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Interim Report: Pilot Project – Technology Integration in Underserved Schools Using Thinkfinity

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Interim Report

Pilot Project – Technology Integration in underserved schools using Thinkfinity

This pilot project was conceived as a way to enable teachers in schools with fewer technical resources than typical public schools, or with special needs for students and teachers, to explore and utilize the resources of Thinkfinity in lessons and activities.

The project will conclude at the end of May, 2008, and a final, complete report will be submitted at that time. This interim report will describe the assumptions of the project team, how the project was carried out, and highlights of the project to date.

The project team consists of the director of the Pace University Computer Learning Center, Sylvia Russakoff, and two master teachers, Babette Kronstadt and Anita Tumminelli. In addition, Debra Blaustein, a graduate student at the Pace University School of Education, assisted at many of the sessions.

The Pace Computer Learning Center has been involved in helping teachers learn to integrate technology using Internet resources since 1997, when, under a grant from the then Bell Atlantic Corporation, over 900 teachers were trained over a three year period.

Assumptions:

- Technology is a means to an end, not a goal. The goal of using technology is to enhance student learning.
- Many teachers in the target schools make limited use of activities where the students are actively engaged in using technology to create knowledge or otherwise expand their learning opportunities.
- Within each school there is variation in access to technology, technical skills and previous use of technology in the classroom
- In order to make best use of Thinkfinity and technology in general, teachers need to feel more comfortable and gain confidence in using technology. Because teachers have different gaps.in their technical skills, a short course of individualized training is the most efficient way to address those gaps, solidify each individual teacher's skills and raise confidence in using technology.
- If teachers are not accustomed to using technology in the classroom, even if they find good online resources they may not be able to use them most effectively. Individual support in creating lessons develops effective approaches to using technology.
- Teachers in the non-public schools lack the support available in most public schools. Therefore, a key aspect of our program was to provide the one-on-one support needed so that the needs described above could be met.

Project Description

Three schools were selected for the project. The Immaculate Conception parochial school in Tuckahoe, NY was selected upon the recommendation of the Facilitator

Center, an organization that provides education and professional development to non-public schools in New York. Good Counsel School, in White Plains, NY, was selected upon the recommendation of Dean Susan Merritt of the Seidenberg School. The New York School for the Deaf was selected through the recommendation of Dr. Sandra Flank of the Pace School of Education.

Each of these three schools, although different in character, size and resources, expressed an eagerness to help enable teachers to improve their ability to integrate technology into the classroom, and to become familiar with the vast resources offered by Thinkfinity. All three of the schools have principals and high-level administrators who strongly support this project and are invested in its success.

The project consists of three stages – introduction, group sessions and individual sessions. In the introduction, potential participants attended an overview session, in which a Pace instructor showed them Thinkfinity, and demonstrated selected sites that showed how technology could add value to a traditional lesson. After learning basic Thinkfinity search techniques, participants were invited to spend some time exploring the site, and were encouraged to share lessons and interactive activities they found. Teachers were asked to identify one or more areas of the curriculum in which they would look for resources in Thinkfinity, and put together a lesson or other learning activity.

Once the principals had confirmed the final list of project participants, each group received approximately 8 hours of group instruction, in which all the Thinkfinity partners were explored. Teachers learned how each of the partner sites is organized, the best search techniques, strengths and weaknesses of each partner, and they identified and noted some of the sites appropriate for their own classes.

Teachers in two of the schools were given flash drives on which to save sites that were of interest to them as it was not unusual for teachers to find an appealing site and then be unable to find it again. Teachers were encouraged to save web logs of their searches on the flash drives as well. In the third school teachers used their own laptop computers and saved resources they found as bookmarks.

In the final stage of the project, teachers are constructing one or more learning activities using Thinkfinity resources, working one on one with a Pace instructor. As described earlier in this report the purpose of this close supervision is to increase the chance of a successful experience for each teacher by teaching additional technical skills, reinforcing the need for the technology to add value to the lesson, helping the teachers see ways to add additional value through other technologies, and raising the level of confidence with which each teacher approaches the presentation of technology-enhanced curricula.

First Approach

In all three schools, the EconEdLink partner was the first partner presented. This was done for several reasons:

- First, because it was the one the teachers were least likely to visit since they didn't think of themselves as economics teachers.

- Second, because this site has many engaging activities that most of the teachers could incorporate into lessons – from social studies (community), math, reading, etc.
- Finally, because the teachers learned that economic concepts, when presented properly are a valuable part of the elementary through middle school curriculum.

Highlights of the two parochial schools (Good Counsel and Immaculate Conception):
- Every teacher at both schools, with one exception, found some activity, lesson or resource from Thinkfinity that they were able to use with their students. The one exception was a religion teacher whose teaching was closely allied to the textbook and diocese test.
- In addition to finding resources they have already used or will use this year, many of the teachers found sites that will be useful for parts of the curriculum covered earlier in the year.
- The instructor introduced the use of Web Logs at both Immaculate Conception and Good Counsel. The Web log was a Word document containing a table so that teachers could copy and paste URLs that they found helpful and then annotate them so that they could easily find the site again and know how they had intended to use it. Many of the teachers found this useful particularly when they used both home and school computers to do their Internet searches. There may be less need for something like this when My Thinkfinity becomes totally operational.

Immaculate Conception Highlights:

Immaculate Conception has one computer lab with a SmartBoard and 12 computers. Most classrooms do not have computers for student access. Four teachers in grades 5 – 8 have a laptop and SmartBoard in the classroom. Students attend computer class once a week. Because of class size, each class is split so that half of the students attend computer class and half attend another special. Teachers are supposed to provide the computer teacher with lessons that involve the use of technology, which he then completes with the students. Because grades 5 – 8 are departmentalized, each teacher is only responsible for providing lessons for part of the year. During the quarter when the lessons resulting from this program would have been produced, several of the teachers did not have responsibility for providing computer lessons. In addition some of the teachers are less consistent in providing lessons than others.

Due to the setup of the computer time, the variation in technical abilities and resources, a number of different skills / activities were focused upon in the one-on-one sessions
- Because of the nature of the computer availability and the fact that it is not taught by the content teacher, many of the teachers focused on finding interesting, interactive review activities, particularly in math and basic reading skills.
- Several of the teachers who had SmartBoards in the classroom were either not using them to maximum effectiveness or were not familiar with the new features of the Smart Notebook Toolkit. One did not use Smart Notebook at all and most did not know that they could be Internet links into a notebook lesson. After learning this they were more inclined to use some of the Thinkfinity and other

websites because it was easy to integrate it all into one place and have the content available from year to year.
- Two of the teachers who did not have SmartBoards in their classrooms wanted to become familiar enough with the SmartBoard so that they could take their students into the lab. One of the teachers had limited her students' web-based activities to self-contained review games. She found several interactive websites that she could use in full-group instruction. The other teacher found two of the interactive Read-Write-Think student materials that she wanted to assign for homework. However, she is first planning on using them on the SmartBoard with her students to demonstrate the use of the tools and teach the concepts the students should be using.
- Several teachers who had used the Internet mainly for stand-alone reinforcement activities wanted to work on integrating them more fully into lessons. In one case the teacher designed a student page so that all of the resources, motivation, etc. were in one place. In another a teacher designed a worksheet that guided the students through a virtual tour so that the students would have a focus for each stop of the tour and use the information gained to answer questions involving higher order thinking skills.
- Most of the teachers had gaps in their basic computer or browsing skills. Depending on needs, the teachers worked on skills like using and organizing favorites, using the Find on Page, history and back features, creating more effective searches, using Copy and Paste to paste URL's into student pages or a teacher log. All of these helped teachers increase efficiency when using the Web, increasing the likelihood that they would continue to increase their use of technology.
- All of the teachers have teacher pages on Student Notes.com. Many did not know how to add Web links to their teacher page. Once they learned how to do this, they were able to incorporate links to Thinkfinity web sites in their homework assignments.

Good Counsel Highlights

At Good Counsel students also go to computer class once a week with a computer teacher. The teacher of K – 3rd grade often coordinates lessons with the classroom teacher. She attended the first two whole group sessions and has used a number of the Thinkfinity sites with the students. The teacher of the 4th – 8th grade students mainly teaches computer skills or helps with research projects the students are doing for the classroom teachers. The lab is also large enough so that teachers can bring their students to the lab when it is not being used by one of the computer teachers. Several, but not all, of the teachers have access to electronic white boards. Each classroom contains some computers for student use although the quality and quantity of computers varies.

Many of the things covered in the individual sessions were similar to those covered in Immaculate Conception:
- Basic computer and Internet search skills and expanding ideas to effectively search. For example, one teacher was doing an activity on rural, suburban and urban environments but could not find good multi-media or interactive sites. By

exploring new search strategies she was able to use the Thinkfinity search and Google to find appropriate sites.

- Inclusion of Internet links in PowerPoint presentations so that the teacher could access all websites as part of her presentation. Previously the teacher would put the PowerPoint presentation and each web site on different computers and move from computer to computer as each was needed.
- Refresher on creating a student page including links, images, backgrounds, etc.
- Good Counsel is using a privately created Web page. The instructor is working with teachers on including links within this site.
- Much of the work revolved around selecting appropriate sites and incorporating them into lesson.
- When Pace previously worked with this school, one teacher had created a PowerPoint on the language used in advertising. She was able to greatly enhance this activity using some of the interactives and videos found in several EconEdLinks advertising lessons.

General Feedback on Thinkfinity

Sessions at Immaculate Conception have been completed, but final feedback forms have not been received. Sessions are continuing at the other schools. A summary of feedback will be contained in the final report, but some initial comments are below.

Teachers used Thinkfinity in different ways. All found some additional sites and materials. Although the focus was on finding activities or resources that the students could do online, many of the teachers also used the lessons to develop new approaches or motivational questions for lessons. Thinkfinity was used in various ways:
- Student pages were given to students.
- Students used interactive activities.
- Teachers found resources in Thinkfinity or Thinkfinity reviewed sites.
- One teacher had her students use Thinkfinity as the one search engine to find information for their earth day science projects because she felt this was a safe, focused search engine for them to use. Students modified their experiments based on what they found; others used the lessons to find motivating questions to include in the write-ups.
- One teacher absolutely loved Thinkfinity; she felt it totally transformed her ability to use the Internet by greatly cutting down on her search time. Her husband, a teacher not it the program, also found it a valuable source for primary sources.
- Another first-year teacher who is very comfortable with Thinkfinity, but has no reservoir of lessons to fall back on, preferred using the reliable sources she has already known, and used this as a secondary search when her other resources weren't effective.
- Most teachers used Thinkfinity resources along with others; if Thinkfinity Search and Google were both used, information found on one could help with searches on the other.

Some strengths of Thinkfinity:
- Limited search results that were focused and appropriate for students.
- Good interactive tools
- Good student pages

- Even teachers with considerable Internet experience, found new sites or activities
- Helped integrate the curriculum – EconEdLinks used by a variety of teachers; some of the ReadWriteThink activities were used across the curriculum; social studies teacher found great sites in ScienceNetLinks and Xpeditions
- Helped give a new twist to the way lesson were taught in the past
- Many of the links included within lessons were excellent
- Good pointers to primary documents and pictures
- Students found many of the interactives motivating; loved the interactive pencil in some of the EconEdLink question sheet activities
- Many of the Interactives worked well with the SmartBoard
- Sites found on Thinkfinity led to other sites that were useful

Things that good use improvement:
- Hard time finding good resources that K-2 students could use independently; many which claimed to be for that age group were too hard to use independently
- Better, more uniform way of indicating which lessons contained interactive activities or Web links that could be used by the students
- More lessons should have student pages
- While the EconEdLink student pages were useful with older elementary school children, those for K-2 students were too wordy and had language appropriate for older students
- Better way to access links included in lessons – some are found in general Thinkfinity search; others aren't
- Better definition of "Resource Types"; in some of those classified as Interactive, the only interaction is with a worksheet
- Elimination of more nonworking links
- Monitoring of site to remove pages with sexual content. Two examples: search results for "Lewis and Clark" includes "Sex, Dog Meat, and the Lash: Odd Facts about Lewis and Clark" -- the first several paragraphs of the article talked about how the Native Americans offered L & C their women as sex partners. Animals of the Chinese Zodiac (Edsitement, K-2) lesson has several links to "Chinese Astrology" which heavily advertises and sells the author's book: Chinese Sexual Astrology: Eastern Secrets to Mind Blowing Sex
- Quicker response to questions sent to Thinkfinity – responses typically took longer than a month or were never received
- If My Thinkfinity is not yet available, that information should be given rather than asking teachers to sign up for resources and then not reponding.
- Allow more in-depth search on individual partner sites

New York School for the Deaf Highlights

- All students 9 years and older, and all teachers at this school have their own laptops.
- Because the inability to hear limits a child's ability to form an integrated view of the world appropriate to his or her age, the teachers are hungry for ways in which

technology can help to bridge this tremendous gap and make events, concepts and ideas understandable to their students in a more sophisticated way.

- In addition, since the students need so much individualized attention teachers need interactive sites that students can work on independently, building their own learning and understanding while the teacher is engaged with another student.
- Most of the teachers in this group have become extremely enthusiastic about Thinkfinity – and several have accumulated long lists of sites they are already using and will use in the future.
- The two teachers with the least competence and confidence are using Thinkfinity in much more limited ways.
- A constant challenge in this environment is finding sites that are appropriate for students whose reading levels are much lower than their chronological age, and whose learning curve is much flatter.
- To be successful in this environment, sites must depend on visual appeal.
- One teacher, whose students are reading the *Bridge to Terabithia* found a site that showed the art museum visited by the students in the book. Students loved this and were able to become more sophisticated in understanding the role of the museum in the book.
- Another teacher who is covering recycling, found the Thinkfinity resources appropriate and exciting for her students.
- For one teacher who was significantly ahead of the others in skill and experience, the group classes were not helpful, but in the one-on-one sessions the instructor was able to guide her to math manipulative sites she had not seen, and she became very excited and motivated.
- In addition, this teacher found sites related to the upcoming Olympics that she is already using with her students.

Further conclusions, teacher evaluations and final recommendations will be contained in this project's final report.