The University of British Columbia has introduced a new component to its Teacher Education program that focuses on the application of traditional and new media technologies to teaching. Fine Arts and new Media in Education (FAME) helps new teachers learn to play on the creative side of the new technologies.

From ancient times to the present, whether organic, electronic, analog, or digital, the elements of what is now considered new media have always rested in the center of the arts. Hammer and chisel, gut strings, paint brush, metal strings, watercolour, acoustic guitar, paintbrush, electric guitar, sheep skin, shellac, canvas, vinyl, and human voice, hands, and body — they are but a few of the many tools, or technologies, of the arts. When considered from that perspective, the contents of any media are empty and lifeless and their applications are meaningless without the contribution of the visual and performing artist.

From mono to multi in analog and digital contexts
It was only a short time ago that the term “multimedia” referred to a multiple projector slide show, frequently used in tandem with a film projector and an accompanying analog audio tape soundtrack. Multimedia presentations composed with those technologies were considered state-of-the-art masterpieces through the early 1980s, although their smooth implementation was frequently bamboozled by technical failures that ranged from bent slides to torn audio tape. Almost all multimedia compositions are now directly linked to computer workstations, in terms of hardware and software capacities. Yet a multimedia presentation or a Web page is not “multi” unless it includes a rich tapestry of acoustic and visual media. Undoubtedly, the slide shows of fifteen years ago bear little resemblance to contemporary multimedia technologies in terms of both software and hardware. Most importantly, poignant and compelling compositions in any format, past or present, are artistic creations - and the importance of artistry, in fact, has not changed throughout the history of humankind.

Hence, when we speak of technology education, what do we mean? Without the art of sound and images, that is, without the music and art preceding the technology, it may be argued that the application of the technology is meaningless. But when we consider the arts to be integral, inseparable components of all traditional and new media, we can readily note the invaluable contribution of arts educators. As educators who know how to construct meaning and teach artistically and creatively, they have a professional obligation to contribute to the destiny of the application and development of all forms of new media. Extending this notion, education administrators and teacher educators have a duty to include the arts as inte-
The arts can provide a great deal of interest to children in the acquisition of computer fluency and literacy. When given the choice, children who participated in one published study unanimously believed that they would have more fun drawing, making animation, and creating sounds than learning other basic computer functions. Unfortunately, the evolution of the “techno-literate” student and current information technology curricula do not usually make “room at the mouse pad” for performing and visual artists. We are convinced that providing children the opportunities to discover applications that incorporate the creative, performing and visual arts will enhance skills and conceptual development in the creation and design of all forms of media. To give life to that conviction, we have introduced a new component into our teacher education curriculum at The University of British Columbia to encourage that learning process to unfold in our schools.

The FAME Project: Fine Arts and new Media in Education

This is the first year of the new teacher education cohort initiative called FAME - Fine Arts and new Media in Education. Visual and performing arts have traditionally been viewed as minor subjects in many school districts across North America. With the advent of new computer-based technologies and the convergence of old and new media, dance, drama, music and visual arts may now be considered fundamental to developing the “content” of all aspects of learning. Because context (i.e., technology) without content is empty, the role of the arts will play an increasingly important role in education and new media
development in the 21st century. We have attracted highly creative, innovative people — with academic backgrounds from both the arts and sciences — who possess exciting ideas for the future of Canadian education, to this trailblazing project.

FAME is preparing teachers to take leading roles in schools implementing creative applications of new media and the fine arts, as well as preparing them in the development of content and teaching strategies in other curriculum strands (mathematics, language, science, social studies, physical education). All of this coalesces in both traditional and new media contexts and enables teachers and children to create, integrate, and acquire knowledge in numerous ways. Moreover, we are providing new experiences that enable children to be the creators of their own, multimedia-enriched, learning environments. This innovative program is leading sponsor teachers, student teachers, and children to meet the challenges of teaching and learning in the 21st century and to ensure that “Canadian content” can be created by Canadians, for Canadians.

In keeping with Einstein’s notion that imagination is more powerful than knowledge, part of the impetus for designing a cohort such as FAME was rooted in our belief that we needed to (re)introduce play, imagination, and creativity into teacher education, across the entire curriculum. Many academics and theorists of creativity have echoed the words of A.A. Milne, that “play is just plain fun”, and yet, in over 20 years of combined teaching experience in university teacher education programs, FAME project coordinators have observed that many students are not engaged in fun and meaningful learning in elementary teacher education.

Since all forms of media have been used in the implementation of the British Columbia K-7 curriculum, FAME interweaves traditional teaching, learning, and curricular and pedagogical principles and communications concepts with arts-based activities, enabling student teachers to make concrete connections between theory and practice in a playful, creative environment. Conceptual frameworks are fundamental to and precede learning by pushing mice connected to digital boxes. For that reason, experiential forms of learning in highly creative contexts for all age groups — from finger painting to singing to dancing to story telling to dramatizing — should always precede the development of keyboarding and mouse pushing skills if we expect creative applications of new media in the 21st century. And so, we don’t just talk about play; we play in our model classroom at the university. For many FAMErs, authentic integration means living the arts and new media, not just talking about them and teaching them in discontinuous “info tech” lessons and “training” sessions.

We started the year exploring broadly-based themes and philosophical positions of communications theorists. An assessment of cohort member skill levels led us to begin our new media explorations with a survey of existing new media and arts based web sites. We learned to work with mono media in arts curriculum contexts. Whereas drawing, painting, scanning, photo realistic editing, and basic digital animation, morphing, and video techniques were learned within the visual arts curriculum, digital recording and editing of voiceovers, sound effects and singing, creative composition with software sequencers and MIDI (Music Instrument Digital Interface), and music file manipulation and conversion (e.g., MP3) techniques were explored within the music curriculum. Some learning sessions were formal while others were exploratory and open-ended. Some sessions included the entire group in one computer lab; at other times the group was divided by either grade level or sponsor school groupings to explore pedagogical and content development issues in two computer labs and a traditional classroom. All of the new media skills were acquired through a pass-fail graded course. Both that factor and a curriculum-based instruction context promoted a relaxed, creativity-enhanced learning atmosphere, which is crucial to nurturing teachers and children in the applications of new media.

A mid-year, comprehensive survey of traditional and new media resources in our sponsor schools revealed a “tutti-fruity” variety of old and new media in classrooms. Whereas some schools were equipped with state-of-the art computer labs, others were burdened with 10 year old machines and poorly designed software. Moreover, the most glaring problem encountered was the lack of software to complement both old and new machines. That issue is most problematic and is endemic to all elementary schools in the Lower Mainland of British Columbia. Even though all classrooms are wired for

**Part of the impetus for designing FAME was rooted in our belief that we needed to (re)introduce play, imagination, and creativity into teacher education, across the entire curriculum.**
If we are truly to become a computer fluent society in the first decade of this new millennium, strong links need to be made between extant arts curricula and corresponding computer-based applications.

high speed internet access — with the exception of a handful of classrooms that possess one or two older computers and one model classroom that is equipped with wireless internet access and a 12 notebook computers — the majority of our schools are equipped in the traditional, school computer laboratory model. While the traditional lab model may be convenient for network troubleshooting and maintenance by district personnel who control the type and flow of information on school computers, it poses numerous pedagogical and classroom management issues for novice and experienced classroom teachers alike.

Even where new technologies have failed in school computer labs — and there have been numerous server meltdowns, power outages, and frozen monitors over the past 6 months — this vibrant philosophy has profoundly influenced practice in 35 classrooms in North Vancouver, British Columbia. While most North American schools are not yet ready for such a radical approach to teaching, hopefully our FAME teachers will be ready when the technology is “really” there, working seamlessly in elementary school classrooms.

A digitalist future for Canadian children

Canadians have the opportunity to become the “digi-coded,” as one popular children’s cartoon describes the popular heroes who dive into the monitors of their home computers to join their digital pets to fight the evil forces of the digital world. In essence, arts computer fluency and literacy can serve as an interesting, creative platform for a great deal of learning in the acquisition of general computer skills, arts-based skills, conceptual development, and meaningful connections across the curriculum. If we are truly to become a computer fluent society in the first decade of this new millennium, strong links need to be made between extant arts curricula and corresponding computer-based applications. And relevant, exciting software that enables children to explore and build “cool stuff” needs to be designed specifically for the elementary school market. We need to look beyond the box of “information” technology and think in terms of comprehensive arts technology. And creative uses of all forms of new media need to escape the school computer labs and infuse each classroom across our nation.

As there is a growing divide between the “haves” and “have-nots” with home computers, there may well evolve a similar knowledge gap between the “creators and mere users” of new media. The future of new media development is a function not only of technological innovation, but one of content creation. Until the current generation of elementary school aged “designers and developers” reach maturity, the so-called “multimedia revolution” will not come to full fruition. Thus, educators of the arts, and those who are actively involved with supporting the arts in their schools, can play a major role in the future outcomes of the arts technology revolution.

So take your classes into your school computer labs — or better yet put computers in your classrooms — and teach our children how to create new media from an arts perspective. Make the connections between traditional and new media. Teach broad learning concepts and make connections across the curriculum. Not only will children learn about the tools, they’ll learn to apply them in meaningful ways that will ultimately contribute to the future of Canadian culture. And indeed, the future of Canadian culture is at stake, for we can either become the creators and exporters of content and full forms of new media or the importers and users of waves of various forms of content that will have no geographic or political boundaries.


Peter Gouzouasis is an Associate Professor and Coordinator for Music Education in the Department of Curriculum Studies at UBC, the former music programming director of WRTI/JAZZ 90 in Philadelphia, creator or television and radio commercials, and a musician in his own right. Peter was the first Authorized Trainer for Macromedia’s multimedia products in Western Canada (1993-1998) and the first person to teach interactive multimedia courses in British Columbia and Australia. petergou@unixg.ubc.ca

---

Education Canada 23