

OKOBOJI ILTC Grant Report

Executive Summary

Okoboji High School deployed 114 HP laptops for as-needed student use. A cart of 24 laptops was deployed to each of the core curriculum areas: math, science, social studies, and language arts. A cart of 12 laptops was placed in study hall, and 5 laptops were placed in the Learning Skills classroom. The district also purchased a new server to house its Moodle server software. The laptops are used in conjunction with teacher tablets and classroom projectors to deliver a technology rich learning experience to the students. Our Moodle implementation has been the major focus of this initiative and has also been the focus of our related staff development.

Project Description

Most important aspects

Okoboji Community School District currently serves 885 students and has 80 faculty members district wide. The I-to-I (pronounced eye-to-eye) project is based in the high school which serves 315 students and has 25 faculty members.

Okoboji's I-to-I project focuses on giving students as-needed access to laptops through the use of departmental carts. To accomplish this, the school district purchased 114 HP 6710b laptops and mobile storage carts. Each of the core departments (Math, Science, English, Social Studies) utilize a cart of 24 laptop computers for use in that department. A cart of 12 laptop computers is used in study hall for use on homework and other projects. Okoboji is also thoroughly utilizing an existing cart of 24 laptops for use in the non-core subject areas (vocational studies, art, etc.) and for use by students taking online PSEO classes with plans to purchase 10 more for next year. There are also two existing labs of 24 desktop computers each that are utilized throughout the day by all departments. Finally, there are 5 laptop computers in the learning skills room used by lower achieving students for various activities designed to improve those students' learning. One laptop has been reserved for imaging, testing, and troubleshooting purposes.

Okoboji is also utilizing an open-source, online, learning portal called Moodle to further student engagement and give the students and teachers access to content 24 hours a day. This tool is being used as a supplement to the normal curriculum in several classrooms and, although still in the early stages, usage of this tool is gaining popularity. The ultimate goal of this portion of the project is for every instructor to have some content posted to the portal for student access. Interest in Moodle is also gaining in the other buildings and staff development has begun in its use in those buildings.

High school teachers enjoyed 2 half-days of training in the early part of summer 2007 and then were given 12 paid hours to further develop lessons integrating the use of technology on their own. There has also been an online training course available through Moodle presented by Okoboji's Director of Technology, Chad Frerichs. In addition, Okoboji's Media Specialist/Technology Integrationist, Chris Williams, offers just-in-time support for a variety of technology related needs. Mrs. Williams also offers faculty assistance in developing content for use in lessons integrating technology. In February of 2008, a refresher course on Moodle was delivered to the high school teachers during the monthly staff development day. Those teachers were then offered 12 additional paid hours to further develop lessons involving the

use of technology and more specifically those involving the use of Moodle. (Insert the additional staff development given here)

One of the greatest challenges so far has been trying to find time for staff development during the school year that all of the high school faculty would be able to attend. Another challenge early on was an issue with the wireless network card driver and its inability to function properly in our existing wireless network. This issue was resolved through HP's support system and everything runs smoothly now.

Goals and objectives

The main goal of this initiative is to increase overall student achievement in the core curriculum areas. More specifically we are attempting to improve achievement for low performing students as indicated by the need for an IEP and those students affected by low socio-economic status as indicated by their enrollment in the free or reduced lunch program. To gauge our success in this area we have and will continue to monitor ITED results. Evidence of increased student achievement in all areas requires a prolonged period of time to gather. We have included the ITED results for 2006-2007 and 2007-2008, however an attempt to analyze these results for the purposes indicated proves inconclusive.

Another indicator of success for this project will be increased student engagement. To try and show this indication we have gathered data on absences and office referrals, two areas we feel are strong indicators of student engagement. The data on attendance shows an overall increase in absences at the high school, however unexcused absences were down slightly. Recorded office referrals for discipline reasons was down from 74 in 2006-2007 to only 31 in 2007-2008. We hope to see these numbers change for the better as the project continues and students start to use the laptops and Moodle in more student centered ways. However, with the increased use in Moodle, even when students are absent they will have increased access to content and assignments through the learning portal.

The final indicator of success for this project will be a move from using computers as just research and writing tools to using computers in more diverse applications such as Moodle and other online learning opportunities. To try and track this we have attempted to gather data on computer cart usage. The data collected does not yet show a move to other computer activities. We are hoping that as the usage of Moodle increases so will the migration away from always using computers just to research and write papers.

Involvement of school and district personnel

The project has directly affected 25 high school faculty and 315 high school students so far. Also heavily involved in this project have been Okoboji's Superintendent, Director of Technology, and Media Specialist/Technology Integrationist.

Most staff development has been led by the Director of Technology and the Media Specialist/Technology Integrationist, however later staff development has been led by teachers from the high school science department. Staff development has focused on the use of Moodle in a hybrid teaching environment with the emphasis being on classroom teaching, but has also included more general use of technology in the classroom.

Researching, purchasing, and troubleshooting equipment has been the responsibility of the Director of Technology and the Media Specialist/Technology Integrationist. Once in place the scheduling of the carts in the various departments was the responsibility of the members of those departments and the library cart was scheduled through the high school media specialist.

Nature of and changes in vendor relationships

Most of the equipment for this project was purchased through HP Direct using the WSCA pricing. This has led to an increased relationship with the K-12 Iowa representative there, Aaron Bennis. Aaron has proven to be a valuable resource when we had issues or just general questions regarding the HP equipment. This relationship has and will continue.

Resources, materials, equipment, etc.

The district purchased 114 Windows based laptops, carts to house those laptops, and 1 Windows server. We also utilized open source software, Moodle and OpenOffice.org, to reduce software costs allowing us to purchase more than the originally proposed laptops. Using Moodle we have created an online learning portal to be utilized as a supplement to classroom instruction. More and more content is being loaded onto the Moodle server all the time as it continues to become a powerful educational tool. Moodle is becoming increasingly popular with students and staff and we have begun staff development at the other levels within our district. To assist in this training and the original training the Director of Technology has created a course in Moodle with training materials on Moodle within it.

Professional development, curriculum development and planning:

High school teachers enjoyed 2 half-days of training in the early part of summer 2007 and then were given 12 paid hours to further develop lessons integrating the use of technology on their own. These hours were logged on time sheets and the final products were presented to other teachers and technology staff. There has also been an online training course available through Moodle presented by Okoboji's Director of Technology, Chad Frerichs where teachers can find tutorials on various Moodle activities. In addition, Okoboji's Media Specialist/Technology Integrationist, Chris Williams, offers just-in-time support for a variety of technology related needs. Mrs. Williams also offers faculty assistance in developing content for use in lessons integrating technology. In February of 2008, a refresher course on Moodle was delivered to the high school teachers during the monthly staff development day. Those teachers were then offered 12 additional paid hours to further develop lessons involving the use of technology and more specifically those involving the use of Moodle. Chris Williams and Chad Frerichs delivered additional instruction during the entire project to those individuals and small groups requesting it.

Impediments, barriers and how they were dealt with

The ordering of the laptops was delayed until we received our first round of funding and thus the timeline to get them deployed for the school year was brief. This led to a lack of sufficient testing of the laptops with the wireless network. Shortly after deploying the first 2 carts a problem with the wireless cards in the laptops arose. This issue was eventually resolved, but not before a delay in the deployment which seems to have led to an initial reluctance to use

the laptops by our staff. I believe this issue could have been caught and resolved prior to deployment had there been more time before the beginning of the school year.

A barrier to the more successful use of Moodle was the difficulty in scheduling staff development time to train people on its many uses. After the staff had some training later in the year, the use of Moodle increased dramatically. This has led the district to rethink its technology staff development and we have developed what we think will be a much better solution for next school year.

Description and documentation for identified outputs and outcomes

Student engagement and disciplinary problems

Data detailing office referrals for disciplinary reasons and absences was gathered from our student information system, JMC. There was also a student technology survey given to all students at the end of the school year.

Use of computers and software for writing, analysis and research/Movement toward student centered classrooms

Log sheets on computer cart usage were kept by all teachers. These logs were then gathered and the data was recorded into a spreadsheet detailing what each cart was used for each hour of each school day. Totals for each category each week were then graphed to show trends. There was also a teacher technology use survey given at the beginning of the school year and one is ongoing to compare results.

Parental involvement

Parental involvement was not monitored for this project.

Improved vendor and business relationships

As state previously our relationship with our HP representative Aaron Bennis improved greatly.

Increased student achievement

Data from ITED tests was recorded and charted using various categories from the 2006-2007 school year and then compared to scores from 2007-2008.

General Discussion

Conclusions about overall value

The overall value of this project is yet to be seen. The use of Moodle continues to grow and its effects on student outcomes is just starting to materialize. Based on both student and teacher anecdotal evidence the project is leading to increased excitement about using technology in the classroom. Student achievement is the main indication of project success

and that data requires a prolonged investigation to properly assess the effects this project may or may not have had on it.

Lessons Learned, Recommendations and Suggestions for Improvement

The most important recommendation we would have for others is to make sure to thoroughly test all equipment involved and if possible put demos of that equipment in the hands of those that will be using it prior to purchase. Testing is extremely important and should not be rushed if it can be helped.

The other suggestion would be to make sure there is adequate differentiated staff development. Small groups and one-on-one sessions produce more and better outcomes than many of the large group activities. Although much was covered in those large group settings that needed to be covered, many staff members required that little bit of additional clarification to thoroughly utilize what they had learned.

Plans for the coming year

Okoboji's District Leadership Team has planned for much more extensive technology staff development at all levels throughout the district. Plans have already been put in motion to expand the use of Moodle to the middle school and plans are in the works for its use at the elementary level. The building principals have already started using Moodle to facilitate staff development in areas outside of technology and plan to expand on that use. Additional laptops have already been purchased for use in the FCS department at the high school, and plans to purchase and re-purpose additional equipment in the other buildings are in the works. It is the hope that through continued and more extensive staff development and the availability of additional equipment the use of Moodle and technology in general will continue to expand in and out of the classroom.