## Technology Implementation Plan

## OLTD 502

## Incorporating Technology into a Grade 5 Classroom

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**Overview**

The following documents the mixed results of my attempt to incorporate technology into my Grade 5 classroom. I reflect upon my assumptions, motivations and overall learning then suggest a revised plan for the future.

**Introduction:**

This year began unlike any other. We were already into the third week of September before we set foot in our schools, but old habits are hard to break. I had started my planning for the year in the second week of August. Even before I knew what Grade I was going to be teaching- I had been told “likely somewhere between 4 and 6”- I had set a goal for myself. This year I would go further than I ever had incorporating technology into my curriculum.

I didn’t have any definite plan on how I was going to do this and I hadn’t really thought out much of the why. There certainly wasn’t any sound pedagogical reasoning behind it- other than perhaps I knew students liked the novelty of working with computers. But if I am honest with myself, my reasons for wanting to get my students to use computers more were somewhat selfish.

I had already committed to the OLTD program and repeatedly advocated in my school for an increased focus on technology. Furthermore, over the past two years, I had begun to build a reputation within my staff as an innovator (Truthfully, I am more of an early adopter- but for most of the teachers at my school they are one and the same).

At a school where the jury is still out on the overall usefulness of technology in education, I have been arguing its merits since I arrived two years ago. To be clear, this is not an academic discussion. Resources are scarce and conservative teachers are inclined to support the “tried and true” over what they see as the latest fad in a long line of failed projects called “the future of education”. I felt I had to prove to my colleagues that learning online was different.

I have a vision for the future of our school, but I needed some evidence in the form of successful student outcomes to convince other teachers to get on board. I had to find a way to “cross the chasm” for as Simon Sinek explains, “The early majority will not try something until someone else has tried it first”. I was going to be that someone.

This year I thought the time was ripe for me to really push the envelope a little, get my students online a lot. I had put together a list of projects that I thought they could work on and I was excited at the prospect of getting my students to start building an e-portfolio of their own. The kids were going to be so engaged. They would learn a lot. It was all going to be so perfect.

**What Happened?**

Once the school year started and my class was finally settled. I got to work figuring out how I was going to use the computers at our school. I decided that I was going to treat computers as a separate subject, which is to say- put it into my regular weekly schedule, Wednesday afternoons from 2-3. I had no idea how proficient my students would be with computers, but given that they were “digital natives” I expected that most of them would be beyond the basics.

This was a mistake. Once we got started (which took a while as it took almost 3 weeks before the school district’s computer policy use forms went home and came back signed by all my students’ parents) it became apparent to me that despite their familiarity with computers, many students had very little understanding of how to do anything other than start videos and play games. Many of them had never opened or saved a document before, cut or paste text or saved and then retrieved an image off the internet. I should have been able to predict this- they are only 10 after all- but I was caught off guard.

TPACK is a useful framework for discussing the challenge I faced. I had the content knowledge. One of the first assignments I had the students do was a writing exercise introducing themselves to me. I know what good writing looks like and I know how to teach students how to make their writing better, the pedagogical content knowledge. I’ve worked with children since I was a swimming instructor in my teenage years. I have learned a lot about how they learn- the pedagogical knowledge. In this case, I also knew the technological knowledge; I could easily do all the skills that I was hoping to have the students learn.

The glaring omission in my teaching expertise was the technological pedagogical knowledge. I didn’t from the outset understand “how teaching and learning can change when particular technologies are used in particular ways”. In fact, if I had better TPK I would have predicted my students’ difficulties, recognizing as Koehler,Mishra and Harris did in their article “What is Technological Pedagogical Content Knowledge (TPACK)?”

…most popular software programs are not designed for educational purposes. Software programs such as the Microsoft Office Suite (Word, PowerPoint, Excel, Entourage, and MSN Messenger) are usually designed for business environments. Web-based technologies such as blogs or podcasts are designed for purposes of entertainment, communication, and social networking. Teachers need to reject functional fixedness (Duncker, 1945) and develop skills to look beyond most common uses for technologies, reconfiguring them for customized pedagogical purposes.

It is ironic that this article points to two types of technology that require teachers to look beyond their common uses- software such as Microsoft Office and Web-based technologies such as blogs- as these were the first two activities that I unsuccessfully tried with my students.

Just as I overestimated their technological savvy with regard to using a word processor, I underestimated the importance of thoroughly teaching digital citizenship before losing the reins on student blogs.

In my defense, I had used student blogs before. Two years ago I had a successful program with a 5/6 class and realized many of the benefits of using student blogs as a tool to develop student writing. I thought that the blogs would be a safe environment given that they were only available to the students in my class and I thought I could replicate my past success with my current class.

But within hours I was forced to shut the blog down after a student began threatening to murder classmates. The student did this in the comments section of my blogging guidelines that included such instructions as “Be Careful of What You Say” and “Be Respectful to Others”. Clearly, the message didn’t get through.

The student was suspended and the police were brought in.

**The New Plan- Start Small**

Although there were several missteps in the first term, there were several successful activities where I incorporated technology into my curriculum. Students took positive comments that their classmates made about them and created word clouds. They wrote Christmas poems and turned them into illustrated slideshows.

Learning from my mistakes early in the term, I gave very specific step by step instructions to the class. When students began to comprehend how to do the different tasks required, I put them to work explaining it to their peers. I was doing what Koehler,Mishra and Harris advised- namely, “integration efforts should be creatively designed or structured for particular subject matter ideas in specific classroom contexts.” I feel this is qualitatively different than when I started the year using technology for technology’s sake.

Furthermore, a lot of good has come out of the unsuccessful introduction student blogs. Students have learned first-hand how to deal with online hostility and that they are not anonymous on the internet. This lead to much more in-depth discussion about what is and what is not appropriate online. The lessons taught about digital citizenship are much clearer now that the students have a concrete illustration of potential consequences.

Although I would rather not have had them, all of these experiences have increased my technological pedagogical awareness. I understand the role and the importance of collaboration in of teaching with technology and the primacy of digital citizenship. Given that there is no standardized curriculum for technology, it is predictable that there is a much wider gap in students’ proficiencies with technology than in disciplines such as math or reading. Furthermore, interactions online between students can be markedly different from face to face interactions and the online environment must be monitored closely- both at school and at home which requires greater communication with parents.

Given these observations, going forward I will be attempting to create a list of basic skills and proficiencies students will regularly use in dealing with technology, then sorting this list into levels of complexity and developing exercises and challenges that allow students to develop these abilities. I have already begun this with the exercises that I described above- the word cloud required a great deal of cutting and pasting. The Christmas Poems required students to search through images and download them. These are just a few a few items for their technological toolbox that will allow them to be more creative with technology in the future.

I will reintroduce the class blogs in the spring and give students the opportunity to build an online community. I will do this in cooperation with students’ parents in a forum that is completely moderated. This will give students an opportunity to practice with online communication and develop good habits in contrast to those they have picked up chatting with their friends in online games. Hopefully, things will go a little more smoothly.

**In Conclusion**

I haven’t lost my faith in the educational potential of technology, but the experiences I have had this first semester have convinced me that I have a lot to learn about how to implement changes to my teaching practice. It’s natural after a setback or two to get discouraged and to want to return to more familiar ground, but I think it is important to persevere. TPACK helped me to identify my areas of weakness and make a plan to address it.

Ultimately, I believe this is the knowledge that I need to persuade my staff to invest more heavily in technology going forward. Obviously, student learning outcomes are important, but these are a reflection of what was valued in the past more than what will be valued in the future. If inquiry-based, student centered learning is going to be embraced and be successful, incorporating technology is going to be an essential part of its success.

 **References:**

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