

Technology Innovation Challenge Grant Program
Performance Report
Project Venture

I. General Information

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II. Executive Summary

Overall, this year has been one of rapid movement in the establishment of a solid foundation of beliefs, procedures, and the development of evaluation tools and protocols to measure successes and assist in the refinement of the Project Venture training model. We have been successful in the following areas:

TECHNOLOGY MENTOR TEACHERS (TMTS) HIRED AND TRAINED

The first months of the project were spent selecting fifteen Project Venture Technology Mentor Teachers (TMTs) and transitioning them into their new roles. As most of them had previously been classroom teachers, there was a transitional period where they were learning about their new responsibilities, gaining a stronger understanding of the Project Venture training model, and learning new strategies to lead their districts in technology integration efforts. Our first task was to assist TMTs with attaining tools and strategies to get started. The following activities highlight this year's successes. Additionally, five

other teachers associated with the project and several administrators from consortium districts participated in these training efforts:

Training Objective Development: In-depth discussions were held with all TMTs about the stages that teachers go through when they learn how to use technology in the classroom. A strong understanding of the Project Venture model was developed among all staff and associated personnel through brainstorming and sharing experiences. This activity helped the consortium develop a consistent approach to training across the project. This year, the objectives were used by the consortium to develop leveled training for all school personnel. The training created for these objectives will be re-assessed and evaluated some time next fall to ensure that the objectives are covered appropriately. The TMTs will also add new objectives if necessary.

Facilitative Leadership: Most TMTs had little experience with teaching adult learners and conducting meetings. Facilitative Leadership Training benefited Project Venture by providing us with common practices and expectations for decision-making processes. Project Venture administrative and TMTs meetings, along with teacher meetings and planning sessions were more effective. The successes of Facilitative Leadership training led to TMTs requesting continued training for next fall. In fact, some of the consortium districts are looking at further training Facilitation training for other staff members of their districts.

Cognitive Coaching: Recently Project Venture's TMTs participated in Cognitive Coaching training, which provided tools for them to use when interacting with teachers for planning, reflecting, and problem-solving interactions. This type of coaching is based on constructive learning theory with the premise that the teacher is responsible for their own learning and can develop their own solutions through communication with a trainer and by thoughtful reflection.

THE TRAINING OF TEACHERS (Goal 1, Objective 1.1):

With TMTs on board, leveled objectives in place, and some initial coaching skills, Technology Mentor Teachers (TMT) were then ready to begin interacting with classroom teachers who were interested in learning about the use of technology. This year, Project Venture TMTs were able to provide the following training services associated with Goal 1, Objective 1.1:

Levelized Training Classes: A part of the responsibility of all Project Venture TMTs was to teach technology classes incorporating Level I, II, and III training objectives. A total of 1,229 teachers attended training events throughout the year. These teachers worked with a total of 39,457 students during the school year.

Level III Coaching: Each Project Venture trainer worked directly with 5-8 classroom teachers focusing on in-class mini-labs. TMTs assisted these teachers with furniture arrangement, software selection, curriculum development, teaching or team-teaching, and

reflection processes. Level III teachers also worked with each other during periodic sharing meetings.

Just-in-Time Training: As Project Venture TMTs became more visible on their sites, a great deal of their time this year was spent in hallway conversations about technology use, integration and troubleshooting. This has proven to be a valuable to teachers who are new to learning technology.

ESSENTIAL FOUNDATIONS FOR TRAINING (Goal 1, Objectives 1.4)

There are two main infrastructures needed in order for Project Venture to be successful. One deals with hardware and connectivity and the other with administrative processes. Each district is dealing with the hardware infrastructure within the resource constraints of their districts. Even though the hardware and connectivity portion of the objective was to have been completed in the first year of the grant, activities toward completing the infrastructure continued in Year Two.

The administrative infrastructure can be somewhat intangible and often comes after the hardware is in place. Mid-way through this year, many of our Level III teachers had not yet been impacted through classroom coaching activities. We had gone through extensive application procedures to determine these teachers, had purchased hardware, selected and installed software, and in some cases installed networks and additional electricity to classrooms. As important as these activities were, it was also necessary to train district and site administrators on the training model so that they could be supportive in decisions that might affect the project. During those first few months, TMTs worked very hard at what they considered to be non-training activities. Overtime, they realized that this is a normal part of any evolving system. After several discussions with all consortium TMTs, we discovered that all Project Venture districts had similar experiences. It was soon realized that other districts participating in a training model like ours should plan on a considerable amount of energy spent on this type of foundational and administrative infrastructure work. The monthly Advisory Team meetings will continue to strengthen the administrative infrastructure.

CLASSROOM UNIT DEVELOPMENT AND DISSEMINATION (Goal 2)

This year most of the Level III teachers accepted into the project were asked to develop, teach, and refine a classroom unit that integrates technology. The plan is to publish these classroom units on-line in a searchable database that would be accessible to all educators. Because the units are to be developed to include both content and technology standards recently adopted by Arizona State Board of Education, we plan to inservice Arizona educators outside of the project on the use of these resources. To make decisions associated with Goal 2, an ad-hoc committee was developed to include an administrator and a trainer from each of the five district groups. After several meetings it became evident that developing a common format to meet the needs of such diverse district populations would be extremely difficult. Some districts wanted to write a simple activity, some wanted a full three-week

unit, while others felt that activity ideas were appropriate. Apple's Unit of Practice was piloted, but results in all the districts were mixed. We are now discussing developing our own database within the project and possibly housing it with either the State Department of Education or with ASSET (Arizona School Services Through Educational Technology) in conjunction with Arizona State University. There is also the concern of maintaining the database once the Project Venture grant is complete. Fortunately, many Level III classroom teachers this year have written their classroom units. For now, they are available as .pdf files on the Project Venture web site and will be disseminated to incoming Level III teachers next year. We will continue to find a common format and a means for publishing classroom curriculum next year.

EVALUATION (Goal 3, Objectives 3.1 and 3.2)

The Project Venture Director and consortium Advisory team have worked very collaboratively with our lead evaluator, Dr. Ann Igoe, Arizona State University. Dr. Igoe participates in our administrative meetings and has assisted us in the development of an evaluation plan that we expect will allow us to refine our project and account for many successes. The extensive data collection procedures and instruments that we have developed thus far have already provided meaningful information and grounds for improving our training model. We are fortunate to have a skilled evaluator who is committed to helping us attain our goals and will work with us towards increasing student achievement.

III. Project Status

In this section of the report, projects will include progress in meeting their objectives. Performance is reported using the GPRA indicators that are listed under each objective. Examples of accomplishments for each project objective, as well as examples of project activities, are also included in this section. Information regarding why planned objectives and activities were or were not attained or implemented is also presented. The last paragraph describes the corrective action(s) that will be taken to address any problem(s).

‡ Goal I. Number of trained teachers

Goal Description: Increase the number of teachers trained and using technology for classroom instruction.

† Objective I. Teachers are trained and begin to integrate technology into their curriculum

Objective Description: Increase teacher skill, knowledge, confidence, and use of integrated technology in the classroom. This was accomplished by the hiring of Technology Mentor Teachers to develop training and work with teachers using a coaching model.

Objective Progress: Fifteen Technology Mentor Trainers (TMTs) have been selected across the consortium and are working closely with the teachers in their districts. The teachers that

the TMTs work with are identified as being in one of the five levels of technology expertise. A major role of the TMT is to develop and deliver technology integration and application training to teachers, staff, and administrators in their respective districts. TMTs provide basic application and usage training for Level I and Level II teachers. Level III teachers have been specifically chosen to participate in Project Venture and are coached and mentored on a regular basis by the TMTs. This close relationship encourages the use of technology integration in the classroom as the TMT is available to assist with direct instruction or assistance as necessary. The TMTs have undertaken professional development for themselves and have expanded their skills greatly during the last project year. Job descriptions for TMTs are still being refined in each district and within Project Venture. An important task for next year is the development of more specific TMT roles and responsibilities within Project Venture that will link well with the roles and responsibilities required of TMTs by the individual consortium members.

The teacher technology integration training model being developed by Project Venture utilizes customized training courses and materials, training delivery by Technology Mentor Trainers (TMTs), mentoring and coaching from TMTs on a regular basis, and access to other workshops, conferences, seminars, classroom visits, and peer discussions. The 1,229 teachers who were impacted by Project Venture during the last school year were trained in various software applications and integration techniques. Their successes were many and the model proved to be an effective approach to building teacher technology skills across the consortium.

§ Activity I. (PD) CS:Technology Courses, Level I

Activity Description: These courses are for beginners who are learning the necessary skills for their job, such as basic computer navigation, word processing, e-mail and internet navigation.

Classes:

Beginning Internet
Beginning Internet in Spanish
AppleWorks/ClarisWorks Work Processing
Mac Basics
Email

Number of school staff participants: 154
Professional development contact hours: 34
§ Activity II. (PD) CS: Technology Courses, Level

II

Activity Description: At Level II, teachers learn to take advantage of the full use of technology as a classroom management tool, such as advanced word processing, database manipulation, spreadsheets, advanced Internet skills and beginning troubleshooting.

Classes:

Intermediate Internet
Intermediate Internet in Spanish
Spreadsheets
AppleWorks/ClarisWorks Paint and Draw
Intermediate AppleWorks
Basic Macintosh Troubleshooting

Storybook Weaver
Reading Counts
Beginning Database
Classroom Newsletter

Number of school staff participants: 276
Professional development contact hours: 108
§ Activity III. (PD) TE: Technology Courses, Level

I

Activity Description: Level I courses are slower paced and contain basic skills needed for operating a computer, using e-mail, the Internet, and basic word processing. It is recommended that these courses be taken before moving to Level II courses. Course names include: E-Mail & Internet for Beginners, Introduction to Word Processing.

Number of school staff participants: 65
Professional development contact hours: 450
Professional development number of days: 2
§ Activity IV. (PD) CS: Technology Courses, Level

III

Activity Description: These courses are for teachers who have developed their technology skills and are ready to integrate technology into their classrooms. They include multimedia, peripheral equipment use, integration strategies and projects and advanced troubleshooting.

Classes:

Advanced Internet
Digital Video Editing
Database for Student Files
Web Page Development
PowerPoint
WebQuests
Analyzing Reading Counts Data
Hyperstudio
Scanning Images
Safe Internet Use - Science Focus
Safe Internet Use - Social Studies Focus
Safe Internet Use - Language Arts Focus
Kid Pix
Inspiration
Multimedia

Number of school staff participants: 271
Professional development contact hours: 192
§ Activity V. (PD) CS: Mentoring, Level III
Activity Description: At Level III, teachers

receive mentoring from Project Venture TMTs. This mentoring includes coaching, co-teaching, modeling and observation. The TMTs are available on each site to assist the Level III teachers in various ways, training teachers on technology skills, specific software and to help create curriculum that integrates technology in meaningful and appropriate ways.

Number of school staff participants: 40
§ Activity VI. (PD) CS: Mentoring, Level IV

Activity Description: At Level IV, Project Venture teachers depend less on their mentors and become leaders of technology on their sites. They are responsible for drafting and implementing a plan for training or mentoring others in the area of technology, or in some way infusing technology into the

district system.

Number of school staff participants: 5

§ Activity VII. (PD) TE: Technology Courses, Level

II

Activity Description: At Level II, participants extend their knowledge of computer operation, troubleshooting, word processing, e-mail, and the Internet. Other courses include working with graphics, presentation software, databases, and spreadsheets. The focus is on personal technology skill, though curriculum use may also be discussed.

Number of school staff participants: 220

Professional development contact hours: 1240

Professional development number of days: 2

§ Activity VIII. (PD) TE: Technology Courses, Level

III

Activity Description: Level III courses focus on the integration of technology within curricular areas. A higher level of technical skills is also developed. Courses include those that emphasize use of Internet within instruction and learning, presentation programs, spreadsheets, and databases. Word processing with desktop publishing, web page design, and multimedia programs such as HyperStudio are introduced.

Number of school staff participants: 40

Professional development contact hours: 400

Professional development number of days: 5

§ Activity IX. (PD) TE: Mentoring, Level III

Activity Description: At Level III, teachers receive mentoring from Project Venture Trainers. This mentoring includes coaching, co-teaching, modeling and observation. The Mentor/Trainers are available on each site to assist the Level III teachers in various ways, training teachers on technology skills and specific software to help create curriculum that integrates technology in meaningful and appropriate ways.

Number of school staff participants: 10

Professional development contact hours: 200

Professional development number of days: 8

§ Activity X. (PD) TE: Mentoring, Level IV

Activity Description: At Level IV, Project Venture teachers depend less on their mentors and become leaders of technology on their sites.

§ Activity XI. (PD) TE: Math/Technology Integration Workshop, Levels II/III

Activity Description: After gathering research information and developing lesson/unit plans, the Educational Technology Team created the "Mathematics and Technology Integration Guide," a PowerPoint presentation, and other workshop materials. Then a "train the trainer" session was held for our elementary schools' Technology Team Leaders and Math Liaisons. These trainers then team taught a workshop at their site. This workshop was designed to help teachers understand the potential for technology to enhance mathematics instruction and learning, to give them useful ideas and tools, and to introduce several new technology skills.

Number of school staff participants: 292

Professional development contact hours: 1700

Professional development number of days: 2

§ Activity XII. (PD) TE: Math/Technology Lesson and

Unit Development

Activity Description: Members of the Ed Tech Team and elementary/middle school math teachers met to discuss potential uses of technology for mathematics instruction and learning, and to develop units/lessons for various grade levels. Technology and mathematics standards were included in each unit/lesson. The lessons developed during this day were very important as we developed the Mathematics and Technology Integration Guide. Teachers who participated in this co-writing process gained a deeper understanding of the effective use of technology for mathematics instruction and learning.

Number of school staff participants: 16

Professional development contact hours: 128

Professional development number of days: 1

§ Activity XIII. (PD) District Visits and Classroom Observations by Trainers

Activity Description: Monthly meetings were held for the purposes of further developing the professional development model and to help trainers attain the required coaching and leadership skills. We have begun to hold those meetings in conjunction with partnering district visits. Observations and tours have included infrastructure, technical support issues, district philosophies and politics associated with technology, and classroom observations. During these visits, trainers are able to be more understanding of each other's situations. By attaining a broader perspective on the training model, we have been able to discuss refinements to the model with a greater understanding of each district's particulars.

Number of school staff participants: 20

Professional development number of days: 3

§ Activity XIV. (PD) CS: New Teacher Orientation

Activity Description: This past year, Creighton district trained approximately 108 incoming teachers during New Teacher Orientation. A component of that training included technology. Our team of trainers worked during the two week training to assure that all beginning teachers attained level I skills. In addition, the Acceptable Use Policy was also discussed. Additionally, technology TMTs assisted other content area trainers to include technology in their content area and/or to use technology to present with.

Number of school staff participants: 109

Professional development contact hours: 20

Professional development number of days: 5

§ Activity XV. (PD) CS: Just In Time Training

Activity Description: TMTs in Creighton district were assigned to either one or two sites and were housed on those sites four days per week. The goal was for them to become an integral part of the staff and to be accessible to all site teachers. Consequently, their resourcefulness and their availability provided ample just-in-time training.

§ Activity XVI. (PD) MCC: Technology Courses, Level

I

Activity Description: These courses are for beginners who are learning the necessary skills for their job, such as basic computer navigation, troubleshooting, word processing, e-mail and internet navigation. We also try to incorporate examples of technology integration into the curriculum

in each of our beginning classes.

Number of school staff participants: 95

Professional development contact hours: 797

§ Activity XVII. (PD) MCC: Technology Mentoring,

Level III

Activity Description: We work closely with each of our Technology Associates to improve their technology skills and integrate the technology into the curriculum.

Number of school staff participants: 13

Professional development contact hours: 167

§ Activity XVIII. (PD) MCC: Technology Literacy

Challenge (TLC) Grant application workshops

Activity Description: Project Venture technology mentors associated with Maricopa County Small School Districts worked closely with the districts to write TLC Technology Plans and applications. Six grant applications were submitted in this twelve-district group: three as individual districts and three applications as mini-consortia of three districts each. This process fell under the category of "Advisement" and helped achieve the goals of curriculum integration and technology infrastructure. The concerted efforts of people from all the districts created many opportunities to share ideas, plan for training in technology integration, and create a vision for the use of technology in the schools.

Number of school staff participants: 18

Professional development contact hours: 50

§ Activity XIX. (PD) MCC: Technology Committee

Meetings

Activity Description: Project Venture technology mentors have worked closely with each district to support regularly scheduled site-level Technology Committees. We acted as advisors and catalysts for the teachers, administrators and community members on the Technology Committee at a number of school sites. This process fell under the category of "Advisement" in the Project Venture objectives, and helped achieve the goals of curriculum integration and technology infrastructure.

Number of school staff participants: 20

Professional development contact hours: 20

§ Activity XX. (PD) MCC: Individual Instruction

Activity Description: Some beginners who are learning the necessary skills for their job need individualized instruction, such as basic computer navigation, troubleshooting, word processing, e-mail and internet navigation. We tailor this instruction to the specific needs of the staff member, so that they will be able to put the training to direct use in their jobs. We also offer individual instruction for teachers who have questions after group training sessions, to give them more confidence and support in using newly acquired skills.

Number of school staff participants: 10

Professional development contact hours: 20

§ Activity XXI. (PD) KY: Level I Classes

Activity Description: Introduction to:

Word Processing

Spreadsheets

PowerPoint

Windows Operating Systems

Macintosh Operating Systems

Beginning Surfin: Internet Basics

I Have Email Microsoft Outlook

Operating Systems and Trouble Shooting

Number of school staff participants: 298

Professional development contact hours: 894

§ Activity XXII. (PD) KY: Level II Classes

Activity Description: Level II classes Personal

Productivity Classes

Intermediate Surfin: Internet

Introduction to Database

Intermediate Presentations: PowerPoint

Intermediate Presentations: HyperStudio

Advanced Email - Outlook

Intermediate Presentations: KidPix

Intermediate Word, Excel

Number of school staff participants: 137

Professional development contact hours: 411

§ Activity XXIII. (PD) Book Talks

Activity Description: Twice during this reporting period, Project Venture Consortium held book talks with TMTs and other district and project staff members that focused on current issues associated with educational technology. The first book talk was hosted by Creighton's Superintendent, Dr. Donna Cranswick, at a luncheon at her home. Don Tapscott's "Growing Up Digital" was discussed through a series of thought-provoking questions and open dialogue. The second book talk was a study hosted by the three Tempe Union District trainers of the issues teachers face as they learn to integrate technology into their classrooms. Judith Sandholtz's recent book centered on the Apple Classrooms of Tomorrow research was highlighted.

Professional development number of days: 2

§ Activity XXIV. (PD) KY: Level III Classes

Activity Description: Professional Development

Level III classes offered in Kyrene district included:

Integration

Utilizing Peripherals: Digital Cameras & Scanners

Web Page Development/Design

Visualizing Through Video

Advanced Presentations: HyperStudio

PowerPoint, KidPix

Unique and Compelling Internet Uses

Advanced Email: Outlook

Making the Connection between Technology and Curriculum

Flex Cam Camera

Visualizing through video

Video production/design

Facilitative Leadership

Cognitive Coaching

Lesson Plan Integration Design

Curriculum Mapping

Advance Classroom/Lab/5 computer Management Strategies

Clinical Supervision

Qualified Evaluator Training

Assessment Strategies: Linking to Curriculum/Standards

Number of school staff participants: 187

Professional development contact hours: 696

§ Activity XXV. (PD) KY: Self Paced Classes

Activity Description: All Level I & II classes are available for check out so that participants may do a self paced study.

Outcomes are defined and end products are required in order for participants to move to next level and/or receive district/incentive credit.

Number of school staff participants: 27

Professional development contact hours: 639

§ Activity XXVI. (PD) KY: Making the Connection

Between Technology and Learning training

Activity Description: This session was an opportunity to celebrate and reflect on the connection between technology and learning in classrooms across our district. Participants witnessed the impact technology had on students and teachers throughout the 1999-2000 school year. During this session we reviewed resources that support improved student learning through the integration of technology:

Project Venture was highlighted throughout the session

ASSET/Intel Teach to the Future program

Technology Liaisons

Summer Technology Institutes

Principals walked away with an understanding of their role in optimizing these resources to support teaching and learning.

Number of school staff participants: 58

Professional development contact hours: 116

§ Activity XXVII. (PD) KY: Summer Technology

Institutes for Teachers

Activity Description: Making the Connection between Technology and Curriculum

K-2

3-5

6-8

Webmastering

These classes were designed in grade level clusters so that groups of teachers from grade levels across Kyrene district could come together to collaborate and create integrated lessons/units that directly support their grade level curriculum and state and national standards.

Number of school staff participants: 157

Professional development contact hours: 2512

§ Activity XXVIII. (PD) TU- Professional

Development Workshops

Activity Description: Workshops attended by trainers for own professional development. Obtained information to share with teachers in our district related to integrating the Internet into teaching.

Number of school staff participants: 3

Professional development contact hours: 14

Professional development number of days: 2

§ Activity XXIX. (PD) TU-Professional Conference

Attendance

Activity Description: District trainers attended Tech + Learning and the Microcomputers in Education Conference.

Number of school staff participants: 3

§ Activity XXX. (PD) TU-Workshops/meetings for

level III teachers

Activity Description: Level III teachers are

brought together during the year for workshops and meetings that addressed software and issues helpful to integrating technology into the curriculum.

Number of school staff participants: 21
Professional development contact hours: 70
Professional development number of days: 2
§ Activity 31. (PD) KY: Professional Development

Workshops/Conferences

Activity Description: Level III and Level IV teachers had the opportunity to attend workshops/conferences that pertained to technology integration. Over the course of the year we were able to send all Level III and Level IV teachers to at least one workshop/conference.

We also had 5 Level III/IV teachers present at the ASU East mini conference this spring. Topics ranged from the 1 computer to 5 computers to full integration in the classroom.

Number of school staff participants: 38
Professional development contact hours: 320
§ Activity 32. (PD) KY: Classroom Visits

Activity Description: Level I/II teachers visited Level III/IV classrooms to provided for teachers with the vision of technology integration.

Number of school staff participants: 15
Professional development contact hours: 120
§ Activity 33. (PD) KY: Level III/IV Meetings

Activity Description: Each month we would meet with our Level III and Level IV teachers to celebrate accomplishments, talk through frustrations, plan for new equipment arrival, discuss data collection for notebook documentation, and share ideas or lessons that they had created and wanted to share with others.

Number of school staff participants: 38
Professional development contact hours: 436
§ Activity 34. (PD) KY: Application Kick-Off

Activity Description: Administrative meetings and Informational meetings for teachers were held in the spring of 2000.

Recruitment was done early in the spring by visiting with interested principals in a one on one conversation at their site. This meeting was held to talk about potential candidates from their sites and to enlist interested parties. It helped to cement the goals of the grant and begin to plant the seeds with those sites that were not participating. As a result, we was able to recruit interested teachers from 5 of the 7 sites not represented. We also held informational meetings for interested teachers to attend and learn more about the project. Our first meeting was held after school and the second was held during a learning support meeting where all administrators were present.

Number of school staff participants: 157
Professional development contact hours: 314
§ Activity 35. Facilitative Leadership Training

Activity Description: Consortium-wide training included 14 Project Venture Technology Mentor Teachers (TMTs), Director, Technical Support, one district administrator, and 4 additional trainers who participated in a 3-day intensive training.

Facilitative Leadership Training was very helpful during the time

that Project Venture was solidifying as a team. Through the training, all project staff developed strong leadership skills, practices, and procedures that assisted staff in building consensus, developing teams, and moving the technology integration agenda. In addition, TMTs were taught skills that assisted them in initiating relationships with classroom teachers as they began mentoring relationships at Level III.

§ Activity 36. Cognitive Coaching Training

Activity Description: All TMTs and staff members have participated in a 3-day (out of seven) training, as well as 2 trainers associated with Project Venture, 5 trainers not directly associated and 5 administrators.

Cognitive Coaching is a 7-day training that promotes a nonjudgmental process based on constructivist learning theory, which is built around a planning conference, observation, and a reflecting conference. When a cognitive coaching relationship is established between a classroom teacher in the project and the Project Venture Technology Mentor Teacher (TMT), learning occurs by both the teacher and the coach. The model is based on research of constructivist learning theory, adult learning theory, and neurolinguistic studies. The rest of the training will occur during Year Three.

The goals of the training were:

- establish and maintain a trusting relationship between technology mentor teacher and classroom teachers,
- facilitate MUTUAL learning between both participants, and
- enhance the growth in individuals who will in turn work interdependently within a collaborative group setting.

§ Activity 37. Training Objectives Developed

Activity Description: TMTs from all five districts participated in an in-depth study of the Project Venture Training model. The model looks at five levels of interaction:

Level I: Staff attain the skills necessary and required for their job.

Level II: Staff attain additional computer skills for job management to include spreadsheet, database, Internet, and advanced email.

Level III: Teachers focus on classroom integration of technology as they learn about curriculum development, instructional strategies, and advanced technology/multimedia skills.

Level IV: Teachers learn advocacy skills as they interact with their peers and promote technology integration.

Level V: They are masters of technology, curriculum, assessment, classroom management, and have the ability to guide others towards seamless integration. Level V is not addressed in the training objectives at this point in time, thus will not be reported on in this report. The Project Venture Advisory group will work on developing the outcomes to determine Level 5 readiness during Year Three.

Once a solid concept of the training model was established, TMTs worked together to develop training objectives per level for the following strands: desktop basics and troubleshooting, word processing and desktop publishing, spreadsheet, database, instructional software, Internet/email, and multimedia.

Objectives can be downloaded from the Project Venture web site, which is available to other educators who have access to the web. <http://www.creighton.k12.az.us/projectventure/>.

TMTs used objectives at their districts as a guide to develop courses that would meet individual participant needs. As they have used the objectives throughout the school year, TMTs have discovered that there is modification that is needed; we will be refining objectives at the consortium level early next year.

§ Activity 38. Savvy Cyber Teacher Training
Activity Description: Partnering with the Alliance Plus TICG project, Project Venture TMTs participated in 20 hours of Savvy Cyber training. As a train-the-trainer model, the workshop equipped TMTs with current and innovative information about Internet and email use with students.

Training included:

- purposeful use of the internet
- using email as a communication tool
- collaborative projects
- web page design
- real time data
- searching for information

Some TMTs have taught the Savvy Cyber course within their own district and/or have supported other trainers who are teaching district the course.

§ Activity 39. Technology Self-Assessment
Development and Implementation
Activity Description: In order to collect baseline and annual data related to increasing technology skills, Project Venture staff, TMTs, and evaluators developed an on-line self-assessment. The instrument assesses individual skills in all strands of our training, and assists us in determining the training level and needs of individuals.

Arizona State University's EdCare Labs have developed a database, which interfaces with the web-based assessment. District staffs have taken the assessment; baseline data for all districts is now available to our evaluators who are analyzing the information. We will be refining this instrument with our evaluators in the near future in order to collect next year's data with more accuracy.

In addition to consortium districts having access to the web-based assessment, we have developed it so that guests can use the self-assessment through our evaluation web site. The assessment can be view at

http://research.ed.asu.edu/projectventure/self_assess/

§ Activity 40. Technology Course Evaluation
Activity Description: To standardize the evaluation information from district level courses, project staff and TMTs

worked with our evaluators to develop a common course evaluation instrument.

Our evaluators at Arizona State University's EdCare Labs then prepared a web-based submission that could be performed anonymously at the end of a computer class. When a participant submits a course evaluation, the evaluation data is submitted to a master database at ASU. In addition, the TMTs' supervisor receives the individual evaluations via email.

The web-based assessment provides valuable and timely data to all technology courses that are taught by Project Venture TMTs. Any areas that needed to be changed were done immediately.

Currently our evaluators are analyzing the submissions to report consortium and district findings.

§ Activity 41. Technology Mentor Teacher (TMT) Time Report

Activity Description: As a way of analyzing TMTs interactions, a time reporting instrument was developed. TMTs log on to the evaluation web page to submit weekly time reports. Weekly activities are analyzed by the TMT. The amount of time is reported into the following categories:

- classroom activities, planning and model teaching
- technology classes, preparation and teaching
- training with individuals
- advisement
- TMT professional development activities
- administrative/organizational
- travel
- other

In addition to reporting time, TMTs are asked to reflect upon weekly successes, frustrations, and one new thing they have learned.

The report is submitted via the web to our evaluators. An email of the report is sent to the TMTs' district supervisor. Currently our evaluators are analyzing the data for trends and patterns that will help us in refinement of the Project Venture training model. The Trainer Time Report can be viewed at

<http://research.ed.asu.edu/projectventure/tmttime/TMT.html>

§ Activity 42. List Serv Communication
Activity Description: Project Technical Coordinator created 2 listservs for the project. One listserv is used by the Advisory group of the consortium districts and the outside evaluators. The other list provides ongoing communication for TMTs and includes district administrators, trainers, the Technical Coordinator and certain administrative assistants.

§ Activity 43. Classroom Observations by Evaluators

Activity Description: Selected Project Venture classrooms were observed during March and April 2000. This observation focused on the use of integrated technology during a selected lesson. These observations constituted a pilot test of the observation checklist instrument. Teachers were nervous about being evaluated, but participated wholeheartedly.

This pilot of the instrument was considered to be successful. Changes will be made in the observation instrument and it will be shared with teachers soon.

Evaluation plans for the 2000-2001 school year include four classroom observations in each Project Venture classroom. At least one classroom in each district is being chosen for a longitudinal study of technology integration in the classroom.

§ Activity 44. District Selection of Level III

Teachers

Activity Description: New Level III teachers are added to the project on an annual basis and work directly with TMTs in a coaching model. Consortium districts have collaborated and shared ideas for the selection of Level III teachers. The selection process is a district level activity and has been modified in each case to meet the philosophical and structural needs of the districts. There are some common components that can be disseminated to other districts interested in our process. The common components include: curriculum development to include the use of in-class mini labs, examples of teacher use of technology, examples of student use of technology, technology self-assessment, teacher commitment letter, and principal recommendation and commitment. A sample application is available in the downloadable section of this report.

In addition, a well-defined rubric has been developed to assess the applications and will be shared with the other consortium members.

§ Activity 45. KY: Design and Development of Training Manuals/Materials

Activity Description: All of our training materials are customized to meet the needs of our participants:

Support Staff

Admin Staff

Certified Staff

Application Training

Integration Training

- GPRA Indicator 2.1
- GPRA Indicator 2.3
- GPRA Indicator 3.1
- GPRA Indicator 3.3

† Objective II. Infrastructure, servers and networking software will be purchased and installed.

Objective Description: Purchase necessary hardware and software needed to integrate technology in the classroom. Infrastructure needs include both hardware and administrative components.

Objective Progress: Even though this was to have been completed in Year One, efforts toward completing the infrastructure continued into Year Two. All consortium members with the exception of Maricopa County Small School District Consortium have completed most of their infrastructure. Infrastructure is something that will continually need upgrading and may never be considered complete. The Project Venture website

and listservs are in place to help with the communication infrastructure. The Advisory Team will continue to meet monthly to strengthen the administrative infrastructure.

§ Activity I. (PD) CS: Just In Time Training

Activity Description: TMTs in Creighton district were assigned to either one or two sites and were housed on those sites four days per week. The goal was for them to become an integral part of the staff and to be accessible to all site teachers. Consequently, their resourcefulness and their availability provided ample just-in-time training.

§ Activity II. (PD) MCC: Administrator Advisement

Activity Description: Advising district Superintendents and Business Managers in the development of Technology Plans, training, technology outcomes and infrastructure.

Number of school staff participants: 18

Professional development contact hours: 100

§ Activity III. (PD) MCC: Infrastructure

Foundations

Activity Description: A stable, reliable technology infrastructure is essential to our primary goal of technology integration into the curriculum. We have worked closely with district administrators and business managers and the Maricopa County Schools Office to create and maintain a workable Wide Area Network.

Number of school staff participants: 18

Professional development contact hours: 50

§ Activity IV. (PD) MCC: Technology Literacy

Challenge (TLC) Grant application workshops

Activity Description: Project Venture technology mentors associated with Maricopa County Small School Districts worked closely with the districts to write TLC Technology Plans and applications. Six grant applications were submitted in this twelve-district group: three as individual districts and three applications as mini-consortia of three districts each. This process fell under the category of "Advisement" and helped achieve the goals of curriculum integration and technology infrastructure. The concerted efforts of people from all the districts created many opportunities to share ideas, plan for training in technology integration, and create a vision for the use of technology in the schools.

Number of school staff participants: 18

Professional development contact hours: 50

§ Activity V. (PD) MCC: Technology Committee

Meetings

Activity Description: Project Venture technology mentors have worked closely with each district to support regularly scheduled site-level Technology Committees. We acted as advisors and catalysts for the teachers, administrators and community members on the Technology Committee at a number of school sites. This process fell under the category of "Advisement" in the Project Venture objectives, and helped achieve the goals of curriculum integration and technology infrastructure.

Number of school staff participants: 20

Professional development contact hours: 20

§ Activity VI. (PD) KY: Making the Connection

Between Technology and Learning training

Activity Description: This session was an opportunity to celebrate and reflect on the connection between technology and learning in classrooms across our district. Participants witnessed the impact technology had on students and teachers throughout the 1999-2000 school year. During this session we reviewed resources that support improved student learning through the integration of technology:

Project Venture was highlighted throughout the session
ASSET/Intel Teach to the Future program
Technology Liaisons

Summer Technology Institutes

Principals walked away with an understanding of their role in optimizing these resources to support teaching and learning.

Number of school staff participants: 58

Professional development contact hours: 116

§ Activity VII. Project Website Design and Construction

Activity Description: The Director and Technical Coordinator developed the website structure, keeping in mind the dissemination needs of the grant. Areas covered include our training model, lessons learned, resources for trainers and teachers, training for TMTs, communication, curriculum publishing and project evaluation.

Included on the site are many types of artifacts, such as handouts developed by TMTs for trainings, materials developed in Facilitative Leadership training and other TMT trainings, technology training objectives developed by the project consortium, and the original grant application for the project. There are also links to other TIGC projects that are a rich bank of resources. There are also links to the individual districts where technology class offerings are posted.

§ Activity VIII. List Serv Communication

Activity Description: Project Technical Coordinator created 2 listservs for the project. One listserv is used by the Advisory group of the consortium districts and the outside evaluators. The other list provides ongoing communication for TMTs and includes district administrators, trainers, the Technical Coordinator and certain administrative assistants.

- GPRA Indicator 1.1
- GPRA Indicator 1.2

‡ Goal II. Technology integrated units

Goal Description: Develop and implement technology integrated units that are aligned with State Content and Technology Standards.

† Objective I. Develop and implement integrated curriculum

Objective Description: Create integrated curriculum, i.e., lesson plans and units, aligned with state content and technology standards that will be made available on Project Venture website.

Objective Progress: Project Venture's curriculum, i.e., lesson plans and units, publication process is currently being defined at the consortium level and is in draft form. Individual

consortium districts have curriculum publication requirements that include content standards and technology integration. Consortium members have created over 100 integrated lessons and/or units. Many can be found on the Project Venture website. This objective will be a strong focus during the next school year as the consortium-level publication process is formalized and disseminated.

§ Activity I. (PD) TE: Math/Technology Lesson and Unit Development

Activity Description: Members of the Ed Tech Team and elementary/middle school math teachers met to discuss potential uses of technology for mathematics instruction and learning, and to develop units/lessons for various grade levels. Technology and mathematics standards were included in each unit/lesson. The lessons developed during this day were very important as we developed the Mathematics and Technology Integration Guide. Teachers who participated in this co-writing process gained a deeper understanding of the effective use of technology for mathematics instruction and learning.

Number of school staff participants: 16

Professional development contact hours: 128

Professional development number of days: 1

§ Activity II. (PD) MCC: Technology Committee Meetings

Activity Description: Project Venture technology mentors have worked closely with each district to support regularly scheduled site-level Technology Committees. We acted as advisors and catalysts for the teachers, administrators and community members on the Technology Committee at a number of school sites. This process fell under the category of "Advisement" in the Project Venture objectives, and helped achieve the goals of curriculum integration and technology infrastructure.

Number of school staff participants: 20

Professional development contact hours: 20

§ Activity III. (PD) KY: Making the Connection

Between Technology and Learning training

Activity Description: This session was an opportunity to celebrate and reflect on the connection between technology and learning in classrooms across our district. Participants witnessed the impact technology had on students and teachers throughout the 1999-2000 school year. During this session we reviewed resources that support improved student learning through the integration of technology:

Project Venture was highlighted throughout the session

ASSET/Intel Teach to the Future program

Technology Liaisons

Summer Technology Institutes

Principals walked away with an understanding of their role in optimizing these resources to support teaching and learning.

Number of school staff participants: 58

Professional development contact hours: 116

§ Activity IV. (PD) KY: Summer Technology

Institutes for Teachers

Activity Description: Making the Connection between Technology and Curriculum

K-2

3-5

6-8

Webmastering

These classes were designed in grade level clusters so that groups of teachers from grade levels across Kyrene district could come together to collaborate and create integrated lessons/units that directly support their grade level curriculum and state and national standards.

Number of school staff participants: 157

Professional development contact hours: 2512

§ Activity V. Training Objectives Developed

Activity Description: TMTs from all five districts participated in an in-depth study of the Project Venture Training model. The model looks at five levels of interaction:

Level I: Staff attain the skills necessary and required for their job.

Level II: Staff attain additional computer skills for job management to include spreadsheet, database, Internet, and advanced email.

Level III: Teachers focus on classroom integration of technology as they learn about curriculum development, instructional strategies, and advanced technology/multimedia skills.

Level IV: Teachers learn advocacy skills as they interact with their peers and promote technology integration.

Level V: They are masters of technology, curriculum, assessment, classroom management, and have the ability to guide others towards seamless integration. Level V is not addressed in the training objectives at this point in time, thus will not be reported on in this report. The Project Venture Advisory group will work on developing the outcomes to determine Level 5 readiness during Year Three.

Once a solid concept of the training model was established, TMTs worked together to develop training objectives per level for the following strands: desktop basics and troubleshooting, word processing and desktop publishing, spreadsheet, database, instructional software, Internet/email, and multimedia.

Objectives can be downloaded from the Project Venture web site, which is available to other educators who have access to the web. <http://www.creighton.k12.az.us/projectventure/>.

TMTs used objectives at their districts as a guide to develop courses that would meet individual participant needs. As they have used the objectives throughout the school year, TMTs have discovered that there is modification that is needed; we will be refining objectives at the consortium level early next year.

§ Activity VI. Project Website Design and

Construction

Activity Description: The Director and Technical Coordinator developed the website structure, keeping in mind the dissemination needs of the grant. Areas covered include our training model, lessons learned, resources for trainers and

teachers, training for TMTs, communication, curriculum publishing and project evaluation.

Included on the site are many types of artifacts, such as handouts developed by TMTs for trainings, materials developed in Facilitative Leadership training and other TMT trainings, technology training objectives developed by the project consortium, and the original grant application for the project. There are also links to other TICG projects that are a rich bank of resources. There are also links to the individual districts where technology class offerings are posted.

§ Activity VII. KY: Design and Development of Training Manuals/Materials

Activity Description: All of our training materials are customized to meet the needs of our participants:

Support Staff

Admin Staff

Certified Staff

Application Training

Integration Training

- GPRA Indicator 2.3
- GPRA Indicator 3.1
- GPRA Indicator 3.3

‡ Goal III. Evaluation Protocol

Goal Description: Develop and implement an ongoing evaluation protocol that assists with project refinement and implementation, and ensures sustainability and replication by the end of the project. Formative evaluation will occur during Year One and Two. Also, produce a summative evaluation that will be submitted to governing boards, participating districts and the Arizona Department of Ed. at the end of Year Five to demonstrate that Project Venture can be implemented, refined, sustained, and replicated.

† Objective I. Formative Evaluation

Objective Description: Create and manage an evaluation plan with scheduled data collection tasks and timelines to act as a guide to the consortium leadership to make decisions and changes as needed. The evaluation plan has been structured to provide for regular contact between the evaluation team, project administrators and personnel, and classroom teachers in order to assess the project completely. Also, begin to plan towards the summative evaluation.

Objective Progress: An evaluation plan and timeline has been created and is being followed. The plan will be revised and updated during planning sessions that will take place in July 2000. The final evaluation plan and timeline will be submitted with the Evaluation Report that will be filed in October 2000.

The evaluation team has created and implemented the following evaluation instruments:

Technology Self Evaluation Questionnaire

Classroom Observation Instrument

Technology Mentor Trainer (TMT) Time Report (online)

Course Evaluation Form (electronic)
TMT Focus Groups

The evaluation team has defined a review process for the following documents:

Teacher journals
Published lessons or units
Course/Class Registration Records
Published Course/Class Schedules
Teacher Contracts
Selection Processes for Project Venture Teachers

Additional evaluation approaches, interview protocols, and instruments are being planned for the next project year. Planning toward the summative evaluation began in Year Two, which will be implemented in Year Three, Four and completed in Year Five.

§ Activity I. (PD) District Visits and Classroom Observations by Trainers

Activity Description: Monthly meetings were held for the purposes of further developing the professional development model and to help trainers attain the required coaching and leadership skills. We have begun to hold those meetings in conjunction with partnering district visits. Observations and tours have included infrastructure, technical support issues, district philosophies and politics associated with technology, and classroom observations. During these visits, trainers are able to be more understanding of each other's situations. By attaining a broader perspective on the training model, we have been able to discuss refinements to the model with a greater understanding of each district's particulars.

Number of school staff participants: 20
Professional development number of days: 3

§ Activity II. Technology Self-Assessment Development and Implementation

Activity Description: In order to collect baseline and annual data related to increasing technology skills, Project Venture staff, TMTs, and evaluators developed an on-line self-assessment. The instrument assesses individual skills in all strands of our training, and assists us in determining the training level and needs of individuals.

Arizona State University's EdCare Labs have developed a database, which interfaces with the web-based assessment. District staffs have taken the assessment; baseline data for all districts is now available to our evaluators who are analyzing the information. We will be refining this instrument with our evaluators in the near future in order to collect next year's data with more accuracy.

In addition to consortium districts having access to the web-based assessment, we have developed it so that guests can use the self-assessment through our evaluation web site. The assessment can be view at

http://research.ed.asu.edu/projectventure/self_assess/

§ Activity III. Technology Course Evaluation

Activity Description: To standardize the evaluation information from district level courses, project staff and TMTs worked with our evaluators to develop a common course evaluation

instrument.

Our evaluators at Arizona State University's EdCare Labs then prepared a web-based submission that could be performed anonymously at the end of a computer class. When a participant submits a course evaluation, the evaluation data is submitted to a master database at ASU. In addition, the TMTs' supervisor receives the individual evaluations via email.

The web-based assessment provides valuable and timely data to all technology courses that are taught by Project Venture TMTs. Any areas that needed to be changed were done immediately.

Currently our evaluators are analyzing the submissions to report consortium and district findings.

§ Activity IV. Technology Mentor Teacher (TMT) Time Report

Activity Description: As a way of analyzing TMTs interactions, a time reporting instrument was developed. TMTs log on to the evaluation web page to submit weekly time reports. Weekly activities are analyzed by the TMT. The amount of time is reported into the following categories:

- classroom activities, planning and model teaching
- technology classes, preparation and teaching
- training with individuals
- advisement
- TMT professional development activities
- administrative/organizational
- travel
- other

In addition to reporting time, TMTs are asked to reflect upon weekly successes, frustrations, and one new thing they have learned.

The report is submitted via the web to our evaluators. An email of the report is sent to the TMTs' district supervisor. Currently our evaluators are analyzing the data for trends and patterns that will help us in refinement of the Project Venture training model. The Trainer Time Report can be viewed at <http://research.ed.asu.edu/projectventure/tmtime/TMT.html>

§ Activity V. Evaluation Web Site

Activity Description: An evaluation web site has been provided by our partner Cisco Systems, at the EdCare Lab located at Arizona State University. Course evaluations and TMT time reports are entered into the evaluation database on a regular basis. The web site also hosts the Technology Self Evaluation application that is completed by teachers, staff, and administrators of consortium schools at least once a year.

§ Activity VI. Project Website Design and Construction

Activity Description: The Director and Technical Coordinator developed the website structure, keeping in mind the dissemination needs of the grant. Areas covered include our training model, lessons learned, resources for trainers and teachers, training for TMTs, communication, curriculum publishing and project evaluation.

Included on the site are many types of artifacts, such as handouts developed by TMTs for trainings, materials developed in Facilitative Leadership training and other TMT trainings, technology training objectives developed by the project consortium, and the original grant application for the project. There are also links to other TICG projects that are a rich bank of resources. There are also links to the individual districts where technology class offerings are posted.

§ Activity VII. List Serv Communication

Activity Description: Project Technical Coordinator created 2 listservs for the project. One listserv is used by the Advisory group of the consortium districts and the outside evaluators. The other list provides ongoing communication for TMTs and includes district administrators, trainers, the Technical Coordinator and certain administrative assistants.

§ Activity VIII. Classroom Observations by Evaluators

Activity Description: Selected Project Venture classrooms were observed during March and April 2000. This observation focused on the use of integrated technology during a selected lesson. These observations constituted a pilot test of the observation checklist instrument. Teachers were nervous about being evaluated, but participated wholeheartedly.

This pilot of the instrument was considered to be successful. Changes will be made in the observation instrument and it will be shared with teachers soon.

Evaluation plans for the 2000-2001 school year include four classroom observations in each Project Venture classroom. At least one classroom in each district is being chosen for a longitudinal study of technology integration in the classroom.

§ Activity IX. District Selection of Level III Teachers

Activity Description: New Level III teachers are added to the project on an annual basis and work directly with TMTs in a coaching model. Consortium districts have collaborated and shared ideas for the selection of Level III teachers. The selection process is a district level activity and has been modified in each case to meet the philosophical and structural needs of the districts. There are some common components that can be disseminated to other districts interested in our process. The common components include: curriculum development to include the use of in-class mini labs, examples of teacher use of technology, examples of student use of technology, technology self-assessment, teacher commitment letter, and principal recommendation and commitment. A sample application is available in the downloadable section of this report.

In addition, a well-defined rubric has been developed to assess the applications and will be shared with the other consortium members.

Corrective Action(s):

IV. Project Focus

Subject Matter Covered by All subjects
Project:

If Applicable, Describe Cross Disciplinary and/or Other Here: Project Venture's consortium consists of four LEA's and a consortium of small school districts, representing almost all educational and demographic possibilities. The training model meets the needs of all teachers and student populations. Consortium-wide, Project Venture serves K-12 teachers and their students in urban, suburban, and rural settings, all socio-economic ranges, and a large variety of district sizes and philosophies. The consortium members include Creighton Elementary, Kyrene Elementary, Tempe Elementary, Tempe Union High School Districts and the Maricopa County Small School District Consortium, consisting of 12 small districts.

National, State or Local Initiatives Addressed: At the beginning of Project Venture grant, Arizona Technology Standards were not widely accepted in many school districts in the state. Due to the increased level of concern and the lack of usage, Arizona State Department of Education decided to revise them. The revision process was led by Dr. Ruth Catalano and Project Venture's director was able to participate in the revision process. Revised Technology Standards are to be adopted in September 2000. Project Venture teachers are committed to developing classroom units in collaboration with their TMT that will incorporate both the new technology standards and content standards. Dissemination of these units will provide a springboard for teachers throughout our state to benefit from our work. Project Venture believes that technology is a valuable resource to all educational initiatives and will stimulate change. In all involved districts, technology mentor teachers work collaboratively with other district programs to support technology integration. District mentors have purposefully worked with Title VII, Title I, State Technology

Literacy Challenge grants, technology plan writing, curriculum writing, curriculum adoption, new teacher training, and others.

Technology Type: both Software and Hardware

Technology Name: In-Class Mini-lab

Technology Description: When teachers are awarded Level III status, they are issued an in-class mini-lab that consists of approximately one computer per five students, a printer, and a presentation device. All computers have Internet connectivity and appropriate instructional and management software as selected by individual districts and/or schools.

Technology Innovation of the Project: Project Venture has developed a training model that individualizes interactions between Technology Mentor Teachers (TMT) and classroom teachers. Because we are a group of very diverse districts, our model will meet the needs of any and all teacher, student, and system situation. The model focuses on assessing teachers into one of five project-defined levels. Teachers and their TMT identify specific needs and meet on a regular basis to create a plan that will accelerate the learner through the levels, ultimately leading to a system of advanced users who are advocates for technology integration. We have worked extensively with the TMTs to help them understand and implement the Project Venture model. LEVEL I: Teachers at this level are learning the skills necessary and required for their administrative work. In most districts, this includes desktop basics, beginning email and internet use, and beginning word processing. Teachers participate in classes provided by TMTs, work one-on-one with their TMT, or are given other options for acquiring basic skills. LEVEL II: Teachers at this level are motivated by the more sophisticated features of the computer and are learning how to use advanced applications like spreadsheet and database, and are interested in using advanced features of internet, email, and desktop

publishing. They may begin to use technology with their students, but their primary focus is on their own use of technology to increase their personal productivity and administrative tasks. Teachers at level II participate in courses provided by TMTs, learn new or advanced features by "playing", or work with their peers during just-in-time training situations.

LEVEL III: Teachers at this level have a solid foundation of technology skills and are motivated to work with their TMTs because they know the potential of technology and how it can impact the educational process for students. Through a competitive application process, TMTs work with no more than 15 teachers at a time at this level. The selected teachers are issued computers (1 computer per 5 students), printer, and presentation device to be permanently located within their classroom. Together in a coaching/mentoring relationship, the TMT and teacher plan curriculum together, co-teach, and reflect upon their experiences. The process provides a learning environment where both the coach and the teacher learn more about integrating technology. It is expected that student achievement will be greatly impacted at this level. Curriculum planning, instructional strategies, and advanced technology skills (including multimedia) are areas of refinement at Level III.

LEVEL IV: Teachers who are awarded Level IV status are considered masters by their peers. Because of their experiences at Level III, they have a strong understanding of the frustrations that teachers learning about technology integration go through. These teachers support the systemic change issues when they intentionally become technology integration advocates. Level IV teachers develop a personalized plan in collaboration with their TMT where they select an activity for the year where they consciously represent Project Venture goals. Some examples might include: supporting a team partner with technology use, district content curriculum writing, district

or site committees (not necessarily technology related). Level V - Teachers who have achieved the highest level of technology integration and mentoring skills. They are trainers of Level I through Level IV teachers. They are masters of technology, curriculum, assessment, classroom management, and have the ability to guide others towards seamless integration. Level V is not thoroughly addressed in the in the training objectives thus far. However, the Project Venture Advisory group will work on developing the outcomes to determine Level 5 readiness during Year Three. By participating in activities, which are not necessarily technology driven, Project Venture will begin to infuse the system with supporters and advocates, which provides systemic change and sustainability.

Is Distance Learning a Focus of No
the Project?:
Distance Learning Technologies
Used:
Other Distance Learning
Technologies:

V. Budget Information

Funds Requested: \$928,233.00
Funds Received: \$844,517.00
Actual Budget Expenditures for \$683,846.00
the Reporting Period:

Status of Current Budget: We do not anticipate changes in our year 3 budget other than a 100% increase in the cost of evaluation and an approximate increase of 5% in project salaries and benefits. As of April 30, 2000, Project Venture has expended almost 80% of its second year funds. We are 58% through the funding year and expect to spend all of our 2nd year funds by September 30, 2000.

Rate of Expenditure: At expectations
Explanation for Non-expenditure: . None to report
Amount of Carryover (if any) \$0.00
Anticipated This Period:
Reasons for Carryover (if applicable): Due to a late start during the first year, \$544,000 of the first year funds were not spent. Those funds are being used to cover the funding

reduction during year 2 and a 100% increase in cost of the evaluation over the five year project.

Funds Spent on Evaluation: \$113,000.00

% of Total Budget Spent on Evaluation: 13.0

Evaluation:

Funds Spent on Technology: \$45,200.00

Infrastructure:

Funds Spent on Professional Development: \$651,317.00

Development:

Leveraging of Funds from Other Sources: TLCF, Title I, Other federal funds

(specify), State-funded technology program, Other state initiatives (specify)

Other Federal Funds: Title II, IDEA, Title VII and Erate funds are also being used by participating districts. These funds are providing additional hardware, software and infrastructure.

Other State Initiatives: Students FIRST was enacted by the State of Arizona several years ago to provide assistance to school districts for the purpose of constructing new schools, upgrading inadequate facilities and ensuring an 8:1 student/computer ratio statewide.

Information is accurate as entered: Pamela A. Burkhardt, External

Programs Specialist

VI. Supplemental Information and Changes

In this section of the report, projects will describe any changes they wish to make in the performance objectives and activities. Provide any other appropriate information about the status of the project including any key personnel and/or partnership changes and unanticipated outcomes or benefits from the project.

Files Uploaded for this Project

Other 10/2/2000 Formative evaluation report submitted to Project for project year 2. (Project_Venture_eval_report_final_electronic.doc) Appendix is not included, but will be mailed in hard copy by Project Venture.

PDF 6/8/2000 The application requirements include a complete 3-week curriculum unit, personal examples of use, student examples of technology use, and a self-assessment of their own technology skills. (Project_Venture_level3app.pdf)

PDF 6/8/2000 These documents are part of the Level III Teacher Application for Creighton District. (Project_Venture_SELFTCH.pdf)

PDF 6/8/2000 Applications for Level III teachers were scored multiple times using this rubric. (Project_Venture_level3rubric.pdf)

PDF 6/8/2000 At Level III, teachers sign a contract agreeing to the requirements of participation. (Project_Venture_Level3agree.pdf)

PDF 6/8/2000 All 14 Project Venture trainers collaborated to develop levelized training objectives. These objectives have helped standardize the training model for the consortium and will drive the district level .

Describe
significant
program changes

:

VII. Evaluation

Executive Summary of Evaluation Findings

This Formative Evaluation Report covers the second grant funding year for Project Venture (June 1, 1999 to June 8, 2000). Sections within the report provide a Project Description, the Evaluation Approach, Findings and Recommendations, the results from Evaluation Instruments, and an Appendix.

Project Venture's second project year was one of organization and growth as staff was hired and trained, procedures were adopted, and training and mentoring of teachers began in earnest. Also, during this project year, a number of initiatives related to technology integration were implemented at the state and national level. For example, the state of Arizona worked toward revising technology standards for students and the School Facilities Board provided funds to lower the student to computer ratio and to train teachers to use technology.

Project Venture is a Technology Innovation Challenge Grant program that provides comprehensive teacher and staff development in the project's consortium of five diverse consortium members consisting of seventeen school districts. Three overall objectives guide the work of Project Venture:

- 1) To increase the number of teachers trained to use technology for teaching and learning by 25% annually,
- 2) To develop and implement a curriculum that is in alignment with State Content Standards and includes the integration of technology, and
- 3) To develop and implement an ongoing evaluation protocol that assists with project refinement, implementation and ensures sustainability and replication by the end of the project.

Project Venture has an opportunity to identify those aspects of a training model that are effective in the types and sizes of schools that compose the Project Venture consortium and to build a replicable model for others to utilize. The five local education agencies (LEAs) represent K-12 teachers and students in rural, suburban, and urban settings; socio-economic ranges from below poverty to affluent; one room schools to large suburban enrollments; and pedagogical and philosophical differences. The project's individualized training model impacts consortium classrooms by providing assistance to help teachers learn and practice the skills necessary to integrate technology into classroom learning activities. Technology Mentor Teachers (TMTs) provide both technology training classes and individual classroom

mentoring and just-in-time training with Project Venture teachers in the classroom to improve technology integration and to develop lessons and units that meet Arizona State Content and Technology Standards.

Project Venture staff and consortium members have accomplished many foundational tasks during this project year despite changes in personnel at both the project level, within the consortium, and on the external evaluation team. The project has continued to refine and solidify its goals and objectives as they reflect upon the success of their activities. The Project Description section of this report describes the many and varied activities undertaken by the project that have led to its current successful position. A Logic Map has been created for the project that defines the project inputs and the intermediate goals and terminal goals or outcomes. The Formative Evaluation Approach and Data Source Matrix, which are presented in following sections of this report, served as a guide to the measurement and evaluation of the intermediate goals. The project Plan of Operation is also included in this report and shows the alignment of the Activities to the Formative Evaluation Approach.

A series of evaluation instruments were utilized during the project year that serve to inform Project Venture about each of the components of the project. The training model being refined by the project appears to be a very successful model for providing timely and appropriate training to classroom teachers about the integration of technology into their classrooms. The Technology Mentor Teacher role will likely develop into the aspect of the project that determines the final success of the project. This role has been successfully implemented in each of the diverse consortium school districts.

Teacher reflections and classroom observations point to greater student access to technology and indicate greater student motivation to be involved with their learning environments. In years three, four and five, Stanford 9 testing data will be used to compare student achievement between Project Venture and non Project Venture classrooms as appropriate.

Overall, Project Venture is well placed to continue its progress toward successful completion of its grant requirements and sustainability of the project into the future. Year Three of the project looks to the exciting task of working closely Arizona School Services Through Educational Technology (ASSET) (<http://www.asset.asu.edu/>) to lead in the development of lesson plans and units that support the new Arizona State Technology Standards. Other local, state, and national initiatives for technology integration in schools are in place to support and enhance Project Venture as well. Entering the third year of Project Venture, consortium members feel fortunate to have the resources necessary to assist with the integration of technology for teaching and learning.

Evaluation: Description of Key Findings

1. "The Technology Mentor Teacher (TMT) role": The Technology Mentor Teacher (TMT) role is an important aspect of project success and will have major impact on project replication and sustainability after the TICG grant funding ends. Technology training courses received positive evaluations both for instructor quality and content. Teachers felt that they learned well from both the training courses and mentoring. In addition they appreciated the personal approach and the opportunities for hands-on practice. Strategies for student learning and interaction in the classroom became more student-centered.
2. "Teacher technology and integration skills": Evidence from Classroom Observations, Teacher Interviews, and Teacher Reflections from Level III and IV teachers suggest an increase in teacher skill and technology integration in the classroom as they worked with the TMTs throughout the project year.
3. "TMT role validation": The TMT Focus Group results validated the TMT job responsibilities as they had been defined in the TMT Time Report. The results from the focus group match the TMT Time Report results almost exactly. The four main task categories from the focus group were administration, instructional activities, professional development and technical support. Three of these categories also account for the majority of the time spent as reported on the TMT time report: Teacher Contact (which includes mentoring, training, and advisement) 45%, Administrative (which includes technical support) 28%, and Professional Development 12%. TMTs spent 45% of their time in direct teacher contact.
4. "Diverse needs of consortium members": The diversity of the 17 districts that make up the Project Venture consortium results in very complex project activities and relationships. The Advisory Team directly supports the transition of district Project Venture activities into the supporting umbrella of the consortium.
5. "Course offerings": The courses offered most often were in areas where the teachers already felt comfortable. The areas where teachers had the least skills (e.g., databases) also had the fewest opportunities for courses.
6. "Teacher Reflections": Project Venture Teacher Reflection documents were very helpful in defining a picture of classroom functions and successes.
7. "Equipment set up": The completion of equipment delivery and set up took most of the first semester in many classrooms, as mentioned in the Teacher Reflections, TMT Focus Group, and TMT Time Reports.
8. "Data gathering for project reporting.": The TICG database entry process in May took significantly longer and was more intense than anticipated by the Project Advisory Team. The consortium members were not asked to provide their input to this required report until after the database was officially endorsed by the funding agency. In retrospect, they should have been advised in April that the database would probably be used for the Project Report in May so they could have begun gathering the information.
9. "Project Venture Database": The Project Venture database of lessons and units is beginning to function as expected and provides world-wide access to Project Venture lessons and units.

Evaluation Tools and Names of Instruments Used in the Evaluation

1. Observation: "Classroom Observation"

2. Document review: "Course/Class Registration Records"
3. Logs/journals: "Teacher Journals"
4. Document review: "Project Venture Teacher Selection Criteria"
5. Electronic survey: "Technology Skill Self Evaluation"
6. Logs/journals: "TMT Time Report"
7. Electronic survey: "Training Course Evaluation"
8. Focus group: "Technology Mentor Trainer Focus Group"
9. Portfolio: "Project Venture Database of Lessons and Units"
10. Face-to-face interview: "Teacher Interview"

Replication of Evaluation Components

Title, Type and Description of Product Disseminated

Dissemination Title: Classroom units published

Dissemination Type: Lesson plans

Dissemination Description: Most level III classroom teachers have published classroom units this year in collaboration with their trainer. These units were developed to include the meaningful integration of technology and are aligned to state content standards. It is the project's intent to disseminate these units to all teachers in the state via a web-based searchable database. At this time a decision has not been made as to the logistics of this database. For now, these units are housed on the Project Venture web site as downloadable pdf files.

To obtain product: <http://www.creighton.k12.az.us/projectventure/>

Dissemination Title: Broadcast Presentations to the Governing Board

Dissemination Type: Other (Specify)

Dissemination Description: Several times per year, we present Project Venture information to the Governing Board. Videotapes of these meetings are broadcast over cable and available to many residents in the Phoenix metro area.

Dissemination Title: Mathematics & Technology Integration Guide

Dissemination Type: Professional development materials

Dissemination Description: We are submitting a presentation proposal to the AzTEA (Arizona Technology in Education Alliance) Conference that will take place in August. The presentation will summarize our Mathematics and Technology Integration project and provide training materials to interested teachers.

To obtain product: Will be distributed at the conference presentation. Others may obtain copies by contacting Ruth Camuse, rcamuse@tempe3.k12.az.us.

Dissemination Title: Project Venture Classroom Application Packet and Evaluation Rubrics

Dissemination Type: Evaluation instruments

Dissemination Description: We select teachers who will receive mini-labs of computers through an application process. Teachers complete all components of the application packet, including unit plans, vision, commitment pages, professional/personal work samples or descriptions, student work samples/descriptions, and technology self-evaluation. In addition, a rubric is used for assessment purposes during classroom observations/teacher interviews.

To obtain product: Request from Ruth Camuse, rcamuse@tempe3.k12.az.us

Dissemination Title: Technology Integrated Lessons/Units

Dissemination Type: Lesson plans

Dissemination Description: Integrated Lessons/Units which support the integration of technology into curricular areas. Lessons/Units available to teachers as a resource. Lessons/units incorporate local, state and national content and technology standards.

To obtain product: This product is currently not available due to construction of the site in which they are being housed. These lessons/units will be available to teachers as instructional recommendations to support the integration of technology into curricular areas.

Dissemination Title: Making the Connection between Technology and Learning

Dissemination Type: Professional development presentation

Dissemination Description: Professional Growth workshop (June 1, 2000) for all administrators in our district. This session will be an opportunity to celebrate and reflect on the connection between technology and learning in classrooms across the district. Participants will witness the impact technology has had on students and teachers throughout the 1999-2000 school year. We will review resources that support improved student learning through the integration of technology:

Project Venture

Technology Liaisons

Summer Technology Institutes

Principals will walk away with an understanding of their role in optimizing these resources to support teaching and learning.

Dissemination Title: Governing Board Presentations

Dissemination Type: Other (Specify)

Dissemination Description: Throughout the year we have presented information to the governing board. We have also presented as a team to the NSBA Technology and Learning Conference in Dallas this November. We have shared with our community as well as the governing board the accomplishments of our Project Venture Teachers and the awards they have received throughout the year (Cox Communications Awards, Intel ACE and Intel Teach to the Future awards).

Dissemination Title: Online Professional Growth

Dissemination Type: Evaluation instruments

Dissemination Description: Our district has created an online professional growth registration system which allows participants to register for all professional development classes online. This online system tracks participant data for classes registered and attended. The system allows an administrator to track data and generate reports allowing us to study trends. It has served us well in planning and preparing for classes to meet the needs of all staff.

To obtain product: Please contact Biz Northup, Information Systems, Educational Technology and Research Kyrene School District Tempe, Arizona 85284

Dissemination Title: Project Venture Application

Dissemination Type: Other (Specify)

Dissemination Description: Project Venture Application
Lesson/Unit Template

Principal Recommendation
Self Assessment
Lesson/Unit Rubric
Cover Letter
Essay Questions

To obtain product: This is available via the Kyrene Homepage under Staff Resources/Project Venture. All forms are in a downloadable format.

Dissemination Title: Technology Associate Application Packet

Dissemination Type: Evaluation instruments

Dissemination Description: Teachers apply for Technology Associate positions by completing an application packet. This includes a letter of application and commitment, a technology self-assessment, a technology-based curriculum unit, an administrator's recommendation, samples of professional or personal work, and samples of student work. The packet also includes a copy of the rubric used for evaluating the applications.

Dissemination Title: Technology-based Curriculum Lessons

Dissemination Type: Lesson plans

Dissemination Description: Each of our technology training courses includes easy-to-follow instructions for curriculum units using technology. Teachers are encouraged to try these lesson plans with their students, modifying them as necessary to fit the academic standards they are working on with their classes. Each lesson plan specifies both an Arizona State Academic Standard and a Project Venture technology goal. We will add the new Arizona State Technology Standards when the revisions are adopted.

To obtain product: Teachers receive copies of the lesson plans in our training sessions. We send electronic copies of the lessons by request. Some schools have posted the lessons on the Teachers' Folder on the school server. We are in the process of making the lessons available on the web through the Project Venture web site and the Maricopa County Small Schools Consortium web site.

Dissemination Title: ComputerPrep Computer Training Books

Dissemination Type: Instructional materials

Dissemination Description: At each of our technology training courses, teachers receive a ComputerPrep training book (Windows 98, Word 2000, etc.). We use Project Venture's self-assessments to personalize courses to the needs and skill levels of participants. We do not always cover every lesson in the ComputerPrep books, but the teachers keep the books for future reference.

Dissemination Title: Technical Information Sheets

Dissemination Type: Other (Specify)

Dissemination Description: Developing a reliable network and infrastructure has been a high priority for our small schools. Because of our involvement with technology, we are often the liaison between the schools and the technical services department at the county. Technicians can often fix a problem, but are not necessarily adept at explaining the process for future reference. We work with the technician to develop information sheets which are then distributed to the schools. Examples are: basic troubleshooting, desktop maintenance, DHCP configuration (for the technical contact person at each school). Our goal is to develop a useful training course for the technical contacts at each school, so

that the county-based technical department will have a knowledgeable person on-site who can do some of the basic troubleshooting and configuration.
To obtain product: The technical contact person at each school receives a copy of the technical worksheets. We also send electronic copies of this information by request. As we develop more information sheets, we hope to have some of the basic troubleshooting information available on the Teachers' Folders on the school servers. We are in the process of making the information sheets available on the web through the Maricopa County Small Schools Consortium web site.

Dissemination Title: Basic Troubleshooting Tips

Dissemination Type: Instructional materials

Dissemination Description: Basic troubleshooting and maintenance tips can relieve much anxiety teachers feel over the introduction of computers into the classroom. Examples are: basic troubleshooting, desktop maintenance, and basic computer maintenance. The handouts are also provided to school staff members, to help them use computers more efficiently.

To obtain product: Teachers and staff members receive copies of the handouts at our courses operating systems (Windows 95 and 98). We send electronic copies of the handouts by request. As we develop more information sheets we hope to have some of the basic troubleshooting information available on the Teachers' Folders on the school servers. We are in the process of making the information sheets available on the web through the Maricopa County Small Schools Consortium web site.

Dissemination Title: Technology-based Curriculum Units

Dissemination Type: Lesson plans

Dissemination Description: Each of our Technology Associates has developed a technology-based curriculum unit which will be put into a standard format and made available to other teachers. Each unit supports both the Arizona State Academic Standards and Project Venture technology goals. References to the new Arizona State Technology Standards will be added when the revisions are adopted.

To obtain product: We are in the process of making the lessons available on the web through the Project Venture web site and the Maricopa County Small Schools Consortium web site. The units may also be posted on the Teachers' Folders on each school's server.

Dissemination Title: Project Venture Presentations for Superintendents

Dissemination Type: Professional development presentation

Dissemination Description: We have conducted a number of informative presentations at the monthly Superintendents' Meetings of the Maricopa County Small Schools Consortium. The emphasis of these presentations is on the integration of technology into the curriculum in support of increased student achievement. Through the presentations and our direct contact with the 12 superintendents, we have seen a new awareness of the use of technology to achieve State Standards, and a rising commitment to staff training in technology.

Dissemination Title: Maricopa County Small Schools Web Page

Dissemination Type: Other (Specify)

Dissemination Description: The Small Schools Consortium web page is still in its developmental stages. It is our goal to keep the Project Venture objectives and other pertinent information readily available on the web site to everyone in the

12 districts. We intend to post class schedules for next year as well as lesson units, technology handouts, and the consortium's grade-level technology outcomes (once they are fully developed).

To obtain product: <http://www.geocities.com/Athens/Column/6643/> We hope to post this information on the Maricopa County Regional School District web page next year. We intend to link the Small Schools Consortium web site to other pertinent sites.

Dissemination Title: TICG Collaboration Professional Development Models

Dissemination Type: Professional development presentation

Dissemination Description: One on one meetings with interested parties
Coolidge School District
Paradise Valley School District
Deer Valley School District
Maricopa County School District
NSBA national conference presentation

Dissemination Title: Professional Growth Training Materials Technology Staff Development

Dissemination Type: Instructional materials

Dissemination Description: Customized training manuals for staff on the use of technology tools to enhance their workplace were provided by a site license in collaboration with Computer Prep Materials.

To obtain product: Purchase this training material through Computer Prep. Site License for School District (1 year)renewable upon request of the district or organization. Cost:\$3,5.00

Dissemination Title: Project Flyer

Dissemination Type: Other (Specify)

Dissemination Description: A tri-fold full color flyer and complimentary poster was developed for the purposes of assisting districts with training their administrative and teaching staff on the Project Venture model. It contains concept-level information about the training model and a brief description of activities that teachers might expect at each level of training. Some districts also have developed their flyers particular to their own settings.

Dissemination Title: TICG Presentation at IAS Conference in Salt Lake City, Utah, November, 1999.

Dissemination Type: Other (Specify)

Dissemination Description: Project Venture Director was asked to present at an open-forum dialogue at the Improving America's Schools conference for the purpose of promoting districts who attended to apply for upcoming TICG opportunities. In addition to the presentation, an information booth was set up at the conference highlighting Project Venture training model. The leveled objectives were disseminated to both potential applicants and current recipients.

Dissemination Title: Levelized Training Objectives

Dissemination Type: Professional development materials

Dissemination Description: Project Venture has developed training objectives that assist trainers in their efforts to identify teacher skill levels and meet

their individual needs. These objectives are available on the Project Venture web site at <http://www.creighton.k12.az.us/projectventure/> In addition, printed versions have been disseminated to interested educators at conferences including the Improving America's Schools conference in November in Salt Lake City. To obtain product: <http://www.creighton.k12.az.us/projectventure/>

Dissemination Title: Technology Self-Assessment

Dissemination Type: Evaluation instruments

Dissemination Description: An on-line self-assessment of individual technology skills was developed in collaboration with all Project Venture districts. We use the instrument on an annual basis to assist us in identifying individual needs and the overall growth of the project. Staff members in participating districts enter through a district link, and data is submitted to a database housed at Arizona State University. In addition, educators outside the project can enter through the "visitor from outside project venture districts" link and use the resource too.

To obtain product: http://research.ed.asu.edu/projectventure/self_assess/

Dissemination Title: Site Visit

Dissemination Type: Other (Specify)

Dissemination Description: A Project Venture staff member visited with Richard Fabian and his staff at the Triton Project, another Technology Innovation Challenge Grant, in San Diego. Doctoral Students from the Educational Technology Program at Pepperdine University in California were also in attendance. Several of these students are K-12 educators in California and are involved in writing doctoral student is beginning a new career in grant evaluation. Discussions ranged from what is going on in the Triton Project to happenings in Project Venture. The participants shared tips, advice and practical applications for integration of technology and administration grants for the Digital High School program in that state.

Dissemination Title: ComputerPrep Technology Training Manuals

Dissemination Type: Instructional materials

Dissemination Description: At most of our technology training courses, participants receive a training manual (Microsoft Windows, Word, etc.). While we do not always cover every lesson in the manuals, the participants keep them for future reference.

To obtain product: For product purchase and/or licensing, contact ComputerPrep, Phoenix, Arizona: (602) 275-7700. Charges vary depending upon product and medium purchased. TUHSD chose to purchase license to edit and print their own manuals. Cost:\$3,5.00

Dissemination Title: Application (with Evaluation Rubric) for Project Venture Participation

Dissemination Type: Evaluation instruments

Dissemination Description: We use an application process to select teachers who will participate in Project Venture and receive a mini-lab of computers. The application packet includes an agreement to participate, a letter of recommendation from the department chair and principal, a vision statement and personal statement, self-assessment documents, a technology-integrated lesson, and Student and/or Professional Examples (or descriptions) of Technology Use. A rubric is also included in the packet so the applicants can see the document used for evaluating applications.

To obtain product: The applications were solicited primarily by written announcement. An electronic copy of the announcement is available at http://www.tuhsd.k12.az.us/district_office/isnt/training/pv/announce.html This announcement includes a link to the application document and instructions. The actual application is located at http://www.tuhsd.k12.az.us/district_office/isnt/training/pv/pvapp.doc

Dissemination Title: Presentation to School Board

Dissemination Type: Other (Specify)

Dissemination Description: Karen Crane, a teacher from McClintock High School, Tempe, Arizona, presented the classroom structure and activities she has developed while a member of Project Venture. School board members viewed Mrs. Crane's online resources at HighWired.com. Students can access up-to-date information about their class whether they are in class, elsewhere on campus, at home, or anywhere with access to the Internet. Board members were particularly interested to hear of the increased student achievement in Mrs. Crane's classes. She attributes this achievement to her teaching style which is now more student-centered and to the students' increased motivation brought about by the computers in her classroom. One of Mrs. Crane's students was also present and fielded school board member questions related to his motivation and subsequent achievement.

To obtain product: Mrs. Crane's classroom resources are available at <http://www.highwired.com/Classroom/PageOne/0,2059,694,00.html>. Keep in mind that the content is dynamic and reflects the class' current activities. Accessing the site during the summer will yield minimal results since school is not in session.

Dissemination Title: Journal Article Publication

Dissemination Type: Other (Specify)

Dissemination Description: Michael Turturice--a Project Venture teacher from McClintock High School, Tempe, Arizona--contributed to the inaugural issue of the online journal, Teaching History with Technology. Mr. Turturice's article, "Planning a Virtual Field Trip," discusses ways that the Internet can enrich students' experiences by venturing to times and places they could not otherwise go.

To obtain product: The journal is available at <http://www.caryacademy.pvt.k12.nc.us/historytech/>. Mr. Turturice's article is available in Volume 1, Number 1 <http://www.caryacademy.pvt.k12.nc.us/historytech/Vol1no1/default.htm>.

Dissemination Title: Publicity

Dissemination Type: Newsletters

Dissemination Description: TUHSD regularly communicates with district-wide staff regarding the technology training program and offerings. Publicity pieces range in size from a small postcard to a multipage, two-color, glossy brochure. We occasionally use email to disseminate information, usually in the form of a reminder. Our web site allows us to make information available for an extended period of time, and we often post information there in addition to distributing it in another form.

To obtain product: Our web site may be viewed at <http://ttt.tuhsd.k12.az.us/> . Request other items by emailing a TUHSD Instructional Technology Trainer at ttt@tuhsd.k12.az.us .

Lessons Learned

Lesson Title: Allot Time for Travel
Lesson Category: Travel ("other" category entered)
Lesson Description: The small schools group consists of isolated rural sites that are great distances apart. Two trainers serve twelve sites. Travel time accounts for a larger portion of their time in comparison to other trainers. This has caused some frustration for these trainers. At times, cancellations have occur without notice, causing additional loss of time.

Lesson Title: Hardware/software rollout
Lesson Category: Project implementation
Lesson Description: Common to all project districts was frustration due to the amount of time and effort involved in the purchase and installation of hardware, network, electrical, and software. Since the focus of the project is to train teachers, trainers became frustrated when that activity needed to be postponed and their time was spent in procurement, imaging machines, and setting up hardware. Teachers who had been accepted into Level III mentoring activities also became frustrated because they had great plans which were put on hold.

As a project, we have learned that there is a cycle to our year, and that getting equipment properly functioning in classroom is a prerequisite to coaching. The amount of time required must not be underestimated and should be budgeted for in that yearly cycle.

Lesson Title: Principals' Knowledge and Commitment
Lesson Category: Project implementation
Lesson Description: We have preliminary evidence of the relationship between the principal's understanding and commitment to the Project Venture training model and our ability to impact a site's teachers.

Supportive principals this year encouraged teachers to take technology workshops. Some have gone as far as including technology as a component of teacher evaluation and have documented individual professional growth. Many principals were involved in making decisions related to grant activities. Additionally, it was common for sites to provide additional resources to level III classrooms in terms of furniture, additional software, etc.

We also noticed that principals who were fully committed to the project participated in training themselves either by attending workshops, or by working one-on-one with a trainer to learn new skills.

Lesson Title: Technical Support
Lesson Category: Technical Support ("other" category entered)
Lesson Description: Those districts and/or sites with strong technical support staff are better able to focus their time toward staff development and mentoring. Because Project Venture TMTs have adequate and sometimes substantial technical skills, teachers may tend to grow dependent on TMTs for troubleshooting equipment, reducing time available for efforts related to curriculum integration. In situations where technical support is more readily available, there has been a more focused effort on curriculum integration.

Lesson Title: Infrastructure as Foundation
Lesson Category: Project implementation
Lesson Description: Working with four very diverse LEA's and one small school district consortium, it became evident early in the project that each group brought to the table unique circumstances which would impact project development and implementation. Some districts already had established supportive administrative teams which included technology support staff. Others did not. Some districts had networking and electrical infrastructures in place to support classroom technology. Others have found that lack of Internet connectivity prevented them from working with some teachers. Strong partnerships and e-rate assistance have increased these supportive infrastructures. We have learned that infrastructure foundations are prerequisites for training using in-class minilabs and Internet-based communications.

VIII. Project Partners and Participants

Project Partners

Partner Type: Association
Organization: Alliance + Project/Stevens Institute
Partners: The Alliance + Project provided free training
Description: and materials for the Stevens Institute Savvy
Cyber Teacher training. Staff from three
Consortium schools were trained as Savvy Cyber
trainers. Two schools have conducted on-site
Savvy Cyber training sessions this year, and

another training session is planned for the Fall of 2000. Through the Savvy Cyber training, we have developed a Maricopa County Small Schools Consortium web site with links to individual schools. Our goal is to use the training to help each of our 12 schools develop a web site.

Amount Promised: \$8,000.00
Amount Given: \$8,000.00

Partner Type: Association
Organization: Arizona Tech Corps
Partners: Arizona Tech Corps has begun working with our school districts to arrange technical assistance and volunteer support for networking and infrastructure. Since the lack of a reliable infrastructure has been a major impediment to technical training and technology integration, we look forward to a successful partnership with Arizona Tech Corps.

Amount Promised: \$500.00
Amount Given: \$500.00

Partner Type: Association
Organization: ASSET
Partners: Assisted in hiring process for new director.
Description: Consultant for administrative decision-making.

Amount Promised: \$0.00
Amount Given: \$0.00

Partner Type: Association
Organization: ASSET
Partners: ASSET provides many useful resources for training and distance learning for schools.
Description: ASSET staff has provided consultant services to the Small Schools Consortium in technology visioning and planning, and in the identification of available resources. Additionally, ASSET has supported Project Venture by offering the 12 districts in the Small Schools Consortium a group membership in ASSET.

Amount Promised: \$1,000.00
Amount Given: \$1,000.00

Partner Type: Association
Organization: ASSET
Partners: Three trainers attended free one day training to become Thinkquest Trainers. Training set up locally and paid for by ASSET. Training showed us resources for use in classroom, later shared

with level 3 teachers.

Amount Promised: \$1,250.00
Amount Given: \$1,250.00

Partner Type: Association
Organization: Buckeye Adult Literacy Program
Partners: A number of our schools have coordinated adult
Description: literacy programs with the Buckeye Adult
Literacy Program. The schools have initiated the
use of technology to support adult literacy
programs.

Amount Promised: \$500.00
Amount Given: \$500.00

Partner Type: Association
Organization: Regional Training Center
Partners: The Tempe RTC has offered many training
Description: opportunities to schools in the Maricopa County
Small Schools Consortium. These services have
been provided through regularly scheduled RTC
trainings as well as on-site assistance. This
year the RTC provided free training on the Marco
Polo web site, which we will share in our
Internet trainings. The RTC also provided
valuable assistance in the preparation of our
schools' Technology Literacy Challenge grant
applications.

Amount Promised: \$5,000.00
Amount Given: \$5,000.00

Partner Type: Business
Organization: Apple, Inc.
Partners: Apple offers Project Venture technical advise
Description: and consultation as needed for program design
and implementation and assistance with
dissemination of project outcomes.

Amount Promised: \$0.00
Amount Given: \$0.00

Partner Type: Business
Organization: DarComm
Partners: In conjunction with Arizona Tech Corps, DarComm
Description: representatives will oversee technical
volunteers from a variety of Phoenix area
business to help our schools with technical
setup and maintenance.

Amount Promised: \$1,000.00
Amount Given: \$1,000.00

Partner Type: Business
Organization: IKON Office Solutions
Partners Representatives from IKON Office Solutions have
Description: been been closely involved in the planning,
development, and implementation of the Small
Schools Consortium's Wide Area Network. IKON
staff has provided technical assistance and
support to the Consortium as a whole as well as
to individual districts in determining
technology needs and practical, affordable
solutions. Additionally, IKON staff has assisted
in identifying and acquiring resources to fund
the Wide Area Network.
Amount Promised: \$2,000.00
Amount Given: \$2,000.00

Partner Type: Business
Organization: Intel
Partners Intel ACE and Intel Teach to the Future teacher
Description: training programs.
Teacher training program
Trained a total of 4 Master teachers (stipend of
\$3000.00 per trainer was issued)
Approximately 150 teachers participated in this
program. Teachers had the option of receiving a
\$550 stipend provided by the district or opting
for graduate level credit at their expense.
Awards for individual and group winners
Computers (1 per Master teacher trainer: 4MT's
within the last 2 years)
Servers (1)
workstations (5 Pentium I or higher)
Software (Microsoft Office 2000 and Encarta,
approximately 150 copies of each were
distributed)
Printers (HP colorjet printers for individual
and group winners) 3 individual and 3 group for
a total of 6 printers (1998-99 school year)

Digital Cameras(HP photosmarts for individual
and group winners) 3 individual and 3 group for
a total of 6 digital cameras (1998-99 school
year)
Amount Promised: \$12,000.00
Amount Given: \$12,000.00

Partner Type: Business
Organization: Intel Corp.
Partners Intel donated microprocessors for the computers
Description: which were placed in our level 3 teachers'
classrooms.

Amount Promised: \$21,600.00
Amount Given: \$21,600.00

Partner Type: Business
Organization: US West
Partners US West has provided ongoing technical support
Description: and advice in our efforts to develop and
implement a Wide Area Network for the Small
Schools Consortium. Additionally, US West
representatives have provided assistance and
support to facilitate Internet connectivity for
some of our more distant, isolated schools.

Amount Promised: \$1,000.00
Amount Given: \$1,000.00

Partner Type: College/university
Organization: Rio Salado College
Partners A number of our schools have coordinated adult
Description: literacy programs through Rio Salado College.
The schools have initiated the use of technology
to support adult literacy programs.

Amount Promised: \$500.00
Amount Given: \$500.00

Partner Type: College/university
Organization: Stevens Institute for Technology
Partners Alliance Plus Grant has provided training to
Description: Project Venture trainers on compelling uses of
the Internet.

Amount Promised: \$0.00
Amount Given: \$2,000.00

Partner Type: Community organization
Organization: Sun City West Computer Club
Partners This group of senior citizen volunteers has
Description: facilitated the acquisition and installation of
"old" computers and printers in many of the
Small Schools. Members of the Sun City West
Computer Club rescue computers and other
hardware from businesses where they are no
longer needed. The volunteers refurbish the
equipment, deliver it to the schools, and assist
in set-up if needed.

Amount Promised: \$10,000.00
Amount Given: \$10,000.00

Partner Type: LEA (and assoc. schools)*

Organization: ASSET
Partners Consultant for our training program
Description:
Amount Promised: \$0.00
Amount Given: \$0.00

Partner Type: LEA (and assoc. schools)*
Organization: ASSET
Partners Intel Teach to the Future Master Teacher
Description: Training
2000 - 2003 Master Teachers will receive a \$3400 stipend over the three year period.
LEA's will receive \$7000 in equipment and a years subscription
Office 2000
Encarta
training (free of charge training for approximately 300 teachers over the next 3 years)
Amount Promised: \$17,000.00
Amount Given: \$0.00

Partner Type: LEA (and assoc. schools)*
Organization: Creighton Elementary School District
Partners consortium district participant
Description:
Amount Promised: \$0.00
Amount Given: \$0.00

Partner Type: LEA (and assoc. schools)*
Organization: Kyrene School District
Partners consortium district partner
Description:
Amount Promised: \$0.00
Amount Given: \$0.00

Partner Type: LEA (and assoc. schools)*
Organization: Kyrene School District
Partners During the 1999 school year, my role as Teacher
Description: Specialist consisted of: establishing and conducting training programs for Kyrene teachers, conducting staff development training for all teachers in the district, assisting level 1-4 PV teachers in the classroom as well as lab environments, conducting one-on-one training at school sites, developing and maintaining the Kyrene Project Venture web site, providing user support to district office staff, and working ongoing projects for the district.

Amount Promised: \$20,000.00
Amount Given: \$30,000.00

Partner Type: LEA (and assoc. schools)*
Organization: Kyrene School District
Partners: Educational Technology Teacher Specialist
Description: Project Venture Consortium member
Coordinator for the Kyrene School District's
participation in the TICG Project Venture
As part of my role I oversee this project in our
district. I also have other duties as assigned
but more than half of my work focuses on the
teacher training aspect of this position.

Amount Promised: \$20,000.00
Amount Given: \$32,000.00

Partner Type: LEA (and assoc. schools)*
Organization: Maricopa County Regional School District
Partners: In conjunction with the Maricopa County School
Superintendent's Office (MCSSO), the Maricopa
County Regional School district has provided
ongoing support for the Small Schools Consortium
and Project Venture. All fiscal activities of
the Small Schools Consortium and Project
Venture, including purchases, accounting, and
payroll, are conducted through the Business
Department of the Regional School District. The
District has hosted Project Venture staff during
part of this year, and has provided space for
Small Schools Consortium meetings.

Amount Promised: \$5,516.00
Amount Given: \$5,516.00

Partner Type: LEA (and assoc. schools)*
Organization: Maricopa County Small Schools
Consortium/Maricopa County Regional Schools
District #512
Partners: Consortium partner of 12 small rural schools in
Description: Maricopa County (each school has fewer than 600
students).

Amount Promised: \$14,382.00
Amount Given: \$14,382.00

Partner Type: LEA (and assoc. schools)*
Organization: Tempe School District #3
Partners: Member of Project Venture Consortium
Description:

Amount Promised: \$0.00
Amount Given: \$0.00

Partner Type: LEA (and assoc. schools)*
Organization: Tempe Union HS District
Partners Partner in consortium receiving grant
Description:
Amount Promised: \$0.00
Amount Given: \$0.00

Partner Type: County Education Agency ("other" type entered)
Organization: Maricopa County School Superintendent's Office
Partners The Maricopa County School Superintendent's
Description: Office (MCSSO) has provided ongoing support for
technology-based activities of the Small Schools
Consortium and Project Venture. The MCSSO houses
the Consortium's Wide Area Network, through
which the Small Schools have access to Internet
connectivity and e-mail accounts. MCSSO staff
has provided technical support and assistance to
the Consortium as well as individual Small
School districts in the development and
implementation of the Wide Area Network.
Additionally, the MCSSO has been "home" to
Project Venture staff.
Amount Promised: \$5,516.00
Amount Given: \$5,516.00

Partner Type: Other State Agency
Organization: Regional Training Center
Partners Attended Marco Polo- half day Internet training-
Description: free of charge and learned about training others
to use this resource for technology integration
in the classroom. We will use this in our summer
training.
We received software left from ASU's
Microcomputers in Education Conference which we
have used as a "door prize" at training
sessions.
Amount Promised: \$3,750.00
Amount Given: \$3,750.00

Partner Type: Software vendor
Organization: Tom Snyder Productions
Partners Creighton District's Project Venture teachers
Description: this year were given a software budget to equip
their minilabs with educational software
specific to their curriculum. As a great deal of
Tom Snyder software was purchased, a
relationship was established. To further assist
our teachers, Tom Snyder donated costs

(consultant and travel) for a one day One-Computer-Classroom workshop targeted to potential level III teacher applicants. We offered the workshop during off-contract time, and had 20 teachers attend. Many of those teachers did apply for 00-01 school year participation.

Amount Promised: \$0.00
Amount Given: \$2,000.00

Amount Totals: Promised: \$150,514.00 Given: \$159,514.00

Project Participants

Total Number of Students Served: 39,457
Total Number of Teachers Involved: 1,229
Total Number of Administrators Involved: 133
Total Number of Parents Involved: 121