

# How Can I Integrate Computers into the Classroom Environment?

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## Biography



I completed my Bachelor of Kinesiology at McMaster University. I received my teaching degree at Brock University. I am currently teaching Grade 7 at Grandview Central Public School in Dunnville. I live for volleyball, cycling and gardening. My deaf Dalmation usually travels with me. Computers have helped keep me organized and give me a few more seconds of free time. Perhaps that can work for the students, (the organized part).

## Abstract

My intent, this year is to provide as many opportunities as possible to enhance and further their computer related knowledge. I want to empower the students with specific skills to better prepare them for High School. I want to promote students with a strong sense of independency. I see the technical aspects of education as a major step to reaching this goal.

## Getting Started

Initially, I wasn't sure I had anything to offer to a Computer Action Research committee. I can vividly recall the fear I felt, the first time I did a report card on the computer. Although my keyboarding skills were outstanding, the computer intimidated me. I did all my work on a trusty electric typewriter. I learned by watching. I watched friends and colleagues operate their computers. The electronic age was creeping into my classroom whether I liked it or not. I found I had to learn quickly, to keep ahead of my students. Unlike myself, they had no fear of touching these quick reacting keys. They didn't fear screens going blank, or losing pages and hours of work. Here today, as much as I know and have accomplished on the computer, I am constantly reminded, how much there is to learn. I think back to three years ago, my first computer. It had a "massive" 2G hard drive. Then I moved to a 10G hard drive. I thought I would never fill the enormous space. Three computers later, I have 80G of space. Its comfortable for the time being. There is an empty 120G hard drive sitting on my desk. Is there an end to this obsession? I have purchased a flat screen monitor. Am I becoming a "techie?" Perhaps. The nerds I used to laugh at are now my best friends. They casually provide the answers to all my ever increasing number of questions. This is only the beginning of the electronic age. We need to prepare our students from this perspective for the future.

Think about the possibility for the "i-generation" - the information generation. Literacy online is what it is all about. Literacy online is the format for the new millennium: word processing for letters, stories and essays; e-mail to communicate with classmates, friends, parents/guardians, and pen pals around the world; spreadsheets to organize and analyse data and feedback; graphic design programs for school and/or class presentations; and the Internet for research. The possibilities are endless as students in today's schools gain more access to computers and as the power of technology becomes fully realized as a champion for the literacy challenge. Fogarty\* feels that technology impacts reading. The computer entices the user to e-mail, purchase, check the weather etc. The user must read,

write, speak and listen to use the computer. The attraction to technology might be the motivation to get students hooked on literacy.

### Observations

I have noticed within my own classroom the different quality of work with the use or non-use of the computer. I asked one particular student why her marks had dropped in term 2 and why her finished work was handwritten as compared to more computer generated work in term 1. Her reply was interesting and typical of other students. Time on the class computers is precious and limited. Four computers for 26 bodies. She also had her own “mood setter” at home. She popped in her favourite CD, then started her school work. It was easier to organize, check spelling and rearrange on the computer. She had difficulty re-reading her own handwriting. The frustration level zoomed up quickly. The incentive and patience to produce a polished piece of work zoomed down quickly. Unfortunately, her home computer was being used by her brother who attended high school. The family gave him priority on the computer. They deemed his work more important. Her family was going to buy a second (cheap) computer that could be used for word processing alone. She often travelled from home to school with a floppy, secured in a case, to keep her work ongoing for every opportunity with a computer. This is a practise that I encourage for all students.

This particular student is gifted academically, she has a great work ethic. However, I found the stories similar with less academically gifted and less driven students. It was simply easier to read the text on a computer than their own handwriting. Spellcheck and grammar check was something they couldn't live without. We have four computers in our classroom. There is a daily race to get there first. I am in a small school, we are in dire need of a computer lab. Two factors stopping this are lack of space and money. Perhaps one day...

I like to encourage by example. I purchased a USB extension for my computer at school. I personally use a “flash drive” to transport and store large amounts of information. The entire device is the size of your thumb and is considered a more reliable storage system than a floppy. Other students now have their own, they are welcome to access the computer next to my desk. The flash drives require a minimum operating system of '98. I hope one day board-wide, we can improve the current '95.

Also by example, I have shown the immeasurable benefits of good keyboarding skills. I learned this skill by default. In high school I was more interested in not being in class than attending. I was too chicken to skip, so I joined the Typing Team. We travelled around entering competitions. I had my wish. I was not in class, and I wasn't skipping. My trophy winning speed and accuracy was just the ticket to gain a better summer job than many of my friends. I re-tell this anecdote every year, omitting the part about my wish to not sit in class.

As part of our Guidance program, we use Career Cruising. The original program was on CD. Now we access it on-line. The Grand Erie board has purchased access to this program. As the students looked at various career interests, the educational requirements etc, one fact kept re-surfacing. Good keyboarding skills are a part of every career. They are required to make a report on their top five career choices. Then they research the appropriate universities, colleges, apprenticeships etc. All this is done at a computer.

I implemented within the classroom, All The Right Type. Home row position is always encouraged. Some students still get through the first few lessons with their trusty two-fingered-stare-at-the-keys-method. Soon, it's apparent they have to break down and use all their fingers and learn correct keyboarding skills. There is a master screen for me to check the progress of all my students. A few of my parents have purchased similar programs from Scholastic for use at home. The parents of weaker students and the students themselves have noticed an improvement in the quality of their work. I am also noticing an increasing incidence of students meeting deadlines.

Sometimes, providing a program just isn't enough. Some students, no matter what, will never become a trophy-winning keyboardists. (Is there such a word?) It's all a matter of finger dexterity. Many moons ago I read an article that the Nuns in Europe used knitting as a tool to improve handwriting. Students as young as Grade 1 were knitting up a storm. They found it improved finger dexterity which in turn improved handwriting, especially in boys. If anyone is familiar with the habits of nuns (little pun) they tend to take everything very seriously. They also find something that works and stick with it for centuries. This is the case with their knitting.

I took stock of my own life. I have been knitting since Grade 1. Although my mother isn't a nun, she is a saint with immeasurable patience. My handwriting is just fine and I can type 85 w.p.m. on a good day. Time to knit! A serendipitous moment occurred. Our Parent Council also wanted a knitting program started. I have a nice class this year (03/04). No danger of safety issues. We started with simple squares, to be assembled into lap blankets to be donated to our local lodge for Seniors. All the students were first time knitters. Before I knew it, down time moments, rainy day recess etc. was filled with sounds of needles clicking. Students even knit during the War of 1812 movie. There is no empirical evidence that knitting improves keyboarding skills. BUT knitting improves finger dexterity which is useful for keyboarding. I am hoping that knitting also improves my music class. I use the recorder extensively, a dextrous instrument.

Our music program is now going technical. I use the recorder as the instrument of choice. We are recording the class on cassette. The first song will be played school-wide. The ever popular O'Canada. I don't have access to a burner at school, so I take my work home. I have shared with the class my joys and frustrations with this project. I knew cassette to CD was possible but I didn't know where to begin. I asked and hounded everyone I knew. Slowly I would get one step closer to the ultimate goal: Grade 7, 03/04 - UNPLUGGED. I think it will be a great memory of grade 7. The class is now familiar with new terms such as; sound recorder, analogue, digital sound card. The first time our CD was played school-wide, was a proud moment indeed. The students clearly recognized that all my theories and frustrations were reality. We have recorded a few more tracks. They are excited about getting their own CD at the end of the year. It seems

technology put a little more enthusiasm in my music program. The grade 6 class that I prep, is asking for the same offer of their own CD.

I took my own digital camera to school. Each month two students take pictures and document our activities. They learn how to download and adjust the pictures. I am hoping to enhance my own knowledge and do some "morphing." I want to become more familiar with Hyperstudio and Adobe Photo Shop. I have registered for the ECOO conference in May '04.

The students like the instant results a digital camera offers. Their world is an instant world. Most of my students play video games, use chat lines and text message. From time to time I have to demonstrate that text messaging is not a "proper" writing style. I shared with the students that I will be attending a computer conference and will be starting an on-line course. They found it interesting that I would use my own free time to take a class. They spend so much time on the countdown to the next vacation. I reminded them that technology and keyboarding skills will help me a lot. Learning should never end.

We also have a class website. Parents and students can log on to see the progress (or lack of) for the term. Each student has their own password and only view *their* work. We live in a busy world. My hours at school are not always convenient for parents to contact me. They can check the website any time. I usually update every 24 hours. Students can also e-mail or fax me their work. They think it's fun. I have fewer late or missing assignments. Once a month I send a letter to parents to remind them to log on. We all know how quickly time flies. There is a calendar on the site, they can see all the "little" things that aren't included on the school newsletter. Most parents see this as a positive experience.

## Findings

I have found that since my perspective on using computers has changed, so have my lesson plans. I frequently conclude a lesson or unit with a website (or 10) that can augment what I have taught. I find my collection of websites is rapidly increasing. It would be difficult to name a subject that I don't have a website to share with the students. They are actually starting to expect them. My class recently visited a Futures Building fair. All the trades represented had a website for further information. Much of the information was on a laptop (or seven) at each booth. Instead of giving out business cards, people give a web address. This "e-generation" will only become more technologically aware. To remain effective as teachers we need to keep up or get left behind. Our students need us to keep them aware of technology to ensure their competitive future.

It seems fairly obvious that technology can enhance any teaching program. The computer can assist all students at every level of ability to produce a better quality finished assignment. It can enhance all aspects of a teaching program. As each teacher is unique, so too would be the quantity and quality of the use of technology in the classroom. I have personally used flash drives and floppy's as examples of portable technology. I encourage the development of keyboarding skills as another tool. We have used the computer in the classroom as a research tool for future career and educational pathways. I have introduced knitting as a means to improve finger dexterity. I have used technology to enhance my music program. The students have had an opportunity to see a digital camera in action. The class website has been used as a communication tool between our class and the parents. Internet communication has been used to promote a positive work ethic to meet deadlines.

Looking back, I think my computer perspective has changed. Recently, I went to a workshop and the instructor told us to "think in pixels." We all wanted to size our work in inches or centimetres. Nope! This was futile with pictures. "Think in pixels." I am "thinking computer." I am checking out more software, asking programming capabilities, who can I ask about this program. My vocabulary has expanded. Computers think logically, not in tangents like myself. I have noticed a different edge to my planning of units. I present lessons in a different order. Change is good, hopefully this will all benefit the students.

There are many programs and products yet to be tried. The roadblock to further technology in the classroom is time - mine. Gifted, mainstream and exceptional students can all benefit from some of the amazing software that is available. Free time is the biggest luxury we have to explore this field. The "information generation" is thirsty for knowledge. The classroom can be a positive environment to start quenching the thirst.

## What's Next?

I want to follow this class next year and observe their use of the computer. Do they still do their rough work on the computer? Are they storing their files for review? Is the computer making them aware of their literary shortcomings? Do they still travel with a floppy? One of my students this year was able to secure a laptop through ISA funding. It was near the end of the year, not enough time to make a firm opinion on its merits. Delivering the thought on paper was the problem, the laptop should help enormously. I can still follow up next year.

Technology is expensive. Our Parent Council is very active, they have been inquiring about fundraising for such technology. My wish list is growing; a computer lab, digital projector, a whiteboard etc. Before the money is spent, they will need evidence that this is beneficial to their children. Not just "Lynn's toys." I don't foresee this being a hard sell. Slowly but surely, in my little corner of the world I can help keep a competitive edge to a few students. This may be the edge for them to succeed in the future, whatever path they travel.

References

Fogarty, Robin. 2001. *Literacy Matters*. Illinois: Skylight Professional Development: 61-63.