Title: Update of Project to Introduce Technology in Urban Schools Which Have Low Achievement and Economically Poor Student Populations

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ABSTRACT:

This document provides new insights into events which occurred in a project funded by a Technology Literacy Challenge Fund grant awarded by Michigan Department of Education(MDE) in 2000. One purpose of this document is to update the formal report of the project which introduced new technology for use by low achieving students who are studying in an economically depressed school district. A second purpose of this document is to take advantage of the recent ERIC upgrade which provides on-line full-text presentation of documents in the ERIC data base. The new version enables an author to share significant dialogue and illustrations which could not have been effectively communicated by using the previous microfiche version of ERIC. In the Appendix there are several References to spoken evaluations and opinions expressed by participating students and teachers discussing the importance of technology to them and to their school program. Written permission was obtained from parents or guardians of students who appeared in video segments, and adults were paid volunteers. Representative samples of video segments were reviewed by the writer to remove identifying labels. These video segments were found to expand upon the formal on-line evaluation of TLCF projects required by MDE. The selected video segments added new insights and information which were not communicated in the previous formal reports. It is reasonable to conclude that the on-line full-text version of ERIC provides valuable opportunities for researchers to describe and illustrate what happened in their projects.

At the end of the 1999-2000 school year, Wayne State University and the Detroit Public Schools received a Technology Literacy Challenge Fund (TLCF) grant for one year from the Michigan Department of Education (MDE). The purpose of the grant for 2000-2001 was to introduce new technology into four City schools where pupils had significantly low academic achievement and more than 75% of the pupils were eligible for free or reduced pay for lunches each day.

The four objectives of the project were:

1. provide new computers and software for each school including at least one student computer in each participating teacher's classroom which also should have internet access for pupils' use;
2. provide four or more inservice workshops for teachers to build their skills and confidence using technology to support their instruction;
3. use preservice teachers to deliver on-line instructional support in mathematics and English language arts to participating students in one or more of the schools;
4. capture video records of exemplary uses of technology by the participating project teachers and disseminate these examples to other teachers (See Ref. #1)

Although the formal Final Evaluation Report sent to MDE was completed successfully, the video segments cited in the Appendix of this document revealed significant benefits which were scarcely noted in the Final Report sent to MDE. These insights are revealed when one looks at events which occurred in several separate classroom situations.

For example, in one middle school there happened to be a substantial number of children from families who had recently immigrated to the United States from Mexico. With the new technology available to her, the teacher utilized the internet access in her classroom and in the school computer lab to cultivate and guide e-mail capabilities of students in her English as Second Language(ESL) classes. Her students read e-mail from other students still in school in their former homeland; and they viewed different events which occurred in those nations. Under the ESL teacher's guidance, students were able to build skills in safely searching the web and gathering information about the United States and other parts of the world
(See Ref #2).

The ESL teacher expressed her conviction that this e-mail resource was very beneficial to her students. It provided support for students forming new relationships with new classmates and learning customs of the United States

while retaining memories and interest in the events and people in their previous homeland (See Ref. #3).

Since the video segments had been planned to be recorded in participating classrooms, written permissions were obtained from parents or guardians of students who appeared in video recordings cited in the Appendix. Adults appearing in video segments were volunteers who were paid to be recorded.

Representative samples of video segments were selected by the author of this document to emphasize the quality of new information and insights which are often excluded or overlooked in formal, text bound assessments. In order to comply with ERIC's requirement of anonymity, the names of students, teachers, project staff, school names were removed from video segments which are entered as References in the Appendix.

Another teacher was appreciative of the opportunities to use the new technology to encourage his students to engage in challenging problem solving situations involving simple robotic devices. In these situations the students had to create ways to solve a particular task and share ideas with classmates. The teacher stated that these trial and error experiences enabled students to share their ideas, which were considered, tried, accepted or rejected as the children in the group worked together to solve problem situations while maneuvering their robotic devices (See Ref #4).

Other multimedia projects were readily initiated using the computers and software introduced with the new technology resources. Teachers and students were able to develop their own multimedia projects using graphics, cameras, and scanners. In one situation, the teacher had created a model program utilizing the multimedia resources of Hyper Studio to create a scrolling text field of credits for a project completed and accompanied by a musical score, During the following time in class, the students developed their own Hyper Studio project with graphics, video, and concluded with a scrolling list of credits and music.(See Ref.#5).

During one semester the students used e-mail and multimedia software to develop their own perspective about the new technology which was being introduced into their daily school program. Some students were excited about their ability to create their own web pages using the internet or scanned images as they preferred. This was accompanied by their teacher's counsel and guidance about the hazards of internet access through use of e-mail or home page design and use. Frequently, the students spoke about the value and importance of technology in relation to their future careers and job opportunities (See Ref. #6).

A primary conclusion of this document is that the video segments revealed important information about this TLCF project's beneficial impact

upon the ideas and aspirations of students with currently low academic achievement and living in economically disadvantaged school communities. The students' remarks in the video segments displayed high levels of enthusiasm and optimistic responses in anticipation of future uses of their school's new technology. Students spoke of relating their technology activities to their future careers as accountants or web designers. Teachers spoke of challenging their students with problem solving tasks and original multimedia projects which were to be designed and produced by students.

Unfortunately, this TLCF project was not refunded for the 2001-2002 school year. Scarcity of funds for the TLCF projects caused the MDE to distribute the available funds to more than 70 other school district applications. With respect to this TLCF project, the on-line tutoring was maintained each semester in one school by the writer's initiative until that aspect was closed at the end of the 2006-2007 school year. Funds were not available to track the continued benefits of new technology introduced into the other participating schools.

Completion and dissemination of this document will confirm the writer's conclusion that the new version of ERIC can accommodate video segments which may enrich communication between educational researchers and consumers of educational research.

A primary recommendation of this author is for a strong, favorable support of the ERIC team which developed the on-line full-text ERIC version. A second recommendation suggests that State and Federal agencies cooperate with private philanthropic organizations to coordinate their gifts and educational research support for longer and sustained research initiatives in public education. This approach has been effective in generating important medical research achievements. A similar benefit for coordinated educational research is plausible.

APPENDIX

REFERENCES

REF. #1 http://www.coe.wayne.edu/gs/TLCF4/Objectives.mov

REF. #2 http://www.coe.wayne.edu/gs/TLCF4/STDE.mov

REF. #3 http://www.coe.wayne.edu/gs/TLCF4/TEACHER2B.mov

REF. #4 http://www.coe.wayne.edu/gs/TLCF4/TEACHER8C.mov

REF. #5 http://www.coe.wayne.edu/gs/TLCF4/TEACHER4C.mov

REF. #6 http://www.coe.wayne.edu/gs/TLCF4/STUDENTS9.mov

REF. #7 Gary R. Smith and Geraldine Carroll. On-Line Tutoring by Preservice Teachers. (ERIC Doc. No. 440056), Full-Text, March 10, 2000, 34 pages.