Appendix G

Laptops for Learning Teacher Survey

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In January of 2004, approximately 350 Florida teachers responded to an informal survey of laptop use within their classrooms. The survey was developed by the Laptops for Learning Task Force and conducted over the Internet. About half of the respondents were elementary teachers and about one quarter each were high school and middle school teachers. The results do not represent a scientifically selected, random sample of teachers in Florida. Most of the teachers who chose to participate did so because they were already using laptops to some degree and/or had an interest in technology. The results do, however, help to identify how technology is currently being used in classes that have at least occasional access to laptops. Several dozen teachers who have no access to laptops for their classes also completed the survey. Finally, two teachers completing the survey expressed the opinion that state and district funds would be better spent on teacher salaries than on technology.

1. Type of laptop access for students.

51% of the respondents reported that their class had access to mobile labs (i.e. carts of laptop computers)
28% reported that their students had 1:1 laptop computing, but that their students were not permitted to take the laptops home
8% reported that their students had 1:1 computing and that the students were permitted to take the laptops home

2. Type of software used on the student laptops.

90% reported the use of word processing software
68% presentation software
51% concept mapping
49% graphics
49% spreadsheet
25% video editing
24% multimedia authoring

3. Frequency of use by teacher according to the following scale:

6=Often during the day
5=Once a day
4=A few times a week
3=Once a week
2=Less than once a week
1=Never

5.06 Communicating with colleagues inside and outside the school
4.23 Managing student information
4.00 Developing instructional materials (handouts, tests, etc.)
3.67 Conducting research that contributes to lesson plans and curriculum design
3.58 Communicating with parents and students
3.51 Providing classroom instruction
3.23 Producing homework assignments
3.17 Assessing student work
2.47 Creating and/or maintaining website(s) for instructional purposes

4. Frequency of use by students according to the following scale:

6=Often during the day
5=Once a day
4=A few times a week
3=Once a week
2=Less than once a week
1=Never

2.75 Researching information using the Internet
2.58 Doing drills to increase their competency (educational drill software, online quizzes, FCAT Explorer, etc.)
2.24 Writing first drafts of papers
2.21 Editing papers
2.17 Working on short-term assignments/worksheets
2.09 Taking tests/quizzes
2.08 Creating culminating projects to show what they have learned (web pages, multimedia projects, video, etc.)
2.08 Managing/analyzing information
1.79 Taking notes on the computer
1.66 Working with spreadsheet databases
1.58 Sending/receiving email

Teachers were given the opportunity to comment on any of the questions. A number of their comments follow and have been grouped according to topic. Many of the teachers mentioned how laptops were currently being used in their classrooms:

> Along with another class, our students created a PowerPoint presentation that represented the chapters in the book *Charlotte's Web*. Soon we will be using the mobile lab as part of our differentiated instruction during our language arts period.
>
> My students do research, film the experiments we are working on, and put it all together in a PowerPoint presentation for the others in class. They provide hand outs and write an assessment for their part of the lessons. The retention rate has gone way up when this teaching style is used.
>
> I try to utilize the laptops in ways that allow the students to interact with their environment (Intel Microscope, AirPorts, etc.) so the computer is not stuck to the wall, but an interactive part of the learning.
>
> I use laptop computers for students to take notes on when a debate is being held. It is interesting to see how various students rate the participants and evaluate the material presented. We print out the notes of several students and compare them. Many students are able to take notes faster using the computer. The laptop allows them to be located in various places around the room.
>
> My students have been learning to use digital cameras, download to a computer and then make a book and a movie from the photos. They worked in teams during the 100th Day of School.
>
> My 4th and 5th grade students this year have had the opportunity to use their e-mail accounts weekly since there are not more computers in the classroom that connect to the internet. They are so excited and truly enjoy writing each other and the teachers in this building! It would be fabulous to give these students the opportunity to use laptops daily with their e-mail, typing rough drafts, rewriting, HyperStudio, presentations, and other projects that students could be working on to gain information and knowledge.
>
> Having taught the students PowerPoint early in the school year has reaped many benefits. If they need a cover for a report, they can whip that up in no time. They don't even ask if they can do it on the computer...that fact is just a given now! :) I assigned a rock/mineral report recently and they automatically started doing research on the computer and knew where to go on the Internet to get the needed information.
>
> My 4th graders wrote to various Chamber of Commerce offices in major Florida cities. Then, we researched those cities on the laptop. They will write reports, film the reports with a digital camera and play it through the computer.
>
> I am very pleased to be able to use the laptop laboratory with my students. The organization of subject matter, online research and editing and proofreading to make their work suitable for publishing, is accomplished through the use of our lab. It is wonderful to watch the students enter into writing experiences eagerly!

I have a science lab for grades K–5, so my use of the mobile lab is perhaps more research-based, and project-driven than a regular classroom. We visit LOTS of interesting sites to find out information on particular topics and we use the laptops also for presentation and graphing projects in the context of taking the data we've collected in our experiments and research and organizing it in an understandable way.

Some of the comments emphasized laptop use with early grades:

The earlier the tools (laptops) are introduced, the quicker the basic/functional skills of using these tools are mastered. The K–1 students mastered refreshing screens and opening and closing programs in a matter of days. The potential for their use of these tools is impressive.

The two mobile labs in our school have enabled and encouraged real-world learning regardless of grade level. Grade two students are the most active, especially with multimedia projects.

Nothing is more fun than seeing a five year old using a laptop for the first time. They can lay on the floor where they are most comfortable and "play" on a computer. They don't realize that they are learning. Before you know it there is a whole group gathered around all working together. It is hard to decide who will be able to use the one laptop.

I am amazed at how much I have used my laptop to enhance the curriculum in my first grade class. I find that integrated technology is a powerful tool for motivating students.

It is very important to me, as a first grade teacher, to expose my students to all types of learning. The information on computers is vast and giving children the freedom to explore is critical to learning.

I had a few of my first graders create a PowerPoint for adding doubles plus one. I thought it might be too difficult but I showed them anyway. They did a great job and saved me a lot of time. Now we show it to the whole class to review math facts.

I created a PowerPoint Presentation for my kindergartners "Word of the Day." They really took to it, and I think it helped them to understand the thought processes that are involved with segmentation and blending.

Some teachers commented on their use of technology with special needs students:

The term just changed and Jun, an ESOL student entered my class. He let me know that he had a language "problem" and that he may need extra help. The laptop gave him an unbelievable tool to demonstrate that his intelligence goes far beyond the language concerns, and his work on Keynote and iMovie proved that though he is new to this country, language will not be an issue for long. His language continues to improve every single day.

I teach ESE students and believe that these computers provide motivation as well as the use of software that better enables them to understand information being presented. Also, their creativity is really tapped into.

I've used the settings to have the laptops read the web page or assignment to lower readers. It empowers them to feel competent that the written language is not a barrier. Their interest and performance go up!

I teach an ESE class. Individual instruction using computers is very beneficial since instruction is often very individualized. My class produces a science show each week using IMovie. The show is viewed each week by 650 students. Everyone loves it.

Although not a laptop initiative, I have been instrumental in the process of ensuring students have access to assistive technology and I believe it made a difference in the motivational level of these particular students. I strongly believe the more we incorporate reality into classrooms the more relevant students' learning experiences will be. The more relevant the learning experience the more likely they will be to transfer these skills to real life experiences. Incorporating technology into the classroom is my goal as an educator and I believe it will make a huge difference in my students' ability to experience success at school! Learning can be fun!

I teach children with special needs. Neither I nor my students have laptop computers to use currently. We could greatly benefit from the use of them as our room size and the wheelchairs make for tight situations and we currently use all four of my classroom computers daily.

Other comments noted the results of students using laptop computers:

We conduct our Media Literacy lessons using small groups of 4/5 students using an iBook. The students are much more on task, work together, show excitement about the lesson, and have really produced some creative and encouraging results.

Students love to work on the laptops. They want to stay after school to use them more.

I borrowed my laptops from the county. Those were the most electric lessons the students participated in. They loved having their very own laptops at their desks applying math in a very different manner.

iMovies are an incredible motivator for any activity. Students enjoy expressing themselves through iMovies. Students of all levels enjoy creating the visual displays to present their understanding of difficult science concepts.

Students learn best by teaching each other.

Kevin says, "Having a laptop makes me very responsible." Taylor says, "Using laptops is preparing us for jobs in the future when we will use technology." Grace uses her computer to explore and helps her problem-solving abilities. Kaitlin says, "Using the computers motivates me to do my work. Using paper and pencil is boring!"

It really motivates the kids to want to learn more. They enjoy working together and creating meaningful projects.

I had a student last year say that she was happy that she was working so hard. Apparently, the laptops made learning more complex. She said, "I know you're preparing me for college." I believe that's extremely important. The laptops and the ability to fine tune a project adds importance to a project and makes the student focus on effort and on presentation while paper and pencil work generally only produces weak materials.

Third graders are like sponges and are anxious to absorb any knowledge I throw at them. They are not inhibited by the platform nor type of computer. They are at home on the desktop as well as the laptop. However, when my students had an opportunity to each have a laptop for a week,

it was like the ultimate experience of a life-time. In fact, one mom told me that her son said it was the best school experience that he has ever had.

My school has a cart with only 12 laptops. When I am able to schedule it in my class, the students are excited and engaged with the work they are doing. They not only receive valuable educational/curriculum learning, but also hands-on practical application skills.

My students loved the laptop I received as part of a CTIP grant. Many students had never had an opportunity to use one before.

Mobile labs are nice but they just don't compare to giving each child a laptop. Laptops for students will give each child instant access to e-mail, word processing, film editing, etc. I have found using laptops helps student produce quality work stay organized and love school.

When we first began using the laptops it was difficult to patiently teach students the simplistic uses but now students are not afraid to explore, make mistakes, and correct them!

We are going into our third year of utilizing laptops in the classroom. The most marked observation I can make (as Instructional Technology Facilitator) is the ease with which students use the laptop as a tool for learning has increased tremendously. It has also increased the comfort level of teachers with their own technology use. Teachers are not as intimidated by the new technologies.

J. B. Sanderlin is a new elementary school. Our focus is on using technology as a tool for learning. All of our teacher and student stations are laptops. In setting up the school I was able to train a fourth grade student to "clone" our iBooks. With his help we were able to get up and running very quickly. He "cloned" about 100 stations. Cloning put all of the necessary software and updates on each station. Each cloning took about 5 minutes.

A number of teachers noted that 1:1 laptop initiatives help to bridge the digital divide:

We would love to have the opportunity to have laptop available for check out so our less fortunate students have the chance to use a computer at home.

I believe each elementary student needs to have his or her own laptop provided by the school because the world they will live in is totally computerized. Many families can't afford computers or laptops so their children will be behind. If you provide textbooks for various subjects then you should provide laptops for technology.

My students use the laptops frequently and would really benefit from the initiative to take them home. Most of my students don't even have a computer and I believe they would love it.

I would love to be involved in a one to one classroom situation. I believe the students who do not have a computer or internet at home are at a distinct disadvantage. For instance, the State of Florida offers FCAT Explorer test prep over the Internet, but the children who need it the most don't have access.

Several teachers commented on their own use of the laptops:

> Having a laptop has made it possible for me to continue to optimize my productivity.
>
> Personal laptop kept open in a word processing document that contains my lesson plans and is revised as I teach daily so that lesson plans constantly change for the better and reflect student needs.
>
> The laptop is used for IEP development, lesson planning, PowerPoint presentations, iPhoto, and other related activities.
>
> My first graders are not using laptops because we don't have any access to them but I use mine extensively at school and at home to help me with instructional processes.
>
> The best example I have of using laptops with a group is in a teacher training. We issued laptops to all the participants. It changes everything. We had no handouts; instead we posted things or used websites. I had teachers accessing sites to accomplish five different hands-on activities, all of which we happening simultaneously. All I did was facilitate, but it takes a real paradigm shift as an instructor
>
> I do not have a laptop. I have borrowed one from our mobile lab but I don't like doing this since it takes them away from the students.
>
> I wish I could use the laptop to write IEPs at home.
>
> I think I would have been a better student in school if computers had been available.

One teacher who moved from a 1:1 laptop school to a school without 1:1 noticed her teaching suffered:

> I went from a school that had initiated laptops for each student to a school where I was able to get some or all of my students' access once every three months or so. I found my technology based approaches suffered and I taught with less creativity. Basically you get spoiled, in a good way.

Several teachers who do not have 1:1 laptops in their classrooms indicated they were ready to participate in an initiative:

> I took an integrating technology class given by our tech person in the school and we each developed a unit around technology and learned how to make a Web Quest. Since this class I can't get away from using technology in the class. My students loved it. I loved it and we learned so much!! I wish we could have laptops for each and every student!!
>
> I have seen classrooms with a class set of laptops as well as talked to teachers that have this resource. I believe every student should expect this useful tool in their classroom. I look forward to the day when my classroom has them.
>
> My students have already won second and third places at my county's Educational Multimedia Awards (EMAs) for their multimedia presentations. With a laptop in each one of my students' hands the possibilities are absolutely endless! That would finally bring my classroom teaching and my students learning processes into the 21st century! I beg you to let me pilot this initiative for you!