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Posting 1

Instructor's Perspective on ICT Leadership

ICT leadership framework as Yee (2000) suggests is "organized into eight categories each with specific characteristics". These descriptors are all evident in administrators to varying degrees depending on how long they worked in their position. In this posting, I will describe my school and will comment on the eight categories the author outlined with those exhibited by my current administrator.

My junior high school was built with technology in mind. It was wired so that it could be expanded if new technology arose. Seven years later in 2003 due to the current political climate, my school is no longer a junior high, but has expanded to include grades 11 and 12. Due to the limited classroom space, one of the labs has been torn down and added to the library. There are now four labs that can accommodate 75 students in a school, which houses 650 students. All the teachers have high performance computers at their disposal in their classroom to be used for grading, attendance, communication, and lesson planning purposes. My current position sees me teaching Information Technology to grades 8's to 12's. I have been at this position for two years.

My principal has been at the school since it was built, but has chosen to take a district position after this current school year. Our high school has been promoted as a leader in technology ever since its conception. Consequently, this label and in addition to our quality staff has been used effectively in promoting the school to international students as well as many families within the community. Moreover, there have been countless numbers of tours of our facilities to guests from all around the world. Using the ICT leadership descriptors as a baseline for comparison of my current administrator, it is obvious that she has many of the qualities that that are needed in an ICT enriched school. Not withstanding, she was previously an elementary teacher/administrator and had no previous experience at the junior high or high school level.

Our school works on a network system; all software is distributed in this manner. Those teachers who want to use shareware are free to do so without special requirements from the district. This type of "equitable providing" makes it easier for teachers to use the tools to enrich their teaching. There is a "clear learning-focussed envisioning" at our school. The current trend of video conferencing has been promoted well at our school. The principal has reiterated how wonderful it is as a tool in the classroom, but there has not been support on how it can be implemented effectively. In terms of "adventurous learning", the principal has demonstrated that she is comfortable with technology. Many meetings have been accompanied by PowerPoint presentations as a visual tool. "Patient teaching" is not shown to be a strong characteristic exhibited by my principal. Professional growth whether it be learning the grading system or word processing is passed down to the district level. There are many workshops that teachers can attend, however, collaboration between colleagues seems to be more common. Another leadership characteristic, "protective enabling", seems to be a strong quality of the

principal who has demonstrated time after time that we are a school that stays true to our vision. There is very little "constant monitoring" to ensure that teachers and students are using ICT according to the vision of the school. What we do have are professional growth plans, which must be submitted yearly and from there, teachers are free to choose what they need to update. Our school district has a strong entrepreneurial spirit. In fact, our international school initiatives are partly why we have very little layoffs. There have been many partnerships with community partners. Finally, the principal has always been innovative in "carefully challenging" the norms of education. We are in the process of setting up special schools within the school. This process has taken shape through consultation with the many stakeholders at the school.

What I have written here is merely from my own observations and experiences as a teacher. Just as the author was questioning, I also wonder whether districts place principals who exhibit strong ICT leadership characteristics in ICT enriched schools or do merits of strong leadership capabilities give candidates quick admittance to ICT enriched schools?

Yee, D. (2000). *Images of School Principal's Information and Communications Technology Leadership.* Journal of Information Technology for Teacher Education, 9(3), 1-14.

Posting 2

ICT Leadership

What actions have been taken to ensure that school administrators can meet these technology standards and/or is it even feasible to expect all these standards to be met?

"Educational leaders ensure that curricular design, instructional strategies, and learning environments integrate appropriate technologies to maximize learning and teaching." If the above statement is a realistic expectation of an administrator then the basic assumption is that the school administrators must have some technology background. However, in most cases, I argue this is often not the case. Most of the time ICT leadership is a form of distributed leadership. As Wigkstetter, Smyer, & Mohrman, 1994 in Leonard, 2002 noted, "the more effective leaders of the post-modern era are considered to be those who do not rely up on the legitimacy of their position, but rather utilized mechanisms of high participant involvement". The IT teachers, those who have IT interest, and those who are seen as competent in this area are the one who are given a shared role in the distributed leadership.

Although my school is seen as ICT enriched school, computing skills is not seen as an important enough skill that must be integrated across the curriculum. As such, our accountability contract that our School Planning Committee (SPC) has created does not

include this skill whereas reading and personal / social responsibility are. At my school, our administrator has worked here since its conception seven years ago. Under her leadership, the school has flourished. This current year saw our first class of grade elevens. Next year, our school will graduate it first class of grade twelve's. She is a capable leader and a strong task designator. Each department has their own coordinator and work collaboratively in setting and designing the curriculum, procuring resources, and generally helping each other. IT, on the other hand, is included under the umbrella of the Applied Skills. We compete against each other for students, funds, and our jobs. This occurs because all Applied Skills courses are electives. In this competitive environment, there is little collaboration although there is genuine respect for each other's work and as a group we like each other. Our department is in the current stages of devising a vision that encompasses a technology plan. Nevertheless, the administrator has never been one to hold our hands, but has trusted us in making decisions that work for us.

Leonard, L. J. (2002). *Schools as Professional Communities: Addressing the Collaborative Challenge*. International Electronic Journal For Leadership in Learning, 6(17). Retrieved May 22, 2003 from http://www.ucalgary.ca/~iejll/volume6/leonard.html

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Posting 3

ICT as and Teaching and Learning Tool

From your experiences with using technology in your classroom, discuss your reaction to the following statement: "Perhaps one of the greatest benefits of integrating technology into classroom practices is that technology can be used as engagers and facilitators of thinking and knowledge construction; thus becoming something that students learn with, not from."

Students come into my information technology class knowing that they will be working with computers. This after all is an elective class so they would not be here if they were not somewhat interested. Most are drawn to the computer for the "cool" things that it can produce. That is why you see so many colours and .gif animation on beginner web pages. As a result, if the lessons are engaging, most times students are focused on their work and at the same time building the necessary computing skills for the real world. However, what I find intriguing is that males and females view computers differently. Males are biologically drawn to the machines; the computer is no different. Their love begins with games and moves on to programming. It is their ultimate toy designed to fulfill their need to be entertained. Their fascination often leads to self-exploration and eventually mastery. Male students' accounts of their earliest computer memories are filled with wanting to know how the computer works, tinkering, and self-initiated

exploration (Margolis et al., 2002). Females, on the other hand, use computers for a purpose. In my entry phase as described in Dias & Akinson (2001) article, I found myself using computer for a purpose as well. This should explain the womanly intuitions I have at times. When first-year females talk about their personal history with computers, their narratives are not filled with long and detailed accounts of all the different activities they have done at the computer. They do not describe years of unguided exploration (Margolis et al., 2002). Adding to all of this is the stereotypical image people have of computer scientists; we see them as introverts whose role is computer coding. There is no romantic notion in this type of career. Having to be extremely intelligent and be good at math is also a turn off.

The fact that males enjoy tinkering once they have a grasp of the basic concepts explains why so many more males excel in the use technology. Technology can engage and facilitate thinking as Yee (n.d.) suggests; however, the crucial part is how to further engage students to expand and apply the skills they have been taught. Research consistently suggests that females demonstrate more verbal ability while men have stronger quantitative skills (Guss & Adams, 1998). This is an overgeneralization that many females come to believe. Most do not feel adequate about their skills in math and do not pursue computer science. In countries where upper level math is a requirement, there is less of a gender divide in enrolment in computer science (Margolis et al., 1997). Researchers Astin and Sax of UCLA studied seventh graders and found that male and female students performed comparably in math and science courses, but the females consistently underestimated their abilities (Margolis et al., 1997). Because of their lack of confidence the females begin to take fewer courses, a trend that accelerates as they move to the more advanced levels (Guss & Adams, 1998). Margolis et al. (1997) interviewed international and American undergraduate female students and found that most had shaky self-esteem and low self-confidence when it came to comparing themselves with their male counterparts. Technology is of a male-dominated hacker subculture whose members eat, sleep, dream about computers whereas female perception of technology is of the social realm. This also explains why I tend to catch girls using chat and boys playing games.

Guss, T. O. and Adams, L. (1999). *Gender Orientation and Career Maturation among Rural Elementary School Students.* Published in *IEEE Technology and Society*, December, 1999. (Report No. CG – 028 - 320). (ERIC Document Reproduction Service No. ED 417 364)

Margolis, J., Fisher A., and Miller, F. (1997). *Undergraduate Women in Computer Science: Experience, Motivation, and Culture.* Presented at the ACM SIGCSE Technical Symposium, February, 1997. Retrieved July 03, 2002, from Carnegie Mellon University, School of Computer Science Web site: http://www-2.cs.cmu.edu/~gendergap/papers/sigcse97/sigcse97.html

Margolis, J., Fisher A. , & Miller F. (2002). *The Anatomy of Interest: Women in*

Undergraduate Computer Science. Published in Women's Studies Quarterly, Spring/Summer 2000. Retrieved July 03, 2002, from Carnegie Mellon University, School of Computer Science Web site: http://www-2.cs.cmu.edu/~gendergap/papers/anatomyWSQ99.html

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Posting 4

Assessing ICT Needs and Developing ICT Standards

"To what degree is standardization of ICT curriculum outcomes healthy- within a school, a school system, a province, a country? What are the strengths and limitations of each approach?"

Education in Canada is provincially regulated. As such each province is responsible for creating standards that reflect the population at large. In BC, there is an ICT curriculum for grades 8 to 12. In grades 8 to 10, the curriculum is divided into three sections foundations, process, and presentation. In grades 11 to 12, there are four sections, foundations (network planning & programming), process (electronic communications), and presentation (multimedia). Each of these sections contains learning outcomes that are measurable. How specific these outcomes can be measured is in the interpretation of the teacher. As an ICT teacher, computers solve one of the main obstacles in education, motivation. However, harnessing this energy requires sound teaching pedagogy as well as technical organization. It is after all a “lab” and not just a classroom.

Schoepp (2003) outlined earlier on the constructivist aspects of ICT learning. His ICT learning experience (HTML web design) incorporated these elements:

1. Project-based - the goal of the course was to have us walk out with our own simple website.

2. Relevant - I saw a real need in my life to know how to build website and this course helped me to achieve this goal.

3. Scaffolding - it provided me with enough information to get started and learn some basics, but I was required to learn more on my own outside of the class.

4. Hands-on- we didn’t just learn how to build a website, we actually made one.

These elements are important to how the outcomes are interpreted and the curriculum directed. Since ICT are electives, there are no provincial exams. As such there is flexibility to the curriculum. Conversely, in provincially examinable subjects, all outcomes must be covered in order for the students to be competitive. In the ICT curriculum, there are basics that need to be covered and there are skills that must be

repeated in order for it to be done well. Similar to Singapore where "they believe learning to do a few problems well and really understanding why you got the answers you did is much more important than doing a lot of problems without that understanding" (Houston, 2003), my focus as a classroom teacher is to do the little things well and apply those skills to higher level projects. The focus on depth is emphasized in this type of constructivist approach.

Standardizing the ICT curriculum makes teachers more accountable. ICT courses are non-examinable. As a result, the standardization of the curriculum takes on different interpretation depending on the teacher. However, if the outcomes are specific and measurable, it will have a larger impact on what the students have to learn and understand.

BC Prescribe Learning Outcomes. (2003). BC Ministry of Education. Retrieved May 21, 2003 from http://www.bced.gov.bc.ca/irp/curric/lo.html

Houston, P. (2003). *A Worthy Import from Singapore*. School Administrator Web Edition. Retrieved May 21, 2003 from http://www.aasa.org/publications/sa/2003_05/execper.htm

Schoepp, K. (2003). Quoted from course correspondence: Posting # 1014, Re: ICT Learner, May 31, 2003. EDER 679.10 - L91, Spring 2003, WebCT discussion postings.

Posting 5

ICT Professional Development

Do you think that teachers should be rewarded with an incentive program in order to motivate professional development in regards to technology?

Extrinsic motivators are an important element in learning and have been used creatively to spurn the underachievers. As elementary schools teachers know, good work means happy faces or gold stars (Lashway, 2001). In our current education system, teachers have been lagging behind other professions in salary. Some might say that this is untrue as we work only ten months of the year, have the summers off, and have a 9 to 3 working day. As such, policy makers have targeted teachers to strive for accountability. These accountability practices include having stricter principal supervision, school accountability contracts, school planning committees, and having other teachers report those who are not using best practices. All these work against teachers as professional.

Professional groups have their own autonomy, get paid well, and are generally looked upon with respect. All three of these elements are missing.

New accountability is based on five linked components (Watts et al, 1998 in Lashway, 2001). Incentives provide rewards or sanctions based on success in achieving the standards while the results are publicly reported. As of now, school that achieve well on standardized test are given recognition by the media, but have yet been rewarded for their efforts. Moreover, policy makers and the public have yet to recognize the importance that professional development has on meeting standards. Merit pay as Lashway (2001) mentioned has not been implemented successfully in the past. Today's teachers have to perform a variety of tasks, each of which requires special expertise such as teaching, facilitating meeting, counseling, coaching, and assessment (Odden & Kelley, 1997 in Lashway, 2001). Competency based pay rewards teachers for completing skills in teaching, curriculum, and leadership. Pay for performance is the other, which compensates teachers according to their students' achievements. Ethically as a profession, teachers do not feel this is a fair way of distributing funds. Collectively, teachers have traditionally been compensated or their years of service and level of education. The support behind this is that school is a 'collective enterprise' (Lashway, 2001). To illustrate, when a student is accepted to university on an athletic scholarship, do we reward the coach, the teacher, or the counselor. All these people collectively probably had an impact in the student reaching his potential. The Consortium for Policy Research in Education found that "when goals conflict with other organizational values, when bonuses are less than $600 US, when teachers do not believe the money would really be forthcoming, or when they do not believe they could help students achieve the standards, then incentives programs were ineffective.

Education funding today have grounded to a halt yet at the same time many accountability standards have been pushed forward. Large-scale change is no longer accompanied by increased financial commitment to schools by governments (Levin, 2001, p14). "As the Baby Boomers moved through the school system, not only did enrolment shrink and other social policy concerns rose, particularly health care", many people have lost touch with the growing concerns in education (Levin, 2001, p8). No longer are people seeing education as an investment in the future, but rather they are concern with where their tax dollars are going and why teachers do so little work with so much pay. Until this public image of teachers is improved, incentive paid ICT professional training will not be realized.

Lashway, L. (2001). *Incentives for Accountability.* Eric Digest 152, University of Oregon. Retrieved June5, 2003 from http://eric.uoregon.edu/publications/digests/digest152.html

Levin, B. (2001). *Reforming Education: From Origins to Outcomes.* London: Routledge Falmer.

Posting 6

ICT Security Ethics and Policy Issues

Based on your experience, post a brief case study on ICT security or ethics that you think your colleagues might be interested in assessing.

Being an IT teacher, I have the know how of using freeware. Freeware are software distributed free of charge with some limitation on its use and distribution. For example, some freeware can be used only for 30 days. Others have limited functions, which can be improved upon once a key is purchased. However, many students have found a way around these limitations by finding the crack. A crack can be a serial code or a simple .exe command that overrides the functions that inhibits the full use of the software. It is not uncommon to hear of the student's heroics in beating the system. As we know, the Internet has everything and anything; the only thing is how to find the right thing. As a result, with a little legwork anything is possible. Cracks for games, software, movies, and music are all within the student's abilities. What are some of the social consequences of the students' action? What action should the teacher take to curb this social misdemeanour?

Posting 7

ICT Group Presentation – Rose and Kevin

Message no. 1227 Branch from no. 1212 Posted by **Kenneth Harrison Kim (khkim)** on Mon Jun 16, 2003 12:09

Kevin, Rose:

When I read your first recorder report. I thought what an insane idea it was to each do an annotated bibliography for 15 articles. With this time of year being the busiest for schoolteachers, your work is of quality. I have book marked them. What made you choose the articles you chose? Was it because they were in a search engine, you had copies of them already, they would help in your exit procedure...

Our group was intent in doing 5 articles until your group upped the ante. We then chose 8 and that was time consuming. However, the process was illuminating and it helps clarify some of the issues in this course. A very defining constructivist process, indeed.

Posting 8

ICT Group Presentation – Ed and Karen

Your site is nicely designed. The links are visible and the categories are clearly shown. The links that are on the top could also be at the bottom of the page to allow the user to link to the different pages without scrolling. As for the content, I was really impressed with how this learning is structured. Structured is the key word in project based learning as there are a variety of ways to get to the finished product, however, everyone uses the same resources laid out by the teacher. Web Quest has been around for some time now and is very popular around the world. The quality of work around the world is incredible. It shows that this type of learning and teaching style works for many people.

The PowerPoint slide shows succinctly review the web sites. However, I find slide shows distracting as not all the information is laid out in clear view. I prefer a .pdf document with everything in view. This way all information can be cross-reference for a clear understanding of the topic. The unit plan is very practical, meaning for a novice teacher, they could walk in a classroom and start the class on the project with ease. I have also book marked it for future reference. Both of you took real pride in creating it and it shows clearly in the work. Nicely done.

Posting 9

ICT Group Presentation – Michelle, Denis, and Dallas

This manual has many aspects that would be very useful for districts planning to use synchronous models of delivery. The manual looks very professional although there are some images that are very pixelized and are in need of some re-working. It is clearly laid out using a table of content; however, each section should be linked for easier navigation. The content gives people a gist of the pros and cons of a synchronous environment. The facts are there for the reader to take in with definitions at the end for clarification. The definitions give the added advantage for those who do not know the key words in ICT. It is an easy read yet very informative. The online links at the end adds support to the document. A recommended read. Well done.