

Enhancing Education Through Technology (EETT) Program

Response to Request for Proposal

Gina Campana, Amanda Dolan, Jennifer Louth, and James Raber

Kent State University

The Enhancing Education Through Technology (EETT) program was created as an effort by the U.S. Department of Education to improve student academic achievement through the use of technology in schools, and encourages the integration of technology through teacher training and curriculum development (Renaissance Learning, Inc., 2004). The purpose of this evaluation is to determine if the EETT programs designed and implemented by current and past grantees are reaching the intended program goals. Further, the evaluation will determine the extent to which current practices can inform curriculum development and the formation of best practices for state, and local educational agencies. In addition to evaluating the effectiveness of these programs, it is also the intention of this evaluation to assess the sustainability of projects after the grant support has ended. If the evaluation process confirms the stakeholders' assumptions that the program improves the reading skills of at-risk students (Renaissance Learning, Inc., 2004) in a fiscally responsible manner, this could allow for larger scale implementations and the establishment of best practices.

The Enhancing Education Through Technology (EETT) program as stated above, was created by the U.S. Department of Education via state grants to improve student academic achievement through the use of technology in schools. It was designed to help students become technologically literate by the end of eighth grade. The EETT also stresses to integrate technology with teacher training and curriculum development which will establish successful research-based instructional methods (Renaissance Learning, Inc., 2004). In addition, the EETT program is part of the *No Child Left Behind Act of 2001 (NCLB)* which targets "high-need school districts" (Bakia et al., 2009). Interestingly, since the inception of the EETT, in FY 2002 through FY 2008, around \$3.4 billion was allocated to the EETT (Bakia et al., 2009).

Moreover, the EETT is actually comprised of two types of funds: one is a formula fund and the other is competitive fund. “Formula funds are distributed to eligible districts based on their needs. Competitive funds are awarded to districts based on a successful grant application” (Renaissance Learning, Inc., 2004).

With this in mind, we look at analysis done by the U.S. Department of Education Office of Planning, Evaluation and Policy Development (2009), we find that there was no statistically significant difference in internet access in the school districts between teachers in high-poverty schools and those in low-poverty schools in terms of reported student access to high-speed Internet in classrooms in either 2004–05 or 2006–07 (Bakia et al., 2009)

Further, the analysis found differences associated with the grade level at which teachers worked, suggesting that elementary classroom were most likely to have high-speed Internet access. Seventy-two percent of classrooms in elementary grades, compared with 55 percent in middle school grades and 49 percent in high school grades, reported having high-speed Internet access (Bakia et al., 2009)

The U.S. Department of Education Office of Planning, Evaluation and Policy Development (2009) also studied teacher and student use of technology for teaching and learning. Teachers reported using technology for a variety of professional practices on a weekly basis in 2006–07 in larger percentages than in 2004–05. An exception was in using technology to test students, which decreased, and using technology to collaborate with experts or teachers in other locations, which did not change during this two-year period. The frequency of students’ use of technology for schoolwork did not change during this same time frame and the only significant difference between the two years was an increase in the use of technology to prepare for standardized tests (Bakia et al., 2009)

Furthermore, the U.S. Department of Education Office of Planning, Evaluation and Policy Development (2009) have suggested implications for future policy. The Department implicated that the goal is being met to ensure that students and teachers in high-poverty, high-need schools have access to educational technologies comparable with that of students and teachers in other schools. One important aspect indicated, is that although districts are authorized to use EETT funds to increase access to technology, not many districts receiving EETT funds seem to be using the EETT funds for this purpose. Using this information, the U.S. Department of Education suggests that the focus of educational technology policy should continue to shift from access, to the issues of how teachers are supported and how technology is used. “This focus on instructional use should drive future decisions about what technology supports are needed” (Bakia et al., 2009).

Some good news is that most districts reported offering a variety of technology-related professional development opportunities for teachers. The teachers did identify needs for additional training that would include the use of technology to support new pedagogies and student learning in the content areas. In addition, the teachers in high-poverty schools reported the need for more technology-related professional development compared to the teachers in low-poverty schools (Bakia et al., 2009).

To support these conclusions, one intervention program that was created to assist with reaching the goal of the EETT is titled “Read Now”. It assists teachers in integrating technology and instruction in order to address individual needs and ultimately increase student achievement. The Read Now intervention program aims to increase the reading skills of at-risk students (Renaissance Learning, Inc., 2004).

Four instructional activities that are key to the Read Now success are as follows:

1. Read To—Students listen to books read aloud.
2. Lessons—Students receive lessons individually or in small groups.
3. Guided Independent Reading—Students participate in guided independent reading.
4. Fluency Practice—Students practice modeled and repeated oral reading.  
(Renaissance Learning, Inc., 2004).

A valuable component of The Read Now intervention program is that it can provide ongoing, sustained professional development of the school personnel involved with the project. Read Now offers ongoing, interactive professional development through frequent conference calls, onsite consulting services, and access to the Renaissance Coach (a Read Now expert) via email and telephone (Renaissance Learning, Inc., 2004).

The purpose of this evaluation is to determine if the EETT programs designed and implemented by current and past grantees are reaching the intended program goals of improving academic achievement through the use of technology in schools and the impact of teacher training that leads to effective integration of technological resources. Further, the evaluation will determine the extent to which current practices can inform curriculum development and the formation of best practices for state, and local educational agencies.

Conducting an evaluation on this program is essential for several reasons. The primary reason is to evaluate the sustainability of projects after the grant support has ended. Given that the funding for this program is designed to take care of startup costs and initial administrative overhead, it is essential that this program be able to continue once grant support has ended. The evaluation will take into account fiscal effectiveness. Are the costs allocated with the startup of

this program well spent? Does the program actually improve student achievement? All of these elements will be considered as part of the evaluation process.

The significance of this evaluation is twofold. If the evaluation process confirms the stakeholders assumptions that the program improves the reading skills of at-risk students (Renaissance Learning, Inc., 2004), then the scope of this program could be investigated, possibly allowing for implementation in a larger scale. If it is determined that this program accomplishes the tasks outlined, but is not fiscally sound (either requires funding beyond the grant startup time, or costs run greater than their anticipated values) then the consideration of restructuring the program can be investigated. Lastly, if the evaluation determines that the program is not effective at its intended outcomes, the stakeholders can plan for an exit plan and consider alternative strategies in improving the reading capabilities of at-risk students and improving the training options available for their instructors.

The following research questions will inform the evaluation of this program:

1. Does the EETT program improve academic achievement through the use of technology in schools for current or past participants?
2. Does EETT increase the amount of students who are technology literate by the eighth grade?
3. Is the EETT program fiscally viable?
4. Does the current and previous teacher training provided increase the use and integration of technological resources?

This evaluation assumes that the EETT program is a viable entity for improving academic achievement through the use of technology. Specifically, the EETT program should indicate that there is an overall increase in academic achievement in schools. Additionally, this

evaluation is dedicated to find whether the teacher training program implemented can be considered successful. Finally, it is important for the program to be fiscally viable as a whole.

## **Methodology**

### **Target Population**

The selection of target participants is obviously very important to a study. The researcher not only needs to make sure that appropriate subjects are selected, but also that a suitable number is selected. Generally, higher numbers of subjects for quantitative studies are better, but in contrast qualitative researchers argue that no direct relationship exists between the number of participants in a study and the quality of the study (Hatch, 2002). “The criteria for participant selection grow out of different assumptions depending on the research paradigm and the kind of study” (Hatch, 2002). For this study, 75 current schools will participate in the study and 256 past schools will be reviewed. The target participants include the administrators, staff, and current and previous participants directly involved. This selection of schools is a convenience sample since the schools have already been identified by the Ohio Department of Education.

Convenience samples are the most common types of samples and are basically easy for the researcher to find (Hatch, 2002). The way in which the Ohio Department of Education (ODE) selected the schools that were included in the EETT program was by requesting applications from the schools in collaboration with eTech Ohio who administers the EETT state Grant Program. ODE distributed the two-year formula grants to eligible Local Education Agencies (LEAs) that submitted applications to their Comprehensive Continuous Improvement Plans (CCIP) (Ohio Department of Education, 2007). From this process, the schools were selected. So, part of the selection of the participating schools was voluntary (those who submitted applications), and partially by the schools fulfilling certain criteria indicated by those selecting

the schools. The schools included in the target population comprised of high poverty to low poverty schools, schools with varying degrees of technology-related teacher professional development, schools with varying degrees of technological access, and schools with varying student technology literacy (Bakia et al., 2009).

For the current schools, an online survey will be developed and sent to all head administrators of the 75 schools six different times throughout the two year period: once at the beginning of each school year, once mid-year, and once at the end of each school year. 20% of the results of the administrators that respond will be randomly selected and included in progress reports that will be sent quarterly to ODE. In addition, 20% of the schools will be randomly selected for site visit observations. During these site visits, the evaluators will have access to academic records. These site visits will occur during the same six times throughout the two-year period that the surveys will be distributed. The results of these sites visits will also be included in progress reports that will be sent quarterly to ODE. These surveys and site visits will focus on the three main program goals: If there is effective use of technology to help students meet or exceed the state academic content standards, if students are acquiring technology skills necessary to be technologically literate by the end of eighth grade, and if the integration of technology resources are improving professional teacher training and curriculum development (Ohio Department of Education, 2007).

For the schools that previously participated in the program, online surveys will be developed as well and sent to all head administrators of these 256 schools the same six times during the two-year period. 10% of the results of the administrators that respond will be randomly selected and included in progress reports that will be sent quarterly to ODE. In addition, 10% of the schools will be randomly selected for site visits to observe and collect data



on implementation, barriers and outcomes. These site visits will occur during the same six times during the two-year period that the surveys will be distributed. The results of these sites visits will be included in progress reports that will be sent quarterly to ODE. These surveys and site visits will focus on the sustainability of the project (Ohio Department of Education, 2007).

In addition to the 6 surveys delivered pre, mid, and post school year over the two years, collection of academic records (as described above) will outline the longitudinal significance of this program. By comparing the pre-testing scores of students in the first year ( before any of the program has been able to provide an impact) against pre-testing scores of students in the second year, the score differential, or lack thereof, should indicate the programs effectiveness. In addition to student records and survey results, The Computer Self-Efficacy Scale (CSES) as described in the Sam, et. Al article ‘Computer Self-Efficacy, Computer Anxiety, and Attitudes toward the Internet: A Study among Undergraduates in Unimas’ is to be utilized along with the pre program assessments as well as the post program assessments. Given that it is within the scope of this project promote the growth of technical literacy amongst students, the CSES seems to be an appropriate measure given its prominence in numerous scientific research studies on understanding computer anxiety and efficacy.

[SECTION 5]

[SECTION 6]

As with all studies, there are always going to be tradeoffs that must be considered when planning investigations. Given that this study is longitudinal in nature, bias may arise from participant attrition. Participant attrition the loss of program participants over time in longitudinal research studies for a variety of reasons. Attrition is particularly problematic for

research studies as it is not a random occurrence amongst program participants (Vaus, p. 137). Most participants that depart studies typically do so for a variety of consistent reasons. In our study being presented here, we could have students that change school systems or have students that drop out of school all together. Whatever the case, it seems prudent that if we run into attrition, the scores for all of these individuals be stricken from the results. Given the large number of schools involved in the study, the sheer size of our population should provide suitable numbers for scientifically significant results.

[SECTION 9]

## References

- Bakia, M., Means, B., Gallagher, L., Chen, E., & Jones, K. (2009). *Evaluation of the Enhancing Education Through Technology Program: Final Report*. Washington, DC: U.S. Department of Education, SRI International. Retrieved September 7, 2013 from: <http://files.eric.ed.gov/fulltext/ED527143.pdf>
- Hatch, J. A. (2002). *Doing Qualitative Research in Education Settings*. Albany, NY: State University of New York Press
- Ohio Department of Education. (2007). Request for Proposals (RFP). *To conduct an evaluation of the enhancing education through technology (EETT) program*. Center for Curriculum and Assessment. Office of Curriculum and Instruction. Columbus, Ohio
- Renaissance Learning, Inc. (2004). *Enhancing Education Through Technology for the Read Now Reading Intervention Program: 2004*. Retrieved September 7, 2008 from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.194.6635&rep=rep1&type=pdf>
- Sam, H., Othman, A., & Nordin, Z. (2005). Computer Self-Efficacy, Computer Anxiety, and Attitudes toward the Internet: A Study among Undergraduates in Unimas. *Journal Of Educational Technology & Society*, 8(4), 205-219.
- Vaus, D. (2001). *Research Design in Social Research*. Sage Publications, London. Eng. Retrieved October 12, 2013 from <http://books.google.com/books?id=9yurQt7T65oC&lpg=PA1&ots=nnWd26wU7p&dq=social%20research%20on%20attrition&lr&pg=PR4#v=onepage&q=social%20research%20on%20attrition&f=false>