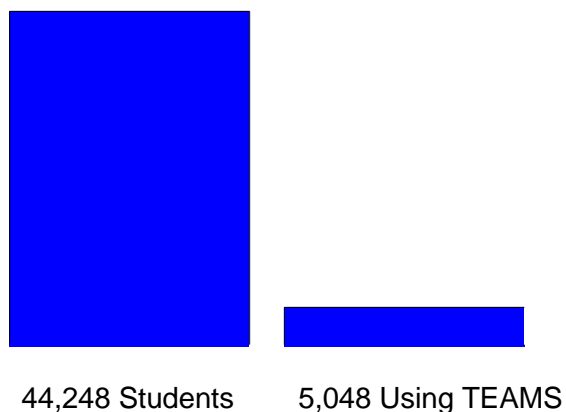
The students were distributed from grade one to grade nine as shown in Table 57. The largest groups are in the fourth and fifth grades.

Table 57: Numbers of Students Using TEAMS by Grade Level

Grade	Sum
1	1,509
2	1,968
3	1,589
4	2,422
5	2,469
6	1,439
7	1,621
8	1,281
9	1,257

The socioeconomic status of TEAM Students in the schools is shown in Table 58. A significant majority is in the lower socioeconomic status.

Table 58: Socioeconomic Status of TEAMS Students

Socioeconomic Status	Number of Students
High	4,021
Middle	9,107
Low	12,479

Table 59: Socioeconomic Status of TEAMS Students Graph
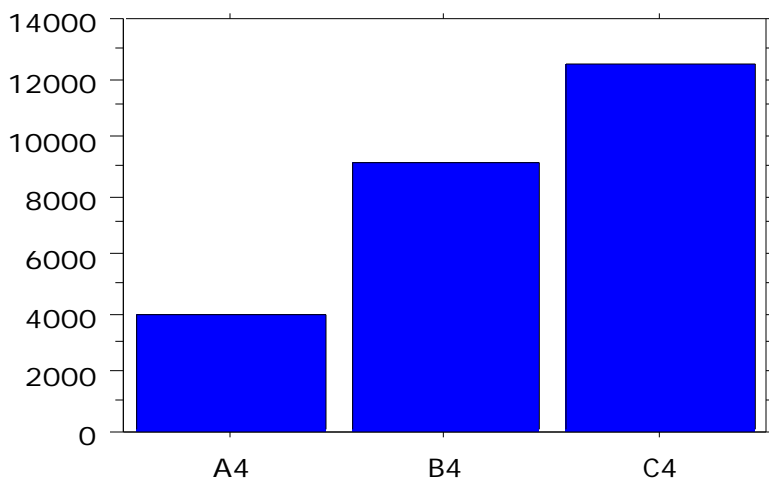
High   Middle   Low
The ethnicity of students in the schools using TEAMS programming is shown in Table
60. The largest groups are white, African-American and Hispanic.

Table 60: Ethnicity of Students in Schools

Ethnicity	Number
African-American	9,870
American Indian	263
Asian	2,756
Hispanic	6,875
Pacific Islander	186
White	16,858
Other	1,749

The categorization of students in the schools by program is shown in Table 61. The
largest group of students was listed as Title 1 followed by Limited English Proficient
students.

Table 61: TEAMS Students in Other Programs

Program	Number
Title I	11,068
Limited English Proficient (LEP)	5,461
Special Education	3,144
Disabled	1,357
Low Literacy	1,754
Gifted	2,831

TEAMS Use

Teachers report that they have had access to TEAMS during the year by the following Means (see Table 61). Teachers provided a yes or no answer to this question. The responses show that satellite reception at the school continues to be an important method program reception. However the partnerships with the public television stations and cable companies has become significant methods of delivery. Tape is used by a growing majority of the schools. This may indicate the teachers now understand how to provide and can provide asynchronous interaction for their students through the TEAMS Web site.

With the emphasis, training and major focus that TEAMS has placed on the use of the Internet, training in the use of the Internet, and the develop of the TEAMS Web site, more teachers continue to report that they are aware of and are using the TEAMS Web site to enhance student content class work. Other responses indicate that teachers liked the TEAMS Web site and that they visit it often because of the additional materials and resources that are available to them through the TEAMS Web site.

Table 62: Access to TEAMS

Type of Access	Yes	No
Satellite Dish at School	23	22
Public TV Station	33	11
Cable	32	11
ITFS (Microwave)	6	24
Tape	45	9
Internet	34	11

Coordination of TEAMS at the site is performed as shown in the following Table 63.

TEAMS teachers were the most likely to act as a site coordinator, followed by the

curriculum specialist

Table 63: Coordination of TEAMS at Site

Site Coordinator	Number Reported
Principal	10
Resource Teacher	3
Assistant Principal	4
TEAMS Teacher	33
Curriculum Specialist	17
Other not specified	15

New teachers beginning participation on TEAMS received orientation from the

following Sources (see Table 64). Another TEAMS teacher was most likely to provide an

orientation to a new teacher. This was followed by an independent review by the new

teacher of TEAMS materials.

Table 64: Report of Who Provided TEAMS Orientation to New Teachers

Sources of Orientation	Number Reported
Review previous year tapes/program guides	24
Review *TEAMS Handbook*	22
Participate in Orientation Program	10
Participate in TEAMS Orientation Telecast	11
Participate in staff development organized by school site	11
Other TEAMS teacher	33
Other Teacher	8
Other	11

Teachers reported that they learned about TEAMS in the following ways (see Table

65). Some sort of print material or a workshop that focused on TEAMS were the two most

frequently reported methods by which teachers became aware of TEAMS.

Table 65: Teachers Report How they Became Aware of TEAMS

Sources of Orientation	Number Reported
RTC Coordinator:	7
Newsletter , state flyers, school memos, LACOE Materials	12
TEAMS or Inservice Workshop	15
Teachers who had used TEAMS	6
Office of Instructional technology	2
Principal or other professional personnel	8
Through Grant Writing	7
Existing subscription	3

Teachers report taking the following steps to gain additional information about TEAMS (see Table 66). The dominant method includes receiving materials or having discussions with the RTC TEAMS coordinator in their city or state. Attending a TEAMS workshop came in second, but tied with getting information from the TEAMS Web site.

Table 66: Steps Taken to Gain Additional Information About TEAMS

Sources of Orientation	Number Reported
Watched TEAMS staff development, orientation videos	6
RTC Coordinator	22
TEAMS Workshop	11
Web Site	11
TEAMS teachers or DL teacher	2

Six teachers reporting receiving additional planning time to prepare to use TEAMS, while 57 reported that they did not, and 11 did not report (see Table 66). Based on teacher responses to this and other questions about planning times, the lack of planning (and in the case of TEAMS- learning time) for teachers is still a major hindrance to the successful adoption of the program. Teachers continue to report that they don't have time to plan, learn, review tapes, work with the program. School districts and administrators are still not able to hire enough teachers. They cannot provide additional support for teachers who are learning to teach in content areas that are largely uncomfortable for them, and using media and equipment with which they are still not experienced.

Table 67: Teachers Receiving Additional Planning Time

Answer	Number
Yes	6
No	57
No Response	11

Teachers reported the following factors about TEAMS as helping them to decide to use TEAMS (see Table 68).

Table 68: TEAMS Characteristics Used as Factors in Deciding to Use TEAMS

Characteristic	Number Reporting
Collaborative learning for students	3
Constructivist Approach to Learning, inquiry based	2
Curriculum Comprehensive/Complete	3
DL Instructors	5
DL Instructors interact with our students	2
Easy to incorporate and use	3
Excellence	3
Existing program	1
Fun	1
Hands on	10
Interactive concept of teaching, Q&A time	6
Lesson plans/guides, interesting	7
Literacy focus	1
Materials: excellent, good quality, clear, interesting, structured	7
Multisensory	1
New Methods	3
Planning: well planned and organized	3
Professional Dev: demonstration of skills taught	1
Research is ongoing/current	1
RTC Coordinator	1
Staff development in match and science	2
State frameworks: original experiments related to state core	2
Student activities	2
Student activities related to real world	2
Students are motivated	3
Teachers manuals very complete	1
Teacher support	3
Science kits/experiments: fun, wonderful	2
Student interest	2
Supplies are all provided	2
Technology , equipment, live broadcasts	10

Teachers report going through the following processes to decide to use TEAMS. (See Table 69)

Table 69: Processes Used to Decide on TEAMS

Process	Number Reported
Ad in newsletter	1
Board approval	1
County office recommended	1
Curiosity	1
Curriculum supplement math with technology	1
District and State decided to participate in Teams	2
Free choice. Materials and resources available	1
Grant – recommended	3
Librarian/Reading Teacher agreement.	1
Materials reviewed (video, print materials, kits)	2
Materials: Efficient use of time and materials – ease of planning	1
Principal decided or required to use	5
Professional Dev: helps with content I'm not comfortable with	1
RTC Coordinator - contact	1
Staff Development: not much was required	1
Subscription: Renewed from last year.	1
Taped programs.	1
Teacher Preview: I tried it and loved it.	1
Teachers: Meeting with teachers	6
Teachers: surveyed for interest	1
Teacher: Spoke to principal and classroom teacher, appropriate for "Climbing your family tree" that I was using with group of fifth graders.	1
Teachers: Team leaders expressed interest	1
Teacher preview taped programs and examined some written program materials.	1
Teacher gave me a tape of a show to view & try. Principal and librarian supported decision to use TEAMS.	1
Teacher: I wanted to show students the fun of mathematics and was given supplies to do he first mode.	1
Teachers had already used it and knew it was a good program.	1
Teachers viewed materials.	2
Workshop	8

Teachers report ease of incorporating the use of TEAMS into the instructional program as follows (see Table 70). The great majority reported that TEAMS was easy to incorporate into the classroom.

Table 70: Ease of Incorporating TEAMS into Classroom Instruction

Yes	No	Not Reporting
52	11	10

Teachers report that the following factors helped them to implement TEAMS well (see Table 69). Factors which helped implement TEAMS well broke into several main groups which included collaboration, financial support, good materials, planning time, technology issues, teacher support in many areas (see Table 71).

Table 71: Factors Helping Implement TEAMS Well

Implementation Factors	Number Reporting
Collaboration: Working with a co-worker to plan the unit 3	3
Ease of use	1
Financial support for fees	1
Materials: supplies at hand	1
Materials: teachers guides are organized, easy to understand, full wonderful pre & post viewing activities, video tapes, kits	6
Materials arriving in timely manner.	1
Materials: technology, support system (Bulletin Board).	1
Planning: longer time to plan, view videos	7
Professional Development for new teaching methods	3
RTC Coordinator Support	2
Students collaboration and involvement	1
Technology: Sick students watch tape or live, do activities together	1
Technology: Taping by media assistant, at home, as well as Internet access	1
Teacher Support: Extra Work	1
Teacher Support: Personal scheduling when aides are in the room to assist.	1
Teacher Support: help of the librarian	2
Teacher Support: I need a TVVCR in my classroom for success	1
Teacher Support: help with tuning satellite or taping	2
Technology access: Tapes or cable to use with all students (3-5)	1
Technology: Peach Star Satellite	1
Technology: ability to pick and choose what you want to use	1
Teachers that are interested.	1
Teacher experience with other DL programming	3
Technology; tapes allow us to view programs easily and when convenient 2	2
Program activities can be adapted to reading program.	1
State Core: meets state core requirements	1

Teachers report acquiring and disseminating the TEAMS program guides and

instructional materials as follows (see Table 72).

Table 72: Means of Acquiring and Disseminating TEAMS Guides and Materials

Means	Number Reporting
Check out from a convenient place in the school	4
Curriculum specialist receives and gives to TEAMS teachers	4
Curriculum Specialist Disburses to probable users	1
District Media Services provide master copy to teachers to copy materials	1
District office to principal and then to teachers	2
Grade Level Teams have applicable units	1
Internet	2
IRC materials in notebooks by category	1
Librarian	1
Library has units on file, tapes used yearly if the program is on TV that year	1
Library: organizes material, catalogs, monthly math/sci comm. review	1
Live broadcasts	1
Mailed and then given to teachers in school	9
Media specialist	3
Meetings	1
Office of Technology	1
Postings throughout the school	2
Principal disseminates guides/ materials; maintained in teacher supply room	2
Purchased with science funds, modules in science lab	2
Resource Lab: check out materials	1
RTC Coordinator	10
State sends, then teachers check out from Media Center	1
Superintendent's Office	1
Supervisor send to me	2
Tape off air/satellite and give to TEAMS teachers	3
Teachers: talk to teachers about TEAMS resources	3
Teacher: passed out the program guides to all the sixth grade teachers who taught science	1
Teacher I'm the only teacher for the 4th and 5th grade. I do all the teaching	1
Teachers: available to all teachers in a convenient place	3
Teachers: receive and pass them to staff whom I know have same subjects in their class programs.	1

Teachers report that they believed that the following needs would be met by adopting

TEAMS (see Table 73).

Table 73: Needs Anticipated to be Met by Adopting TEAMS

Anticipated Needs	Number Reporting
Free materials	1
Curriculum: expand and enhance	4
District focus on good literacy practices	1
Hands on activities	9
Higher thinking skills	2
Ideas: Additional Ideas for Language Arts.	1
Ideas: great ideas to use on science, social studies, math, reading us	1
Interaction	1
Lesson plans and step by step guide	1
Materials: great materials and manipulatives	1
Network: Great way to network with schools across the country	3
balanced science content and use of technology – video, live broadcasts, telephone, FAX and E-Mail.	1
Problem Solving, Basic Math, Introduction to Science & Social Studies. And the Writing process.	1
Problem solving through investigation.	1
Reading; develop a variety of techniques	1
Reading: activities to adapt to reading series	1
Reading: strengthen reading program.	1
Reading: help my students become more efficient readers	1
State objectives met by stimulating online book talks	1
State standards: meet for science in process skills	1
State Standards – Meet state curriculum requirements	2
State Standards: meet objectives in format different from previously used	1
Students: interesting to students	4
Students: interacting as scientists	1
Students: see experiments/activities; could participate along with instructor.	1
Students: collaborative learning	5
Test scores: improve scores on standardized tests	1
Teacher professional development and guidance	5
Teaching Methods; provide additional teaching strategy techniques	2
Technology : Extend learning by using available technology	1
Technology based instruction	1

Teachers report that the following needs have been met by TEAMS (see Table 74).

Table 74: Needs Met by TEAMS

Needs	Number Reporting
Provides instructional reform to the school	26
Increased student interest and motivation in learning through new instructional methods	53
Provides instruction which is related to the national educational goals.	39
Provides an otherwise unavailable instruction/curriculum	32
Provides rich and challenging valuable content	43
Provides experiences and resources to which we have no other direct access	31
Provides career awareness	19
Creates a community of distance learners	36
Provides opportunities to interact with participants of diverse backgrounds.	27
Provides assistance to teachers to plan and organize their instructional programs in a way which is consistent with national reform efforts and available standards/recommendations	43
Other	3

Teachers report that the following factors hinder implementing TEAMS well (see Table 75).

Table 75: Factors Inhibiting the Implementation of TEAMS

Factors Inhibiting Implementation	Number Reporting
Hindrances: there are none	2
Awareness	1
Competing Programs: Too many "required" programs to add on another new piece (ex – K-2 new literacy assessment, Gr. 3 – 5 EOG focus/Reading Comprehension Guides, required literacy and other school training, etc.)	1
Competing Program: We adopted a new math curriculum this	1
Curriculum: NC EOG testing goals	1
Information: Knowing about it	1
Internet: No access, low literacy	1
Isolation from other TEAMS teachers	1
Monetary: When materials needed are not available due to lack of funds.	1
Monetary: Cost of materials to do some programs with several classes.	1
Professional Development: Lack of development	1
Responsibilities: for two school libraries. one TEAMS school so far	1
Space (size of classroom & number of students)	1
Time: schedule conflicts – taping difficult due to teaching at same time	8
Time: Not enough time to teach the program or plan for it	13
Technology: Coordinate PBS live broadcast on PBS: Consistent schedule	1
Technology: Limited computers	1
Technology: Students don't have VCR and can't follow through	2
Technology : Consistent taping of programs	6
Technology: don't have a television, VCR or computer in my room.	2
Technology: keep using the tapes each year, we could write it into curriculum units and become more familiar with videos and materials.	1
Technology: Time difference requires taping instead of live.	2
Technology: No cable or telephone in room, no planning time	1
Technology: Librarian who will not tune satellite dish to TEAMS	1
Technology: Satellite feed not working, PBS not strong enough to broadcast to class, unable to tape	2
Technology : Receiving all programs - equipment problems	3
Technology: Accessing Programs and tapes	4
Technology: Poor cable reception or no cable	2
Getting materials and remembering to request. when ASSET sent me all the print materials I passed it out and got teachers excited about it more easily.	1
No leadership and very little support from adm. For last module, part-time assistant principal (a former TEAMS teacher) helped by getting satellite reception in my classroom and use of the cellular phone.	1
Restocking materials & materials in an accessible place.	1

Teachers report the following benchmarks for success of TEAMS at their schools.

See Table 76).

Table 76: Benchmarks for Success of TEAMS at School Site

Success Benchmarks	Number Reporting
No benchmarks	7
Expansion: TEAMS expansion	1
Scores: Improving scores	5
State Core test 5	5
Students "do" Science outside classroom, are students excited asking related questions?	1
Students completing the book and enjoying the activities.	1
Student understanding	1
Students interest & motivation to learn.	1
Students success with MEAP test items geared to TEAMS lessons.	1
Students: Scientific method and plant part names	1
Students: Better use of manipulative and hands on equipment	1
Students: How well students can solve problems, access information	2
Student performance	1
Student excitement about seeing their work on the Internet and on the broadcasts.	1
Students requesting TEAMS math programs.	1
Students: each student to be reading & comprehending on their particular grade level.	1
Students: better performance on teacher selected or teacher designed performance tasks	1
Teachers: get more teachers involved/see benefits	5
Teachers trying new instructional methods student learning	2

Teachers report the following as the greatest impact of TEAMS on their school sites.
(see Table 77).

Table 77: Greatest Impact of TEAMS at School Site

Greatest Site Impact	Number Reporting
Beginning: difficult to get the program	1
Beginning: Have just started this year	7
Beginning: We really were not trained or informed well on how to use Windows to Reading.	1
Beginning: Only minimal participation.	1
Live distance learning brings life to subjects, children excited to interact.	1
Collaboration:ability to share programs with colleagues as well as exposing my students to the benefits of distance learning.	1
Curriculum awareness of TEAMS that they have access to	1
Curriculum: Science is a primary subject, instead of just an after thought	1
Curriculum Providing curriculum & materials for students.	1
Curriculum: Further science goals of school.	1
Curriculum: In math topics not covered well in a text book	1
Curriculum: An additional resource for teachers	1
Curriculum: Goes well with EOG objectives, understanding via hands-on	1
Curriculum: Background from units	1
Hands on material -distance learning	1
Hands-on: Provides hands – on activities for students.	2
Professional Dev: offered through distance learning	2
Professional Development : freed me from being tied to textbook.	1
Professional Development: stretched and developed into better teachers	1
Professional Development: increase in science teaching!	1
Resources: added different methodologies and strategies.	1
Student scores have gone up	1
Students interest increased	6
Students: More content knowledge. Different ways and ideas to solve problems or find answers.	1
Students: The children love the programs and look forward to them 2	2
Students having meaningful experience that will last forever	1
Students enjoyed online book talks and student work on web page	1
Students have loved Letters from Rifka and it fits with the Social Studies unit.	1
Students: have fun	1
Students: more involved in their own learning processes.	1
Students: able to hear & see other student's results from experiments.	1
Students: excited to see their work on Internet and broadcasts.	1
Students: All students can be involved	1
Students: High interest of materials helps keep students involved.	1
Technology: innovative, equipment resulting from daily programming/ TEAMS materials.	3
Teachers: Time to prepare is a problem. Getting materials	1

The following table reports how many teachers feel that TEAMS is successful at their

School (see Table 78).

Table 78: Number of Teachers Reporting TEAMS a Success

Response	Number
Yes	42
No	17
No Response	14

The following table reports what teachers would like to see changed (see Table 79).

Table 79: Desired Changes in TEAMS

Changes to Make	Number Reporting
None 7	7
No Change: I think it is a great program. Everything looks fine! I think the program is good. : I feel it accomplishes the goals.	1
No Change: Gary W. Does a fantastic job; I like his rapport with kids in addition to his teaching methods	1
Curriculum: Expand to more topics!	1
Curriculum: I would like to see more designed based learning projects - like bridges - etc.	1
Curriculum: Addition of new modules in biology/life science.	1
Cable in classroom, TEAMS teacher collaborative in-service.	1
Grades: I need programs for 7th & 8th grades now for my 1998- 1999 class assignment.	1
Grades: 'Im happy that there are more primary level programs . Will do teacher in service next year.	1
Program: Literacy strand is boring. Science is more lively and motivating.	1
Programs: Continue to expand number of programs available.	1
Program: Like 45 minutes, but 30 minute section could be used with shorter class periods. Perhaps an15 minute activity & discussion at the end.	1
Program: a recycling and pollution program.	1
Professional Development: Better training in the use of TEAMS	3
Scheduling: 9:00 – 10:00) or 1:00 – 3:00 so live viewing is possible.	4
Schedule TEAMS earlier	1
Scheduling: to be more successful we will start in September	1
Scheduling: Different broadcast time, Shorter modules, rubric answer keys.	1
State Core: More material geared to our state curriculum frameworks.	1
State Core: Have local sites for some lessons, that could be tailored to core	1
Tapes: We need to have all tapes in possession. Use kits separately	2
Technology: No tech expert at site, limited tech at site	1
Technology: trouble taping several of the programs due to satellite problems	1
Teachers trying new instructional methods student learning.	1

Teachers report that the following factors will influence their decision to continue using

TEAMS (see Table 80).

Table 80: Factors Influencing Use of TEAMS Next Year

Factors for Using 1998-1999 School Year	Number Reporting
Content Enthusiasm of students) Continued availability of technology.	1
Curriculum: will use it if it fits.	5
Curriculum: have materials; apply to curriculum. They are very well done.	1
Curriculum: Literature choice, current instructional practices.	1
Grades: more primary level programs. teacher inservices	1
Interaction: use interactive learning. Students learn better	1
Materials: able to get good materials and guides.	3
Monetary: Cost	3
Monetary: ASSET membership being questioned by new School Board!	1
Professional Development: Continued professional.development	2
Professional Development: Time and training in use.	1
Scheduling: Time for preparation and scheduling.	1
Scheduling: Keep it convenient. Wants schedule to plan lessons.	1
Students: gives students chance to be members of a DL community ; modules taught by quality facilitators ensures my continued use	1
Students: The success in my classroom.	1
Students: Continued interest, profiling.	2
State Core: meet core requirements	3
Taping: able to record program; time to view/show class	2
Teachers: am committed to TEAMS at my school; will continue	7
Teacher needs at school, continuation of student as a historian .	1
Teachers: Staff interest and administration support; more teachers	4
Teachers: If the teachers like it and feel that it is beneficial to students.	1
Teachers: Early access to the programs.	1
Teachers: I couldn't do better. Helps on the prep.	1
Teachers: Continued interest profiling.	1
Technology: I will continue to use TEAMS if it is available on KCET – PBS ch 28/58 at 9-9:45 am. Homeroom/Sci class watches live;I tape and use with 2 other classes. Magnet is a departmentalized program with a 5 period day.	1
Technology: continue to use if I get a TV, VCR, and computer in my room.	1
Technology: tech support into my classroom for live programs.	1
Technology: How easily I am able to obtain or tape and cost of materials.	1
Technology: get our satellite & TV's serviced so they can be used correctly.	1

Table 81 displays the names of the TEAMS programs and series being used by the teachers responding to the survey.

Table 81: TEAMS Program Series Being Utilized by Teachers

Series Used	Number of Modules	Number of Programs
Chemistry	8	8
Chemistry		
Chemistry		
Detectives at Work		
Detectives a t work		
Earth Processes	2	2
Earth Processes	8	
Earth Processes	8	
Earth Processes		
Earth		
Earth Science		
Earth Science		
Electricity	8	0
Electricity	8	
Electricity	1	1
Electricity	0	A
Electricity		
Electricity	5	
Electricity	2	2
Electricity - Circuits	1	1
Fast Plants	1	1
Fast Plants		
Fast plants	All	All
Fast Plants	2	
Fast Plants	8	
Fast Plants		
Fast Plants	6	6
Fast Plants		
Fast Plants	8	
Forces & Motion		
Forces & Motion	8	
Forces & Motion		
Forces & Motion		
Force & Motion	3	
Geometry	3	3
Geometry	1	1
Geometry		
Geometry	All	
Geometry	All	

Geometry	1	
Geometry - 3rd grade	1	1
Geometry -3-4 grades	5	1
Geometry - Middle School	6	6
Geometry in My World		
Geometry in My World	8	
Geometry - Concepts for Primary 1-2		
Geometry - Turn on to Geometry	8	
Geometry - Turn on to Geometry	8	8
Geometry - Turn on to Geometry	8	
Heat	All	All
Heat Energy		
History	2	
History	2	
Integrated Ecology		
Language Arts	4	
Language Arts	4	
Letters from Rifka	3	3
Letters from Rifka		
Letters from Rifka		
Letters from Rifka.	1	
Literacy	2	2
Literacy	4	4
Math	1	1
Math	All	All
Math	8	
Math	8	
Math	4	6
Math		
Math		
Math		C
Math - Middle grades	All	
Math in My World	16	2
Math in My World	12	
Math in My world	3	2
Math - Turn on to Math	3	2
Math -5yr.program	1	1
Patterns	3	1
Science	4	8
Science	6	
Science	1	1
Science		
Science	1	3
Science		
Science	6	0
Science	40	5

Science		
Science (Elect., Heat, Weather, Fast Plants)	All	4
Science (Elect., Heat, Weather, Fast plants)	All	4
Shiloh		
Shiloh	1	1
Shiloh		
Shiloh	1	
Shiloh	4	4
Shiloh (preview for future use)		
Social Studies	1	1
Student as Citizen		
Student as Historian	0	0
Student as Historian		
Student as Media Evaluator		
Student as Media Evaluator	4	
Technology	1	2
Technology for Parents	2	2
Technology for Parents #1 and #2		
Technology	3	
Technology	3	
Weather	3	
Weather		
Windows to Reading - k-1		
Windows to Reading –1	3	1
Windows to Reading - 2-3		
Windows to Reading		
Windows to Reading	8	A,B,C,D
Windows to Reading		
Windows to Reading	6	0
Windows to Reading	6	3
Windows to Reading	3	0
Windows to Reading	6	
Windows to Reading	3	
Windows to Reading	3	
Windows to Reading	2	
Windows to Reading	3	
Windows to Reading	10	
Windows to Reading	9	2

Teachers report the following types of technology in their classrooms (see Table 82).

Table 82: Technology in the Classroom

Type of Technology	Number Yes	Number No
Television	52	5
CD-ROM	54	10
Laserdisc	29	34
Electronic Mail	41	20
Modem	26	31
Network Access	39	21
Computer	100 (duplicated)	
486	89	
586	2	
Pentium	46	
Apple lie	89	
Mac (non-PowerPC)	123	
Mac PowerPC	301	
Other	54	

Teachers report that they have computers in their classrooms as follows (see

Table 83).

Table 83: Numbers of Computers in Classrooms

Classrooms with Computers	Number of Computers Reported	Classrooms Not Reporting
62	207	11

Teachers report that they have access to the Internet in the following places (see

Table 84). About half of the responding teachers have access to Internet in their own

Classroom. Another substantial group has access outside their own classroom either in

the library or a computer laboratory.

Table 84: Access to Internet

Place of Access	Number Yes	Number No	Not Reporting
Classroom	45	20	8
Library or lab	41	26	5

Teachers report the baud rate for modem connections as follows (see Table 85). In comparison with the number of teachers responding to the survey, only 13 responded to this question.

Table 85: Baud Rate of Modem Connection

Connection Baud Rate	Number Reporting
56k	2
56k at 39,000	1
14,400	1
28,800	1
33.6	1
38.8 KPBS through fiber optics	1
TCP/IP	1
Do not know	2
N/A	2
No longer use it	1

Ten teachers report that they have been online to the TEAMS' home page, while 52 report having not been online, and 11 did not respond, as shown in Table 86.   This shows a very early adoption period in the use of the Internet for the responding group.

Table 86: Teachers Logging Online to TEAMS Home Page

Response	Number	Daily	Weekly	Monthly	Never
Yes	10	8	21	33	
No	52				26
None	11				

The TEAMS home page is used in the classroom for the following uses shown (see Table 87). A dominate number of teachers reported that they used the TEAMS home page to participate in TEAMS collaborative projects. Other purposes including access to other education links and information, collaboration with other TEAMS instructors or the TEAMS distance learning instructor, and to support the program content delivered via video.

Table 87: Use of TEAMS Home Page in Classroom

Purpose of Use	Number Reporting
Projects: To participate in TEAMS collaborative projects	50
Links: To access links for student projects or research	19
Information: To access TEAMS information	16
Collaboration with other TEAMS instructors: Online discussion and sharing with other TEAMS teachers	8
TEAMS DLI Instructors: Communication with distance learning instructors	6
Enhance Video: To support and extend on-air module concepts	2

The following factors are reported as limiting the use of TEAMS (see Table 88).

Teachers responded that the primary factors which limit their use of the TEAMS home

page are access in their own classroom, hardware/software, in-service in the way to use

the home page, and the amount of time they need to become comfortable with it.

**Table 88: Factors Limiting the Use of the
TEAMS Home Page**

Factor	Number Reporting
Time	13
In-service	13
Hardware	8
Software	26
Classroom Access	26

Teachers believe that the following areas are the most useful parts of the TEAMS

home page (see Table 89). It provides access from school or home, helps in the

preparation of curriculum, is easy to use, provides substantial content links to other Web

sites, provides work samples for student review, and provides substantial enhancement

for the programs delivered via video.

Table 89: Strengths and Most Useful Parts of the TEAMS Home Page

Most Parts of the TEAMS Home Page	Number Responding
Access: No time at school to access page.	1
Access: Easy to access and view.	1
Curriculum: Helps in my preparation	1
e-mail: Ability to communicate & share with others.	1
Ease of Use: Set-up	2
Ease of Use: Everything is great	1
Ease of Use: Very attractive.	1
Links: Resources and links to resources and parent section.	4
Links: The variety of areas and opportunities for world wide communication. The project possibilities!!!	1
Links to TEAMS programming,	1
Links: Student question/answers. My students were not allowed to use it until they had complied with the schools new AUP. The students did not get the books for same until April '98 – For us most useful were the related projects we did in 1997-98.	1
Student work: Students looking at online samples of work.	1
Video Class Enhancement: Office doors, research projects, student contributions.	2
Video Class Enhancement: pictures of the teachers. Some useful information.	1
Video Class Enhancement: Ability to see inside classrooms and see what other teachers are doing.	1

The following improvements are suggested for the TEAMS Home Page (see Table 90).

Table 90: Suggested Improvements for the TEAMS Home Page

Improvements	Number Responding
Nothing! It's the best educational web site I've ever seen! I've told many of my colleagues about it & its book marked on my own home page.	1
It's wonderful! With the new school year, we will have Internet in our school and will be able to utilize and critique more effectively.	1
From what I've had to check out, it looks great.	
It was fine: No suggestions 2Excellent site.	2
I think TEAMS web site is first rate.	1
Continue to update it with resources from around the country	1
Sound's great! We'll try next year! We have Internet now.	1
Links to more age-appropriate (or younger) material.	1
We do not have a web site in the media center.	2
Professional Development: more teacher development.	2
Students: less student program.	2
Site Specific: NPC systems (personal)	2
Site Specific: I believe the improvement needs to be done at our school – Presentation there like what was done in Flagstaff several years ago???	2

The following parts are reported to be least useful (see Table 91). While the teachers responded to this question, none of the answers addressed the question of what was not useful about the TEAMS home page. They reiterated the theme of getting access to the Internet and then needing time to review the home page

Table 91: Least Useful Parts of the TEAMS Home Page

It's all useful – don' tchange a thing!
I couldn't find anything least useful.
Nothing
Access to net limited to one computer at site
Access: Equipment limits access.
Access: Teaching on TV because it is hard to tape it and time is not compatible.
Link
Time: Need more time to explore – hopefully this summer.

Appendix A

TEAMS 1997-1998 Survey

TEAMS Distance Learning
Star Schools
IMPACT Project 1997-98 Evaluation

Please complete this questionnaire and return it by May 15, 1998 to:
Dr. Carla Lane, TEAMS Evaluator, The Education Coalition, 2862 Millbridge Place, San Ramon, CA 94583
Telephone 925-551-7405   Fax 925-551-7479   email: CarlaLane@AOL.com

School Name_____School District_____

Address (City, State, Zip)_____

Principal's Name_____Telephone _____

Questionnaire Completed by _____Telephone _____

1.   This school is located in an area best described as: a. o urban   b. o suburban   c. o rural

2.   a. Total Number of Students in the School: _____

        b. Total Number of Students Using TEAMS: _____

3.   Number of TEAMS students in each grade:

        a. o 1___   b. o 2___   c. o 3___   d. o 4___   e. o 5___   f. o 6___   g. o 7___   h. o 8___   i. o 9___

4.   Socio-Economic Descriptors of Students: The total number of students in the school who are:
        (please enter   the number of students for each category)

        a. _____High socio-economic   b. _____Middle socio-economic   c. _____Low socio-economic

5.   Student Ethnicity: Number of students in the school who are:
        (please enter the number of students for each   category)

        a. _____African American   c. _____Asian   e. _____Pacific Islander
        g. _____Other

        b. _____American Indian   d. _____Hispanic   f. _____ White

6.   Student Descriptors: Number of students in the school who are:
        (please enter the number of students for each   category)

        a. ____Title I   c. ____Special Education   e. ____Low Literacy

        b. ____ Limited English Proficient   d. ____Disabled   f. ____Gifted

7.   What Program Series have you used during the 1997-98 school year?

        a. o _____Number of programs ____Number of Modules_____

        b. o _____Number of programs ____Number of Modules_____

        c. o _____Number of programs ____Number of Modules_____

        d. o _____ Number of programs ____Number of Modules_____

        e. o _____Number of programs ____Number of Modules_____

8.   Do the TEAMS teachers and TEAMS students regularly go on-line to use TEAMSNet? Yes/No

9.   How did your school first become aware of TEAMS Distance Learning?

_____

_____

_____

10. What steps did you take to gain additional information about TEAMS?

_____

_____

11. What process did you go through to decide to use TEAMS?

_____

_____

12. What were the needs that you believed TEAMS would meet for you?

_____

_____

13. What were the characteristics or factors about TEAMS that helped you decide to use TEAMS?

_____

_____

14. How have you had access to TEAMS this year? Check all that apply.

Type of Access	
Satellite Dish	
Public TV Station	
Cable	
ITFS	
Tape	
Internet	

I have access to the following items: (check all that apply)
a.   Video: o TV   o VCR
b.   Computer: o IBM-Compatible or Macintosh   oColor monitor   o Other
c.   Telephone: o In-room teleconference receive   o In school   o In my classroom
d.   Peripherals: o Modem o Fax   oPrinter oVideodisc player   o CD-ROM player
e.   Software: o Internet   o CDLP   o OTAN

15. Was it easy to incorporate TEAMS into your instructional program?   Yes/No

16. Who coordinates the TEAMS program on your site?
        a.____Principal   c. ____Assistant Principal   e. ____Curriculum Specialist
        b.____Resource Teacher   d. ____TEAMS Teacher   f. ____ Other

17. How do you acquire and disseminate the TEAMS program guides and instructional materials?

_____

_____

_____

18. As new teachers begin to participate in TEAMS, how do they receive an orientation to the project?
        a.   ____   Review previous year tapes/program guides
        b.   ____   Review *TEAMS Handbook*
        c.   ____   Participate in Orientation Program
        d.   ____   Participate in TEAMS Orientation Telecast
        e.   ____   Participate in staff development organized by school site
        f.   ____   Other TEAMS teacher
        g.   ____   Other
        h.   ____   None

19. Do teachers receive any additional planning time to prepare to use TEAMS? Yes/No

20. What factors help you to implement TEAMS well?_____

_____

_____

21. What factors hinder you from implementing TEAMS well?_____

_____

_____

22. What needs have been met by TEAMS?

        a.   ____   Provides instructional reform to the school
        b.   ____   Increased student interest and motivation in learning through new instructional methods
        c.   ____   Provides instruction which is related to the national educational goals.
        d.   ____   Provides an otherwise unavailable instruction/curriculum
        e.   ____   Provides rich and challenging valuable content
        f.   ____   Provides experiences and resources to which we have no other direct access
        g.   ____   Provides career awareness
        h.   ____   Creates a community of distance learners
        i.   ____   Provides opportunities to interact with participants of diverse backgrounds.
        j.   ____   Provides assistance to teachers to plan and organize their instructional programs in a way
                                 which is consistent with national reform efforts and available standards/recommendations

23. What has been the greatest impact of TEAMS on your school site?

_____

_____

_____

24. What are the benchmarks for success of TEAMS at your school?

_____

_____

_____

25. Is TEAMS successful at your school site?   Yes/No

26. What changes would you like to see TEAMS make? _____
_____

_____

27. What factors will influence your decision to continue using TEAMS?

_____

_____

_____

TEAMS Student Progress 1997-98

28.__Assign a number, beginning with 1, to each of your students. Describe the student, by circling yes or no for items *a* to *e*. In boxes *f* to *p* put in a number which describes the degree of the outcome for the student that can be attributed to using TEAMS. 4: great degree   3: some degree   2: very little   1: none

Students Criteria	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1(
a Female or Male	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/
b Chapter I	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/
c LEP	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/
d Gifted	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/
e Special Education	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/
f Improved Content Knowledge and Skills	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
g Improved Critical Thinking and Problem Solving	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
h Improved Language Skills	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
i Increased Interest in Subject Area	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
j Improved Quality of Work	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
k Increased Interest in School	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
l Improved Attendance	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
m Improved Behavior	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
n Takes Responsibility for Own Learning	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
o Greater Confidence as a Learner	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
p Higher Self- Regard	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43

Students Criteria	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	3:
a Female or Male	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/M	F/
b Chapter I	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/
c LEP	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/
d Gifted	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/
e Special Education	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/
f Improved Content Knowledge and Skills	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
g Improved Critical Thinking and Problem Solving	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
h Improved Language Skills	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
i Increased Interest in Subject Area	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
j Improved Quality of Work	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
k Increased Interest in School	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
l Improved Attendance	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
m Improved Behavior	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
n Takes Responsibility for Own Learning	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
o Greater Confidence as a Learner	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43
p Higher Self- Regard	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	4321	43

Appendix B

Transcriptions of

TEAMS

Evaluation Focus Interviews

1997-1998

Evaluator: Have the groups that were part of it to begin with maintained it?

are they still there?

David: In terms of TEAMS participation?

Evaluator: Yes.

David: Oh yes. It varies from school district to school district but the

TEAMS participation has actually grown from 2 stimulus. One is Judy and

Gary coming over and doing workshops where people get more up to

speed in terms of what to anticipate from TEAMS. When we open up

workshops and have the studio teachers over they go back much more

comfortable and much more in a recruitment mode to share and get other

teachers involved. Immediately following those workshops our

enrollment went up. We also did a TEAMS participation as an open

recruitment thing at this year's microelectronics conference that ASU

runs. They attract about 800-1000 people, teachers during what

amounts to spring break. We did a presentation on TEAMS there and we

had calls from schools asking what can I do between now and the end of

the year and how do I sign up to participate next year. It works in terms of

recruitment but the biggest avenue for recruitment is those who know

about TEAMS really like meeting with, being exposed to, and having an

opportunity to share with studio teachers. No matter how many

workshops I go out and do or how many times I talk to building

coordinators, the stimulus for increasing numbers is contact with the studio teachers.

Evaluator: We were talking about what some of the problems are.

David: I don't really look at them as problems. I'm just trying to look at opportunities to increase participation. We've looked back at what events or what things happened that made it better. We have a consistent group year after year that we'll send out TEAMS forms to for the principal's signature in August and they're all back here by early September. We've been trying to get new members and we look back at how we got new teacher participation. Some have been the result of "I didn't know about workshops that you do at public forums like the micro-computer conference. We're going to do another one in June for the tech directors at Mason School District. We will pick up teachers there, too. We focus on the teacher's conferences rather than the administrators conferences because administrators don't make decisions about classroom participation like that.

Evaluator: They don't make it even at the higher lever or go back and suggest?

David: My experience has been no. In the rare instance that it happens, you have maybe a principal or superintendent who's a real instructional leader and sees the value of it. My experience has been that if you focus on teachers and they realize what an asset it is to their classroom, they'll get it done in the building. It's probably more of an indictment on the

administrative corps in Arizona, but there are too few instructional leaders that recognize the value. They give you good lip service but to the level that you get commitments. You get commitments when you talk to teachers. We try to focus on those teacher forums and when we've done the invitations like when the studio teachers came or sent notices about presentations at certain conferences, we have focused on teachers. It's worked better. We have one school where the majority of the teachers came to Gary's workshop. Since then we have probably 5 teachers that are using something in the spring that hadn't planned on using it. They get excited about it when they see the whole picture and they see how they can participate. They get ideas like in Gary's workshop. He did hands on science activities with them. So they have a new report of things to go back and do. They don't feel like that they're tied to the broadcast when they have an increased report of hands on things to do that follows the broadcast. Gary spent a lot time. We did electricity and we did earth processes, hands on activities. Every single one of them has reported back that they have tried the experiments that Gary worked on. Although the experiment was in the kit and Gary had done it previously on air, they hadn't done it. They hadn't done all the variety of things that he did with them. They felt much more comfortable. We did earth processes. I had a teacher call me the other day to let me know that she didn't buy the kit, but she made all the stuff necessary to earth processes and wanted me to know that the kids really loved it. Any number of workshops I could have done wouldn't have done that. I'm doing utilization and overview. I'm not doing hands on science with them or hands on reading, like Judy did. Those are the kinds of things that extend the activity of the program.

Evaluator: When they come in and do something like this, are they going

                       through step by step in very much the same way as they would be doing

                       with kids in front of the TV?

David: Yes, both Judy and Gary's workshops were taught the same way

                       they would have taught it live except they did extension activities. They

                       did, this how you can use it in your regular classroom. These are the

                       kinds of things you can do with the tape or with live broadcast. They also

                       did public relations, what's coming down the road, what to look for. Both

                       Gary and Judy, while they were here focused on making it a richer

                       experience for the teacher to make it a richer experience for the kids

                       beyond what you typically see on the tape because of time limitations.

                       That word gets around real quick. Judy was here a year ago, June. Gary

                       was here in February. The amount of response we had following each

                       one of them really picked it up.

Evaluator: Is it physically that they're here or that something's special for the

                       teachers here?

David: I think it makes them belong. I really do. I think there is still some

                       excitement about meeting this person, this face I see on the TV. A lot of

                       people haven't done that. Some of the old timers have because they've

                       been here before, like Sue Delossa and Sara Jenkins. They're old timers

                       and they've met them all, probably. The new people, Gilbert, Pendergast

                       District, Charter Schools, there's still a fascination about who these

                       people are. That quickly resolves itself because those two are very

affable people. It moves on quickly to questions and answers about extending activities, using the tape or the program live as "This is my unit". This is my electricity unit and I'm using TEAMS to do that but I need to extend that unit. I need to make sure I'm covering those things that meet the test standards. Have we approached that? I need something beyond this. I need to carry this beyond 8 modules or something like that. I need something to do between broadcast times to keep the kids interest to do as prelearning activities or extension of the last tape. You get a lot of questions about that. How can I do this? How can I do that? That's been the real reward. That meant their excitement was more. They go back to the building and somebody else gets an "aha" and we get a call and start adding copies of tapes. They decide they want to do this but they missed the first few tapes. From now on we're going to tape but could you send me the 1st 2 lessons and the lesson module. That's because of the excitement of some teacher going back and saying, "hey, this is really neat". I'd have to say as a recruitment tool, those have been more impressive than probably any workshops we've done.

We're also after more people participation. When I took it over, two years ago, we had about 27 people. We're up to about 75 people now. I'm looking at what was the motivation for that. What can we repeat? Patty and I were talking the other day. We've had requests for Gary to come back. A lot of the teachers have asked if we could do Learning to Read next year. Could we do that with a studio teacher so we could look at extension activities in that? Probably 50percent of that 75 are either charter schools, where they may not have hired a seasoned teacher, or they're fast growing communities that are hiring teachers every year. What we are trying to do is to keep stable in those districts and use the

old timers in those districts to recruit more people. I'd like to have another 100 if we could. I've found that you don't get that by going to superintendent's meetings. We got a few; I could probably count them on one hand, from things like principal's meetings and stuff like that. The majority of them we get when we focus on things like conferences, seminars and outreach to teachers.

I think it would have the impact if we had a Sue or a Sara Jenkins or somebody like that who's an old pro and familiar with TEAMS just calling on teachers and helping them problem solve. The majority of what I do is problem solve satellite problems. I unfortunately don't get to deal with the instructional side of it at all. Supporting somebody from the instructional side would make all the sense in the world. I would not just increase usage but that person could go into a school and help them problem solve how to make it fit into their schedule and all the logistics it takes to get TEAMS working. Then, in the building, recruit 4 or 5 teachers to do it at the same time. Build that sharing and camaraderie and that kind of thing. I look across the list of people and with the exception of 1 school, there are not more than 2 people teaming up at a time and using TEAMS. In some cases, there's only 1 teacher in the building, and those teachers need support. My duties are such that, I help solve the district level, building level logistics issues of satellite linkage, repair, and stuff like that, but I don't get in the classroom. It's sad.

I can support the teacher in language arts and social science and math. That's not a problem from a content standpoint. It's just time. To do that it would mean 50percent of my time.

Our experience in science has given rise to a different project. Elementary teachers don't have a science background so anything

where they have a trust factor, such as with Gary, is needed. This is probably less true of language arts because many more elementary teachers feel comfortable with language arts. They don't feel comfortable with math. One of my recommendations for future program development will probably be on statistics again. Primary teachers don't know how to do that stuff. I think part of it might be the glamour of having Gary or one of the studio teachers here. I think the real issue that they come for is an established trust. When they see those people they know they can teach. They know that they know their science or math and they feel that is where they can get good stuff so they come to hear the content. I think it's a recruitment tool to have their face and their name but I think teachers make the decision to come because they need the content.

Evaluator: One of the things that we've found in an early part of the TEAMS evaluation was that teachers do not have the math or science. On a weekly basis they increased their time in using either math or science by about three hours. This was not because they had more TV but because they were becoming more comfortable in teaching the subject.

David: I look around the state. Mike is working on a project. He went out and got grant monies from business and industry and the Arizona Community Foundation to do a project for elementary teachers in science content. It's focused mostly on the rural districts but the bottom line is that enthusiasm for something that has content based classroom applications in science and math people just gravitates to. I've talked to a lot of districts and the first thing they ask for is if we have any kind of

support program, be it TEAMS or staff development. They're really

looking for staff development in the science and math content.

That was the nice thing about the way Gary approached earth

processes. He and I talked about it ahead of time. We spent time on what

is the content and we picked a couple of topics within earth processes.

You couldn't do the whole thing in two days. We took the teachers

through the content as well as the objectives and what it was they wanted

their outcomes to be. We discussed what those looked like. We did lab

experiments with them and gave them a turnkey thing that they could

pick up and go back to their classroom with. That's all teachers want

today. They don't want to be talked to about science. We had an

advisory group in to help us plan the science project.

There's no question that it takes a champion at the building level

(to make the TEAMS program successful).

David: (conferenced David Ruoho) This is a charter school of integrated

arts. You'll have to quiz him on what he's doing because I've been to the

school but not to his room. He was an attendee at some of our activities.

David R.   Hello.

Evaluator: David   please begin by telling me about your school. I

understand it's a charter school.

David R.   Right, we're a charter school K-12. We've got a total enrollment

of about 75 kids right now. We're not a real large charter. We're a single

school organization. We try to integrate all the areas of art into all the

areas of the academic curriculum as well.

Evaluator: Which part of TEAMS are you using?

David R.   I haven't used a whole lot of the TEAMS partially because we

don't have satellite access and several of the other things. I have used

some on the electricity. I do have plans, that I haven't gotten to yet, to

use some others. I have ordered some of the videos. Off the top of my

head, I can't think of the names of the videos I ordered. I'm working with

5th graders through 8th graders all in one classroom.

Evaluator: Tell me what you did with the electrical module. How did you use

it and get the materials.

David R.   Basically, I just took them through a circuit. What makes up a

circuit from the power point all the way through a light. We talked about

what can break the circuit, how switches are used within a circuit. They

had to draw pictures to design a circuit and then label all the parts thereof.

I purchased the components. I purchased some myself this year. We're

applying for some grants for next year which should help pay for a lot of

the supplies and things in that area.

Evaluator: You said you had the children drawing? So that was the way you

integrated the art into the curriculum?

David R.   Right.

Evaluator: Why did you choose that module?

David R.   Partially due to the fact that I had attended a workshop through

TEAMS. One of the areas we talked about was electricity and that just

seemed to me like the easiest way to go to start the kids off. Gary was at

the workshop held at ASU West.

David R.   Yes. My other plan is to use the Internet to connect in on some

of Gary's activities.

Evaluator: Do you have Internet access in your classroom?

David R.   I do for one computer, which is not real good, but I can get a

couple of kids on at a time. Next year I'll have more access to the Internet

and more computers hooked up to the Internet. Next year I'm looking at

having about at least 20 computers all hooked for Internet access in one

classroom.

Basically it's going to be our classroom. It's going to be a

combination lab-classroom but it basically will be my classroom next year.

Evaluator: How many teachers' are at that school?

David R.   We've got five excluding J.C., who teaches part time and is also

our administrator. J.C. Hall and Lynn Munson, who's also one of the

administrators and teaches part time.

Evaluator: Is there anyone else who is using TEAMS in the school?

David R. No, I'm the only one at this point.

Evaluator: What do you think about it? Do you think other people might want to use it?

David R. I would think it would be easier to use it if and when we can get satellite access. I like the idea of having the kids able to interact that way. If we did anything like through the fax machine, we don't have access to the fax in the classroom. I would have to quickly make runs to the office, which is inconvenient.

Evaluator: You could send messages that way rather than trying to do the fax or running. How quickly do you get the tape after the program is over? After it's actually aired?

David R. I haven't actually ordered the tapes after it's been aired. The tapes I ordered were through the asset catalog.

Evaluator: One of the things that we could do to help you would be to have you send a message to Gary to tell him how you are using the program. Ask him if he would mind taking a little bit of extra time and corresponding with you and your students as you go through materials. I think he would be willing to do that. He's done it with other classes. It does take a little bit of extra time but if he knows that you are interested and how much it would mean to the students, I think he would probably do it. That would

give you another way of using more of those programs until you are able

to get the satellite downlink that you need. That way you could use

programs going back 2 or 3 years. I don't know how much David actually

has here stored but 4 years is what he's saying to me. That would give

you that opportunity. Does the material that you are using pretty much

match up with the rest of your curriculum?

David R.   Yes, it does.

Evaluator: Do you have a set curriculum, a framework that you're teaching

to?

David R.   This year I'm more flexible. I'm not in an actual set curriculum.

Next year I'll still have the flexibility but we will be working a little more on a

set curriculum. We're looking at doing some experiments in rocketry and

different types of propulsion and back into electricity again. Those are a

couple of the areas that we are looking at.

Evaluator: When you use the tapes, tell me how a typical class would go.

David R.   Generally what I do is show the tape and sometimes I'll stop within

the tape and we'll field questions. Other times I have them watch the tape

and I use it for note taking, as well. I have them take notes from the tape

and then we discuss it afterward.

Evaluator: Those tapes have a part in them where the kids do the work. Are

you having them do it at the same spot?

David R.   If we're doing the electric one I did have them do that. I haven't gotten into the other tapes yet.

Evaluator: Have you ever considered using the math tapes, as well, or is that not your area for these children?

David R.   All the areas are mine. I haven't used the TEAMS math yet. I do have other math videos that I have used with the kids from other asset programs.

Evaluator: I think you would probably like the math as well, if you're enjoying the TEAMS science program, because it's got all the same sorts of things that help you through it and stretch you as a teacher as well so much help for the kids. What is you background, David? Are you a trained teacher? How long have you been in the business?

David R.   I've been in the business for 12 years now, 2 years as a school administrator in a public school setting. I've taught everything from 1st grade, including this year, up through 8th grade in all subject areas.

Evaluator: How do you like teaching in a charter school? What made you decide you wanted to go that way?

David R.   One, it's closer to home. Class size is more limited because through our charter we set the class size, whereas in a public school setting I've had anywhere from 30 to 35. There's been no real cutoff

point. I've worked with other teachers who've had up to 40 to 45 in the room. We have it within our charter that the cutoff is 25. I think it puts the classroom size a lot smaller, which helps individualize the instruction more. That is more like the way I like to teach anyway.

David: David, are you teaching a multi-age class? A multi-grade class?

David R.   Yes, I am. 5th grade through 8th grade. All ability levels.

David: How do the kids sort out? Do you have younger than older or is it pretty evenly split among the grades?

David R.   I started off with younger and it's kind of evened itself out through the year to where it's almost an even number count between 5th-6th and 7th-8th. That's what it's done this year. It's made it a little awkward because it's 4 class levels and I've had to scrounge some of my own curriculum material. That's where the TEAMS has helped other asset programs, and me out as well. I think it's a too diverse to have that broad of a range within one room. I'd like to break it down a little bit more if at all possible. That's one area we are looking at for next year. We could keep it at multi-grade level but I'd like to see it cut off at 6th, 7th and 8th if we keep it all in the same room.

David: How have the state standards and state tests impacted your curriculum planning for next year?

David R.   I pretty much follow the state standards anyway. I do have a few I

                                  do have to look at again because I have been out of the teaching

                                  situation for several years before I started back here. I've got to refresh

                                  my memory on some of that. I'm more familiar with what the state

                                  standards were for the younger grades than I was for 7 and 8. I've had to

                                  go back and do some reading to make sure I'm meeting their

                                  requirements.

David: Is Carmel part of the state pilot on state assessment?

David R.   Yes, we are.

Evaluator: How do the kids react to TEAMS? What are you seeing as far as

                                  learning impact in using the materials?

David R.   They seem to really enjoy it. I think they enjoy it more when they

                                  can do hands on and we cover it that way rather than just using the

                                  straight curriculum. If they can have some interaction with the instructor I

                                  think they will enjoy it even more.

Evaluator: Do you look at their test scores? How do you test them on what

                                  they've done? Is it performance based or do you do paper quiz's or what?

David R.   I do a little bit of all of it. I do performance based. I do oral

                                  questioning, written tests. I even give them some research questions

                                  dealing with that area.

Evaluator: So you're using a broad brush with what you're trying to do with them. Are you facilitating in the classroom? How would you describe the way you conduct the classroom?

David R.   It depends on what is going on at the time. Some of it is overall classroom facilitation. Some of it is, they have the assignment and I go around and individualize and work with them on an individual basis.

Evaluator: Are you pretty comfortable with that method? Is that something that you have been doing for a long time?

David R.   Yes.

Evaluator: What else would you like to tell me about TEAMS that I haven't asked?

David R.   The only other thing is that I was wondering if TEAMS was making any plans to go higher in grade level. I don't remember seeing anything for the getting into the high school area.

Evaluator: No. TEAMS is part of a bigger project called Star Schools. It's funded by the United States Department of Education. Right now there are about 15 different projects that are part of that. Some of those other projects are reaching into those other areas. What Star Schools tries to do is to fund projects where the projects don't duplicate each other in their efforts. I will leave a piece here with David about Star Schools. He can let you about that. You said you have access to Internet?

David R.   I have access to Internet.

Evaluator: Let me give you a URL that you could take a look at. I also work

with one of the dissemination projects that's part of Star Schools. It's

www.wested.org/tie/dlrn.html. DLRN stands for distance learning

resource network. Tie stands for technology in education. That's my

group. WestEd is one of the ten labs that work with the United States

Department of Education. It's kind of a think tank. We do projects and

various things. DLRN is in total support of anything going on in distance

learning. You'll find evaluations and other types of papers there. If you

go a little further into that part of the site you will find all of the Star

School's projects listed there, including TEAMS. You can connect to any

of those that have their own Web site directly. From that you may find

some other things that are of interest to you. Let me give you my mailing

address. I can help you find some other project or let you know what else

might be available if you don't find what you want. What's your e-mail

address?

David R.   I have it through my house. It's ruohofamily@juno.com

Evaluator: With DLRN we can provide you with some other help.

David: He was a new recruit as a result of Gary's workshop.

David Alexander

Asset

Phoenix 2

David: I said, look, you don't have time to design classes and design

meeting web pages and electronic field trips and that kind of stuff. Do

that. It's great. We'll talk about how to do it, but getting kids to use the

web right away is one of things you want to do and you want them to do

research. I go to lots of weather sites. Everybody's interested in El Nino.

We take the El Nino stuff and we do a scavenger hunt on what is El Nino?

Any teacher can do that. You just write questions. What is El Nino?

Where does it have its impact? Where is it dry, where is it wet? Then they

have to do research on the global consequences, on the regional

benefits, what's happening in our state, what's happening in the country

and other countries, that kind of stuff. They learn geometry. They learn

this dry stuff and they learn all this wet stuff. They begin to understand it.

I've had 2nd graders do it without having to do big time planning. We get

on with it. We talk about how dry it is in Africa and how it hasn't rained in

eastern Australia in 2 years. You just take them through and you give

them simple questions that they can look up the answers to by using just

this Web site link of TEAMS. They always say well we want to ask a

weather expert and we always have at least one question that we'll go off

to another man for. Getting teachers to integrate that kind of unit using

the web in the classroom is a whole lot easier. That's the kind of stuff I do

in a workshop.

Evaluator: What else do you like on that TEAMS Web site? What do

teachers seem to like?

David: They really like this stuff.

Evaluator: The science, history.

David: They like the resource support stuff. I take them in here, and I

                            have a science group today, so I'll probably take them into Gary's. I show

                            them what Gary's activities are and how they can integrate them into the

                            classroom. I usually do projects with them. We talk about how they can

                            record their observations and send them to Gary and are part of his

                            database. I make sure teachers that I talk to about this realize that kids are

                            going to be anxious to find out what happened to their data. They need

                            to make sure the kids take this home at the end of school activities so at

                            the library or at their home, wherever they can get Internet access, they

                            can look up the results.

Evaluator: That really brings it home for them.

David: In the Murphy Project, hopefully, some of those kids will have

                            their own computers this summer. At least all of the kids that are doing it

                            will be able to go to the library to get their data. With teachers I tell them

                            that they really need to know that there if a safe haven that you can direct

                            your parents to. I spend about ten minutes talking to them about this site

                            for parents that are paranoid about using the web. I have teachers who

                            call me who are not TEAMS participants who have found out about this

                            one. They want to know if they will get in trouble if they use it in their

                            classroom. I say sure. I say you can use it anytime you want to. They're

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not TEAMS participants. Some of them are high school teachers looking

for this to research current problems in social studies class. I tell the

teachers to feel free. Go for it. The teachers use this all the time for

access because it's a collection of a collection and they don't have to go

out there and do a search. It's another collection of a collection even

though it's pretty much west coast although New Hampshire is in there. I

give that out to teachers all the time, whenever I'm in a language arts

environment or something like that, I give them the TEAMS thing out. I

say if you don't use it for anything else, go use the new service. Just go

do the new service. Let your kids do their current event problems and all

that other kind of stuff. I tell them that there are teacher publications on

here, too.

Evaluator: Do you have the same class each week?

David: Actually, it's really 2 classes. One is just an introduction. This is

our new Web site. This is for teachers of bilingual kids. These are mostly

around the world sites. To teach ESL or bilingual, there's just nothing

that supports the teacher so we came up with, again, a collection of a

collection. It talks about where teachers can find resources for use with

bilingual kids. This one is community-based information. Employment,

day care, housing, indigent assistance, legal services in both English and

Spanish. People who speak Spanish can find it. This one gets used a lot

at the libraries. It's the same collections, just in English and Spanish. We

advertise the classes and teachers sign up from everywhere. $50.00

each. It's a revenue source. I'll run it with 8 or 10. I have a 22-station lab I

can use. It's generates some revenue. Mike teaches it, I teach it, and

sometimes we hire a couple graduate students. It makes the teachers comfortable with using the Internet. In the fall, we'll do a thing on more integration and how to use it. What we got out of, besides the money for staff development, is enough money to buy some new web servers and we're going to put up Ken Comosky's EPY Institute. It's done the best of the best in software evaluation center for 30 years. They just recently got a grant to upgrade that from a CD to Web site. The Web site will be accessible by password at all asset member districts so they can search software titles for peer evaluation. We're going to keep a peer evaluation comment section on the web. We have a number of software evaluators we've used around the state. We're going to do almost an antidotal evaluation as opposed to an academic type. We're going to say this works in my classroom and here's why. This is what the kids did with it so it's kind of like a narrative antidotal evaluation. It will become part of the EPY database.

Evaluator: Where did you get all this technology background? Did you just pick it up as you went along?

David: I was a superintendent. Any time a vendor walked in the door he had to teach me something. I'd never let him out unless he taught me something. If you can't come in the door and teach me something, you can't have any of my business. I felt I needed to learn. I felt I needed to stay ahead. I'm a hacker. I'm a player. I'm the world's greatest thief. I go over to the university and I hear about a good how to use computers in the classroom course. I'll either take it or audit it or whatever and I'll steal the stuff. This workshop course, we hired a media hotshot doctoral

candidate. I was told that this kid was really hot. He was a good teacher, good modeler and a good process worker with teachers. So I invited him to help write the course and he taught at probably the first 10 of these workshops we taught. I went to every single one of them and listened to all the examples, looked at integration, watched the teachers talk to teachers, figured out what they were getting and what they weren't getting, what was meaningful to them, what wasn't meaningful to them and kept my own antidotal journal. I looked at the sites and what we could do to improve the sites. I thanked him very much; I rewrote the site and started teaching the class. I paid him off, $150 a session.

Evaluator: Is this on a web? Is that on a Web site now?

David: It's all on a Web site. You can access that anytime. This is the Asset home page. After the slash is the workshop. Mike's the webmaster around here. This is our marquis site. This is the new one that I told you about. This is the new project we have coming up to teach science teachers content. This is the math project Mike runs. This is the promise of a science lab. We do both TEAMS Arizona and TEAMS headquarters, so they can go back and forth to the web page and our support for it here, which is how you get to be TEAMS in Arizona. We change the marquis regularly up and down. TEAMS was up at the top a couple of weeks ago. In addition to the marquis, all of these are sub-sites. This takes you to my class. These are the software stuff that we do. This takes you to the workshop, which you have already seen. We let it go public. I use it in class. I think people should take advantage. These are my collections of collections. We've started doing a subject area of

collections for elementary teachers; secondary teachers, administrators, language arts, math and we're getting ready to add science. So we keep the categories going and the interest going. This is what I teach from. You can start with the Asset. This is our pr piece. There are Asset projects.

Evaluator: How much funding does Asset get each year?

David: We probably raise $280,000 in membership fees and we get $230 from the legislature. The rest of it we raise in grants and begging.

Shannon
Phoenix 3

Evaluator: How long have you been using TEAMS?

Shannon: This is only my 2nd session. We did TEAMS as a historian and
now we're doing TEAMS as a geographer. This is my first year.

Evaluator: What do you think about it?

Shannon: Can you be more specific?

Evaluator: Is your general impression that you like it?

Shannon: Yes, I do like it. There are things about it that I like and things that
I'm not so sure about. I really like the hands on activities. I like the kids
being able to call in and participate. The kids really get into that. I like the
way things are explained in simplified terms. Those are some of the
things that I've enjoyed. It teaches kids about technology, talking about
satellites, we can tie all that stuff in too and how that actually works. Our
classes really like that.

Evaluator: What sort of learning impact are you seeing from the program that
you can directly relate to the program, not something else that you are
doing in the classroom? Is there a learning impact by the TEAMS project
on your students?

Shannon: The first day that I had my class, I asked how many of them liked Social Studies. No one responded. I think the impact this has is showing them Social Studies doesn't have to be reading out of a book and answering the chapter questions at the end. It's fun and interactive. When they say things like this is fun or yea, we're going to go do that, I say don't forget guys, this is Social Studies. They're realizing that Social Studies is so much more than a textbook and questions at the end of the chapter. That's been really positive.

Evaluator: Have you given them any test or have you used any of the performance-based things that TEAMS provides?

Shannon: I haven't.

Evaluator: If you gave them something, what do you think you'd find?

Shannon: As far as their achievement level?

Evaluator: Yes, retention, achievement, ability to retrieve and apply the information that they've learned.

Shannon: That's the one downside that I see of TEAMS. Unfortunately because of our society, I think the kids are used to tuning in to the TV and tuning out. They are not used to the interactive format. When they see her on the screen, they are thinking to themselves that this is just a television program. Some of them might have a small conversation here and there. That's an issue that I need to deal with. They're so used to

seeing the television; they're so exposed to that, I'm not sure that they might retain a lot of things that she might say. I think that when we do the good activities that go along with it that they will be able to retain that information. Things that they are directly involved with I think is where they would show most of their gain.

Evaluator: Those are TEAMS activities or ones that you've created?

Shannon: They're TEAMS activities.

Evaluator: It is a package of things. It's not just TV.

Shannon: Right. They would probably show more gain in relationship to the activities they actually have to do. I think that there are things that she says that are very valuable, that they might miss just because they're not listening. Of course, the televisions aren't as good as they should be.

Evaluator: Do you see a way of making a recommendation that I could take back to TEAMS that would make them retain the information? Is it because she's speaking it and there's no…

Shannon: That would be my recommendation. If she were speaking it, having a visual as well would help.

Evaluator: I haven't really looked at those programs this year. It sounds as though she's more a talking head than the kids appreciate. They would like to see more of other things, more hands on types of things.

Shannon: Right.

Evaluator: That's a really good recommendation.

Shannon: They do that some when she's talking and they show something
                                 to reference it. I think that you need both the audio and the visual.

Evaluator: All of TEAMS is based on learning styles. I think sometimes in
                                 the heat of getting production done something slips through or it's not
                                 quite available. That's a very positive thing to remind them that they need
                                 to be doing that because you could just as easily stand there and say it so
                                 why have the TEAMS program there if there isn't something that
                                 differentiates it. Is there something else along that line that you think
                                 would help?

Shannon: I don't think so.

Evaluator: How did you happen to select these programs to view?

Shannon: My librarian came to me and asked me if it were something I would
                                 be interested in for Social Studies.

Evaluator: Did you look at the math and science as well?

Shannon: I didn't. I've only done the Social Studies.

Evaluator: You might take a look at the math and science and see what you

                                    think about those as well.

Shannon: I think she has one on tape but I haven't seen it.

Evaluator: Do you use the TEAMS Internet board? Do you have access to

                                    Internet?

Shannon: Yes, I do. One of my students has used it to write to her letter (?).

                                    She was really excited about that.

Evaluator: Did they get a response back?

Shannon: Yes, they did.

Evaluator: Have you gone on the board and tried to seek out any other

                                    things that you might find useful that TEAMS has up there?

Shannon: I haven't. We only have one Internet access in our entire school

                                    so it's whoever gets there first.

Evaluator: Will you be getting more access anytime soon?

Shannon: Yes. We are supposed to have access by the end of the year on

                                    a per room basis.

Evaluator: There are some really nice things there and the kids don't have to have access to it. It's things that you could download and use. Lesson plans and all sorts of other things that you might find interesting. Are you planning on using it again next year?

Shannon: Oh, yes I surely would. It depends on what is available. I'm changing grade levels next year.

Evaluator: Do you know what grade level you'll be teaching?

Shannon: I'll be teaching 2nd.

Evaluator: They do have something for…

David: Reading. The new learning to read series for 2nd and 3rd grade is really going to be good. It has great staff development ahead of time so you'll know exactly what's going to happen on the satellite or on the tape as well as the lesson plans. They're going to do primary geometry again next year. Primary geometry would be great for 2nd graders. Many 2nd grade teachers find that they do pretty well with Letters from Rifka, the literature series.

Shannon: Another teacher at this school did that one.

David: That's really pretty good for 2nd graders. 2nd graders get a better handle on that one than they do with Shiloh. Shiloh is sometimes better for 3rd or 4th grade. The science series next year may be a little tough for

2nd grade. It is probably better for 3rd grade but you might want to preview it and then use certain modules out of it on a topic area like electricity. Instead of doing the whole module, do just the electricity piece on simple circuits. 2nd graders do simple circuits pretty well. I'm going to be faxing early next week a sample of next year's schedule so you can begin to do some planning.

Shannon: That would be great. Will that go to my librarian?

David: It'll probably go to Katherine Kim, yes.

Shannon: She's awesome at coordinating all this stuff. She looks at all our schedules.

David: Katherine's usually been through each one of the modules before she recommends them to you. I'll send copies to Katherine and she can give them to you. You'll see that the schedule for next year is front loaded for primary so look at it in the fall as opposed to the spring.

Shannon: O.K. Great.

Evaluator: Shannon, is there anything else you wanted to tell me about TEAMS that I didn't ask?

Shannon: No. I do appreciate the staff development video. It's nice to know what's coming before it actually comes. It's very user friendly as far as explaining this is pre-telecast activity, this is what you need, and this is

exactly what you do. It's laid out so that it's very easy for anyone to follow.

I was a little bit worried, not knowing what to expect. It was exactly what

they said it was. I appreciated that.

Evaluator: I think most teachers really like the way it's put together, with the

manipulatives and everything, particularly the math and science, where

they don't have to go out and find it all themselves.

Shannon: I would like to see those. I'd like to see the math and science.

Evaluator: David, has she got manipulatives there at the school?

David: With geometry manipulatives there is a kit that you can buy but as

I recall Katherine has the math kits that came with the last series. There's

about 4 manipulatives. Most of them have to do with tiles and shapes.

90percent of them you can make out of cardboard. The bottom line is

that the 3 dimensional tiles and the 3 dimensional shapes that support

the geometry primary program are in the kit Katherine has. What a lot of

teachers do is use blocks. I had one teacher call me this year. She was

using cardboard and a father came to class and said I'll make all these 3

dimensionally out of wood for you. He cut all the shapes and delivered

them to class.

Evaluator: There's a perk, a parent's project, too.

David: A lot of teachers have found a father who is a woodworker as a

hobby or something like that and said I need 4 sets of these. It works

every time.

Evaluator: Shannon, thanks so much for taking the time to talk with me. I do

appreciate it.

Donna Miller

Catalina Venture School

Alhambra ESD

Phoenix, AZ

May 6, 1998

Evaluator: Can you tell me how long you've been using TEAMS?

Donna: Not very long. I just started recording from it last year. I just used a little bit of it this past year. I haven't used it very much.

Evaluator: What programs have you used?

Donna: I mainly used the geometry program.

Evaluator: Which grade group is that one for?

Donna: I used it with 3rd grade. I wasn't real sure what it was for but it worked real well with 3rd grade.

Evaluator: Yes, it's meant for the little kids. How do you use the program?

Donna: What I like best about it is the manipulative things. We've been using manipulatives and I'm not real good about it and using them along with that really helped.

Evaluator: Do you watch the program?

Donna: I'm going to have to talk to you another time. I'm getting really

             sick.

Neal Gilb Programming Coordinator

Cooperating School District

1460 Craig Road

St Louis, MO 63146-4842

February 10 1998

Evaluator: You've been with TEAMS for 5 years?

Neal: I believe so. I think our contract has gone back to 1993.

Evaluator: Do all 232 schools actually receive the programming?

Neal: Yes if they desire. It goes out over cable and ITFS so it will go

anywhere there is a receptacle. Virtually all of our 139 elementary

schools, which it is targeted for, have access to it. I think it is a matter of

educating them to what is out there. We have tried to do that through

newsletters, fliers. I have an e-mail list of folks that I send information out

to on the programming and all sorts of things. I always put in reminders

not to forget about TEAMS, things like that. I know there are folks out

there using it. I'm not sure exactly who they are, though.

Evaluator: Is there a way that we could find that out?

Neal: I could do a survey on it. I'm thinking that Mike would probably

know that if they get any support from him through print material or things

of that nature.

Evaluator: I spoke to him a couple of times about getting somebody from CSD. I don't think he's really supporting them in any shape or form. He doesn't seem to know of any other schools in the area. I'm very concerned about how it's being developed. How it's supposed to be distributed. I'm not here to critique it. I need to find out because it's different now than it was a couple of years ago when DeeDee Schlictin was doing it. It seems to have a different emphasis at the state level probably because of the amount of money that they can give to the state to help promote it and pay for a person to be a coordinator has changed. I think it has probably dropped by maybe $60,000 or more. I'm not really sure how much they had or how much they have now but I don't think that Mike's entire job is TEAMS or half of it. I'm not even sure if it's 10 percent.

Neal: I don't know what all MCSA does. I just know I get the TEAMS programming through them. I will tell you that Mike and I are getting together tomorrow morning to map out a schedule on how we can set up workshops for teachers to become involved in TEAMS. We're going to set up one for math, one for science and generate interest in that way.

Evaluator: That's good. It's the first time I've heard that.

Neal: I don't know if my role in coordinating TEAMS broadcasting has ever been defined. It's just one of those things that I do along with all the other programming that I'm responsible for. I would like to be able to spend more time going into the schools and talking to them about TEAMS but it's as I said. It's just one of many things I do. We broadcast it

all the time and Mike has given me literature to hand out and I try to get those out at different meetings we go to whether it's a teacher's conference that we do a workshop at or an educational technology association meeting that we go to. I'm trying to bring out as much information as I can. I'm not sure it's getting to right people though because when you talk to the ETA members, their library media technology people have 64 jobs also. I'd like to be able to bring it down to the teachers who need use it because I think they would.

Evaluator: The teachers who use it absolutely love it. The two women that I talked to, Irene Harding and Sandy, have been using it for several years. Initially they used a number of other things in addition to TEAMS to augment, primarily they used science. In interviewing them this time, they're using TEAMS and their own textbook and that seems to be the majority. They're using last year's programs because they say it is too difficult for their librarian to do all the taping. I asked them about getting it from you. I know it's not very expensive.

Neal: No, in fact for our members, we just tell them all you have to do is call us up and request the program from the catalog and tell us what time you want it broadcast, set your VCR up and tape it. There's really no cost other than for them to purchase a tape.

Evaluator: Do you think they would get it in their classrooms? Is that part of the problem? I know they've got an Internet connection in each of the classrooms.

Neal: I think it's like you said, it's left up to the librarian to tape, so they're inundated with tape requests. They could pull it down live. We do broadcast it whenever it comes off of satellite and then, of course, we archive it and give it a catalog number in case somebody misses it or they can't view it at that time. I think ideally what I'd like to see happen is when Mike and I sit down to set up a schedule, maybe we could get some of those teachers who use TEAMS to come in because they are the ones that are going to generate the excitement. I'm a programming guy. Mike's just a director of programming, but if they hear it from the actual teachers that use the programming, I think it's going to be much more effective.

Evaluator: I think it would be. The other part of it is the principal and getting the principals to tie into this is really an important aspect. I stopped and talked with the principal at Werther the other day, too, and said I'm sensing problems. I'm not seeing expansion of the program within the building, which always says to me, a lot of things aren't in place and a lot of things are not happening. I know that the librarian was supposed to get everything and Irene thought maybe she's not handing the materials over. They used to have a different principal who was really in favor of TEAMS. This new guy, he's in favor of it, but he's not a staunch supporter.

Neal: You still have the mentality of people that don't want their kids watching TV

Evaluator: He's not that way. That's not what seems to be going on. He's

                              interested in it, but I just don't think that he's…   The things that could

                              help, then, is if you plan some of these, Don Lake and Kitty Salinas, who

                              does all the marketing of materials, both of them went to Dessie today.

                              Don and I are presenting Saturday morning from 8-10. We are doing a

                              future of education, distance learning. So, if you would like to talk to him,

                              he will be here.

Neal: I'm sure I'll be back for the 12:00 luncheon. The ITFS luncheon.

                              Then I will mull around the exhibit halls.

Evaluator: It would be nice if you could meet him. He's at the same hotel

                              that I'm at. Maybe you could leave a message for him and tell him that

                              you'd like to meet him tomorrow. He could put other resources at your

                              disposal. He's brought in Jeannie, the mathematician, he's brought in

                              Gary. The kids think of these people as celebrities. Sometimes the

                              teachers really like it. What I'm hoping that they are going to do, based

                              upon what I've seen so far that's happening in the whole state, not just

                              here, is a statewide professional development.

Neal: I know that CSD is responsible for duplication statewide for

                              TEAMS. I know just in the year and half that I've been there, duplication

                              has dropped off. I don't know it that's because they are actually getting

                              the programs right or what. I think it might be lack of involvement. I will tell

                              you that the rural areas seem to be more tuned in to TEAMS than the city.

                              I'll qualify that by saying, I know some of our poorer districts have used

                              those in the past because it's a great enhancement. When you can't

have those types of resources and this is free there, it's a great thing. I think that that would a great area to target, too. Maybe we need to focus on some of the lesser districts.

Evaluator: So you have no way of knowing, unless you do some kind of survey, whether the teachers are using it or not.

Neal: Right, because we just kind of throw it out there on broadcast. I assumed that Mike was following up and doing the coordination and figuring out whom was doing what with it. I probably should have taken more of active role in that.

Evaluator: I'm not sure what he's doing. My impression is that if there other schools using it, he doesn't know about them, because the only school he sent me to in Missouri in the last 2 years has been Werther. Last year it didn't work because they were using too many other pieces. That was the last year of that evaluation. This year I'm just starting clean, and going to places that are interested in using the project and seeing how they are responding to the new programs. What else could TEAMS do to help you? Do you have any needs that you feel like they could meet? It doesn't sound like you're getting much from Mike.

Neal: The last print material got from him was great, but I know that is a cost.

Evaluator: Do you duplicate it?

Neal: No, I don't. I just get the TEAMS brochures from him and disseminate them.

Evaluator: What about the things that the teachers would use with each module? How is that handled?

Neal: That's done through Mike. We broadcast it and if they are interested in that broadcast they go to Mike.

Evaluator: How do they know they are supposed to go to Mike?

Neal: I guess that would be my job. That's where we tell them that TEAMS is available through CSD. If you need print materials, support materials, those types of things, you need to go through Mike and we give them Mike's number. It would be nice if we had some of the print material there, so we show the different TEAMS modules, particularly when we go to meetings.

Evaluator: There's a TEAMS faculty material and that's a really nice booklet. There are all sorts of things that they've got. Do you deal with many of those calls?

Neal: No. I think, maybe in the last year and half, I've had maybe 3 calls about TEAMS.

Evaluator: Do you work with the city schools at all?

Neal: No. They're an associate member. We're trying to get in there

                               with cable but it's a big bugaboo with TCI, giving us an educational

                               channel on it. They don't want to do that. I think the city has great

                               potential for TEAMS. Since the state's paying for that, do they access to

                               it?

Evaluator: It's just a matter of them getting it.

Neal: One of the problems is the technology director down there really

                               doesn't believe in ITFS. He thinks it's a dinosaur technology.

Evaluator: Who is it?

Neal: Phil Brody.

Evaluator: There's the old AB switch. We would switch it over to them and

                               we could have it at night.

Neal: He's more interested in getting cable into his classes so he can

                               use us for staff development. We're not real interested in that. We want

                               to be able to get our educational programming into the city, so there's

                               issues.

Evaluator: Sounds like nothing has changed. Where did you come from?

Neal: I'm from St. Louis.

Evaluator: Whom did you work for before CSD?

Neal: Actually, I'm came from a government contract. I ran the audiovisual, video production lab at Armory Reserve Personal Center over at Army Troop Support Command. So I came from that expertise. I'm a communication major mainly.

Evaluator: I don't know why the higher education channel couldn't be used for some of this.

Neal: That's a bit political thing with their board. It would be a natural fit if higher education were married with CSD.

Evaluator: Has anybody ever suggested that?

Neal: That's been pursued. KTC is kind of odd animal here in St. Louis. They have some educational programming but yet we do 99percent of it. Obviously it is because it is not a moneymaker for them. At the same time, they have already told HEC if you take your programming off, at the rebid time, we won't let you air any of the PBS stuff that we're allowing.

Tina Potts

Latham Elementary

Latham, MO

February 24, 1998

Evaluator: How long have you been using TEAMS?

Tina: Several years. We probably started with it at the very beginning.

Evaluator: Which programs are you using?

Tina: Right now we are getting history, science, math. I have been

trying to collect all of them so we would have them when we needed

them and we could use bits and pieces of them. I still have a couple to

go.

Evaluator: Tell me about how you actually use the programs.

Tina: As a supplement. We need to offer additional curriculum

components. As small as we are this is a very feasible way to do it. The

last few years I've been using it with projects class. It's enrichment, gifted

type thing we just call Projects. Right now we are doing the electricity.

We did chemistry earlier in the year. The janitor does the taping for me

because the times that it is broadcast don't work well into our schedule.

We only have the little cafeteria where the satellite dish is and we've got

lunch hours a lot of the times when it's being broadcast so we put it on

tape. There are a few tapes that we've missed, but a lot of times unless

it's introducing the topic, we can do without the tape and just go with the

materials that are sent. We have several of the kits. I got the math kit, the

electrical kit, the Forces in Motion kit, the chemistry kit and one science

kit. It has the owl pellets.

Evaluator: Are you the only teacher that uses it?

Tina: The others use bits and pieces. When I find something in there

that goes along with what they are doing, they usually don't show the

whole series, they pick out a lesson or two.

Evaluator: Have any of them ever used the rest of the series? A whole

module?

Tina: No.

Evaluator: Why wouldn't they use a whole module?

Tina: One reason is time. We've got two classes in each room. By the

time you cover all the objectives that you are supposed to cover for the

MMAT and the testing, there's not a lot of time left. A module takes

several weeks to get done. So we just use them more as a supplement

than as a regular curriculum.

Evaluator: If you knew that it matched up with your core curriculum would

that help?

Tina: Yes that would be much more help.

Evaluator: Mike's been talking about doing that and trying to work it out so that you would know. It does match almost all the way down the line, particularly with the new test, MAP.

Tina: The questioning and the format that TEAMS uses are helpful for this new test.

Evaluator: Did you know that in the back of every 8 module or programs, there is a performance based assessment.

Tina: Right.

Evaluator: Have you been using that?

Tina: Some. I won't say that I've used every one of them, but yes, they are pretty good.

Evaluator: When you personally use it, tell me about how you might use it.

Tina: We meet about 4 times a week and generally I try to match it to what they are doing in the room. These are enrichment kids, so they pick out 1 or 2 things to take to the room and they show them to the rest of the class as a demonstration or display. When it's something you think the younger kids would get something out of we let the bigger kids go into the 1st and 2nd grade rooms. They did a thing on static electricity where

the hair stands on end. They did that for the 1st and 2nd graders. That went so well that the 3rd and 4th graders heard about it and we had to go to their rooms. We use it as an extra plus they get the benefit of speaking in front of the class and having to explain it to someone else.

Evaluator: Specifically, when you do one program, tell me how you would use one 45-minute program from start to finish. What would you do?

Tina: A lot of times there are activities and there are little things you can run off such as charting materials. We just basically follow what TEAMS has set up.

Evaluator: With the video? The video is playing?

Tina: We don't use the video as much as the materials and the hands on activities.

Evaluator: Is that because you've used it for so long?

Tina: It could be. The quality of our tapes is not real good. They do not come in. The sound is not real good all the time. They're fuzzy. We don't have a person that is real knowledgeable as far as the technology goes for setting up our VCR's and our things we need to draw it in. We had a time just finding somebody that knew where KU band was to set it up. We couldn't draw that in for several months. We had trouble last year, especially.

Evaluator: Did you know that the satellite it was on last year went down? Did you know that?

Tina: I think so. Off and on through the years it seems like we've had a little bit of a problem with the quality of the tape. If you don't have a real good tape that they can hear well, they lose interest.

Evaluator: I wonder what the problem is with the audio. Are you taping directly off the satellite?

Tina: Yes. He'd come and he'd adjust. It's pretty good quality now.

Evaluator: Are you still taping?

Tina: Yes.

Evaluator: Would you play those in the classroom now?

Tina: Yes. Especially ones that introduce it and give an activity that we wouldn't be able to do in the class, like visit a museum. The time is not right for us to be able to call in because it's being played at our lunch hour.

Evaluator: Have you got Internet access here?

Tina: Yes.

Evaluator: Have you ever sent in messages?

Tina: No.

Evaluator: You could do that and tell Gary, who's teaching most of the
                             classes that you are using, that you are not able to watch the program
                             when it's delivered live but you would like to be able to have the kids be
                             able to send in some questions and interact with him. He's done this for
                             other classes

Tina: That would be cool.

Mike: Then on the next broadcast he'd say, "o.k. this is directed to the
                             Latham, Missouri students. I know you can't receive it live, but here are
                             the answers to your questions." You can fax him stuff, too. Fax him
                             things that your students have started and he'll show those faxes, too.
                             That'll be neat for your students.

Tina: Another problem that we have had is that we also get German by
                             satellite out of Oklahoma and a lot of the tapes that we want to get from
                             TEAMS are broadcast at exactly the time that we want to tape the
                             German. We've had to swap off, which isn't such a good thing. They've
                             missed some German and I've missed some TEAMS.

Evaluator: Who's teaching the German course now?

Tina:	I can't think of their name. It's the same one we've had for a couple of years. Sabeen Lewis and Robert Heasley.

Mike:	If there is a tape of two that you really need, let me know. I might have those and we could fill those gaps for you. We have an archive of those things.

Tina:	It seems like most of the material is covered so well in the reading that I don't really notice needing a tape. It would just be to introduce something that I didn't have access to.

Mike:	Your responsibility is the gifted students?

Tina:	Yes. That's what I use TEAMS for mostly.

Mike:	If some of your other teachers want to try something and need to rely on those tapes let me know and we can fill those gaps.

Tina:	All right.

Mike:	So, one teacher teaches 2 grades?

Tina:	Yes, 1st and 2nd are together in a room. 3rd and 4th are the same, 5th and 6th, 7th and 8th.

Evaluator:	There are some programs that would be really good for some of the younger kids. Owl pellets and Fast plants. Some of the older ones.

Those have always been really good programs. We've had teachers that have used it as low as 3rd grade in some cases. What is your background?

Tina: Meaning, what have I done?

Evaluator: Where did you go to school? What are your degrees in?

Tina: I went 2 years to junior college in Sedalia. I went 2 years to Jefferson City at Lincoln. I also got my masters from Lincoln.

Evaluator: What are your degrees in?

Tina: I have a math K-12. Principal, of course. I've got a classroom 1-8 and Kindergarten.

Evaluator: Those are fairly recent degrees?

Tina: No. They're all old. I've had them since 1976. I graduated from college in 1976. It took me about a year and a half to get my masters after that.

Evaluator: How long have you been here?

Tina: Twenty-three years.

Evaluator: Describe for me what you teach. What is your teaching methodology, the instructional types of technology that you would use?

Tina: Well I'm trying to become more computer literate. My philosophy is to just do what needs to be done to get the point across. We try. Whatever it takes, works. That's what we use.

Evaluator: Do you tend toward hands on types of things?

Tina: Depends.

Evaluator: Would tend more toward paper and pencil? Read the book? Draw stuff on the board? I'm just trying to get some sense.

Tina: It would depend on what subject we're talking about. The science is definitely a hands on thing. That's why I like the little kits. They weren't very expensive either, and I think we got a free one. Somebody called and sent us a free one. I can't remember which one it was. It's been several months ago. Did the state department get a bunch of money?

Mike: They had some money left over due to the fact that when Rochelle left, they didn't spend all that money. So they came to us and said we need to spend this money and we said we could do that.

Tina: We had already bought several of the kits, but this just added to it. You can use those over and over again. Those are wonderful for science. With the math, I guess I would tend to be more of a paper and

pencil problem solving person. One of the cool kits that we got had

linkercubes and little things to fiddle with and those were cool.

Evaluator: Would you describe yourself more as a facilitator?

Tina: Oh yea, they do the doin. I just put it out before them and they

do it. I don't like to lecture.

Evaluator: When you started using TEAMS did things change for you or

were they about the same?

Tina: About the same.

Evaluator: So probably you were very hands on, at least in the science area,

to begin with?

Tina: Yes.

Evaluator: Have you seen any changes with other teachers because

they've been using it? They're not using full modules.

Tina: Right. They're not, but our teachers are pretty progressive.

They have a lot of things that the kids do in the room. I would say that

they are all more of hands on. That's just kind of the way we are here.

Evaluator: How many kids are typically in a room with both grades?

Tina: Less than 15.

Evaluator: Totally for both grades?

Tina: Yes.

Evaluator: So you've got nice small numbers in the first place. That's great.

                               What a blessing. You've said that you have had problems with actually

                               getting the signal and you've had problems with some of the tapes

                               you've got and you're missing a few tapes. What else would be useful to

                               you?

Tina: Maybe getting the whole module at one time.

Evaluator: You could do that with the older things.

Tina: Some of them we've gotten a module here and a module there.

                               Sometimes it's been after we wanted to start it, too. It didn't come at the

                               right time. The materials. The tapes had already started and we wanted

                               to start it but there wasn't anything to go with them.

Evaluator: That would have been when either DeeDee or Rochelle was

                               here?

Mike: I won't say it didn't happen with us but we have been trying to

                               stay on top of that.

Evaluator: Has it happened since Mike took over?

Tina: Not recently. I don't know when he took over but it hasn't

happened recently.

Evaluator: In like what? A year and a half now?

Mike: It might have happened right at the beginning of the year last

year.

Tina: There are a few schedules, too, that either the channel had

changed or the time had changed. Something changed but we didn't

get the schedule until later. That's been a good while ago.

Mike: That was probably when that dish went down. The site went

down.

Tina: Finding a place for them has been my worst headache. We just

don't have a very good place to store them so I've got them in boxes in

the corner of the cafeteria on each side of the TV. On each box I've got

marked Math or Science or whatever. It's just a big VCR box.

Evaluator: Do you have cable here?

Tina: No, just a satellite dish.

Evaluator: Is cable available in the community?

Tina: No.

Evaluator: Do you have any access to an ITFS system?

Tina: I'm not sure I know what that is but I don't think so.

Evaluator: Instructional Television Fixed Service. It's a microwave dish.

Tina: No.

Evaluator: Your district doesn't have anything like that. What is your district?
What are you in?

Tina: Monty County R-5.

Evaluator: What I was getting at was that if there are other teachers that
could use it, it really has an impact on teachers if they use the entire
module but when you use just a part of something it doesn't really impact
anything as far as the training or their own professional development is
concerned. The kids don't seem to get quite as much out of it. Some of
the other math and science kinds of materials are meant to be used that
way. TEAMS will work that way but it wasn't designed to be done that
way.

Tina: We were trying to make it adapt to what they are already used to.

Evaluator: If it does, that's wonderful. It's a use that it wouldn't have otherwise. I'm not saying not to use it.   I'm just saying what typically happens with most teachers. What other things would be helpful to you?

Tina: Oh gee, I don't know. Buying a set of tapes at a very reasonable price to match up with the lessons.

Mike: Is it helpful to have the tapes individualized? Individual for each module.

Tina: If they didn't take up so much space that would be better. They take up so much room that it would be better for us if they were all on one tape. It would probably cut down on cost, too, if they were all on one tape.

Mike: Let's just say it took up two tapes and eight modules. What would be a reasonable cost? What could you afford for something like that?

Tina: I wouldn't have any idea. Six or seven dollars a tape would be really reasonable I would think.

Mike: We're looking at possibly duplicating some of those in our office. We want to try and keep it reasonable for folks where the dish is a challenge. I do have all the tapes from the 1st semester this year. Normally I don't get them until the end of the year but this year I've got

them all from the 1st semester, so if there's a particular lesson you need from that, I could help you out.

Tina: That would be helpful.

Mike: Look through that list and if there's something you need, let me know.

Tina: That would be great.

Evaluator: Let me talk to you a little bit about the kids. What sort of benchmarks do you use for whether they're learning from the programs or not.

Tina: They fill out an evaluation at the end. It's a self-evaluation.

Evaluator: Did you make it up?

Tina: I got it from my gifted class to get my certificate in that area.

Evaluator: Do you have a copy of it? You're the only teacher that I have run into that has said that they did this.

Jan Humphrey 6th,7th,8th Grade Math Teacher

Lenn Middle School

Evaluator: You are using the TEAMS programs?

Jan: Right.

Evaluator: Are you using math and science?

Jan: I use the math with 6th grade, as much as I've got. I've only got module A tapes. The science teacher is new at semester and he hasn't used any of them but I know that the teacher he replaced used the TEAMS with the 6th grade science.

Evaluator: How long have you been using it?

Jan: We had a little bit of it year before last and last year I used all of Module A.

Evaluator: Which module A? Tell me what was in the program.

Jan: It has to do with mapping and patterns, sequences.

Evaluator: Do you ever feel like that particular module or any of the TEAMS programs are not advanced enough for your 6th graders?

Jan: No, I feel like I'm having to feed a little bit to them that they don't figure out on their own, so I think it's about right.

Evaluator: Some teachers are using it for 4th graders, some are using it for 5th graders. It just depends on what's happened to them beforehand.

Jan: There are different levels of it. Mine's the Turn on to Mathematics and I think that's meant for middle school. Our 5th grade teacher is using it this year. I sent over the stuff I had that was Mathematics in Our World and she likes it.

Evaluator: Tell me then, what do the kids think? What do they do when you're using it?

Jan: They like it because I'm way too oriented to the book and paper/pencil kind of math, so they love it when we do something different.

Evaluator: What do they say? What types of things do they talk to you about?

Jan: What's interesting is that you see some of the kids actually doing math that normally don't want to do it. I know this is what I should be doing more often, I guess, because it pulls them out and it's an activity that they get interested in.

Evaluator: Is it changing your teaching style?

Jan: It has.

Evaluator: How did you do it before?

Jan: Like I said, I'm big into book and paper/pencil. I go to lots of math conferences and I know that the kids are going to learn a lot more if they are doing activities. They will remember it better and draw conclusions and everything.

Evaluator: It sounds like it has been a good experience not only for the kids, but for you as well.

Jan: It's just been frustrating that I didn't have the tapes to go forward and do the module B. This year the module C, the geometry that's geared for 5th and 6th grade has already been shown. Our satellite was down, so we don't have that. The one that's for middle school, 6th-8th, doesn't come on until the middle of April. I'm hoping that we can buy some of the tapes because we keep having electricity going out.

Male: I'll have to check the other modules for last year. We hope you use this year's, too. I'll have to check and see if I have this year's. I don't usually get those until the end of the year.

Jan: The module C is a geometry module. Is that different than the one that is being shown this year?

Male: It will be a little different. I could look in that, too. They changed the focus on the entire math this year. It was all for geometry so it's going

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to be a little different, I'm sure. We could take a look. Would you be more interested in the geometry, the model C portion of last year's?

Jan: Unless I can just get this year's since I haven't had it all. I don't have the paperwork that goes with the new one though. I've got the paperwork that goes with the old module C.

Male: We can get you the paperwork. That's the simple part.

Evaluator: Does CSD provide the tapes for the state, then?

Male: They archive them for us. They capture them all for us now. If Jan wanted them, there is a little cost to that. I think it's 8.00 or 7.50 for each tape. Each program is on a separate tape, so if you need the whole module is would cost you 60 or 70 dollars. Schools do that. They're more interested in if someone misses one broadcast for some reason. A lot of people will call in for that or they missed these 2 broadcasts in the middle of the program. They do send some total packages out.

Evaluator: If you ordered those tapes, would you have funding to do that?

Jan: I just talked to my principal about it again this morning and he said he thought we could come up with 8 dollars a tape to at least get module B, since I've never had that.

Male: Module B is last year's, so I have that. My problem is that I have loaned a lot of them out to teachers. If I've got the whole module, I'll just

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loan you that. You can just use that. Whatever I have in my office I'll just

loan you. With Neal, he has a little cost there that he needs to recover. I'll

check on module B and C and see what I have in my office.

Jan: That would be great if I could borrow yours.

Male: We're looking into, in our office, duplicating tapes ourselves.

Neal doesn't care. Neal's not making money from this. If they get their

$8, fine, but we give a little contract to archive it for us anyway, so they're

not too worried about that. So we are thinking about being able to

duplicate tapes and loan them out a little bit more. As it is now, if I loan out

some tapes and they don't get returned to me, we don't have a complete

set. It's kind of a difficult situation. I just talked to my boss yesterday

about getting a VCR and some cable to be able to do some of that stuff.

Evaluator: Would it be worth while to even consider at the state level doing

something like a lending library and have Neal do it?

Male: Like I said, Jan, you could make a copy of it here.

Evaluator: It might start looking like garbage by that point because of the

degeneration from one copy to the next.

Jan: Our librarian would do that for me.

Male: I'll definitely check when I get back to the office on B and C and

see what we can do.

Evaluator: Have you used any of the science modules, Jan?

Jan: I haven't. I observed, 2 years ago, when there was a different
                       science teacher. I observed one day when he was doing a module with
                       the batteries.

Evaluator: What did you think about that?

Jan: The kids loved it. It was very interesting to them. I almost feel like
                       you don't even need the tape a lot of the time, especially my second time
                       through on it. I knew that I didn't need to hear all of that but for the kids it's
                       a novelty to have a VCR in here in math. There just aren't that many math
                       things available for the VCR.

Evaluator: I think sometimes it's an interesting thing for them to hear another
                       voice. What other topics do you teach besides math?

Jan: That's it.

Evaluator: Are you a math specialist? Is that what your specialty was in
                       college.

Jan: Actually I got my math certification after I came here. I've been
                       here for 16 years now.

Evaluator: What's your undergraduate degree in?

Jan: Elementary Ed.

Evaluator: Do you have a master's?

Jan: Yes, I have my master's in Elementary Education and then I'm
certified up through 9th grade in math.

Evaluator: Have you continued working toward a doctorate?

Jan: No, I take every class that comes along. I'm middle school
certified now. I did that last year. I like taking classes and keeping up with
what's going on.

Evaluator: That's a great role model for the kids, too. What else would you
like to see? Are there other things that you would like to have, that would
be useful to you, that you don't have? Have you had any problems using
the tapes?

Jan: Only that I don't have a VCR in my room. I have to scrounge one
up. I have 6th graders twice a day. When I have them at the end of the
day, there's a health class opposite me and she uses the VCR a lot, so I
have to grab one from someplace else. Hopefully that will be alleviated.
We'll each have our own in the next year or two. We're still working on
that.

Evaluator: How long have you been working with TEAMS?

Dolores: I've been with TEAMS about at least 5 years on and off, the last 3

years continuously. I think the last 2 years have been our most

successful years.

Evaluator: What are you doing with it this year? How are you using it?

Dolores: What I usually do is to go in with the classroom teacher. We have

a slot for TEAMS. Since we tape it, we cannot get it live; we tape the

lesson as it comes from cable. I'll work with the classroom teacher and

we'll do a bit of team teaching. I make sure they have all the materials that

they need. We've found this method to be very helpful to us. It's a way to

lock teachers into doing the program and the kids enjoy seeing another

teacher come in other than their teacher.

Evaluator: What programs have you used?

Dolores: We've used the primary geometry and for the first time, this year, I

have two 2nd grade teachers involved and they really enjoy the program.

We do the science, all of the science. I usually do that with Mrs. Oliver,

Mrs. Brown and Mrs. Judy Fields. Mrs. N. Essenburg, Mrs. M. Johnson,

and Mrs. Asenden do the mathematics. Lea Strange is usually involved

with science but this year we haven't been able to work her class in as successfully as we did last year. We got more teachers involved, which is good.

Evaluator: How many have you got involved, Dolores?

Dolores: All the teachers on this floor. That's five 3rd grades, one 5th grade and one 4th grade. Seven and this year two 2nd grades, so nine teachers.

Male: Did you use any reading programs?

Dolores: Mrs. Brown looked at the reading programs and she was trying to do some things with it, outside of everything else that you have to do. I personally feel that TEAMS should be mandatory. I love the program and I thing because the kids see teachers excited and involved than they get excited and involved. If you walk into Mrs. Brown's room now you'll see the flax plants on one side of the room and even though we couldn't set everything up we just put them in the sunlight and you'll see the lima beans. In Mrs. Oliver's room we did the sunflower seeds and we ran out of flax plants. That's the only problem we've had. We've not been able to get the materials like we'd like and that's the funding. We just need to get teachers to really buy into it. Mrs. Brown and I have gone into our own pockets to buy the things. The teachers will bring in things from home if they can do that. When we did the chemistry unit we ran out of things. We sent a letter home and had the kids bring stuff in. That's how strongly I feel about the program.

Evaluator: Is your principal not able to help with the funding?

Dolores: He's tried and this year we tried to get PTA. Everything didn't take off but we are trying to get PTA to fund some things and we're trying to get other members to let us use some of that money. They're trying to do everything equitably and I can understand that. That money's supposed to be used for everyone.

Male: I don't think you can purchase materials with staff development money. I don't thing you can actually purchase kits with Eisenhower funds.

Dolores: Mrs. Brown has done something with the reading. Mrs. Oliver has looked at the reading and has gotten the kids to watch. They may not have been actively involved but they have watched the program. One year, when we were doing the weather unit, we had a TEAMS weather club. That went over very well. The whole school got involved. Students from the TEAMS classes would announce the weather and they would give facts over the intercom. Students had to try and come up with the answers. They would announce the answers the next day. So they would report on the weather.

Evaluator: What gave you the idea to do that?

Dolores: Actually, Mr. Williams. He saw us doing a lesson and was very impressed. Mr. Williams said it would be a good idea to have a weather

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club and he asked me what I thought about that. I said good idea. We tried it and every morning the kids would bring in weather facts and talk about the instruments and everything they'd done in TEAMS. From the tapes, they'd bring out all those facts.

Male: Are you affiliated with any of the local news stations as far as their weather programs?

Dolores: We tried to get in with channel 4 and it was too late. Next year we'll try channel 7 and 4. The Fourwinds program is where I understand they would put the satellite antenna. We do have a weather satellite dish and we were trying to see if we could get it integrated with TEAMS but we couldn't. We're not using it. It's not operational.

Evaluator: When you tape the programs, do you use them the next day, next week or what?

Dolores: We try to use them that same day. We tape them and after it goes off if we have some time, we try to at least start that same day. We also can go back to it. That is the nice thing about taping. If we don't finish an activity, we can go back to it the next day or the next week or whenever. Sometimes we do need to stop and reemphasize the issues, some things that they may not understand. With 2nd graders doing the geometry unit, which the teachers loved, we put that on tape and we'd stop. That way teachers that were not actually involved with TEAMS, I could take the tape and use it in their classes, too. And although they didn't sign up, they weren't registered, they'd say Can we get some of

that? Can you come in and do it with our class? So that's what the taping allows us to do. We can work with any class. That's how we got those two 2nd grade teachers involved. They saw us doing it and asked if we could come in and said they wanted to get involved. We did it with staff development, the tape from last year. We did staff development with the teachers on a retreat. We showed TEAMS tapes and showed what TEAMS teachers were doing and got the staff involved. I'm almost sure we're going to have more teachers who want to get involved next year.

Evaluator: I think with them expanding the materials, the movement out of math and science. Of course they've had the social studies for a number of years and they've had the reading, but the expansion of some of the reading programs and going to the younger grades has really been a big help. I'm glad to hear that they really like the geometry lessons. Do you have any Internet connection in the classes?

Dolores: That's a big problem. They have given us 8 ports I guess you'd call them. I don't have cable or Internet accessibility. The classrooms that they have put them in are not necessarily classes with TEAMS teachers. I don't have cable so that makes it difficult because if I had it at least I could make sure all lessons would get taped. Sometimes the teachers get involved with other things and they don't get the lessons taped. So I'm running over to Wendell and his staff and they've been king enough to make sure I get something.

Wendell: Maybe you could ask them for an extra $100.00 to run a line.

Dolores: We've tried. We wanted to get something. We have a large school. Money is an issue and that's all over the system. It would be nice if I could get a line. I have an Internet connection at home and I can pull up the TEAMS web page at home and we've done that and brought information in, but it would be nice if we had it and we're trying.

Evaluator: And you have Internet access at home?

Female: At home, but I'm only hooked up for cable in my classroom.

Evaluator: Do you have a computer in your classroom?

Female: Yes.

Evaluator: Do you know about another program called Web-Whacker? What you can do is to go to the TEAMS home page. The program's about $29.00. Do you have a Macintosh or IBM?

Female: In there we have a Mac. We also have an IBM system but I'm not sure what the capability of that is. We're just getting into that. It's a computer that was donated. Mr. Mills, our computer teacher, has just broken the code for us to be able to get in it.

Wendell: Were you one of the people to get one of the new Macs?

Female: No. We don't know whom those went to. Today's our restructuring meeting, so we're going to ask some of those questions.

Mr. Williams did tell us that the 2nd and 3rd grade teachers were to submit a diagram of their room because we will receiving computers. That's the last we heard, before the Easter holiday. We haven't heard anything since then.

Evaluator: Have you got a drop in your room already for Internet?

Female: No. Not in my room.

Evaluator: So you still have to have the wiring done? Let me tell you how you might use this Web-Whacker. You open it with your Internet browser, any browser. You go to any site that you are interested in. In this case you would go to the TEAMS site and you would tell the WebWhacker program that you want to whack down the TEAMS site. It would go in and take all levels, you can tell it how many levels you want. It would take little bits of the program and save it to your drive. You will get through with it and you will end up with materials that you can put onto a disc. Then you would bring the disc into your class, not connected to Internet, and you open up Netscape or whatever your browser is and you open up what you've whacked from the TEAMS site. So now you can get the kids involved in that or you can show it to other teachers. One of you could do it and the rest of you could make copies of that. I bought it. I do it on my site all the time because I do a lot of seminars and I can never depend on being in a place where I will have an Internet connection plus it's so slow and this is very fast. The kids don't lose interest because it takes so long to load. You can download the program and give them a credit card over the line. You download it once and then there's no codes or anything on

it. Well, I think there are one code once. So if one of you bought it then the rest of you could probably use it.

Female: So I need to be able to, since I haven't gotten my IBM up and running yet, find someone that has a Mac because that's what I have in the classroom.

Wendell: Do you have to have the Netscape on the Mac that you're bringing it to?

Evaluator: Yes, because what it does is it does is it goes and opens the WebWhacker file. Netscape is free to educators. There's no connection. All you have to do is have Netscape on.

Wendell: What's the lowest version of Netscape you need in order to use WebWhacker? Can you use Netscape 1.1 because I have that on disc and it doesn't take up a lot of memory.

Evaluator: You could try it. I've got WebWhacker on my computer at my hotel. I could try some things for you to see what it would do. I think it would. I don't see why it would matter. Instead of opening a page, you're opening a file. You keep clicking and you can get all levels. So you can get everything that's on the TEAMS site

Dolores: That would be the technology piece?

Evaluator: Anything that they put on there.

Dolores: You have to download that onto a disc, which, in our case, would fit a Macintosh.

Evaluator: That's right. You could set the ht for just Jennie's class and that would give you all levels just for that class. That would fit on a disc very easily. You could do the same thing with anybody else's class. That gives you a way of getting around not having Internet. It gives you a chance to get in there for the kids. They can go in, they can work, they can play with it and do whatever you want them to do. You can show it to other teachers. So much of what's there, the enhancements, the extensions of things that you can keep on doing, the help in trying to do a performance. You can have the kids do notes back. If you're doing it the same day, you can have them do their data. If it's Gary's class for science or whatever, you can have them do their data, you put it on your disc as memos or messages. You take it home and you e-mail it from your house. Then they can write back to you on your e-mail and you can bring it back to class.

Female: That's the component that they really miss out on. They do miss the communication part.

Evaluator: You can send a note to any of those teachers and tell them look, I'm killing myself doing this. Work with me. Mention my kids on air. Help me out every once in awhile. They love it because it means you're watching and that you're really involved. They will break their necks to write notes back to your kids and then you can read those. You can print

them out and pass them around the room. Until you can get the entire Internet in, these are good ways of working around it

Evaluator: I'm trying to come up with a new way of doing the evaluations for the next five years. In the past we've had what we call pep sites and we're not doing those this year. The way we want to do it is to take a site, there will be a couple of them in the city, that is using all of the TEAMS programs. They are available for K up to 5th grade. It sounds like you're already using most of them except the reading programs.

Female: Yes. We've been looking at it and what we are trying to do-we've watched a couple versions, it's just difficult because it comes at a time when I'm supposed to be in my class. Because we've adopted a new curriculum we'll look at that in terms of how we'll be able to do all the things they want us to do within that and fitting the reading language arts component in with what we are already doing. The TEAMS science program really fit well because they've given us the leeway just listing the indicators and things so that we can just about write our own program. We don't have a textbook that the system has adopted for use, so the science and math component, even we do have the math textbooks, was easy to fit in. The reading language arts thing I have to look at to see what we can do with it. This is my third year with 3rd grade but that can change and before I was on 5th, which was great because the programs were designed for upper grades when we started. We decided to bring it down, but we may not be able to use every piece because it's a fast paced program and the children when they move into our 3rd grades may not have all the experiences that they need to keep up. We may take a

couple of days to get through a unit. The younger they are, the longer it takes. Collecting the data is the best part for us. They don't usually get a chance to do that. They do the hands on and talk about it but that's the extent, so when we start with 3rd graders doing that by the time they reach 5th grade they have enough of a handle on the process. The lower grade teachers have the concern that they don't have all the materials they need to make the program work. Each room needs their own television and wiring for cable. One of the teachers mentioned at a staff development meeting that she likes the program but it's a lot to run across the hall and wheel the television down to her room and get the tape but they like it. We will be addressing some of these things at future meetings.

Evaluator: It could be that being a major focus site, an impact site, you would have to take all of the programs. What happens is that we do case studies on you, so would be a national focus, but unless you got the connectivity the program has to be installed and used properly. You ought to be using it live at least 50percent of the time. You have to have the television in the room and be connected to cable if that's the way you're getting the program. You need Internet access in your room. The programs are meant to be work in an environment that are conducive to it. What you've got, the technology gets in the way, it's not transparent any longer. You could use as leverage perhaps with your principal. The other thing about it when we talked about the Eisenhower funding, I've been able to validate within 5 years of research that this is a 2 for 1 program. It does the content development for the children but it moves teachers from being traditional teachers to facilitators. If it would help for me to

speak with your principal I could help him understand that. Wendell could

do some work on him. It's a way of maximizing everything you've already

done. You've done so much.

Female: It not only validates content for children, it also moves teachers

who are not comfortable with content in science and math. Some

teachers have said that they have learned so much. We don't have

anyone who has chosen to drop. We have a new 3rd grade teacher who

has come on and she's really excited. She's still learning. Each year we

try to bring someone else on. We are limited by local school constraints. I

know that Mr. Williams has considered that. We wrote the proposal last

year. We always do a math/science technology component on our retreat

for staff development but this year there was a big tossup as to whether

we should have a retreat or do in-house development and wire the

school for the cable usage. That was his suggestion. The committee

said that's good but if people don't know what to do with it once it's wired

we have a problem. We'll be meeting today to discuss where we'll be

moving.

Wendell: You could use Eisenhower monies for your retreat and use the

money you have been using for your retreat to wire the classrooms.

Female: We also have to do a parent involvement component because of

our multicultural population. We're almost 1/3 ESL. So it was like splitting

the money 3 ways.

Evaluator: Is it the whole school that needs to be wired?

Female: Yes, except 5 rooms for cable, 8 rooms for Internet.

Evaluator: With the Internet component are they going to bring you ISDN

lines or T1's?

Female: I don't know what that means.

Evaluator: Have you ever tried Telephone Pioneers?

Wendell: We tried calling them. We didn't have any success.

Female: Where are the Internet drops coming from?

Wendell: Bell Atlantic. Once the trunk line is in it will be much cheaper to

have the rest of the classrooms hooked up.

Evaluator: So the trick is that if you are going to become an impact site you

need to get your principal's agreement that all of these things will happen

and that they will be in place before next September. Are you a feeder

school to a 6th, 7th, 8th grade school?

Dolores: Yes.

Evaluator: Do any of the teachers at that school use it?

Female: No.

Wendell: Because of the block scheduling at the middle schools it's really

hard.

Evaluator: So that means that here you can use, within the school, all the

programs without worrying about that. You can use all the math, all the

science, the social studies, the reading, everything. The kids, by the

way, love Letters to Rifka. You get all the ancestral stuff that goes on.

You'll probably be one of two schools in D.C. You will be a case study. I

will be coming here every year for the next four years.

Female: There's a commitment here to stick with TEAMS but because we

have some local constraints to deal with it may slow the process down a

bit. The desire is there, the interest and commitment level is there.

When you have a student that starts at the 3rd grade and they move to a

4th grade TEAMS teacher, the teachers tell us, we can tell that the

children have been exposed.

Evaluator: What do they see that's different?

Female: The programs are presented in a scientific method and that helps

children problem solve. They're not afraid to form a hypothesis and they

may be totally off base but they know how to get where they're going and

how to analyze. They can record the information and use that to prove or

disprove their hypothesis so we've noticed that those children have an

easier time. It enhances the critical thinking. They are not afraid to ask

questions. It would be great if get all of the teachers involved. All of the

3rd grade teachers are using TEAMS. It would great if everybody in the 4th grade had it so the children could continue.

Dolores: Not only that, but we have 2 2nd grade teachers that have started using it. I believe they sent their evaluation sheets to Belinda Lista. I know I sent mine. We sent them directly in. Mr. Williams gave a whole box of tapes. Before that we were going to him every other day needing a tape. I got excited when he showed the new programs for next year. Algebra for 1st and 2nd graders, wonderful.

Wendell: The algebra is going to be unbelievable.

Mr. Williams: The only thing I need you to do, Wendell, is help me get the satellite dish.

Female: Mr. Williams, we were trying to give Carla some of the constraints that we had in doing the program but tell her how committed we are to doing the program. Carla explained that they would like to use us as a national focus, impact site. Maybe you can give Mr. Williams some more information.

Evaluator: We're looking for schools that are willing to commit to using all the TEAMS programming. You are practically using everything right now. That means you have multiple teachers involved, multiple levels of children, the ability to move children who have taken TEAMS at an early age and move them through so that by the time they get to the 5th or 6th grade we ought to see major impact between that and everything else

the teachers are doing. The other requirements are that you need to

have the cable in their classes so they do not have to go running around.

You would need to be able to show the programs either live or tape them.

They need Internet access in their rooms. I know that those two things at

this school are a problem. The other thing that they told me is that they

are using their own money to buy additional materials. TEAMS is the

premier program of STAR SCHOOLS. The Eisenhower monies are

available for teacher and professional development. With the evaluation

that I have done over the last 5 years of TEAMS, this is a 2 for 1 program.

That means that it not gives the content for the students but the distance

learning instructor who is on the tape becomes a role model for your

teachers.

Mr. Williams: Did you get the money that was approved by the PTA?

Female: No. I knew nothing about it.

Mr. Williams: We have 6 drops that are not hot yet. Our technology person is

calling to see when they are going to shoot the juice to the Internet.

Evaluator: That is Internet or cable?

Mr. Williams: Internet. We also have a partnership with a church that I'll be

meeting with next Wednesday. They initially donated $1500 for

carpeting. System gave us carpeting so now I'm trying to get them to let

us use that money for Internet wiring. I'm almost positive that that will take

place. The PTA donated $1900 for Internet wiring. The total bill we have

now for that is about $4000 to have all classes wired except pre-K and K. The man that is wiring it spoke with me and said that as long as they were doing that they might as well pull cable but that's some additional cost so I told him to hold off on that now until I get the Internet money. We're getting ready to have a major fundraiser for the year. I just got the proposals for Title 1, Title 2 and Title 6 that are due the 15th of June.

Wendell: A lot of people got the satellite and their building wired with Title One.

Mr. Williams: Our money is tied up in salaries. With the money they give us we are able to have 2 lab teachers and 1 program assistant. Last year we had about $5000 left over. I'm getting ready to move that $5000 to be used for equipment. Those are the things that we have in place. I understand that there is a guy that might be willing to pull some wiring for us so that might cut the $4000 cost quoted by the other guy.

Female: He'll do it free.

Mr. Williams: There's another guy I met at career day who did some work at Easter. I'm supposed to be calling the lady that set up their Internet because if I can align with these corporations, his firm will donate all the wire that we need. I probably won't get to this until after the 26th.

Evaluator: Do you think you can have it all done before school starts?

Mr. Williams: That's my hope.

Wendell:	They are supposed to be turning on the juice to the 8 rooms by June 1st.
Evaluator:	Sounds like a yes to me.
Mr. Williams:	It's a yes. Every year I give the teachers a wish list. We try to get as much as we can on their wish lists. You should have a wish list for TEAMS.
Dolores:	That's how we got the tapes.
Mr. Williams:	I'm giving you notice now to start working on that.
Wendell:	Say you want a television in every classroom then and a VCR.
Mr. Williams:	I think you are presenting this at the most opportune moment when we are just getting our Title 1 funds.
Female:	I wanted to ask something. Dolores and I were talking. Is the staff development for the parts we aren't familiar with the same as with the math and science staff development?
Wendell:	Same format.
Female:	Is the history component for upper grade, lower grade or the whole range?

Wendell: 4th through 6th.

Female: History is 4th through 6th, reading/language arts starts at K and
                                 goes through 7th

Mr. Williams: I just got a fax from SayYes last week. Their funds have been cut
                                 and they are asking for $3000 from our Title 1 appropriation for custodial
                                 services and something else.

Wendell: Field trips.

Evaluator: Is it physically taking the children to or is it bringing it in?

Dolores: We take them. We also have in-house sessions where we do
                                 hands-on math and science activities with the kids.

Evaluator: There's a TEAMS handbook that has all of the materials. There
                                 should have already been an advisory about what will be available next
                                 year. I believe that's already come out.

Dolores: Yes, I have that.

Evaluator: You can go through that and see what it includes. The deal is
                                 you're using all the programs, you have television hooked up in every
                                 room, you've got Internet, and the computers hooked up in every room,
                                 the television sitting there. It's not going back and forth. You have to

have the kits and materials so that the teachers do not have to buy that

material out of their own pocket.

Wendell: We could get the kits with the grant money that they make

available to us.

Evaluator: We will also work with Don Lake. Normally when a school accepts

something like this, several years ago with the pep sites we gave

modems and some other things. He doesn't have any money left this

year and I don't know what he's going to have next year but I'm going to

propose to him that there be some sort of a stipend that comes along with

this. It probably won't be very big. I'm going to do what I can to get that

put into place for each of the impact sites. There will be 2 impact sites per

partner so that gives us 20 major sites where everything is being used.

What we need to prove to Congress in order to keep funding coming we

need to see what kind of improvement we get. What is the learning

impact for the children and what is the change we see in the teachers?

The teachers can move from being traditional teachers to being

facilitators and so it's a half-and-half program and that's why it's so

valuable. Now you don't have to buy somebody while they're out getting

training. That's a big savings. What I'm installing you at is what we call the

3rd tier. I will send the rest of the information you need. You need to

commit to using this for 5 years. Do you all have a lot of training in

professional involvement in learning styles?

Dolores: I have.

Female:	I have some. Not a lot.
Evaluator:	Have you ever read Unicorns are Real?
Female:	My daughter has. She loves unicorns.
Evaluator:	Unicorns are Real is about a bunch of grade school teachers who go through the discovery process. It gives you all sorts of neat ways to work with the kids.
Evaluator:	How long have you been here?
Casey:	Three years. There was a thing, you were there, where Wendell had me come in and share about being a TEAMS teacher. It was in a hotel. It was about 4 years ago. I met Mr. May there at a luncheon and he was telling me about his school. I said it sounds wonderful. If you ever have an opening call me. He called me 2 weeks later.
Evaluator:	Which TEAMS programs are using?
Casey:	The math and science. I think for awhile we were taping Angie's program because we go to art school on Mondays.
Evaluator:	Are you a magnet school?

Casey: No, we have a partnership with an art school up in Georgetown. Every Monday the kids all go there. They take their instruments and art lessons and everything. It's great.

Wendell: Do you stay there all day?

Casey: It's a half-day. The little ones go for the morning and then they come back. Then the buses take the big kids. So, Monday I just run around fixing all the machines. There are computers in every classroom. This year I'm the technology coordinator. I teach all the kids computers and on Mondays when they're not here I go fix all the things that I've noted are wrong during the week. They have 5 computers in every classroom. I go to each classroom. Half the class goes to music while the other half uses the machines.

Evaluator: Are they using the computers as an enhancement for TEAMS?

Casey: The older kids are. They're sending e-mail and things like that. I just got an Escher program for the computer. I'm going to redo the TEAMS unit with them that Jeannie did. Then they're going to go ahead and use the software. We're going to start with the TEAMS lesson and then I bought a lot of stuff from the giftshop at the art gallery when his exhibit was here. They're going to make their own Escher puzzles and do it with software and this has a link to their Web site. There are about 100 Escher Web sites that they can go to from there. You could do that all year.

Evaluator: So are all the teachers using this then?

Casey: Yes.

Evaluator: What other things are going on in the school using TEAMS? Give me an idea of what's actually happening.

Casey: The kids have all grown the fast plants and put them in a garden. Whatever the unit was that they were doing with the blocks that they put together to make 3-dimentional shapes like spheres and pentagonal things. They snap them together and make a big huge orb that's all pentagons. Pentanograms. They're big on that. I'm just telling you what I've observed going to classrooms that was evident. I have not been in there while they're having TEAMS.

Evaluator: Have you seen any changes in the teachers? Tell me what you see.

Casey: The teacher that took my place had taught 1st grade and switched to 6th. She did not want to do that all but now she loves it. She loves TEAMS. The 5th grade teacher loves TEAMS, too. The 4th grade teacher is new this year or she's new to 4th grade. She's an older teacher and she just does not want to cooperate. She's very difficult. She says, "These kids can't even add. They don't even know their multiplication tables. Why are they going to do this?" I said well it's sort of fun. They'll like it. They'll have fun with it. We'll keep working on her. The 5th grade teacher, the 6th grade teacher and I all love TEAMS.

Evaluator: It sounds like the teachers that have been using it for awhile, that

are comfortable with it and so forth, have made that transition from being a

traditional teacher to being a facilitator.

Casey: Right. I think so. I'd like to see the program expanded.

Evaluator: With word of mouth, do you do any sort of monthly meetings with

them?

Casey: When I come back from Wendell''s meetings I share with them

what we've done and give them copies of all the paperwork. The 4th

grade teacher is in charge of turning the satellite on and making sure

everyone gets his or her feed. She went to the principal and made a big

stink about not being informed so now I make sure she gets copies

whether wants them or not.

Evaluator: Is the principal supportive of what's going on?

Casey: Yes. He'd like to see more TEAMS going on like it was before I

became the coordinator this year. I have so many other duties that I 'm

not on top of it to remind everybody every second. So next year I thing

we'll be back on target again.

Evaluator: Are you going to try to get another teacher maybe acting like you

did?

Casey: I don't know what he's going to do in 4th grade. We had a big

switch last summer. A lot of teachers left. A lot of new teachers came and

everyone switched grades. You pulled all these people out and

everything was a big mess. I assume that next year everyone will feel

more comfortable with it. If the teacher in 4th grade doesn't do this then it

makes it a little more difficult for the 5th grade teacher because they don't

have the background information.

Evaluator: What have the kid's scores been like on the end of the year

tests? Have they improved in any way that you can contribute to TEAMS?

Casey: Well, no. We started a new test last year. All of the D.C. schools

did.

Evaluator: Is it criterion or norm referenced?

Casey: It's the Stanford 9. So it has a lot of open ended. I would imagine

that it would make a huge difference because that's what TEAMS is,

open ended, writing about why things are happening. I assume that it will

make them a lot more comfortable with that. It's also a lot more geometry

oriented and thinking along the TEAMS line. I know our old test, the

Ames test, didn't really go with the TEAMS. If you wanted to have a direct

correlation, I don't know how well it did. I'm sure the kids learned a lot and

loved TEAMS but I don't know if it would help their scores in the old test.

This one I would imagine would. I don't know because we've only taken it

once last year and this year they just finished so when we get our results

back we can compare.

Evaluator: I'm assuming that everybody at this school is in the same shape

                              that everybody else is in, that your contracts are tied to improvement on

                              the test scores. Is that right?

Casey: That's what they're saying.

Male: Principals supposedly.

Evaluator: I just wondered what it looked like.

Male: It's just being done for the first time this year so nobody really

                              knows anything. We'll be in a better position to say after July 1. We'll see

                              where we are at that point. Until you see where the principals were and

                              evaluate other factors that might come into play you can't tell what will

                              happen. After June 30th we will know what principals are not going to be

                              re-appointed.

Evaluator: It seems like it would be awfully hard to get that many new

                              principals all once if the kids did not really improve.

Male: It sure will. About 80percent of them are probably in that

                              category and are probably thinking that it's time to leave anyway. This will

                              help push them out the door.

Evaluator: How do the kids react to this? Do they still really like TEAMS after

                              they've had it year after year?

Casey: Yes. It changes enough. What I've found after the 3rd time they've come through, by the time they get to 6th grade, some of them I didn't bother with. Some lessons they loved every single time over and over again. The using graph paper to draw fractions type thing, by the time they got to 6th grade they could not stand another time. So I look through. They give you a full schedule to see which ones are good and bad, but fast plants they love every time. The motion thing that started last year the kids love. We did a big unit on that and then we went to adventure world. They have a whole physics packet they'll send you ahead of time on gravity and motion. We did a whole unit on that and then we went out to the amusement park and had fun. They also really liked the chemistry.

Evaluator: Do you ever do any of the things that are on the TEAMS web pages or recommend any of them to the other teachers?

Christy: (no direct answer, lots of commotion) I cannot figure out how to complete a web page.

Evaluator: Give it to the kids.

Christy: That's right except that we'll probably end up with Beavis and Butthead or something like that.

Evaluator: Right. That's the whole problem.

Christy: Another problem is the advertising that's on all the pages now. A lot of the time it is really inappropriate advertising. It says CLICK HERE really large, they click and it's selling some trash. It really bothers me.

Evaluator: I think you're right. I get more junk mail and things put in my box, things that I would never solicit. They're just spamming everybody. How many teachers have you got using TEAMS at this point?

Christy: Two full time and the 4th grade teacher occasionally.

Evaluator: Each of those has been using it, what, a couple of years?

Casey: This is the 6th grade teacher's 1st year. Glady's, I assume has been doing it since the very beginning. She transferred from another school.

Male: Yes, she's been doing it since the beginning. She's been doing it for about 6-7 years.

Evaluator: So she seems to have made the transition to becoming a facilitator?

Casey: Yes, she's a really big TEAMS teacher. She loves TEAMS. When she went to Los Angeles for an NSTA convention several years ago she actually looked up all the TEAMS teachers and went to lunch and dinner with them. She's friends with them all.

Male: When Angie came here, she spent the whole day in Gladys's classroom. They communicate now. She communicates with Gary, Jeannie and Angie. She has Internet access in her classroom.

Evaluator: It makes all the difference.

Casey: All the classrooms do now. We have a T-1.

Evaluator: How did you get the funding for that?

Casey: It's a long story. AT&T or Bell Atlantic overbilled D. C. residents. So everybody should have it. It's just that I was such a pest about it. We have this other thing called the Globe program, the Vice-President's ecology program. So I had the Globe people keep calling them, saying they can't have their Globe program until their T-1 is up. So I pestered them. They have different tiers of schools that are going online. So they said we'd put on tier one. Some schools don't have any yet.

Male: They all should be completed by June. We have 8 classrooms. Most schools have it in their library already. They'll have multiple sites. In some schools every classroom will have it because the administration went the distance to say O.K. they're doing these 8, we can do the rest. It varies from school to school, but every single school will be tied into T-1.

Casey: It should be free because MCI is funding it.

Evaluator: What are they saying now? The last thing I read was they were going back to Congress saying there wasn't enough money to fund what had been passed and that they would need to up the rates for telecommunications customers.

Male: I don't know because I stopped following it when we realized we wouldn't qualify because we didn't have enough money committed to technology. You have to something in place and you have to have a commitment that you're going to? We had a technology plan but we didn't have enough money based on what we said we were going to do. Because of the number of students we have on free or reduced cost lunchless we would be at the high end, like 80percent discount, but we would still need about 12 million dollars devoted to technology to qualify. Our ideas are far greater than out pocketbooks.

Evaluator: That whole idea is probably so far blown out of the water that it's probably not going to work for most people. Any particular problems, Casey, that people are presenting to you such I'm having trouble with the time or materials?

Casey: No, we rescheduled our lunch schedules so we could be open for TEAMS. Monday is the only time problem that we have. Depending on the unit, it gets taped or it doesn't. We have cable that comes into one room, the kindergarten, so I put a VCR on that. They can tape off of channel 28, too.

Evaluator: Well, you've got my e-mail, so if you think of anything

else then just go ahead and e-mail it to me. Did you fill in one of the

surveys?

Casey: Yes.

Evaluator: This is the formative part of the year and I'm trying to get

enough feedback to Don Lake to make sure that whatever things people

are feeling need some attention can be attended to over the summer. By

the time the new programming starts we would hope to have some of

these things in place.   If your teachers want to know about filling in that

survey, go ahead and tell them they can put lots of additional information

on that. It will come directly to me. We transcribe everything that's on it

and put on disc and we look at everything. It's really important. The

report card that's at the very back has been so useful to us. We now have

about 18,000 kids in the data bank. It's the same set of questions that we

have been asking for the last 5 years. What I'm trying to do is a meta

analysis as we go along so that by the time we finish this 5 years we'll have

10 years of data using that one form. It ought to give us a really strong

case for Congress.

Brian Made

St. Peters School

368 S. Ellsworth

Marshall, MO 65340

February 24, 1998

Evaluator: 59 and that's between K-8 what's you're doing here which is a
nice size.

Female: Here's one the kid's use and when they present it in a classroom
then we have the people who watched them do their demonstration fill
that one for them.

Evaluator: That's a great idea. You've used this for a couple of years then?
I'll pass it on to the other teachers.

Female: You'd want to use it regularly with any class but these faster kids,
it works fine with them.

Evaluator: With so much of what we're trying to get to every place is helping
kids become self directed, independent learners and by helping them
learn how to assess what they're doing with guidance and coaching and
mentoring and everything else. Yes, it all makes sense but it's a process.
Do you go to a lot of conferences and things?

Female: No more than I have to. It puts me so far behind here I can't see the
top when I get back. I am very selective in what I go to.

Evaluator: Mike's going to be doing some things that will help other people in the state start using TEAMS.

Male: How caught up are you during the summer? You might be interested in, we're thinking about doing some training's. I guess your summers are pretty full.

Female: Pretty much so. I'm also the bookkeeper and I have a farm to run. It's just hard to keep up with everything. Even though we only have about 60 kids, we still have the same things to do, only on a smaller scale, as anybody else does.

Evaluator: What we might be able to do then is bring you in on audio conference. So you can just call in on a telephone line and speak for maybe 5 minutes about you use the program here and how you've seen the kids respond to it and what impact it's had.

Female: I wouldn't mind writing something. I could write a letter for you or something like that. I don't know how many people throughout the states take advantage of the teams.

Male: We have about 35 -38 buildings and a little over 7500 students and 128 teachers. We haven't been able to hand hold or train new schools as much as we should. Then because there so many good things out there, some of them go to Judith Bruner over at Holden. She started doing so many hands things in her class that she said I don't have time for TEAMS

anymore. She was still doing all the great stuff, but she was kind of doing

her own projects. If that's our problem, that they can't use TEAMS

because it's even too restrictive, then I things that's a good problem to

have.

Female: I signed up for the technology ones. It looks like those are going

to be real helpful to us. There are a lot of web sites that we can go to that

have good information.

Male: If you can get your teachers to find the time to watch those, the

instructor really shows how that can all work together. If you can get to

the TEAMS site, it's hooked up to a lot of other sites. The resources on

that site are just wonderful. The other thing that has real potential is they

want to develop this on line partner program. Your teachers and students

would work on a project with some students in Detroit or Utah or wherever

and develop e-mail partners. The teacher and Gary, for example, could

work real closely on some projects and because you have Internet

capability this would be a real possibility. It would really fun for your

students to get to know some kids in LA or Washington, D.C., Detroit,

etc. That's another possibility as far as the Internet goes. The TEAMS

web site really is amazing. There are a couple of people working almost

full time finding what sites are out there and determining where they fit

and are they appropriate. That alone makes it worth the price of

admission.

Evaluator: There's another project. It's a dissemination project called the

Distance Learning Resource Network. It's also a Star Schools project.

Part of our job was/is to help principals and teachers or others to find things that need. If you were to call me and say I have a social science teacher interested in whatever it might be, I can spend time on the phone either with you or the teacher. We've got a couple of research people that I could put on it and they can start looking at sites and they can let us know what they are. So that's something else that we do. We're part of one of the national labs and we're in San Francisco.   It's part of Star Schools.   Just like the Oklahoma University stuff with Star Schools, because he doesn't have all the time in the world at this point. So you have all the programmatic things that actually go on but then if you need some of these other things, you call us and we're part of the same thing. It gets back to the point that you need something else that he does then I can e-mail him and we can get you in the loop that way.

Male: The potential is just amazing. Carla has access to do some of that. Hey, we need some civics sites or whatever-that's the challenge for teachers.

Evaluator: There is a lot of information out there, but teachers that aren't used to doing it find it difficult to do. We all have to become our own reference librarians, but to my way of thinking, I want a compelling reason for teachers doing stuff in the first place and then the backup when they start surfing. I don't thing the kids surfing the net is productive for them. I think it's fun. Are you familiar with the Eisenhower projects?

Female: I've heard of the Eisenhower National Clearing House.

Evaluator: You can reach that online as well. It has all sorts of math and science things on it and it's a very searchable way of doing business. You can go to my web site, tecweb.org. If anybody's looking for information about distance learning, there's a lot of that on it. We're also doing some grants that we're trying to involve a lot of schools and education.

Female: Where is the nearest school to us that gets TEAMS?

Male: South Callaway, Mocane, and Lynn.

Female: We're collecting the history ones. 7th and 8th grade teachers. They went to History Day Saturday and took 3 little groups. Do you know what History Day is? The History Association sets up displays. It's like a science fair. Our 7th and 8th grade room has 14 in it. A few of them didn't participate. There were 2 boys in one group with a nice display. There were a boy and 2 girls in another group and 4 girls in another group. Two of those 3 groups get to go to state.

Male: The high school kids will have dramas and reenactments. Some of that stuff is just amazing. A lot of those social studies programs are very good. That one, Students of Citizens is very good. The geography one is very good, too.

Female: Shiloah is good. The letters from Rifka. We haven't used the literature very much.

Male: They've got some very short ones for 1st and 2nd, 3rd and 4th on

reading. It talks about reading to the class and some of those kinds of things.

Female: The thing that I loved about Letters from Rifka because I always did focus groups, the kids would tell me things like I never realized how hard it was to come to America. They really began to appreciate the difficulty of doing it. Rifka is a little girl and she comes from a European country and she gets ringworm, so she gets stuck in quarantine. Her family has to go on, so she ends up there by herself. It sort hits on all the fears that a kid has about being left alone and trying to get someplace on their own and fending for themselves. So the kids really identify with it and they talk about that. The other part of the program is trying to get the kids to communicate with people and their families who might be in other states or might be still in another country. That one is kind of interesting for them, too. It gives them a way to tie up with their grandparents. It helps understand why they might have cousins living in Kansas City but they are living here. It explains the migration thing. It helps them develop their own personal history so that they can tie in better with American history as well as all the other history projects. There's some neat historical stuff here for kids. They haven't done anything like this before, they were just memorizing things.

Male: It's been 5 years I think that we've been using it.

Female: Are you using programs alive this year?

Male: No, I'm not. I'm using tape this year. I used them live last year and

I'm using them to supplement my textbook this year. I've done chemistry. I've never done chemistry with it before and they really enjoyed it with chemistry. We bought the kit with title money. I have kits in chemistry. I got weather kit, electrical energy kit, and forces of motion.

Evaluator: Did you know that they were renewed for a grant. Have you seen any new programs this year?

Male: No I haven't. The thing I got here is that our satellite needs to be re-figured or re-transfigured or something because I can't pick them up on the same satellite that I had last year.

Evaluator: That satellite went dead.

Male: Yes, that satellite did but ours is on ku-ban and c-ban and then there's different channels for it. ? Coordinates. I can't find it.

Evaluator: Probably what happens is you need a chip set to go in and it just has to be reconfigured. So, do you have a satellite dish?

Male: Yes, we do. I know that I'm planning on doing it live next year. We just haven't gotten around to getting it done. We're trying to get computers in every classroom this year and we've been spending a lot of time doing that. So I am planning on doing it live again next year and I've already talking to my principal, I need that. I need that to put in there because I can't find it on the set-up that we have now.

Evaluator: Have you met Mike Flynn? Do you ever talk to Mike?

Male: I've talked to Mike on the phone. He wanted to know if we were

interested in going to California, I believe, to check it out in the state of

California. We weren't interested in doing that part of it. I've talked to him

before over the phone, but I've never met him.

Evaluator: Do you normally get the materials and everything from him?

Male: Yes.

Evaluator: This year? So you're getting all the new materials?

Male: Yes.

Evaluator: So, what I'm wondering about is if you were able to get the chips

installed before that, there's going to be a brand new bunch of things that

they are going to start doing for Missouri. Mike and some of the people

are going to be putting some of the things together that they're going to

do as a statewide training, professional development type of thing. So if

you had your satellite dish....

Male: We need to get that chip. ....needs to get it because we did it live

last year and the kids just ate that up.

Evaluator: Do you have Internet access now?

Male: Yes.

Evaluator: What you can do is you can send a note to Gary and tell him that
                                    you're not able to use the light programs right now but your kids are really
                                    interested and they are watching last year's tapes. Work out something
                                    with him where the kids could send in their data and then Gary could
                                    respond to them on the Internet. He's done that with a lot of other
                                    classes because a lot of teachers use the tapes.

Male: That way the kids know we're working through ....

Evaluator: The kids get along well. They like doing things in a real time
                                    manner. There might be some other schools that you want to some of
                                    these things with, too. Have you looked at the TEAMS page on the
                                    Internet? You might want to. They have put so much brand new material
                                    there.

Male: I used it last year. It seems like there's something wrong with it
                                    though, because I never got through the home page. I couldn't get it to
                                    go any further. So I didn't know if there was something wrong with our
                                    computer or what.

Evaluator: Is the computer in your classroom?

Male: No, it's in the computer lab and the kids are in and out all day long.
                                    So I don't know if they did something to it or what.

Evaluator: Well try again. What they've been trying to do with TEAMS is to provide a lot of other directly related materials for teachers. So that you can do both the video and provide Internet things for the kids to do so they have additional pieces of information there. They've got additional things that you might want to do to enhance it even further and give them some more hands-on work.

Male: That would give them something to do in their down time, too. The first thing we have to do is get the chip so we can get the satellite going.

Evaluator: Well, if you're not even using that the Internet part of it could be used and it begins to make it feel like it still is interactive.

Male: It has got its advantages, too. With the tape, I can stop it and we can work on other things instead of feeling pushed. The disadvantage, of course, is that you're not interacting live. Both ways that I've done it, I think it has been effective.

Evaluator: Do you feel like the kids are pushed too much? Is it too fast for them?

Male: No. For some of the activities, yes. They don't get through it.

Evaluator: What grade do you have?

Male: I used to have just 6th graders but I've got combined grades this year, 5th and 6th graders.

Evaluator: So, is it the 5th graders that don't get through it as fast?

Male: There are only five 6th graders and eleven 5th graders. Most of the
                                    6th graders get through it pretty good. If I slow down it's for the 5th
                                    graders.

Evaluator: Sometimes with gifted students it could be 4th grade and with
                                    special ed students it could be 7th and 8th grades.

Male: Sometimes they just like to sit and fiddle with it, too. It's just one of
                                    those things, when you're intrigued it's hands on stuff. When it's there
                                    they're going to keep doing it. We just did the one on batteries and bulbs
                                    today. We're on electricity right now. When it comes time to share what
                                    everyone else is doing, they're not paying any attention to what
                                    everyone else is doing, and they're sitting here still fiddling with it. They
                                    miss out on a lot of the parts of sharing with the call in. When I called in
                                    live last year they were all listening in. When I hung up the whole room
                                    would be talking. That was a big deal for them. They really enjoyed that.

Evaluator: Do you have some tapes where they actually called in?

Male: Yes, I taped them. We did the weather and we did forces in motion.
                                    That's what we did live last year. We haven't gotten to that yet but they'll
                                    be hearing the kids from last year.

Evaluator: What do you thing about the way they are learning from it now?

Male: I thing it enhances it. I did the chemistry, which is a pretty tuff thing for 5th and 6th graders to grasp even if it's an introduction. We did the bookwork first and then I put the tape on to enhance the bookwork. For the electricity I'm using the tapes first. I haven't taught them anything about electricity yet. I'm showing the tapes first and we'll add the book later. I thing it helped them. The grades that they received on the chemistry test I gave weren't as high as I thought they would be but I thing the tapes did help them. Our grading scale is higher than most schools anyway. 70percent is failing. They were all doing 70percent with a couple of high 60ís. 66 was the lowest grade, which I think is good.

Evaluator: Is there a high school here? A Catholic high school?

Male: No, there is no Catholic high school. After 8th grade the kids go to public school. 2 or 3 kids in the last ten years have gone to St. Thomas, a seminary in Hannibal, but most of the kids go on to public school in Marshall.

Evaluator: Is there a tracking system for them after they get out. This is a brand new 5 year grant, so the kids you've had for the last 3 years would go on to Marshall? It will be interesting to see how they do. I'm trying to set up a couple of places where I can do that where there's enough of a steady compilation where the kids don't switch or move on too much.

Male: If we had a Catholic high school it would work great but I don't know if you can access the public school.

Evaluator: Well, I can because TEAMS if bought through the Department of Education of Missouri. So through them I can get records and take a look at them to see what the kids are doing. Your principal gave me some papers last year.

Male: If I'm not mistaken there has been an increase each year.

Evaluator: There seems to be. There seems to be something that was happening there. The other thing I was looking at was what was happening with the Missouri MMAT. I found that they were going to throw that out. This was 2 years ago. They got the new criteria referenced. Part of that is still in Beta. I didn't want to be part of a beta on it. They aren't going to be doing it every year.

Male: We don't do the MMAT. We do ACT, but the company's getting out of that type of testing and we're going to have a new one next year. I don't have any idea what. The diocese hasn't made any decision. Alice could probably tell you more.

Evaluator: One of the things that's going on with the project which started on October 1st and will go for 5 years is that they are looking at what is called Tiers of Technology. The most basic tier might be television and the next tier might be TV and a computer that the kids are using. The third tier is usually going to be TV and a computer plus Internet access. There will be a couple of more tiers, which will be things like CD-Roms and simulations. One of the things that I thought would be interesting to do here is if you would start using what would be considered the 3rd tier. You would have

to switch over and start using the new tapes. I've got to do the work that I do on the new project. I can't do it on the old. So if you switched over and you got the new projects in and started using those live as TV and started putting the kids on net. There are a lot of materials there. It's not a decision you have to make today.

Male: It seems to me, the program offerings are different from what they were. They really don't go along with the guidelines that I have for 5th and 6th graders as set up through the diocese. I can still use it as an enrichment thing for them but my problem would be I wouldn't have the kits.

Evaluator: I might be able to get Mike Flynn to give you some. He has some discretionary money and they also have some technology/challenge fund money. I'm not sure what he can do for you. I don't know how those regulations are set up. It doesn't matter to me. I just want to have a nice site. This is the only catholic school that I have to go to in the entire United States. So that's one of the reasons that I'm so interested in what you're doing. Most of the schools, for whatever reason, aren't using it.

Male: How many schools are using it. Do you have any idea?

Evaluator: I don't have a new count, but over the past couple of years it's averaged out at around 150,000 students a year. Within the new proposal new states were added. Louisiana was added. Georgia is doing significantly more than they were doing. I would not be surprised if this year we had over 200,000 students.

Male: It's growing. A lot of people are using it. You just have a little trouble

trying to find a satellite.

Evaluator: The satellite thing, when it glitzed, was horrible. The other satellite

owners did nothing to help education except jack up the rates. It wasn't

only TEAMS, there were other Star Schools projects that were on there

and they had the same problem. What they are trying to do next year is

have them all go together as a consortium and buy their satellite time as a

block which ought to give them thousands of hours. They could almost

own their own transponder or two. They are also talking about going to

digital. Are you on e-mail, Brian?

Brian: I know we had it set up. I have not been doing too much with

computers this year. We are trying to get them in the rooms and I'll be

glad when I get my own in my room and nobody else can mess with it. I

know you can get e-mail through Alice's office.

Evaluator: What I need to have you do is thing about this. Maybe you and Alice

need to talk.

Brian: I don't know if I can do it this year or not. I am interested in doing it

next year.

Evaluator: O.K. That's what I'm setting it up for.

Brian: I already talked to her about getting the satellite fixed so that the

satellite readings you give us can match up with what we get on our screen. I tried and tried but I couldn't get anything. The satellite I used last year to pick you up, I couldn't get any channels on.

Evaluator: And that was SBF6? This year we're on SBF6. If you have any questions at all, you can call me. If you get on line, I can put you in touch with people in the main office and try working out other things.

Brian: The main thing is if I can find the satellite. That's the half of it. If I can't find the satellite, I've still got the class and I just lose too much time. I tried it at the start of the year and I couldn't find it, I got frustrated, so I decided to just use the tapes this year. If I can get it live and I know where it is, I would use it all the time because I think it's great and the kids loved it when we did it last year. I think it's a great deal. If I can get that chip we'll be doing it.

Evaluator: What you have been in the past is what we called a pep site, which is a program effectiveness site. There were 40 of those sites throughout the United States that I went to. We will probably end up with more of those sites, but I won't be able to go all of them. What I want to do is keep your school as a special site but in order to do that I want you to be at least at this level. I'm going to be able to get hundreds of these guys but with everything else that you do here, it's a small site, rural.

Brian: What you'll be doing is comparing test scores?

Evaluator: Yes, we're going to be doing everything. I have not completely

---

configured the entire research design for the five years because things are moving entirely too fast. I'm trying to get a fix on it and decide after talking with teachers what kind of capabilities we have. What we will probably have is a few schools that are in this arena right now and probably have maybe 5 or 10 in each state that are in this realm but know that they are going to move up. So some of them will stick with just a TV and we'll still be able to track them but I can't just choose one because I know I'll lose it. They'll probably upgrade which is fine but I still need this level as my control group. What we're finding in technology delivered education, mediated education, there is no significant difference if you use only television. It is probably because we've gotten so used to it and it's just there. What is happening is that it moves teachers from being traditional teachers to facilitators of learning. The instructional work that they do changes.

Brian:	You can also do a lot more hands on stuff with it. I had done hands on stuff in science before but I never had the magnitude. You maybe did 1 or 2 experiments a unit but you do that much in 1 tape.

Evaluator:	It's probably because you see the kids responding faster. That's what we think will also happen with the CD-rom and simulations. We think that when we get into the fourth and fifth tier we're going to find the really significant differences in learning impact. Kids should start learning better, quicker, faster and more deeply with higher understanding better test scores, etc. We'll keep scoring sheets 1-4. We've got 2000 kids in the database now. If you run into any trouble, just call me and I'll see what resources I can pull together for you. Don't wait too long. Try what you

can in the next couple of weeks or so.

Brian: Is this just for the science part now?

Evaluator: This is science, math, Shiloh, social studies. Do you thing you can

get the math teacher to start using TEAMS?

Brian: I thing if I can show her where it is on the satellite she'll use it.

Evaluator: If you could get all the programs that TEAMS is doing used within

the school we could do a case study on this school that would knock the

socks off every archdiocese in the country. That would put you on the

map like crazy and show what can be done with this sort of an education.

Brian: It goes down to the 1st grade, doesn't it?

Evaluator: Yes. We've got some things that are for the little kids. There's just

not as much. There are other Star Schools projects that provide other

information. They have Japanese for 3rd graders. They've got Spanish,

advanced placement calculus, algebra courses. There are 15 Star

Schools projects across the United States. Each one has a specialty.

They do different things for each grade level. They provide different

content. If you called me and said you need 4th grade social studies, I

would be able to find something for that works for 4th grade. Do you want

me to talk to Alice about this?

Brian: Yes, you probably could. She's been trying to push it. She

encourages us to use it all the time. The other teachers have been real

reluctant to do it.

Evaluator: If I can give her the impetus by saying it can be a major thrust if the

other teachers decide to do it, but it will take her support as well as yours

as well as other teachers to teach these other components. What's her

last name?

Brian: Huesten. Alice Huesten.

Evaluator: Is she in today?   (Enter Alice) I was talking to Brian about going into

a new project year. The project is now for five years. It will go through the

year 2002. He's using tapes from last year. What I want him to do is to

start using these years' programs and get the TV guy in here and get the

chip set. What Don Lake has done this year is to set up what they are

calling Tiers of Technology. There are 5 of them. The most basic of them

uses only television, the next one uses television with a computer and

the 3rd one is television, a computer but with major Internet access and

having the kids online. What I have suggested to him is this: You are still

the only catholic school I've got in the United States. I'd like to see your

school be a major case study of catholic education using technology in

many different content areas. I would write it up and knock the socks off

of any archdiocese you want to show it to. If that's enough of a carrot,

what I need for you to do is get the other teachers to use TEAMS

programs. We could then follow your kids through the Marshall high

school. What do you think?

Alice: Let's go. I will just push these teachers a little bit more.

Evaluator: The other thing is you guys are going to need to get a bunch of e-mail addresses. Is that possible? I know you've got one, but Brian says he doesn't.

Alice: Well, doesn't Juno provide 3 e-mail addresses? Yes, they do. I don't know what we can do through Jim because Jim has been supplying us with Internet access. I probably need to drag him in here and see what we can get from him.

Evaluator: Do you work with the school?

Jim: I've been teaching here one hour a day for about the last five or six years primarily 5th, 6th, 7th and 8th. I teach computer skills generally. I am a teacher, I do have a teaching certificate but I don't do that. Generally what we've decided to do or the approach that we're taking with the kids right now is, I go through commands and just general computer things and generally what's happened in the computer industry and different things about jobs and areas where a person can make a living. It's not too formalized and I don't give grades, then half the hour basically we let the kids do what they want to do. They're getting at least 30 minutes real time hands-on the keyboard no matter what, but they only get it a couple of hours. How many times do I see the same class? Four times a month. They are in there other times as well.

Alice: We're working on getting computers in the classroom where the

teachers have access to them all of the time.

Jim: It would be wonderful, all we need is a budget.

Alice: I'm working on it. I'm getting the Internet into Ruth's room.

Jim: You know it would be easy to put it into Brian's room. We're so

close to being right there. We started with nothing.

Evaluator: Have you participated in any Net Days? The Telephone Pioneers

of America.

Alice: I already asked, the quotas are already filled. I checked, in fact

the guy that helps me with the telephone wiring is a retired telephone

man. I was on the Internet last week checking it again to see if the quota

was still filled and I couldn't get in. Can you pull a string and tell them I

need to have that because you want to do this? It's on the national

address and it tells the whole story and at the end it says, "if you are…the

quota's full." I did that just last week.

Jim: Here's another thing that you've got to understand, we have two

telephone lines here, one of them we have to do school business on so

we can't use that one and we have the secondary that we do use for

Internet services and other things too, faxes and whatever and there's

also another office also associated with that number too that we're

stepping on when we use it.

Alice: I just sent off a grant to South Western Bell to get wiring all in that

                                building and this building and I asked for money to put in telephone lines

                                and I trying to fill in that application for the e-rate.

Jim: What we would like to do of course, is we would like to see the

                                school have a double channel ISDN connection and it's own server with

                                it's own license on the Web, call it www.st.peters.com whatever it is it

                                would be good. The thing that would be nice about it is that not only

                                could the school utilize it but the church could utilize it as well. That's

                                long range and will happen.

Evaluator: Have you all talked to Mike Flynn about any other thing that might

                                be available in Missouri?

Jim: Here's the thing, no school or business can really afford to have

                                or pay for seven or eight lines. Basically what you try to do is get one line

                                and pump that through a network situation, and just have that one

                                connection to the Internet. If you try to do that on one silly little dial up

                                connection, then you get a real weak signal for everybody. So generally

                                what you try to do is get an ISDN line either a single or a double channel,

                                whatever you can afford and frankly a single channel would do this school

                                a bang up job.

Evaluator: What if you got Internet In A Box and you stuck it in?

Jim: What is that?

Evaluator: I've never used it, but every time I've talked with some people

and I though about putting ISDN into my own office and the

recommendation that I keep getting back is it's really simple if you get

Internet In A Box.

Jim: Oh, I know what it is, it's just a random modem. That's all that it

amounts to. There's almost as many choices on ISDN modems as there

are on normal modems. Basically, I've set it up a number of ways, I've set

it up with a router and anybody that plugs into the hub is just on the Net

as long as you've got TCPI address. Everybody's got to have there own

address. When you set it up initially, you want to ask for enough

addresses. But it's no big deal.

Evaluator: So that's the type of thing that you could do if Alice had enough

money. Have you told her how much that's going to be?

Jim: We've gone over it a dozen times, we've wished. Here's the

thing, do you want to do everything or just a little bit? What we'd like to do

is for every teacher to have at least one good computer on his or her

desk. I mean a 586 something. With all the multi-media capability and the

whole school wired for not only Internet but also Intral.

Evaluator: What sort of help do you get from the Arch Diocese for

telecommunications? Nothing, why not?

Alice: They don't have any money. What we've tried to do is beg,

borrow and every once in awhile I have somebody that will give me a little

money. Last year somebody gave me five thousand dollars that's how I

got this wired for the school.

Jim: And to be honest, that was almost as important as the computers.

Alice: We couldn't run what we had, there are two little outlets in each

classroom. We couldn't do much until you got that done. We're

supposed to get the other school wired so we can get them in now, and

dragging in computers, odds and ends right and left actually, how many

computers have I drug in this year? Thirteen, fourteen, it's not much but

it's a start. We have one hundred kids in this school.

Evaluator: Let me talk with Don Lake, he's the project director and what I'm

going to ask him to do is going to be based upon a small proposal from

you, probably the same things you've put together and you don't have to

have any language in it, you're not going to have to write a grant. What I

want you to do is come up with some funding, how much funding would it

take to finish off and get a computer in each one of the rooms. Set aside

the ISDN contact, set that as a separate item, set out the server as a

separate item, and let me what I can get him to do. There comes a time in

each year of these grants where you have to do a report on this year and

you do the proposal expansion for the following year and I'll ask him if he'll

write you in. Whether or not he'll like you can or not I don't know, but I will

do the best that I can.

Jim: If there is one advantage that this school has, is frankly that I work

for them for very little because I like this school and they've been good to

me and I am an ISP. I wired the college, you know what I mean, I set them

up. They have something that most people don't have that's expertise

locally. To be quite honest, even in big cities you call fifty computer

stores and you say you want somebody down here to set up an ISDN and

you need to go the whole route. They're going to say, "no, here's a

number you better try." You know how it goes, I'm not saying that I know

everything because I don't, there's so much that I don't know it just scares

me sometimes but I'm running three hundred Internet servers in three

towns and I've wired the college and God only knows how many Network

customers I have.

Evaluator: Do you have the high school? Do you have any other public

schools? Is there a chance that we could get this school on that server in

some way?

Jim: This is how they do, I give them an account, that's it. The only

difference is they pay for the account. I'll do just about anything I can for

Alice because I found her to be as straight a string as I ever met.

Evaluator: What I'm trying to do Jim is this, what Alice and I are cooking up. I

want to do a major case study on this school. There are five years of this

grant and the grant just started on October 1st. But they've been using

TEAMS for a number of years and I keep coming to this school every year

because they have been one of our special focus evaluation sites. I have

not set up the entire research design for the next five years and what I'm

---

trying to do is figure out things that can be done where we've got actual

kids that we can follow. Most of the kids I've got my hands on turn to

vapor the next year. I can't track them or follow them.

Jim: I think they could offer that here. Generally when a child starts

here, it goes through the first seven years, eight years.

Evaluator: I want to follow them all the way. She's got kids that we could

follow that are already in the high school. We could go look at them and

then we could also see what happens when there's a switch.

Jim: Now are you going to take everybody in a particular group or are

you just going to single ones out.

Evaluator: No, what we'll be doing, TEAMS offers a variety of projects. What

we're going to try to do is Alice is going to work with the other teachers

and we're going to try to get within the school between a number of

teachers. All of the teachers using all of the programs. It will be one of

the few schools in America that will be doing this. It's a small enough

group.

Jim: We are flexible here too. Frankly, if Alice looked down her list of

children, she can tell you who will never move and who is likely to.

There're are certain families who've only been here two hundred years. I

doubt that they're going to go anywhere. Let me tell you what else is

going to be happening that's exiting. Microsoft is going to release a new

program very shortly called Winframe. And what it is, Windows never

really had a graphic interface. Well they've got one now supposedly. This is their press, but they say it only take two megabytes of ram and a super VGA card and it can even go down as low as a 286 with an (inaudible) card that you can lock in to an NT server and run reasonably fast. We're not using the internal CPU of that machine to actually run the programming, the programming runs from the server. So what that means is if it's true, is that 386 machines and 486 machines all of a sudden become viable machines again. So they are Net computers. Now IBM has been talking it up for the last couple of years, the only problem is they don't get anything done. Microsoft will have this out last quarter. Now if you called Microsoft and said, "Hey, I have a use for this, I am somebody, this is who I am, this is what I do, let's beta out you people on this Winframe stuff." To be honest, what that would mean is all these old junkers out there with a Net card, and a decent monitor, mouse and a keyboard would be useable machines again.

Evaluator: So the Dettweiler Foundation's dream comes true.

Jim: Pretty much, if this Winframe's for real.

Evaluator: Mike Flynn, who is the TEAMS coordinator for the state of Missouri was meeting with the Dettweiler Foundation today and to talk about what in the world to do.

Jim: That means all of our machines would be a good machine. The idea of every machine that every child is setting at needing to be a 586, 300 with all the stuff is not necessarily true anymore.

Evaluator: We get Net access, we use MTE. We can talk with them about

that because the other thing that they just did is Microsoft, Compaq, Five

Telco's and a couple of other big names in there. They came out with

something they're calling it Light Digital Subscriber Loop. It's a brand new

standard, I don't know what's it's going to be but they say they're going to

deploy it this year. DSL could work in this school.

Jim: In the not too distant future, because my Internet is growing by

leaps and bounds, I'm going to have to go to a fractional T-1 line. I'm not

going to buy a whole T-1 right off the bat, but I'll have a whole lot more

pipe than I have right now, and I would at that point in time be able to

shoot Alice an ISDN pop or rear wheel too, which ever, doesn't make a

difference. I'd have enough pipe left over to handle my subscribers as

well as these two ISDN units.

Evaluator: That would give you everything you need. That's the sort of

thing that's doable.

Jim: You're the first person that I've met in a long time that has any

conception at all of what I'm talking about. It's going to be a big thing,

because let's face it, you can't hardly argue with the graphic enterprise.

Don't back off from this transition into 95, it will be an easy one for you and

you'll find that once you get there, there's really more flexibility with the

IBM style plumbing because you can actually have the command line.

Evaluator: If this happens, and it does give everybody the ability to have computers that are really worth while than those junk heaps that we've got and if particularly schools would pick up on this, before the rest of the world gets it, gives everything to Dettweiler.

Jim: One of these days there's not going to be any old used computers laying around because one of these guys are going to pick them up and put a Net Card in them and throw a twisted pair at them. They do have to have good enough graphics to do decent graphics, so you're going to have to have at least a one-megabyte video card and a SVGA monitor.

Evaluator: The next thing is how do we put these on those crummy desks that the kids have?

Jim: The beauty of this thing is I would be more that happy to see this happen and frankly Marshall is the Paris of Missouri. This fairly enlightened little town, we have four different Internet providers in this town of 12,000.

Evaluator: Have you got anybody doing wireless? Ricochet is a small company, they bought up some spectrum in California, D.C., Washington and Oregon, and they started out in Silicon Valley. It's wireless modems, you just slap on the back of your laptop.

Jim: That technology hasn't even hit Kansas City or St. Louis.

Evaluator: It would be an interesting thing, what I thinking about, if you're working with any of the Telco's who are thinking about doing wireless service, it would be a very nice way of trying, talk about a pilot, all you have to do is get to your server. That's it. You're talking about three repeaters tops.

Jim: Southwestern Bell kind of owes me one.

Evaluator: Why don't you talk to them and see what they can do. It would be a non-tariff service, which means they could give it to you free.

Jim: Which also means they don't have a way to charge you for it either.

Evaluator: Yes, but since it's non tariff, they don't have to charge you. That's the other thing. I you ask them, "give me a T-1" they say, "I can't give it to you because it is a tariffed and I have to charge you for it." But if you say, "try me out for something special".

Jim: Let's say for instance they put in three repeaters in a ten-mile radius.

Evaluator: I have no idea how much it takes frankly.

Jim: What you've got is a siege mentality with these telephone companies right now. They're all tightened up because there are people making money off of telephone lines that they're not making and that just

tears them up. Do you know what I have to pay for my ISDN lines on a

monthly basis? $235.00 for three lines, on the East Coast it's cheap, why

it's cheapest there I've not idea but it's $35.00 to $40.00. On the West

Coast, I don't know what they're paying. My ISDN line goes directly to

Kansas City, I can't get a local hook. There's a local office but all they do at

the local office is repair. We don't have the switch to handle it here in

town.

Evaluator: You have to wonder if there are other telephone companies that

have come in and done things.   When you think of this type of service for

a town with this many people, this close to the highway it's ridiculous.

Jim: That's a fact. It's true, that's why my service is so high is because I

have three local numbers to Kansas City. I'm paying the distance. My

people are dialing into me local and I'm paying the LD.

Evaluator: I'm paying $30.00 a month for the Ricochet modem and that

includes an Internet access. What we're going to try to do, Don has

designed five types of networking and they're calling them Tiers of

Technology. That's essentially what this is, it's learning plus. Were

looking at all sorts of different ways of getting technology and media

things into schools. When you first began using TEAMS you were only

using TV. This is where I want to do the entry level here for the rest of the

year if they can get the satellite dish going and get the kids Internet

access. This is where you are now, it's not organized but this is where we

need to be. What I want to do at the school here is make it a case study

throughout the nation of Catholic School system because this is the only

Catholic school that we've got that I want to go to. There are other ones that use it but it's not a cohesive place. I will write all of this up for five years as a case study that you guys can take and shop around any place you want to, send it to the Arch Diocese but use it as a focal point of what happens with Catholic education augmented by technology and media.

Jim: That's so nice because that's a third party resource.

Evaluator: It will be up on TEAMS bulletin board, it will be up on mine, you'll have it to use anyway shape or form that you want to. This would be the type of thing where you could take it out and show it to business people and say look, this is what we're doing here.

Jim: Does TEAMS also go down to first, second, third?

Alice: Yes it does, and I've been trying for two or three years to get them, but I've had trouble with new teachers and teachers leaving. I've got to start all over again.

Evaluator: Using this is a hook thing.

Jim: If we at St. Peters were just a little technology oriented, that we could probably woo a lot of Baptists and Presbyterians to this school.

Evaluator: This way it's a win win. If it works for you, it works for us.

Jim: Yes, I think it's exciting! This is the best day I've had in school for

a long time.

Alice: If you give me this as soon as possible I've got a fellow that

bought this program for his business but he's going to print a newsletter

for us on a regular basis and send it all out in bulk mail to the whole parish

and any place else we want to, the alumni list, everybody. The secretary

is going to type it all up, we just need to feed her the information.

Evaluator: The other thing you could do with it then once you've written all

this stuff, you should go ahead and plan on going ahead and setting up.

Jim: The one thing that was strange to me when I came here originally,

I thought Catholics were famous for fund raising, let's just do some. What

I found out was that there's already groups doing some. You can't step

on this fundraiser that this little group has been doing for six years, do

you know what I'm trying to say? The pie is already sliced up. The Arch

Diocese is doing things like putting down Commandments that we

should all buy Mac Power Book. Somebody's obviously got a hold of the

Arch Diocese and they're selling them in a direction I don't think would be

the best direction to go. I've done everything I could but turn blue.

There are two people to talk to, there's one sister that has absolute

control of everything and she's got her field person that goes out and

does the actual look. This sister doesn't go anywhere, she's stays right

there and commands. She's the boss. The one that comes out is very

flexible and nice but has no power. I'm not sure if there's anyone above,

whoever is the priest, the biggest priest of the Diocese is over

everybody. I don't know him. Our local priest is not a toughie, he shows

up a little bit and has asked for his own e-mail address. The St. Peters

church and this is an offshoot of the church family. What I've been trying

to sell to these people all along is to do a real nice computer lab but let's

open it up at 7:00 AM and keep it open until 9:00 PM and let's let our

parishioners use it.

Evaluator: And maybe the rest of the public.

Jim: Yes possibly but you've kind of have to take care of the Cub

Scouts first.

Evaluator   How do you use the community to inform the community? How

do you get it down to the grass roots level? How do you empower the

people at that level to start taking responsibility for what they're doing?

Jim: I can't afford to be here. They pay me but I could live without it.

Evaluator: When I was driving up today thinking what is it I could do that

would help Alice make this place sing and let the world know how special

she is and what a place she's created. That's what's happening here, that

personality is what permeates the building and giving her something that

she hang it all on is so special.

Jim: Brian will work, and Ruth will work real hard at this. The majority of

the teachers will work at this.

Evaluator: It will become somewhat peer pressure if you're able to get things

                    hopping.

Jim: If they see success they will jump on.

Evaluator: I need to get him up on satellite again, he's using programs that

                    are left over from last year's project. I cannot have him using that and

                    that's how I got started on this.

Jim: I'll make sure that gets handled. I didn't know it wasn't working.

Evaluator: It's probable the chip set as well as the programming. I think that it

                    needs a new chip.

Jim: Say for instance we had a half a dozen on machines, can we do

                    TEAMS over the Internet as well?

Evaluator: They go together.

Jim: So we're using the Internet for certain things and the television

                    screen for certain other things.

Evaluator: Right, and then we'll start using CD ROMS for some things and

                    simulations and textbooks and pen and pencil and hands on and

                    manipulatives, so what we're doing is constantly expanding the tools the

                    teachers have. As we expand the tools and show them usually through

                    the television teacher, television teacher becomes a roll model. They

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watch that, and I've been able to validate over the last five years, they'll

start out as very traditional, lecture oriented teachers. They start doing

the TEAMS programs, within twelve months they have moved to

becoming the facilitator in the content area because of TEAMS.

Jim: If you keep them occupied, they love a show. You've got to give

them one.

Evaluator: They also love the hands on part of it. That's the thing that makes

such a difference. The whole thing is discovery learning. I ran the higher

education channel in St. Louis and I ran the teleconferencing

interconnect between the four campuses of the University and put

programming on for that. There's another group that I work with called

Applied Business Telecommunications, they do probably two programs

that you might know about, one's call TeleCon and the other one is called

IDLCON. They're enormous shows, 15 thousand people go to TeleCon

and we're up to the point of about a thousand are going to just the

program part of IDLCON

Jim: Years ago when the caller ID was first starting to be a real deal, I

said I have an SS-7 signal running through my line already, why can't I get

it? They said you couldn't because we've got it masked. I said if I figure

out how to un-mask it then it's there and I can use it? Yes, you probably

could but we wouldn't like it if we found out. You're forcing me to be a

total crook because I'd like to have this. I started fooling with telephones

Mike Flynn

Success Link

Jefferson City, MO

February 24, 1998

Mike: Detweiler is a private foundation that started several years ago

with the idea that there are a lot of computers out there that could be

rehabbed. They started a process where they are donated and then the

prisons and vocational schools rehab them and then they are given to

schools.

Evaluator: Have you gotten any from them yet?

Mike: We've got 60 sitting in a warehouse right now but we don't have

the mechanism to distribute them yet. We've got to set up the process of

having them checked out and how people apply for them. I just

happened to be at a meeting one time where Jerry mentioned this

project. They're used to working with the commissioner of education, the

big boys, so he's had a hard time getting meetings. Everybody is excited

about the idea. I called him a couple of times after Mark came on. Mark

was really excited about the idea. He's coming into town and we're going

to have a meeting. We're just going to help if we can. We feel like it

would fit into our overall mission of success link but if someone else

wants to do it that's fine. We've got plenty of work to do. What's really fun

about working here is that you see something like that and it's what can

we do to make this happen? It's frustrating at times because you can't get

everything done that you'd like to, just like TEAMS.

Evaluator: That would be great, particularly for TEAMS teachers. We could

                              put a couple of extra computers in a room.

Mike: They don't send out anything that isn't a 486 and they have a gig

                              of hard drive or something like that, so you're sending a pretty decent

                              computer out there. It's good for the companies. These computers come

                              from Hewlett Packard. They're already 486 computers. We don't know if

                              there might be little glitches in them. That's why we don't want to

                              distribute them yet. I was in a bank the other day, and it wasn't a big bank,

                              and they had about 30 computers. So if they were to upgrade their

                              computers, what would they do with the old ones?

Evaluator: What we run into is, yes the stuff is out there, but 1 out of 30 can

                              use it. Usually the other part of the problem is that there is no video

                              projector. There's no LCD.

Male: I had a bunch of principals in the other day and I asked them:

                              What do you want Success Link to do for you? They said how to use

                              technology in the classroom. That gets back to the point of what Deb is

                              talking about. Internet training and using this technology, TEAMS is a

                              vehicle for you to do that. Here's the process for you to do that. There's

                              a lot of other stuff out there, too, but here's an organized program where

                              you can use technology well. I think it is needed and it will work. It's a

                              matter of getting it done.

Evaluator: That's the hard part. It's all good and well for people to create it

                              but they aren't able to support you as much. These grants used to be 4

million dollars a year and now they're down to 2 million. By the end of the last year of it it's down to 1 million.

Mike: If we're going to make this work, we have to take the responsibility. There's some money out there and we have the physical space here. We have the phone lines. That's why it was such a nice fit. We go to a conference anyway. We're there. We already paid the $250 fee for that exhibit. We're standing there with brochures. What's great is when a teacher walks up to me, if they're a high school history teacher I don't talk to them about TEAMS. I talk to them about some of these other resources. On the other hand, if a middle school science teacher comes up to me, I've got this TEAMS thing here. What are you interested in? It's a real nice fit, an innovation, and that's what we feel we're about, promoting innovations.

Evaluator: Let's review the way you think you're going to begin to market it for the new project.

Mike: Like I say, we've done some marketing with the brochure. The brochure was developed so that at conferences when we handed things to folks the material would be as professional as possible, not just things we had copied on the copier. It's helped. The program guide has proved to be very helpful. They can see the whole package of all the programs and what they are about. We don't hand this to someone first, but if they express an interest, we try to follow up with a phone call to them and ask them what they thought. We'll send them a sample tape. We have gotten probably a half dozen new schools through that process which I

don't consider a real aggressive process. One of the things we're really

excited about is the UMKC program where they'll have the educational

channel on the cable system there. I think that's going to be a real nice

consistent way that they can get the broadcast. They promised that they

would broadcast all the TEAMS live and they are also taking about re-

broadcasting them maybe the next day. That's supposed to come on line

in April, it's been bumped back a couple of times. Hopefully, then we can

do some promotion about those remaining couple of programs that will

be broadcast and really hit it hard for the next school year. We are also

going to work there and in St. Louis on that summer school package.

We'll try to broadcast some things, maybe in May, in units and encourage

people to use them in their summer school programs. We'll send them

the print support materials and work with them on kits. We can't provide

everybody kits, but maybe we get some stuff loaned.

Evaluator: For the summer school, would they be mostly be using tape?

Mike: There's no live broadcast during the summer.

Evaluator: Given the expense of doing tapes, I wonder if ESN might

rebroadcast?

Mike: The challenge to a live broadcast situation is that the summer

schools all start and end at different times. When Neal and I were talking

about broadcasting in June, that was the challenge. The other thing he

brought up, which I thought was valid, they really should look at this stuff

a little ahead of time. It shouldn't be just cold to the teacher. That's why

he thought May might be a little bit more powerful, in the sense that they could look through the staff development and some of those kind of things. I haven't run into any schools that had a real problem getting tapes. We can always send black tapes, also. If they want just 1 module, it will probably take 2 or 3 tapes. I think the real thing is just getting out there and talking to schools we currently have and building a much closer relationship and then using those schools and teachers to grow things where we are. We've got a couple of school districts that are pretty strong, Bloomfield and Poplar Bluff and Lawson.

Evaluator: Why do you think that those are strong?

Mike: I think you have a strong leader. Nora at Lawson seems to be very committed to the whole project. Sue down at Bloomfield is going to make it happen. She's a media specialist. If they miss a broadcast, they don't hesitate a minute. They order the tape and get it in so they have it. That's part of it. You also have enough teachers there that are using it that you have that synergy. You have that "Well, what have you done with TEAMS recently?" That kind of thing. I think that's something we really need to do, really work with teachers and develop that relationship with the ones that are using it and take care of their needs first. Then you can work with some of the new teachers. We've already got a half of dozen new schools that we need to go visit now and see where they are. We're going to try and approach some school buildings that we know are pretty heavy in technology through a back door kind of approach and say o.k., you've got this Internet connection, you've got Internet in every classroom, so now TEAMS can really help you utilize this resource and

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has a package for you versus the kids surfing around and finding a couple
of sites that are good or the teacher spending hours trying to find some
sites. There's a couple of schools, specifically, that Deb and I have been
talking about that we know have done some good things with technology
that we will be approaching this spring with an initial contact and visit. Deb
and I are going to work together and write up a grant through her shop.
We don't know exactly how that works because her money can only go to
certain places and since we are a not for profit agency, we don't know if
she can give us money directly or how that all has to work. We'd have to
figure that all out and set up a person who can work on TEAMS full time.
Maybe I should say approach it as "Use of Technology in Your Classroom
" full time. TEAMS would be an integral part of that. TEAMS is the first
step for you to use technology in your classroom is the way Deb wants it
approached and I think that makes a lot of sense.

Evaluator: At that point you might want to look at some of the other Star
Schools projects as well. I don't know which ones.

Mike: I'm especially interested in the Resource Network that you have
here. That's what we're doing with stuff in Missouri, but as we want some
things from another area, that would be a site that we could go with.

Evaluator: Most of the Star Schools directors are willing to work with you.
They're also at a point where they will be writing next year's application, so
if you wanted to do any of these, if you call them now, you might be able
to be included in next year's grant. You would get the programs probably
for free or for a minimal amount.

Mike: We'll have to check into those and see what components we might be interested in, like the high school math.

Evaluator: Are there any challenge grants in the state?

Mike: Not that I know of. There were a couple that were applying for those and Deb's office helped facilitate. I don't know if any of them got awarded or not.

Evaluator: I was wondering what you inherited when you picked up this, talking about TEAMS and helping TEAMS be adopted. Did they give you a full list or do you have a statewide list of what technologies are available in the schools?

Mike: They did a little survey last year. They're doing a more complete survey this year so we'll know more in May or June.

Evaluator: Do you think that they'll have it by June?

Mike: She didn't put a date on it but I know that they are in the process of doing the survey right now, sending things out and trying to get them back in. Because Deb's office is the one that handles the technology grants, other than industrial technology, they have a pretty good grasp of where they are. They know that Strafford has gotten several of those grants, Bloomfield has received several of those grants, Carl Junction. So we have some locations that they know that have driven some stuff

forward with technology. As far as TEAMS goes, that's who we'll start

contacting first.

Evaluator: Are you part of Missouri School Boards?

Mike: No. We're part of the Missouri Council of School Administrators,

which are the Superintendents and Elementary Principals Association.

Evaluator: So you have a direct contact with those superintendents through

what, the newsletter?

Mike: They do send out a newsletter. Elementary principals have a real

nice magazine they send out. They have helped us with disseminating

information to all the superintendents. We have a booth at their

conference. It's worked out pretty well.

Evaluator: Do they have monthly meetings?

Mike: Not of all the superintendents. They have regional meetings.

We've been at all of those and given our little dog and pony show. That

gets our name out there, but superintendents don't usually cause too

much to happen like that. Sometimes they do, but the principal is who's

going to make something happen. You do have to have the

superintendent aware of your program or at least aware of your name.

We've only been around a year and a half, Success Link has. We've still

got a lot of name recognition to work on. It's improving. I don't think that

has really affected us too much with TEAMS other than the fact that over

the last 3 to 4 years, they've had 3 different coordinators with 3 different phone numbers to call. That's been a little tough.

Evaluator: One of the things that is interesting to me and we look at on every project, is the implementation. First it's the adoption and then it's the implementation and how that goes. There's a lot of places, because of the superintendent, the whole thing is adopted at that level and then the principals hear about it at a principals meeting put on by the superintendent. I'm wondering if there might be a useful group to do a focus group with at some point. We could do an audio conference with them. This would be for me. Maybe we could have school districts that are using TEAMS and maybe we put a couple of people in there as wild cards that haven't used it. Part of what we could do is to ask them what it would take. What's the best way of going about an adoption in their school district? That is a huge question that we have at the Department of Education. We have virtually no good information about it. We think that it's something that's really important. Maybe for Star Schools we could put together a superintendent's package. Maybe there's some other thing that TEAMS could put together at a national level that would help in this.

Mike: That's an interesting question. Superintendents get hit with so much stuff that it's the rare superintendent who picks up any one thing and says we really need to pursue this thing. If they are going to push an issue, it's going to be a bond issue or a tax levy. I don't mean that we shouldn't try to approach the superintendents. They do an annual administrators conference in August here, and they have virtually every

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superintendent in the state there. It is the meeting to go to. The sessions they attend are finance and school law. Those are the two areas that drive superintendents and then we have a state review process, the MSIP review process, and they'll come to that. I think that if you're going to get schools using TEAMS, it's through the principals.

Evaluator: How do reach the principals?

Mike: I don't know that answer or we'd have more than 7500 students using the program. I think we've approached it a little wrong. We talk to a teacher at a conference and we show them a brochure. They're interested and they sign up. They'd like to have a tape so we send them a tape and the materials that go with that series. Then we call them and ask them what they think. That's probably not the way to do it. If we've got a teacher that's interested, we probably should meet with them and the principal. One example: I've got a teacher in Kirksville. Kirksville is a pretty good size school district. She got really fired up about using the technology portion of it. We sent her the tapes and got her all the information and I called her 4 or 5 times to see how it's going. There's been one excuse after another, the dish is a problem, that's a problem, etc. I don't think it's because she's just putting me off, that she doesn't want to use it, but it's something that she's trying to do just extra above her other responsibilities. I think if we went to the principal and her, and the principal thought this was a great thing, then that would give her permission. She could tap into some dollars or whatever. We do have some principal's associations that we have sent some information to about Success Link in general, which, of course, includes TEAMS, but

we have not done any marketing specifically about TEAMS to them. We could definitely try that. There are sometimes regional principals groups, too. To be honest, our first priority was "What is Success Link and who the devil are we?" We make up a packet; it's a notebook, with a bunch of stuff in it. It has the TEAMS and we go through each of the items of the programs that we operate. The word's getting out there, but it might be more appropriate to go back to them next year and suggest that we come talk to them specifically about a couple of programs we operate. We've talked about mailing things, but we've almost gotten away from that because there is so much stuff that comes across the desk. If we mail things, we try to mail them to very specific people.

Evaluator: What about e-mail?

Mike: E-mail is such a flukey thing. In fact when I found out you were coming, I went through my book and tried to e-mail the people that were along the track and about half of them had an e-mail address. A couple of them didn't go through. It's useful for some of them. To my knowledge the principals don't all have it.

Evaluator: Maybe that's something that Success Link could facilitate.

Mike: Yes, we could facilitate that. We're working on a Web site that is much more searchable than what we have now. We're looking at having 10,000 documents that they can search and find what they want.

Evaluator: Who's pulling all this stuff?

Mike: We have a consulting firm right now who's developing the first page. I have a meeting with them Friday. They want $28.000 for this first step and we don't have that kind of money so we have to narrow it down. We are very excited about the concept of the page.

Evaluator: Are most of the things you do technology based?

Mike: No. A lot of things we do aren't.

Evaluator: Do you think that a lot of the things that you do may be on somebody else's page?

Mike: There are some pages that we're tied into, yes.

Evaluator: But not the entire body of work?

Mike: No. A lot of this stuff is individual teacher ideas. I know this performance assessment thing is not on a site anywhere. Some of the curriculums might be although I don't think a school would load in a whole curriculum onto an Internet site.

Evaluator: If it was math or science, it might be on the Eisenhower clearing house. The Eisenhower group has gone through this whole concept of how do you set up a site and how to organize the stuff. You might want to contact them.

Mike: I've been on the Eisenhower site a couple of times. I need to go

back on it again.

Evaluator: I was part of the Eisenhower project six years ago. We went

through this. It's an ordeal. You may be able to tie into some of what they

have.

Peggy Marns, Principal

Gwen Faulkner, Technology Coordinator

Taubman Elementary

Washington, D.C.

May 19, 1998

Evaluator: How long have you been using the program at this school?

Gwen: We are in our 3rd year. The 1st year was an introductory year. We

                                  were getting the equipment and our teachers organized, so probably 2

                                  years of actually using the program.

Evaluator: Are you using all the programs?

Gwen: We're using some of the math, some of the science and we

                                  piloted the early learning grades in one classroom. We have also used

                                  the language program, Shiloh and Rifka.

Evaluator: With the older kids?

Gwen: Right.

Evaluator: So, K through 6th. What goes on where some are K-6 and some

                                  are K-5? Is there a pattern?

Gwen: To be very candid, I think one of our superintendents wanted to

move towards the middle school concept. In doing that people realized

that there was a lot of training and studying and support that needed to

be given to that concept. So those that moved into the middle school

concept are getting that support and those of us who are going to 6th are

waiting for it to be at the level that the system would like for it to be before

our 6th graders go in.

Evaluator: How did you adopt the TEAMS program in the first place? Was it

Wendell?

Peggy: Yes. What happened was we wanted to emphasize technology.

I saw Wendell at a superintendent's conference and he said that he could

offer all the kits and support that we needed but not necessarily the

hardware. So we took Title 1 money to get the hardware and Gwen said

that was our year of just getting everything organized. We moved on

from there. We did receive the kits and all and he's been highly

supportive.

Evaluator: Have the programs met your expectations, the benchmarks that

you had when you thought about taking the programs?

Peggy: I think so because I think that the children and the teachers are

enthusiastic about what's going on. You hear all kinds of informal kinds of

comments going on in the hallways and the office that shows that the

children are benefiting from it as well as the teachers.

Evaluator: So you'll continue?

Gwen: Yes.

Evaluator: At this point then, the money that used, was that for the

computer lab. Was that what the Title One money was for?

Peggy: About 5 years ago we made a commitment. By that I mean our

local school restructuring team to technology and we came up with a plan.

Each year we try to implement what our plan said. We're behind because

we didn't get our money last year for wiring. We are not going to be

stopped by that. There is still the commitment here and the parents are

enthusiastic about it so much so that they wanted to be educated. Last

year we had parent workshops one day a month.

Evaluator: Regarding TEAMS or just general technology?

Gwen: General technology. We tried to let them understand what's

going on with their child in the school. We showed them some of the

same software the children are using. We did talk about TEAMS some.

We talked about the video tapes and how we bring TEAMS to the

teachers.

Evaluator: Did you do another one this year?

Gwen: Things have just gotten hectic this year. We do plan to continue that. People are stopping me in the halls.

Evaluator: There are materials on the Internet that the TEAMS teachers put up. Have you used any of these or recommended them to any of the other teachers in the school?

Gwen: Definitely. I do a grade level training on technology every month and I'm using the TEAMS home page as the roadmap to get onto the Internet now. I'm using the model, touring the Internet. We're doing it with the teachers. We use a combination of the video tape and then actually go out live on the home page. It's fun. It's been one of the favorite training exercises this year.

Evaluator: They're feeling comfortable with it?

Gwen: They're feeling comfortable with it and what they are excited about is how much they are finding out there. What I found is that the TEAMS home page, because it was really nicely aligned with resources, they didn't have to search. You didn't have to have a lot of searching skills to start out.

Evaluator: Do the teachers have Internet access in their rooms?

Gwen: Not yet.

Evaluator: Do they have computers in their rooms?

Gwen: Yes.

Evaluator: Do they often want to use the TEAMS materials in the classroom with the students?

Gwen: Yes. Right now, the way we have it set up, is that our 4th grades are using all of the math modules. The 5th and 6th grades are using the science modules along with our science teacher, who is doing fast plants because it was easier for her to contain it with a couple of classes within the science lab as opposed to trying to get all that other equipment. Last year our librarian used the language part with a couple of classes. The math resource teacher also used the investigations part with the 4th grade classes. It's sort of spread out around our building. Most of them are enjoying it.

Peggy: What about Miss Kowisky who looped with her class? What did she do this year?

Gwen: Miss Kowisky didn't do as many of the TEAMS modules because she did more kid's network. She kept her class so it would have been a repeat to do the same chemistry module. She did some other kinds of things with kid's network.

Evaluator: What's in the kid's network?

Gwen: They are mock science modules, a little geography and history, that pose a problem. Right now they are doing the oxygen module. They are on a team with students from all over the world and they conduct experiments pertaining to oxygen and its use in your body. Then they send their data and get data back from their team members.

Evaluator: Where's does this program come from? Who sponsors it?

Gwen: Kid's network, National Geographic.

Evaluator: So it's a free module to you?

Gwen: Yes in a sense. I'm very happy with them also. We've been able to get them to grant us some modules.

Evaluator: So you had to put that into place in order to do it?

Gwen: Yes.

Evaluator: Why wouldn't you continue using the TEAMS materials?

Gwen: The only reason is because she looped. Looping means she kept her class from 4th grade through 6th grade so the kids had already done the modules that were available for TEAMS. They are still being exposed to TEAMS because I think our science teacher is doing fast plants with the 6th graders.

Evaluator: So it meets all the standards and framework that you require in

the district?

Gwen: Yes it really does. One of the great things about TEAMS is that is

very closely aligned with our science curriculum and the math also. It's

been a boost to our science program here because these are so nicely

put together modules and the kits are there. The teachers feel real

comfortable doing them.

Evaluator: Do you have replacement money for the kits, like with the fast

plants, where they use those seeds up and they have to be replaced?

Gwen: We would have to use our Title 1 budget or school supply

money. I don't know. I'm not going to tell you where it comes from. It just

comes. I say "we need" and somehow it appears.

Peggy: I do support the program and if Gwen comes and says that this is

what the students and the teachers need then, like Gwen says, it

appears. I'd like to leave it like that.

Wendell: That's the way it is supposed to be.

Evaluator: Are there any pieces of information that you'd like to see me take

back to TEAMS? Modules that you need?

Gwen: Most of the teachers are pretty enthusiastic about the modules

and they like to repeat it. Even our Forces in Motion teacher is no longer

a distance learning teacher, she's moved on to be the RTC coordinator, she is still willing to answer the questions from this module.

Evaluator: We've had a lot of luck with the DLI's going ahead and responding. Do your teachers do a lot of that sort of response with them.

Gwen: They probably haven't done as much as we'd like to but now that we are online and they have had a taste of it, I think that you will see that boost a lot more. Our geography club, which is an after school club, is using the module also. Some of the items in the Student as a Citizen, the student government is using. Even though they aren't doing a lot of the online with the DLI's, they are actually using some of the information in the modules. The geography club is actually talking back and forth with Angie.

Evaluator: How did come about?

Gwen: Well, because this was a new module. I just posed the question: Hey, you're using other TEAMS modules, why don't you do this with the geography club? It's good because they only air that one once a week and the geography club meets once a week anyway. Even though they're not right online, they'll still be able to talk back and forth with Angie. It brings our after school extracurricular activities in line with geography standards. There's so much out there that she could be doing but this is a neat package she can use.

Evaluator: Now that the teachers have used the programs for a couple of years, have you seen any difference in their teaching styles or structural methods that they use? Any change in them at all?

Peggy: Yes. Maybe not as much as I would like, but I have seen a change. I think the second year they feel a little more comfortable than they did the first year in what it is they're doing.

Evaluator: What kind of things have you seen? Is there a pattern?

Peggy: I think that they have engaged the students more in different kinds of activities whereas before it was more of teacher directed kinds of activities. So I think that's what I've seen.

Evaluator: With your reform and restructure groups, things that you've done within the school, has there been additional professional development in moving towards being a facilitator of learning?

Peggy: Oh, yes, we've had all kinds of workshops here and Gwen is an excellent model. Like Gwen said, they come here once a month for training. We give handouts on what needs to be done and we have in-house kinds of staff development here. We model that kind of behavior that we want the teachers to have.

Evaluator: Have you seen some changes, too, Gwen. You probably get a pretty good chance to talk with them.

Gwen: Oh yes, it's fun to go in when they are doing a module, especially when they are doing the science modules, to see them working in cooperative groups and really being excited. I see the kids really excited about learning. That's fun. You understand that these are media babies and they are sitting attentively looking and watching the TV monitor and they are able to go back and do the experiments. It's really good. I thing the modules are really well put together. It's taken a lot of pressure off the teachers. The lesson is already created. Of course they come up with own take on it.

Evaluator: The first year that they use it, do they say it's a lot of work, not as much work, or too much work?

Gwen: I think the first year is probably, and each year is getting better, how do I fit in all the things I need to do? I think they are getting to point that they understand more and more that it can be a big portion of their curriculum. If it says we need to do this here in our curriculum, let's use this module to accomplish this task. I think you're seeing more of that.

Evaluator: Is that sort of an adoption that's going on then, say, the 3rd grade teachers, the 4th grade teachers, are sort of talking among themselves and moving toward that? Are you seeing more and more teachers using it?

Gwen: Well, they probably are talking among themselves, but it's also a school system direction. They're seeing it from every angel when they go to professional development classes and that kind of thing. The catch

word is integration. They're getting it from a number of sources. In their grade level meetings they talk about what they're going to cover in what particular time.

Evaluator: You've got a lot of teachers that are using it. That's part of what I look for, is dissemination. The other thing that you just validated for me, is that teachers move from being traditional teachers to facilitators of learning, usually within 12 months in one content area and within 18 months they integrate throughout the content areas that they teach. It sounds like everything's really on tract. Have you heard of any other concerns that the teachers are voicing that we should addressing?

Gwen: It's more in-house, such as making sure that we have enough kits. Initially we did some sharing of kits. I think we have a handle on that now. It's probably more about the equipment. For now, most of the teachers like to use the tapes. I record them so now it's a matter of being able to schedule the VCR into their room. Of course everybody wants the Internet in their classroom. Those are probably some of the things that you would here about.

Evaluator: Are you going to be able to do the Internet access in the classrooms?

Peggy: We're going to be trying.

Evaluator: By Fall?

Peggy: Hopefully.

Evaluator: Do you know about WebWhacker?

Gwen: Yes. I talked with one group of teachers and said that even if you

                                don't have it in your room we can use WebWhacker. They still need a

                                method in which to communicate. I think that's one of the things that is

                                really helpful, that the students are able to communicate. When they

                                write a letter to the distance learning teacher, they get an answer back.

                                One of the major things I've been working on is to have e-mail addresses

                                for all the teachers.

Evaluator: It's one of the neatest little programs that have come down the

                                pike. It's so handy for classroom teachers. What are you doing? Are you

                                trying to set it up a way for the kids to do messages in the classroom? The

                                teacher saves it to a disc and someone brings it down here?

Gwen: Yes. We have several locations, the library, and the lab upstairs.

                                Ideally we would like to have it in their classroom.

Evaluator: That's the best way, but at least you get them into the mood.

Wendell: I don't know if you can get e-mail addresses for everyone, but

                                you can still use hot-mail. The kids can have addresses, too.

Evaluator: Do you give the kids bookmarks?

Gwen: Yes that's part of the plan. I have shown the teachers as we do

the training how they can bookmark different locations that they want to

go back to. You're right, then we can just give them to the kids.

Evaluator: Well, you're just having too much fun. Get me out of here. They

know everything.

Wendell: You should look at her collection of software.

Evaluator: That's amazing. It's just so great to walk into a school where it's

happening big time.

Gwen: We're trying to get to tier 5. We want to be a tier 5 school.

Evaluator: We haven't even invented tier 5 yet. Have you got kids doing

web pages yet?

Gwen: We haven't done the web page for the school. That was in the

plan, but it took the better part of a year to get hooked up. Even though I

could have created the web page without being hooked up, I decided I

wanted the kids' input. I felt that they needed some training first to

understand. After that it won't take them long to create a web page at all.

Wendell: You're saving stuff to disc anyway, aren't you?

Gwen: Yes. We have pictures, quick time movies, videos, the whole

nine yards.

Irene Harding, 5TH grade teacher

Sandy Allen, 4TH grade teacher

Werther Elementary

Rockwood School District

Evaluator: Tell me how you are using TEAMS this year.

Irene: This year I'm mainly using Turn on to Mathematics. I'm using it strictly as enrichment.

Evaluator: Tell me about the other materials you use and how you use TEAMS to augment that.

Irene: If, for instance, we were working on patterns, we have patterns in the textbook and they use problem of the day patterns. What I did with TEAMS, I was using a unit that would go along with those materials.

Evaluator: With what you use with TEAMS, does that give you everything you need?

Irene: Yes.

Sandy: I use the Mathematics in our World program, the 4 modules. I introduce at the beginning of the year module A which is probability and statistics. We do all of the activities, your favorite potatoes, the kids create their own survey questions. They plot it and graph it, etc. Then I

go to the textbook, which is chapter 4, and we do the textbook activities

on graphing and probability. They cover all 5 different kinds of graphs.

Then I'll go back to TEAMS and we did module 2, which were fractions.

Then I went to the textbook and we did the 2 chapters in the textbook on

fractions. We did module C, which was geometry. We do the geometry

activities and then the textbook. So we alternate back and forth. I'm just

about ready to start the 4th module, which is on measurement. The kids

like it as an introduction. It's fun for them. When they get to the textbook,

then the textbook material seems really easy for them. They are very

successful because of having the previous experience with the TEAMS

program.

Evaluator: Do you feel like your children feel the same way?

Irene: Yes. If you look in their journals, very rarely would you find an

incident where they didn't say the program was fun. What you are doing

is "math is fun" rather than "math is I can't get it" or something like that.

Evaluator: Have you gotten any feedback from children that you've had for a

couple of years as they've moved on? Do you have any sense about how

they are doing in other math programs as they move through the school

system?

Irene: I would say no.

Sandy: This is only the second year I've used it so I don't have a feel for

that yet.

Irene: They do remember it when they come back. You do get a little

                            feedback from some students. They do remember it and mention it.

                            They remember the activities.

Evaluator: Are you using any of the science materials?

Sandy: I'm not.

Irene: So far this year, no, because we have a little different

                            arrangement this time with the 5th grade. I won't this year. If and when I

                            teach the electricity unit, I know definitely I will use TEAMS along with our

                            science. Along with our science, which is the Scholastic Science, I will

                            use TEAMS.

Evaluator: Are the programs too long or too short? Do they have enough

                            material? How do you critique them?

Sandy: I like it because you can always fast forward it if it is too slow or

                            pause if it isn't giving the kids enough time. I think the format's fine.

Irene: I have no qualms about the format. The reason I use Turn on to

                            Mathematics was due to the time element. That was one factor. The

                            other factor was that when Sandy started using it I though it worked well.

                            She could be doing Mathematics in my World and I could do Turn on to

                            Mathematics. If anyone else in this school decided to start that way there

                            wouldn't be any overlay. I realize the Turn on to Mathematics is shorter.

That was why I used Turn on to Mathematics. Since we tape it, which would be an extension to Turn on to Mathematics, we do not do the computer part. Maybe that's our loss on that one.

Evaluator: Do you use it?

Sandy: No, we use the tapes also, so the kids can't phone in. I'm using last year's tapes. It would be more interesting if they could see some of their work in the program.

Evaluator: What are you using?

Irene: I'm using last years.

Evaluator: Why are you using those instead of the new ones?

Irene: Due a time factor. We have the Librarian tape all the programs for us. At one time she had someone to help get those programs taped for us. She no longer has that help. There's just no way that our Librarian can be taping those all for us.

Evaluator: You do have a satellite dish here at the building though?

Irene: We go through CSD.

Evaluator: So you are receiving a feed from them?

Irene: Yes.

Evaluator: I thought that they would provide tapes as well.

Irene: They do. Once again I want to say convenience.

Evaluator: I just wondered what all the reasons were. I don't know how much difference there is between Turn on to Math from last year to this year.

Irene: I know that going through there was very little difference. That's why I stayed with it. Even in the electricity, when I was looking at it, there was not that much difference. I understand why they did what they did with the changes that took place, but I was able to adjust. I'll be honest with you, there are times when we might do the adjustment with the program and the other activity. That's why it's so compatible even though the changes have been made. I don't see any problem with it. CSD is excellent. We are very fortunate to have CSD rather than having to go out and make it so many angles and all that.

Evaluator: How they given you any new development with it that you've taken?

Sandy: No, I haven't. I'm real comfortable with the 4 modules that I have from last year. The kids like them. They've been real successful. I just feel real comfortable with them because I've used them before.

Irene: The same. We're really becoming CCO driven.

Evaluator: What does that mean?

Irene: Core Curriculum Objectives. Once again, due to time, you really have to make sure what you are doing is fitting those CCOs. There were some new programs that even our Librarian was willing to tape for us, but they are not matching up with our CCOs . There was a math unit and a science unit that they added on but I just couldn't incorporate it.

Evaluator: So you all have gone to a new test this year as well?

Sandy: This year we will have a performance based test in mathematics. Using the math journals from TEAMS is also going to improve our scores I think.

Evaluator: There should be plenty of things that dovetail. It will be interesting to see how you work it out. One of things that TEAMS endeavors to do is to make sure it meets state frameworks. It's based on all of the math and science standards. Have either one of you used any of the computer materials?

Sandy: No.

Evaluator: If you were able to work with Jeannie, the math teacher for TEAMS, she could react with your children. You could send in things and she could come online and respond to them. She's done that with other

classes particularly where it is so impossible for you to look at the material. If she knew that you were using last year's tapes I think she would be thrilled to do it. It's just a matter of letting her know. It gives the kids another reason for using the computer and reacting, the interaction that goes along with it. The response back from that other teacher is helpful, too. It makes it more real. I'm sure that she would be glad to do it. The new format for these courses is based on the idea of distributed learning. With that we're using different levels of technology. The very lowest here is television plus, whatever goes on in the classroom. The next tier might be computer, where you're doing computer things, but not necessarily through Internet. The 3rd tier is through Internet. That's why I was asking whether you'd had any of the development in those because they should have covered that with you. I'll ask Mike Flynn if he'll send you some of the materials. I'm sure that they have sent some things out. It's important to know where you are on it so that I can set the school, as far as where it is. This is a 5-year program. I'll keep coming back. We need to position the school as far as what is going on and then as you add technology and you are able to do more and more things we should start seeing an impact on the kids because they're using technology in a different way. That's one of the things that we want to be able to track. Do you have access in your rooms to go to Internet?

Sandy: I have one computer. We have a technology committee that is supposed to be, as the years go on, adding so that we will have a cluster.

Irene: I have one. The other problem is that we are difficulties with our

                               Internet. It just goes down. If you're on it you don't know when it is going

                               to go down or if you're going to get on it.

Evaluator: Do know what they are using? Is it ISDN?

Irene: No. I should say I don't know.

Evaluator: I can probably find out. Does the school district provide it or is it

                               just the school?

Irene: School district. Our CRS (computer resource person) is aware of

                               the problem. Steps are being taken to correct the situation.

Evaluator: Do you have some sort of projecting device to put it up with?

Irene: No. That's another problem. Our technology committee at this

                               school has looked into it, but it keeps getting put back because there are

                               so many demands.

Evaluator: If TEAMS was able, and they don't have any money right now,

                               what sort of things would you want that enhance TEAMS and your ability

                               to use it or show it or deal with it or help the kids work through it?

Irene: Well, if you're going to say the LCD projector that would help.

                               When you even mention it, that would be a big help.

Evaluator: O.K. Are your classrooms close enough that you could use one

and be able to quickly go back and forth.

Sandy: They're different grade levels. Mine is at the top of the stairs.

Irene: I don't know. There would be a possibility. The other thing is,

may I say, if there's money. I know there's training sessions for TEAMS.

Sandy never got to go and I've been to a couple of them. If you're to go

in tiers I think we need some pretraining to be aware of what the goals are.

Sandy: I have to pick up my kids.

Evaluator: O.K. I'm surprised that nothing was offered to you.

Irene: There were no training sessions.

Evaluator: I'll talk to Mike. Mike Flynn is your TEAMS coordinator. He was

supposed to be here today. His wife is in the hospital. Don Lake, Rick

Nupole and Kitty Salinas, who are all the top administrators for this

program will be in town this week. We are all going to the ACT meeting

downtown. They are flying Thursday to meet with everybody at the state

department and Mike. Before they go I will tell them. Do you have an e-

mail address?

Irene: No.

Evaluator: When you get on the Internet to get things, how do you get on?

Irene: We go through the district.

Evaluator: Do you know why you don't have an e-mail address?

Sandy: I think just the major setup and everything is just taking time.

Evaluator: Does every classroom have a computer that is connected to Internet?

Irene: Yes, at least one.

Evaluator: Are there other teachers in the building using? Mike gave me a couple of other names.

Irene: Hennessy is on leave. Sandy, myself, Hennessy, I want to say maybe Rhonda Taylor.

Evaluator: Jennifer Abram and Rhonda Reed.

Irene: O.K. she's Reed now, so Rhonda Reed. Jenny Abrams would be 4th grade. That's 4th grade. I don't know if they even use them. I know Sandy and I definitely use it.

Evaluator: What I'm thinking about, is asking them if they will come in and do an inservice for you.

Irene:	For TEAMS?

Evaluator: I don't know who is supposed to be doing it. I don't know if CSD's supposed to be doing it. If you're receiving it from them, it could be I'm supposed to talk to Neil Gilb. Do you know him?

Irene: No.

Evaluator: He's at least a coordinator at CSD. I'm going to talk with him this afternoon. I don't know what he has planned for the district.

Irene: I think it would be excellent. We've never had that. Maybe we could get off the ground floor even more.

Evaluator: If we could get you to the point where you were using other programs and you also had access to the Internet in a way that was useful to you would be good. Not having an e-mail so that you can send notes back and forth makes it difficult so maybe we can set up something like that or help you work it through. It gets to the point where there are so many things going on, in order for us to help make the transition and the use of the program smoother.

Irene: Somehow, if Dessie could get through to the Rockwood School District and get the Rockwood School District to accept TEAMS maybe that's where we need to start from.

Evaluator:	So are you saying Rockwood needs to adopt TEAMS as a curriculum component?
Irene:	Yes.
Evaluator:	As opposed to the way it is now where you personally are using it along with several other teachers because you have the option.
Irene:	Yes. I think that would help a lot.
Evaluator:	It's been adopted at the state level, but you feel the district needs to do the same.
Irene:	We need to make sure that the 4th and 5th grade teachers are not doing the same thing. That has happened with other programs that have gone in here.
Evaluator:	The teachers have to agree.
Irene:	I told Sandy I'm not doing the Mathematics in my World. Go on, I'll use Turn on to Mathematics. It's worked well with us.
Evaluator:	There's a lot of them that are using the science for 4th grade, the social studies. There are other courses that are available. Have you gotten information about them this year?

Irene: The other courses? No. It's been very shallow this year. It's just gotten less and less.

Evaluator: I wonder what's going on?

Irene: CCO's. Not bad, just CCO's.

Evaluator: But still the information should be reaching you, that they've got other courses. That's sort of marketing material. That's an important idea too, because you might like it.

Irene: We get most of our information from CSD. Does Dessie give it?

Evaluator: Dessie gives it to CSD and CSD gives it to you. If you went on the Internet, you could go to the TEAMS page. Everything that you are getting and then some would be on the TEAMS page. They've got additional enhancements for lessons and other things that you can do. There are things that you can have the kids go off and do on the net so that you aren't just out there surfing, but rather you have a compelling reason to go there. You're helping and increasing their information gathering skills. You can do it as cooperative work groups.

Irene: I don't remember if it was this year or last year, but we really tried to use the TEAMS on the net. We finally got e-mail somehow with Mr. Brown. It might have been 2 years ago. Then we've broken down ever since then.

Evaluator: You just need all the pieces in place.

Irene: We were supposed to sign a paper each time. Mike didn't even
                              know what our asst. principal was talking about. We were going to use
                              TEAMS something like a contract. So that's even a breakdown.

Evaluator: DeeDee understood this on a very different level. She was very
                              much an academic and she understood technology. She had a lot of
                              different skills.

Irene: There was no problem. I'm not saying Mike. I could call DeeDee
                              and say "Hey, DeeDee, we didn't get this", but now once again I'm not at
                              that point. Our system principal is not aware.

Evaluator: TEAMS is definitely the biggest and best program in the entire
                              Star Schools system. It is absolutely wonderful.

Irene: I think it is. The kids really respond to it and even mention
                              Jeannie in their journals.

Evaluator: Let me give you one of my cards. Why don't you try sending me
                              some e-mail and let's see if we can get anything going between us. If we
                              can get you guys up and going that way then get you the point where
                              Jeannie is working specifically with you. If the children like her that much
                              lets see what we can do.

Evaluator: I just finished interviewing Irene and Sandy. I'm feeling like they're not getting the support they need. I think it's at the cooperating school district level. Can you tell what sort of things they are going through with you? What's the progression?

Terry: Basically their biggest problem is that they are not able to get it live. As far as problems through cooperating school district they haven't really made me aware that there's any major problems. Of course, the librarian-media specialist tapes the shows for them so if they are having difficulty doing that, maybe that's what they are referring to. Is that what they were referring to?

Evaluator: It's Internet as well. I think just general information. When I asked them if they were of the new programs that were available this year or other programs, they weren't aware of it.

Terry: We haven't gotten anything. In fact, I don't even recall getting the forms to fill out to renew again this year. Apparently there was a switch in the lady that was running the program. We normally get the renewal forms in early spring and we fill out our portion and send them to central office to fill out their portion. I don't recall that we ever did get those this year so we've kind of wondering what was going on at that level.

Evaluator: Has Mike Flynn been to talk to you? Anybody from DESE?

Terry: No.

Evaluator: What anybody from cooperating school district?

Terry: No. This is my 3rd year. Irene and the former asst. principal who

                          was here went to one of the TEAMS meetings. Irene would usually go to

                          the one in the fall. We haven't seen or heard from anybody except for the

                          one lady who was in charge my first year here. Otherwise we haven't

                          seen much of anybody.

Evaluator: I was here last year, but I didn't stop to talk to you because we

                          were at the end of it. I finished up a meta analysis of the project which

                          covered the five years I've been the evaluator. Now we have a brand new

                          grant. Did you know that?

Terry: No, like I said, I haven't seen any new information come across my

                          desk.

Evaluator: I'm concerned that they haven't gotten it to you. It's a brand new

                          grant. Some of the projects and materials are the same but they have

                          other new programs and it will be going on for 5 years. Don Lake is the

                          project director. I'm going to talk with the cooperating school district this

                          afternoon. I sense that there is a breakdown and I want to find out where

                          it is. The program is so strong, that if you are supportive of it, it would be

                          wonderful if it could be used in some of the other classrooms. They've

got science, math, social studies and each one of those programs as far as evaluations are concerned have been outstanding.

Terry: Irene and Sandy, both, seem to love them.

Evaluator: Yes, they are using the programs quite well. The other question I had for you was regarding e-mail. They said they don't have e-mail that goes directly to them. I just wondered how the system is going to evolve?

Terry: No, they have their own individual e-mail addresses.

Evaluator: O.K. Maybe they don't understand how that works.

Terry: I'm surprised. Irene has been using e-mail for a long time.

Evaluator: I didn't get that sense.

Terry: They both have e-mail addresses. They can get e-mail from anywhere in the world.

Evaluator: Do you know what they are?

Terry: Sure.

Evaluator: They were saying that they were having problems. The system would just shut down on them.

Terry: Well, that is true. The district system has not been real stable so

                                that may be what they are referring to.

Evaluator: They would just be using Netscape just like you are?

Terry: Yes. Supposedly we're going to go a system soon that does an

                                intra-district e-mail plus out of the district. They haven't done that yet.

Evaluator: Sandy and Irene are both such great teachers. They're so

                                interested in what's going on. Is there anybody else that's using it in the

                                school?

Terry: Not that I'm aware of. We had a couple of teacher's look at it but

                                they wanted to go with something else at the time.

Evaluator: They are using it as an enhancement. That's the way it was

                                meant to be used. It was never meant to be the entire curriculum. The

                                kids really enjoy it and like it.

Terry: Yes, and we've had them do presentations to the staff at staff

                                meeting, too, about what's available and the motivation factors involved

                                and so on. We have been doing but I don't know what happened to the

                                information stuff.

Evaluator: I'll see if I can't get that straightened out this week and I'll pass all

                                of this onto Don Lake so that he can talk to other people.