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PEDAGOGICAL ADVANCEMMENTS IN 21st CENTURY

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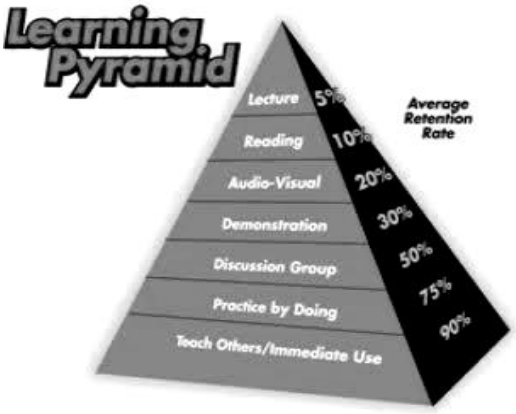
Introduction

Interpersonal learning, personalized learning, second life learning, 3d learning, collaborative learning and virtual learning, these are just some of the few buzz words you would be reading so often in today's educational literature. Things have changed; old methods and pedagogies are no longer relevant. The teacher controlled learning where pre-constructed information is presented in formal and standardized classroom settings becomes very obsolete. The urgent questions we should, as educators, ask ourselves are: what are the driving factors behind this huge transformation in learning? And do we need a new pedagogy to better enhance learning? Advancements in technology and particularly social networking technologies are changing the whole educational framework. Users now can have access to information whenever and wherever they want. Blogs, wikis, socializing sites, podcasts, and networks are more and more democratizing knowledge and radically changing the overall notion of schooling. It is evident now that we are in front of two different versions of learner one is labeled the 20th century learning and the second is called the 21st century learning. These two learning paradigms are totally different in terms of skills, objectives, and methodologies of instruction employed in each one of them. Thus, the need for a new educational model, a serious rethinking of the nature of schooling, its goals, pedagogies, curriculum, structures, and assumptions is pressingly urgent. Students today are digitally focused and require new skills that would meet up the needs of this new era. But the thing is teaching new skills are not the only solution and there is more to it than just that, in fact we need a new pedagogy with specific features that would cover every learning aspect.

20th century and 21st century teachers

In their ALCE international conference that was held in Sydney, participants insisted that, in the 21st century pedagogy , the schooling experience must be relevant to the life each student chooses to pursue and the skills required to live in today's world."In other words, students must be taught how to become managers of their own lives, members of both local and global society, influential participants in the workforce and active contributors to a changing environment.
This is exactly the kind of learning that the 21st century pedagogy develops. It is basically a lifelong learning which prepares for future, continuous engagement in solving real problems, dealing with real events and competently coping with the dynamics of real life.
What are some of the 21st century pedagogy features and skills? The skills that are pivotal to achieve the 21st century pedagogy goals are:

- Critical thinking
- Active learning
- Problem solving skills
- Communicating, making connections, creating and expressing oneself in a variety of ways
- Contextualized knowledge. As you can see in the learning pyramid, uncontextualized and non-activity based learning could result in a low retention rate.



- Collaborative team work. This is mainly achieved through web2. 0 technologies and social networking tools. As mentioned in the UNESCO'S publication **" The Four Pillars of Education"** you would realize that collaboration is the core element of the four pillars which are:
- Learning to know
- Learning to do
- Learning to live together
- Learning to be

21st century pedagogy develops some particular kinds of fluencies in students:

- Technological fluency : know how to use technological tools
- Information fluency : know how to gather, process and validate information
- Media fluency: know how to view, select, and use media.

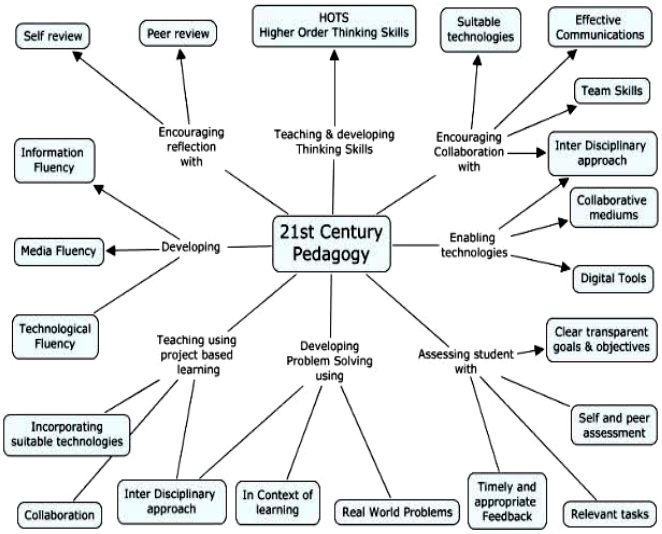


Diagram provided by Andrew Churches about 21st century pedagogy features

Need of new pedagogies

An urgent question demands the attention of every educator: How well does today's schooling prepare students for the 21st century? This question deserves an answer based not on what worked in the past but on what is a relevant schooling experience today. The past can only inform, not determine the future of schooling. For more than 150 years a set of pedagogies reflecting the priorities of the Industrial Age has been embedded in the process of mass schooling. The hallmarks of these pedagogies are found in teacher-controlled learning where deconstructed and reconstructed information is presented to same-age cohorts of students in standardized classroom settings. Many have worked very hard at making improvements in schooling within the confines of this paradigm. Stephen Heppell (2005) wryly observed that educators and systems spent the 20th century perfecting the 19th century model

of schooling. Globalization has enabled rapid advancements in technology; we have entered the knowledge age where social networking technologies are changing business, media and political structures. Users can now access information wherever and whenever. It is what Jimmy Wales, the founder of Wikipedia describes as the 'democratization of knowledge'.

However, it has had little impact on the processes of schooling. There is an urgent need for a new educational model; a rethinking of the nature of schooling – its purpose, pedagogies, curriculum, structures, assumptions and expectations. The old pedagogies persisting into the 21st century are no longer relevant. They ignore the capacity for schooling to take place in both a physical and virtual learning space. If we are to embrace these new opportunities, we need 21st century pedagogy – a paradigm which reflects a bold and creative commitment to relevance and quality learning and teaching.

Strands of relevance

A relevant education for the 21st century must have two essential strands. These strands must be tightly woven together to ensure that the schooling experience is relevant to the life each student chooses to pursue and the skills required to live in today's world. First, it must be truly humanizing in that it must enhance the learners' humanity, improving their competence as managers of their own lives, members of society (both local and global), effective participants in the workforce and active contributors to a changing environment. Its overarching aim is to enable them to pursue wisdom. Second, it must be truly socializing in that it must enhance the learners' communal and global consciousness and foster responsible citizenship. To this end, it must be socio-critical, deepening awareness of the nature of society and its need for development. And it must be transformative, enabling learners to make a difference to the lives of individuals, communities and the changing world in which they live. The learning we are talking about is lifelong learning which prepares for future, ongoing engagement in solving real problems, dealing with real events and competently coping with the dynamics of real life.

The skills that are essential for achieving these outcomes include collaborative team- work, problem-solving, communicating, making connections, creating, and expressing oneself in a variety of ways. These skills will be future-focused but based on successful experience and sound evidence. They will lead the way, tapping into the incredible potential of the Web 2.0 technologies. In relation to the last point, this paper argues that a physical and the virtual schooling capacity, underpinned by social technologies, challenge us to fundamentally re-think our current pedagogies. A supporting pedagogical framework must go beyond connecting schools and providing hardware for students and teachers. It has to be built on the relational nature of learning and be relevant to all those interested in schooling in today's world.

The web 2.0 world

It would be hard to find a better example of rapid and dynamic change than the development of the World Wide Web. In less than five years we have seen the web morph from being a place to access information to being a network of social interaction. Web 2.0 has captured this change. Web 1.0 was characterized by static read-only sites where information

could be searched for and retrieved. It was all about content and publishing. Web 2.0 has been dubbed the read/write web or social networking software. Its sites are all about people and communities as well as content and publishing; they encourage communication, collaboration and connection in every area. Grossman (2006) expresses the potential of this very aptly when he says that Web 2.0 is an 'opportunity to build a new kind of international understanding, not politician to politician, great man to great man but citizen to citizen, person to person'. (P 24)The digital generation who has been online since birth is as comfortable in the Web 2.0 world as they are in the physical world. Marc Prensky (2006) states that, 'Today's students have mastered a large variety of tools that we will never master with the same level of skill. From computers to calculators to MP3 players to camera phones, these tools are like extensions of their brains.' (p10) The attraction of using social software is the ease and speed with which they can communicate either one-to-one through instant messaging, one-to-many through blogs, or many-to-many through wikis. In September 2006, 60% of Australian internet users visited MySpace, and 50% visited YouTube. The Hitwise survey notes that these sites have become the 'first online destination for Internet users as they integrate social networking into their other daily web activities, such as email, search engine use and research'.

The challenge to today's models of schooling

The obvious challenges posed to schooling as a result of the technological revolution are becoming widely organization. In its 2001 report, Schooling for Tomorrow (Learning to change: ICT in schools), the OECD's Centre for Educational Research and Innovation questions existing models of schooling in the strongest terms: 'As an information-rich technology diffuses pervasively into homes and workplaces, it increasingly calls into question the relevance of many within the knowledge-based curricula. In a world with easy access to huge stores of information, the skills of accessing, handling and using data and materials become more important than the ability to recall in detail ever greater amounts across many fields of knowledge. The young people who inhabit this technology-rich information society already question the relevance of the traditional approach. Aspects of the existing school practice call into question, as ICT both underlines a need for curriculum change and affords the means whereby the desired change can be achieved.' (p19)

This challenge is repeated throughout the professional literature. According to David Warner (2006)4, for instance, the emergence of information communication technologies (ICT) and the development of Web 2.0 (e.g. YouTube, Flickr, MySpace, and del.icio.us) has transformed the social and economic landscape. These changes have a profound impact on schooling as educators prepare students for life beyond the classroom – a transition which should be seamless and familiar. Mitchel Resnick (2002) refers to the new technologies as having 'the potential to fundamentally transform how and what people learn throughout their lives. Just as advances in biotechnologies made possible the "green revolution" in agriculture, new digital technologies make possible a "learning revolution" in education'. (P 32) If we are to ensure that teaching remains an 'art' for enabling the acquisition of powerful learning in the 21st century, we need to question the continuing use of old

pedagogies that belong in other times and circumstances.

> The message is clear: If we are to ensure that teaching remains an 'art' for enabling the acquisition of powerful learning in the 21st century, we need to question the continuing use of old pedagogies that belong in other times and circumstances. Fundamental re- thinking is necessary. Relevant 21st century pedagogy is not something that can be tacked or massaged onto the pedagogies of the 20th century.

Calls for transformation

Schools are experiencing strong pressures to go beyond simple change and to radically transform themselves so that they might reflect the reality of their social and technological context (e.g., Caldwell, 2006; Beare, 2006; Elmore 2004). They are certainly at a watershed, often confused, overwhelmed and seeking relevance. Admittedly, various initiatives are in place to improve the quality of schooling. An example is Education Queensland's New Basics program which seeks to link content, pedagogy and assessment in a more productive way. At their best these productive pedagogies focus on connectedness and knowledge integration within an inquiry-based curriculum. But so often such initiatives remain locked in old patterns of thinking and do not bring about the necessary transformation. When that happens we are left with new wine in old wineskins!

Competing narratives

Attempts to conceptualize and shape schooling reflect the dominant educational narrative of those seeking to set the agenda. The term 'educational narrative' is used here to encompass the story, map or paradigm we use in describing the nature of education as we understand it, including the pedagogies we employ. It provides us with a structure for shared reflection, conversation, evaluation, planning, the clarification of mission and the devising of strategies for development and change. It connects our beliefs, our values and our hopes. We must clarify and apply our own coherent and shared 21st century narrative in the context of competing narratives. The defining theme of these narratives challenges us. Let us look briefly at some of them. A strictly utilitarian narrative sees school basically as an instrument of the economy. A well-educated workforce produces national wealth. Effective schooling is a return on an investment.

A consumerist narrative organizations' school as a business selling a commodity called 'education' to individual customers which it attracts to itself in an open marketplace where it competes with other 'providers'. It draws heavily on the priorities, images and values of the commercial world. A pragmatic narrative aims at measurable efficiency and acceptability. It is shaped by political and popular perceptions, and is highly responsive to the special agendas of ascendant groups. An individualistic narrative sees schooling as serving the interests and aspirations of individuals who pursue personal goals without regard for the common good of society. It has little concern for the communal nature of schooling, unless this facilitates achievement of the individual's purely personal goals. Such narratives overlap – each is reflected in the metaphors and other images used to describe schooling. These narratives govern curriculum constructs, learning environments and school cultures. They influence the pedagogies that are employed on a daily basis.

In search of a new narrative

New ideas about the nature of schooling, and its most relevant pedagogies, in the 21st century are taking shape. Canadian theorist, George Siemens, for instance, claims that students no longer learn only through traditional ways of constructing knowledge but by connecting with each other and technology. 'We are trying to use theories of learning from a predominantly physical era and force them to work in a digital era. We need a new pedagogy, a new view of learning, a new view of knowledge or interacting.' (Siemens, 2006 p13) Perhaps there has been no more relevant time for educators to re-visit the core questions of what and why, how and where – the rationale, content, methodology and location of their core concern: quality learning. This re-visiting must raise some vitally important questions about our understanding of the processes of knowing when the sheer quantity of knowledge is exploding around us. It must lead us, too, to reconsider our concept of curriculum and the appropriateness, or otherwise, of structuring learning and teaching within discrete disciplines.

A challenge to the imagination

New circumstances and new opportunities offer a prodigious challenge to the imagination, a challenge which must be probed if we are to develop the most appropriate pedagogies for the 21st century. Effective pedagogies will always be based on a thorough understanding of how people learn. In general terms, they will be grounded in certain principles: quality relationships, respect for individual differences, and focus on core processes of making meaning, active on. They will be informed by research, reflection and analysis.

These principles remain at the core of effective learning and teaching. The great educational theorists proclaimed them and the best teachers apply them. The challenge now is to use the principles not only to support learning and teaching in the physical space but in a virtual space. Effective teaching will always be relational. However, in a virtual learning space, the role of a teacher will be to guide students in making the connections to resources, ideas and people; how to find and discern what they need "instead of depending on us [teacher] to provide them.' (Richardson 2006 p35) 7. The essential principles of effective learning provide us with the foundations upon which to develop appropriate pedagogies that are creatively applied in ways which complement each other, organize opportunities and respond to 21st century demands. In keeping with this sort of thinking, specific questions arise, such as how can we fully organize the emerging relational technologies and social software in enriching these pedagogies and in facilitating the acquisition of new knowledge and skills? And how can the curriculum be most appropriately organizations and organize so as to tap into new capacities? These foundations can only be built on by a teaching profession which has truly come of age. Andy Hargreaves (2003) expresses this fact with blunt honesty: 'Teaching is not a place for shrinking violets, for the overly sensitive, for people who are more comfortable with dependent children than they are with independent adults. It is a job for grownups, requiring grown-up norms of how to work together.' (p. 28)

Key propositions

I now wish to present five propositions which both tie together earlier observations and will lead to more precise descriptions of an appropriate range of

pedagogies. Needless to say, all of these propositions overlap, participation in relevant and authentic learning tasks, the development of autonomy, and so.

Proposition 1

'Curriculum', as it has been traditionally understood, has passed its used-by date. A more appropriate mindset leads us to speak of 'frameworks' that are constructed collaboratively and with imagination out of mutual respect for both learner and teacher.

Proposition 2

The skills that are appropriately learned and applied with a 21st century framework are not the same as those that served past eras: Organizations, control/order, sameness/insularity. Rather, they the skills needed in a dynamic present and future: interconnectedness, managing meaning, living with paradox, working intelligently towards positive change, and maintaining a global perspective.

Proposition 3

Such skills require transforming pedagogies which will focus on the nurturing of clear-thinking, discerning, flexible and creative problem-solvers who will exercise their developed capacity to make the world a better place.

Proposition 4

The emerging technologies must be used to enrich these transforming pedagogies.

Proposition 5

To facilitate such learning and teaching, the use of learning spaces both within and beyond the immediate school plant, must be organizations by creativity and adaptability.

A raft of pedagogies

In attempting to answer the question, 'What are the pedagogies most likely to serve individuals and communities (both local and global) in the 21st century?', it is my intention not to supply a set of recipes or specific teaching formulas but suggest categories or directions which teachers might explore in their own search for approaches relevant to their students, to themselves, and to the settings within which they work. Here, then, is a raft consisting of four planks, four interconnected sets of pedagogies. When reflected upon and discussed in depth, these might well stimulate and facilitate learning experiences which will be relevant, timely and transformative.

1. **Pedagogies which personalize the learning**

The commitment of truly effective teachers to organization learning can be wonderfully enhanced by skilful organization of the emerging social technologies. These essential tools of the 21st century pedagogies can be employed in creative, transparent and intuitive ways, as evidenced by application of the new social software in a Web 2.0 world of interactions. Here individual students readily become active and contributing participants who are finding their own ways of applying learning and gaining control of the process. This organization of learning can be both physical and virtual in nature – a possibility undreamt of by earlier generations of teachers. We are only beginning to organize the implications of this for lifelong learning. In the school context, the teacher has an important role to play in establishing structures that will facilitate learning of this kind, in demonstrating, mentoring, providing feedback and helping the student to make connections and construct deeper meaning. The whole concept of a curriculum consisting of separate subjects or disciplines must certainly be challenged as students show themselves quite capable of using electronic networks to transcend old

boundaries and learn in integrated ways. They become empowered to work, learn and think differently (Paper, 1993, quoted in Caldwell 2006).

At a more practical level, this organization of learning requires students to have adequate access to the relevant technologies. If this is not sufficiently available or not maintained, the result is frustration and sometimes alienation. It also requires flexibility in both space and time. Students need to be able to move and rearrange themselves if they are working collaboratively; flexible timetabling allows for tasks to be pursued extensively and in depth. A third prerequisite is the teacher's ability and willingness to operate in a less rigid and controlling environment – one which demonstrates a genuine commitment to learning of this kind placing trust in the learner.

2. Pedagogies which enable the learner

One of our central educational aims is the development of the whole person: mind, body and spirit. This calls for pedagogies which enable the learner to develop and move towards becoming an independent, fully- functioning, contributing member of society. Such pedagogies must be fundamentally liberating in that they will help break the chains imposed by ignorance and inadequate opportunities. As Collins (2006)[11] says we are "only good in relation to what we can become." (p15) Enabling pedagogies encourage curiosity and a sense of wonder. They provide learning opportunities that are meaningful and relevant to students, encouraging learners to critique and question, to seek meaning, to make choices, and to create and express ideas with skill and confidence. The pedagogies will challenge students with ever-richer and more complex experiences and opportunities to deepen insights and improve skills. In so doing they will develop the Meta skills necessary for lifelong learning.

Pedagogies that are truly enabling are informed by sensitivity to the individual learner. Rather than attracting blame towards the student, they focus on the processes being used in the attempts to learn. A feature of a classroom culture of high and enabling expectations is the experience of personal and collective success. Success deprivation is devastating. 'Productivity thrives on success,' says researcher and clinician, Mel Levine (2004). 'Individuals with chronic success deprivation feel like losers, and out of a sense of hopelessness they simply shut down their minds. Success and failure occur in spirals. Failure may lead to further failure, while success energizes the system for more success.'

Questioning assumptions

We see the transforming possibilities of the social technologies in enriching these pedagogies and in engaging students in constructing personal meaning and taking responsibility for their own learning. Even the rigid scheduling of time for learning can be realistically questioned. The open-ended nature of education through these technologies can provide rich learning challenges which stimulate imagination, provoke deeper thinking and require the application of core learning skills. The possibilities are endless. Resnick (2002) reminds us that 'children can now use computer simulations to explore the workings of systems in the world (everything from ecosystems to economic systems to immune systems) in ways that were previously not possible.' We need to transform curricula so that they focus less on 'things to know' and more on 'strategies for

learning the things you don't know'. As new technologies continue to quicken the pace of change in all parts of our lives, learning to become a better learner is far more important than learning to multiply fractions or organization the capitals of the World.' (p 36)

3. Pedagogies which highlight the interpersonal nature of learning

Quality learning and teaching are grounded in powerful relationships that are built on mutual respect and trust. These relationships are strongly influenced by the core of shared beliefs (Hough et al, 1997). Such relationships amongst students themselves and between them and their teachers provide a supportive context for peer-tutoring, group work, modeling, and coaching, collaborative problem-solving and constructive risk-taking. This extends beyond school. The ability to learn and work as a member of a team becomes even more important in a society where knowledge expands at an incredible rate. Cooperation, shared learning and interdependence are taking their place amongst the most desired qualities for successful employees.

Social networking

Web 2.0, or social networking software, can provide very effective ways of strengthening the impact of interpersonal learning. It can break down the sense of isolation – everything can become collaborative and social in nature (O'Connell 2006). While Web 1.0 is static and read- only, Web 2.0 allows users to write as well as read. Today's students are lobal citizens, accessing and creating content on demand, usually from home. School systems can promote learning agendas that are engaging, social, personal and that link communities.

The social networking tools are now widely used by students in the out-of-classroom, collaborative construction and sharing of knowledge. Schools neglect this fact to their peril. MySpace, blogs, podcasts and wikis claim an important place in schools seeking to promote more profound and effective thinking and learning that refuses to be constrained by traditional subject boundaries. School systems can promote learning agendas that are engaging, social, personal and that link communities. As Hargreaves (2004) explains: 'We are only at the beginning of this transformation, which will not be simply about ICT in classrooms but about a new relationship between what happens in formal education and what happens in the home, the workplace and the community.' An excellent example of how social networking software is being used for interpersonal learning in the 'flat classroom project'. This project links students from the International School Dhaka in Bangladesh with students from the computer science class at Westwood School in Georgia, USA. Students from each school are paired and use Web 2.0 tools such as wikis and podcasts to explain and discuss topics from Thomas Freidman's book *The World is Flat*. Teachers and students cooperate in designing meaningful interactive materials that link texts, images and sounds to structure and to illustrate and represent ideas.

4. Pedagogies which contribute to building the learning community

The communal nature of the school presents a core image and recurring theme of the educational narrative where the school is viewed essentially as a learning community as well as a community of

individual learners. In such a community, knowledge is often constructed collaboratively; individuals learn from each other, with each other and, in a special sense, on behalf of each other. Appropriate pedagogies include facilitation of student teamwork, negotiation of learning tasks, and a cross-curriculum and cross- grade learning and teaching initiatives. Students are conscious of belonging to networks both within and beyond the school where knowledge, resources and problem- solving initiatives are shared. In this manner, learning becomes a process of creating connections and networks of great variety. In 2005, Dr Tim Tyson, Principal of Mabry Middle School, created a blog featuring the work of his staff and students. This blog is now a leading example of innovative educational practice using Web 2.0. However, Dr Tyson readily admits that technology is not a magic bullet but more a 'tool that when appropriately leveraged, brings people together so that they can collaboratively create and share with unprecedented ease and facility'.

Teachers as learners

Teachers in the twenty-first century need to see themselves as co-learners and collaborators within the learning environment. In their role as learners teachers learn a great deal about – and often from – their students. They learn from each other, too. And, as a collaborative group, they learn together. This type of learning leads to new ways of understanding and applying existing knowledge. (Hough et al, 1997), Warner (2006, p104) identifies a number of 'knowledge era' skills for effective teaching. These include:

- Collaboration
- Negotiation to arrive at shared expectations
- Engagement management (managing learning not classrooms)
- Creating and managing knowledge
- Developing individual learning programs
- Self-awareness and self-evaluation
- Self-management and self-directed learning

He stresses that these are not new skills but that they are key skills for the twenty-first century paradigm. A particular challenge facing teachers in the knowledge age relate to re-visiting their existing pedagogies. Experience suggests that, in the first instance, they simply adopt those elements of technology which serve their existing teaching style without exploring the full extent of new opportunities to develop interactive, searching and collaborative approaches for nurturing higher-order thinking skills and learning. 'While new digital technologies make a learning revolution possible, they certainly do not guarantee it. Early results are not encouraging. In most places where new technologies are being used in education today, the technologies are used simply to reinforce outmoded approaches to learning. Even as scientific and technological advances are transforming agriculture, medicine and industry, ideas about and approaches to teaching and learning remain largely unchanged.' (Resnick 2002, p 32)

Learning communities

The importance of schools becoming effective learning organizations with teachers engaged in productive dialogue, teamwork and shared learning is imperative as they rethink their assumptions about learning and teaching in the 21st century. Together as learning communities, teachers can reshape pedagogies that are relevant to today's learners. The learning community of the

school is networked into another, more expanded, learning communities in schools and other community agencies where best practice is shared, information systems and links are developed and there is an expanding understanding of what is possible. An important partnership – the one which links home and school cannot be overlooked in bringing together the learning communities. The emerging technologies can make a major contribution to this by providing effective avenues of communication and collaboration. The new social technologies have a particular significance in developing transforming pedagogies within all these learning communities. Students become content creators, contributors, evaluators, communicators and collaborators both with and beyond their school, experiencing participatory membership in a global learning community.

Global community

The most dramatic example of the extended – global – learning community is experienced in the Internet which is requiring educators to rethink the processes of teaching, collaborating and communicating. Because of its essential characteristic of being social and participatory, Web 2.0 can play a powerful role in building and sustaining the learning community.

Why Teach the Pedagogy of University Teaching?

Many students learn teaching from their teachers. It goes without saying that all college students can talk about which professors they like, those they don't, and why! Students can also remember what and how they learned in various classes and are said to appreciate that learning long after they graduate. New faculty members, likewise, often a pattern (or try to pattern) their first teaching experiences based on former professors' teaching methods, with the goal to be an effective teacher and respected and liked by their students. New faculty members may have been told by university administrators to expect to have their teaching role and classes "developed" during the first year of employment-that they will then need to shift their attention and energies to the development of their research plan and publications for tenure and promotion. The first concerns in a new teaching assignment often include the content to be covered, the method(s) of delivery, assignments, and grading. Often, new university teachers are most concerned about getting through the class lectures, of being understood by their students, and "escaping" after class to the quiet of their office. Advice from more experienced faculty members and mentors may not be frequent or extensive enough to really help. Broadening our view of teaching to the scholarship of teaching means that we no longer can think of teaching as only subject-matter expertise plus generic methods. We know that effective teaching is also a matter of transforming our knowledge of a subject in ways that promote student understanding and learning (Edgerton, Hutchings, & Quinlan, 1993).

In addition to a renewed focus on teaching brought about by Boyer (1990), the Carnegie Foundation for the Advancement of Teaching was influenced by the interest in teaching expressed internationally and began a cultural exchange with China's key educators. That movement has spread to include many other countries where teaching and learning centers have been established, as well as the proliferation of meetings, journals, and books about university teaching. In the United States many colleges and universities either had or have established centers to support faculty in their

teaching endeavors. The movement toward a focus on teaching and learning excellence has led many institutions to value teaching equally with research in reviewing faculty dossiers for promotion, tenure, and merit pay. Additionally, accreditation of higher education institutions has increasingly reflected external pressures for accountability. Accrediting bodies are asking for documentation and demonstration of student learning at the institutional, programmatic, and course levels. Certification standards of the American Speech-Language-Hearing Association (ASHA) has changed dramatically in the last several years and the Knowledge and Skills Assessment (KASA) has become the standard measure of student learning and performance (American Speech-Language-Hearing Association, 2005). It is found that the following sampling of topics/chapters has helped structure the course to teach, but the list is by no means complete or absolute! We often change the topic assigned for a particular class to talk about immediate experiences and concerns presented by the students.

Preparing a Course

Often the preparation of a course takes place in a short period of time for new faculty members. Consideration of the course content and the acquisition of knowledge may be partially or wholly determined prior to the assignment for teaching the course. New faculty need to know what questions to ask, how to develop a course, and what information to cover. Doctoral students can begin to think about knowledge and skills (American Speech-Language-Hearing Association, 2005) objectives to be met, the level of the course and where it fits in the sequence of courses and how student learning will be assessed. Helpful references include chapters in Mentor in a Manual: Climbing the Academic Ladder to Tenure (Schonefeld & Magnan, 1994) and Charting Your Course: How to Prepare to Teach More Effectively (Pregent, 1994). These texts are often chosen by the doctoral students as their supplementary text for the course, and include information on conceptualizing and planning a course.

First Day of Class

The first class meeting can establish the expectations for both students and faculty. A course on pedagogy could include a discussion on what expectations new faculty members may have for their courses. Suggestions in the literature include determining how faculty establishes rapport; clarify expectations for the class, and get to know their students. Another helpful discussion is what our students expect of us that first class meeting. An informal survey of undergraduate students in my classes included comments such as, "Listen, be friendly and be available when the student needs help" and "Be on time and have an agenda. Be an "expert" in your subject; don't always be reading out of a book for the lecture. Be open-minded and aware of the class's opinion".

Syllabus Construction

The distribution of the course syllabus is often one of the first interactions faculties have with students. It helps us and the students focus on the content and requirements of the course. Many consider the syllabus to be a negotiable agreement that can support teaching and learning. Individual university, college, and department requirements will dictate some of the content of the syllabus. Beyond those requirements, however, are questions of what text to use (or whether to use a text), resources such as guest lecturers, special equipment, etc. Needed, and dates

assignments are due and tests given. Policies on absences, extra credit work, test, re-writes, and other features should be articulated. New faculty learns that syllabi are usually "works in progress".

Lectures/Class Discussions

Beyond the syllabus design, students in a college/university teaching course should spend time discussing the various ways to cover content, whether through lectures, class discussions, or class projects. Many new faculty struggles with how to deliver effective lectures and how to make those lectures more participatory. The new teacher may be so focused on "information delivery" that she/he forgets to look at the students, read body language, and provide time and opportunity for student questions and discussion. The development of Blackboard/Web CT technology has provided another dimension for content delivery and active participation by students.

The Professor in the Classroom (The Master Teacher, 2001) is a series of publications devoted to different teaching topics. Nine Skills to Put More Coaching into Your Teaching (The Master Teacher, 2001) provides suggestions for improving communication skills and developing good teaching/coaching in the classroom. In addition to discussing the various skills, the pamphlet provides points to ponder, such as "Why is attitude important in the learning process?" And "What must you do to prepare lessons so all students can be better learners?".

Classroom Dynamics

Another important area for discussion is that of classroom dynamics and challenges. Beyond the content, delivery, and assessment of information, the complex interchange between students and the faculty often poses special challenges. In his book on "Teaching Tips", McKeachie (1999) includes a number of excellent suggestions for handling students who sleep in class, have excessive absences, and present challenges and questions. A course in university teaching should provide resources and support for prospective teachers who will often feel that the classroom can be hostile or extremely challenging. Diversity in the classroom should be acknowledged and discussed. Future faculty need to have a full appreciation for the student differences they will experience in their courses. Much has been written about race, ethnicity, gender, age, sexual orientation, and learning differences.

Assessment: Classroom and Student Learning

Doctoral students need to understand the differences and uses of formative and summative assessments. Many students are aware of summative assessments of their undergraduate and graduate experiences. They have also participated in student evaluations of faculty and courses. A thorough discussion of assessment leads to Classroom Assessment Techniques (CATs) as resented Angelo and Cross (1993). Assessment approaches will differ with the complexity of the educational process and the diversity of our learning environments. We need insights into which our students are, how they learn, and what their epistemological beliefs are. Formative assessments help us understand and improve our students' learning and our teaching (Scudder & Apel, 2005).

Reflective Practice/Journaling

Teaching support is provided to help faculty engage in thinking about and developing practices for engaging students in the learning process. Reflective practice

takes the step beyond thinking about our teaching (a "better" class day versus a day when things don't go well in the classroom) to reflecting and writing about one's particular strengths and strategies that work well. The Center for Support of Teaching and Learning at Syracuse University describes a beginning process for reflective practice and provides additional resources to help faculty develop beyond reflection into conduction of a systematic inquiry of teaching and learning experiences (cystl.syr.edu).

Discussion of journaling can be taken a step further to "blogging" or online journaling. It has been described as having the possibility to revitalize the idea of online communities. As such, the implications for academia are numerous. Faculty could encourage students to use blogs for extending their learning experiences to lively class discussion. This online discussion could allow more quiet or shy class members to contribute by expressing themselves in writing. Faculty members could create "teaching blogs" to discuss pedagogy and their personal development as teachers. Faculty members could also discuss their research as it relates to classroom concepts, allowing their students to see the connection between the two.

Assessing the Value of a University Course on Teaching

A doctoral level course on University Teaching will most probably work best in a seminar setting. A structure that includes the topics above (and more) can help students explore avenues for information and support, and give opportunities for active discussion. The course at Wichita State University is a two-semester sequence where topics are outlined for discussion the first semester, and the second semester is devoted to more "hands on" experiences. During this time we are developing a "teaching philosophy", a statement of our beliefs about university teaching and our work in the classroom. We visit classes outside our discipline, viewing large and small classes taught by award-winning professors to see firsthand some of the principles we've discussed the first semester. We also target a research question regarding the pedagogy of teaching and design a study to answer the question(s).

Conclusion

The composition of the educational narrative is, in the first instance, a work of the imagination. And so, eventually, is its full implementation. This calls for nothing less than an exploration of the way we view schooling, along with a practical framework for possible change. In this paper, the attempt has been made to stimulate the necessary reflection and conversation by focusing on the more practical aspect of the work of schools – pedagogy.

The assertion is made that those who work in and for schools will have to work differently if they are to serve their students and society in the knowledge age of the 21st century. They will need to imagine a new model of schooling to match the tools and capabilities, including Web 2.0, now available. For this to occur, transformational leadership needs to be dispersed throughout the school community. We stand together at the beginning of a transformation of schooling for life. While we live in a digital age, the essential conversation is not just about technology in classrooms. Rather, it is about new relationships between teachers and learners, between learners and the process through which they grow in competence and wisdom, and between what happens in formal education and what happens in the home, the workplace and the

community. There are many forces seeking to re-shape the future of schooling. Essential contributors to this inevitable process must be the teachers and the learning communities to which they belong. There are many forces seeking to re-shape the future of schooling. Essential contributors to this inevitable process must be the teachers and the learning communities to which they belong. In summary, resources and suggestions for excellent, effective college and university teaching are numerous and very helpful. Doctoral programs that prepare future faculty can help their students study the pedagogy of teaching, and promote discussions, assignments, and mentoring of our future faculty. It is a worthwhile and interesting journey.

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