

▲ Home

Contents

College Quarterly

Winter 2004 - Volume 7 Number 1

P

WebStars: Holistic, Arts-Based College Curriculum in a Computer Applications Course

by Selia Karsten, BA, MFA, Ed.D

Abstract

The purpose of my qualitative, action study was to gain a better understanding of the effects of an experimental college course in computer applications. This inquiry was made concerning both the teacher's and learners' points of view. A holistic, arts-based approach was used by the researcher/teacher in order to design, develop and facilitate a computer applications course for international business and marketing students from 1996 through 1998.

Each class met with me three hours a week for thirteen weeks in a computer lab. Additional work was expected to be done independently either at home or in the campus computer commons. Two Web sites were constructed to augment class time activities. The regular use of e-mail and the posting of messages to discussion forums were part of the communication process. Drama games, storytelling, collaboration, creative problem-solving tasks, log-keeping, team projects and individual self-directed projects were among the strategies used in a constructivist learning environment.

In this course, learners were asked to reflect on themselves and their goals as they gave autobiographical and business-related computer-assisted presentations and developed personal Web page portfolios. Heuristic methodology gave a framework for conducting this study. Pre-interview surveys and interviews were conducted with a total of seventeen self-selected participants representing the five semesters in which the course was given. These exemplary students were profiled and their responses were analyzed. Additional data included in the analysis included a profile of the curriculum designer/teacher, course artifacts and reflective teaching journals.

Recommendations for the integration of arts-based and holistic activities with the acquisition of skills in computer technology were positively indicated in the findings of this study. Participants who previously felt a lack of expertise with computer technology were transformed by discoveries that enhanced creativity and confidence. Many participants moved from the fear of using computers to pride in new skills, especially regarding the World Wide Web. There were also positive outcomes regarding self-image that participants credited to this course. Further research will hopefully continue to support a harmonious coming together of the possibly divergent interests and attitudes of the computer technology community and those of holistic educators.

The Study

The purpose of this educational research was to inform as to the effect of holistic and arts-based practices on the teaching of a college level Computer Applications course. The research was conducted in order to reflect on and to determine what was experienced in this course from my point of view as the curriculum developer /teacher /researcher. The study also concerned the point of view of those students who took the course in any of the five semesters it was delivered between 1996 and 1998. Seventeen former students of the course from each of the five semesters the course was offered were interviewed.

For me, the term "WebStars" symbolizes a personal sense of achievement using technology and the World Wide Web. I explained to the students who became participants in this study, that I realized I had discovered a medium where I felt I could "shine". I felt that I was a "star" in my own work and development using the Web. I wanted to know if these students had made similar discoveries and how they felt about being "WebStars".

Parker Palmer (1998) writes that teaching holds a mirror to the soul. I believe, as he says, that "If I am willing to look in that mirror and not run from what I see, I have a chance to gain self-knowledge - and knowing myself is as crucial to good teaching as knowing my students and my subject".

It could be argued that introspection and reflection might be the practice of any teacher; what then was so special about this inquiry? This particular course I was teaching represented a convergence of powerful forces present in education today: the use of computer technology and the Web and the use of holistic, arts-based approaches to curriculum.

I recognized that I was a pioneer by virtue of teaching with computer technology and the World Wide Web. Such tools continue to be in a constant state of evolution which had me in fast moving waters, navigating as best I could and helping my students to do the same. We were exhilarated and terrified at the same time. We realized that we needed these skills in order to do more than merely survive in the information age - to triumph in a maelstrom of complexities. How would we come out of this exploration? Would we know more about who we were and what we wanted to accomplish in the inevitable adventures ahead?

I was trained to be able to produce drama in any kind of community. I learned to be prepared to work with students to produce good results in a gymnasium or a cafeteria with no budget for props and costumes. The focus was on imagination and making the best of any situation. In the three decades of working in theatre and teaching creative drama, a lot of silk purses were made of sows' ears. I became convinced that the use of the arts in teaching and the focus

on creativity were more important than ever in helping students to learn about themselves as they learned new skills.

Teachers have moved to using a whiteboard rather than a black or green board; from lecturing just from notes to using an overhead or a TV and VCR in the classroom. Teachers now use presentation software and assign projects that require the use of the Internet. Underneath it all, there is that fundamental communication that happens between teacher and learner and learner and learner. How could the seemingly conflicting worlds of the arts and sciences come together to enhance that communication? How could the emphasis be put where it belongs, that is, on helping teachers and learners to be flexible, to be better prepared to deal with change in the information age and to be creative in seeking solutions; to know themselves better?

In this inquiry, I looked back, reflecting on the process, hoping to make new discoveries. What did I learn? What worked and what didn't work? I asked my co-researchers, my participants, to reflect on what happened for them. Did they learn? What did they learn? Were they now comfortable with the tools they used? Did they feel prepared to handle whatever changes in technology and in life that lie ahead? I was able to gather valuable data while teaching the course and later mined the rich resources available through interviews with students from each semester that the course was delivered. I asked for their insights and reflections on what we accomplished together.

The Research Questions

The main purpose of this research was to determine what effect the use of holistic, and arts-based methods had on the teaching and learning of a college level computer applications course. There were two sets of sub-questions as follows:

A. Regarding the teacher

- 1. How did the teacher, as curriculum developer and facilitator apply a holistic, arts-based approach for the delivery of the course material that dealt with acquiring skills to do with computer technology and the World Wide Web? What was her experience in teaching the course?
- 2. How did the development of the course evolve over a period of five semesters?
- 3. From the teacher's point of view, was the course beneficial and if so to what extent?
- 4. What were the limitations of the course and of the holistic, arts-based approach used for course development and delivery?
- 5. What can be learned from this experience by curriculum developers, teachers and researchers?

B. Regarding the students:

1. How did a sampling of successful students respond to a

- holistic approach for learning computer applications?
- 2. From the point of view of these students, in what ways was the course beneficial and to what extent?
- 3. Were there limitations of the course and the holistic, arts-based approach used as far as students were concerned?
- 4. What specifically did students learn from this experience?

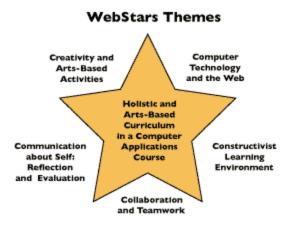
The heuristic method, was used to explore and reflect upon these questions. "Through exploratory open-ended inquiry, self-directed search, and immersion in active experience, one is able to get inside the question, become one with it, and thus achieve an understanding of it".

Review of the Literature

The review of the literature looked at themes that emerged from the design and delivery of the Computer Applications course. In traditional studies, the review of the literature leads the researcher to the work. My reading began before the work of creating and delivering the course. That work however led me to much more reading and finally to the study. Rising from the literature came insight to guide the ensuing data collection with the awareness of related research.

The discussion of the literature was clustered into dominant themes that arose from the work of the course, that is: the holistic approach to teaching, and within that, the course design as an example of holistic curriculum. I explored computer technology and the use of the World Wide Web as it related to the times and to the course, Computer Applications. I examined the writings regarding constructivism and collaborative learning and teamwork. I also discussed the literature related to specific reflection and evaluation strategies such as journal writing or log-keeping. Finally, I looked at creativity and arts-based activities such as storytelling, art and drama. Major themes can be seen in Figure One.

Figure One



I began the review of the literature by looking at the central influence on the development and delivery of the course, holistic curriculum. I then moved, clockwise around the star diagram of themes to look at computer applications and the Web as it influenced my work. Next I examined what had been written to support the concept of the constructivist learning environment. Collaborative learning is part of holistic learning and of constructivism but I gave it a particular focus, as it appeared to be of much importance in the course process. I reviewed writings to do with communication about the self concerning reflection and evaluation as it pertained to the course. The other theme discussed regarding the literature was creativity and arts-based activities.

The discussion of the themes that emerged from the creation and delivery of the Computer Applications course through a holistic, arts-based approach hopefully illuminated the process involved. In the course, learners were invited to take part in their own learning in a constructivist learning environment. Using the available technology, computer applications and the World Wide Web, learners were guided into collaborative groups or teams in order to acquire needed skills through which to express their stories.

Course projects graduated from simple drama activities and storytelling and the use of computer applications and were translated into increasingly more complex presentations and elaborate Web page portfolios. These computer-generated forms of communication demonstrated a level of performance and exhibition of skills and expertise to be evaluated by learners and their peers.

In their survey of success stories regarding digital projects in education, Kahn and Coburn wrote that "telling personal stories with help from multimedia is a powerful and deeply satisfying way for teachers and students to communicate, learn and grow" (Kahn, 1998, p.52). Selzer, in trying to make sense of the proliferation of personal Web pages declared that this medium can serve as a hall of fame for the individuality and creativity of all students, heralding the special efforts and accomplishments of students and teachers (Seltzer, 1995).

There may be many benefits to this integration of holistic curriculum concepts, computer applications, and the World Wide Web. I believe the themes I identified in my review of the literature as well as those which may yet emerge from the research can be developed across the curriculum - that is, the practice of using a holistic and arts-based approach, and of integrating computer applications through this process. The objective of the research was to reveal the effects of such an approach in the experimental project: "WebStars: Holistic, Arts-Based Curriculum in a Computer Applications

Pilot Study and the Methodology

In the summer of 1997, as part of a graduate course in

qualitative research methods, I took part in a pilot study to do with my research question. Three classmates at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT) joined me. We set out to answer the question, "What are the effects of the Computer Applications course for learners?" and interviewed four students who were in the process of taking my Computer Applications course.

As the lead researcher (it being my topic), I created two Web sites for organizing our study. The main site was one where we posted all of the details of our progress: photos of the group of researchers at work, transcripts of the four interviews conducted, and all reports on our process from our four points of view as well as collectively. During the pilot study, we met on a regular basis to plan and to develop our strategies. After surveying the range of qualitative methods possible, it was decided that we would benefit from a heuristic approach to the work as outlined by Moustakas (Moustakas, 1990). Each of us produced reflective writings concerning our part in the study at various stages throughout the process.

I continued to use the heuristic method as I progressed with my research. The word heuristic comes from the Greek heuriskein to discover or find, and it is the basis for the word eureka indicating the "aha" phenomenon. According to researcher Moustakas (1990), this is a process of internal search through which one discovers the nature and meaning of experience and develops methods and procedures for further investigation and analysis. "While understanding the phenomenon with increasing depth, the researcher also experiences growing self-awareness and self-knowledge" (Moustakas, 1990, p9).

I used the six stages of heuristic methodology as identified by Moustakas: initial engagement, immersion, incubation, illumination, explication and creative synthesis. The following chart explains the process.

Figure 2

HEURISTIC METHODOLOGY CHART

WebStars: Holistic, Arts-Based College Curriculum in Computer Applications

1996-1999

PHASE ONE: INTITIAL ENGAGEMENT

1994 Ideas: creative drama, playback theatre, storytelling, multimedia, prior learning assessment portfolios

1995: Holistic Practices, World Wide Web integrated

1996: Design, develop and deliver Computer Applications course for International Business and Marketing third semester college

students

PHASE TWO: IMMERSION

1997: Explore VRML, more emphasis on holistic-arts-based aspect of course, revise and continue teaching

RESEARCH QUESTION is framed. Committee selected.

PILOT STUDY using heuristic approach; four students interviewed re: Computer Applications course

Design an online course for teachers using same approach.

PHASE THREE: INCUBATION

1998: Continue teaching Computer Applications course (total 5 semesters; 500 students)

READING * COURSEWORK * WRITING * REFRAMING * REFLECTING

Deliver online course for teachers on how to integrate Web-based learning into the curriculum.

PHASE FOUR: ILLUMINATION

1998: Discussions with supervisor and committee members, conducting interviews with students

Review of the Literature: Methodology papers prepared for Comprehensives

Research Proposal (more reading and writing) Work with ABD Coach

PHASE FIVE: EXPLICATION

1999: Examine data (field notes, interviews, journals, e-mail, forum postings, project artwork and text)

Code and analyze data. Select samples for case studies: (teacher/researcher and participants)

PHASE SIX: CREATIVE SYNTHESIS

1999: Thesis writing and revising.

Limitations, generalizations, implications

Suggestions for further research

Oral defense of thesis

Participants in the Study

I held a party at a large multi-culturally diverse college located in a large urban centre in Southern Ontario after final exams in 1998. I invited all students who had been in my classes and at the party told them about my research study. All students who took part in the study were volunteers, recruited at that party. The students were sent a participant letter explaining the study and a consent form in which they agreed to be interviewed. These documents were in keeping with the ethical requirements of the research. I began interviewing students in December of 1998 and completed the last interviews in early January of 1999.

The group who completed the interviews numbered seventeen. Eight males, and nine females ranging in age from twenty-one to thirty-five. There were:

- five from the semester one (Fall 1996)
- two from semester two (Winter 1997),
- two from semester three (Summer 1997)
- two from semester four (Fall 1997)
- six from semester five (Winter 1998).

The following WebStars table shows when and where each interview took place. The age and semester of each participant (pseudonyms are used) is given along with how contacted. Costs are also noted for transportation or parking.

Figure 3

9							
WebStars	Sam	E- Mail	Final Grade	Forms sent	Consent	Survey	Interview
Ella 35	1 f97	Yes	A 88	Sent	111/15	11/18 transcript	12/29 9pm by phine
Gino 23	2 f96	YES	A 96	Sent	I 11/11	Itranscripti	12/7 5:30pm my house
Angela 33	3 w98	MAIL	A+ 98	In person	11・フ/ンス 1	12/28 transcript	12/28 11:30am own home
Tom 24	4 f96	YES	A+ 98	Sent	11:2/1/	12/17 transcript	12/17 1pm (\$4) OISE/office
Rebecca 33	5 s97	YES	A+ 97	Sent Resent 12/8	11フ/フጸ 1	12/28 transcript	12/28 10:30 own home
	6 w98	YES	A+ 97	Sent	112/30 1		12/18 7pm by phone
Eliana 21	7 f96	YES	A 90	Sent	1111/24		12/10 4pm own home
						11/27	12/11 2:30pm

Ray 28	8 f96	YES	A 91	Sent	12/5	transcript	(\$4) OISE/office
Sam 23	9 w98	YES	A+ 99	In person	12/19	12/19 transcript	12/19 2pm OISE/office
Teresa 24	10 f96	MAIL	A 96	Sent	12/17	12/17 transcript	12/17 7pm by phone
Buddy 31	11 s97	YES	A 96	Sent	11/17	11/20 transcript	12/10 8pm (\$8) OISE/office
Lena 24	12 w98	YES	A+ 98	Sent	11/12	12/30 transcript	12/30/ 7:30pm by phone
Jim 21	13 f97	YES	A 31	Sent	11/20	12/5 transcript	12/17 12pm (\$4) OISE/office
Eva 23	14 w98	YES	B 77	Sent	12/19	12/19 transcript	12/19 4pm my house
Manny 23	15 w97	YES	A 93	Sent	11/13	11/15 transcript	12/10 1pm (\$5) OISE/office
Greg 23	16 w97	YES	A 93	Sent	11/18	11/11 transcript	12/8 10am by phone
Shona 22	17 w98	YES	A+	Sent	11/13	11/13 transcript	12/31 11am by phone

"The main benefit of using a case study approach is that the focus on one or a few instances allows the researcher to deal with the subtleties and intricacies of complex social situations. In particular, it enables the researcher to grapple with relationships and social processes in a way that is denied to the survey approach. The analysis is holistic rather than based on isolated factors" (Denscombe, 1998, p.39).

Course Related Data

In this inquiry, data from the course were collected during the initial phase of the project, that is, as the course was being developed and taught. In creating the course, there was initial planning and preparation to be done. This included the Needs Assessment, Course Objectives and Subject Outline for this Computer Applications course. Learning materials were developed for weekly activities and were published on the Web on the course home page that was accessed by the students. Each week the Web page was updated with instructions appropriate for all students taking the course.

In addition to course materials posted on the World Wide Web there were e-mail correspondence, online forum postings on a variety of subjects, self-evaluations and peer evaluations, teacher's field notes regarding the most recent semester of teaching and excerpts from student assignments and projects. Each student was expected to prepare and present four projects, two of which were executed as a member of a team and two as an individual participant.

At the college where the course was taught, using the Internet and World Wide Web in the delivery of courses was a new concept when this course was initiated in the fall of 1996. This course was an experimental course and other sections of the course taught by other instructors used a different subject outline and did not include the production of Web pages. For this experimental course, materials developed on the Web had to be scrupulously updated at a frequent and demanding rate in order to be current. New versions of all of the three major software tools used in the course came into the labs at the beginning of the third semester.

The Instruments

One of the instruments prepared by the researcher for this study was a survey questionnaire that was administered to the participants prior to the interviews. Students were asked to rank four sets of ten statements (total 40) on a scale from 1-10. They ranked experience before the course, and since completion of the course, their expertise with subjects allied to the course, and their personal opinion regarding the impact of the course. There were also ten short answer questions concerning the use of computers. The idea of these questions was to refresh students regarding the curriculum covered in the course. It also gave the researcher a reference with which to begin each interview.

The interview questions, also prepared by the researcher, covered a number of topics related to the course:

- Part One: Using Computers and Class work, questions related to: expectations and prior experience, looking back and into the future, assignments and projects, the course Web page, and forums
- Part Two: Presentations and Web Pages questions about presentations, design elements for presentations and Web pages, about creating Web pages and the Web page portfolio and impressions overall about Web pages.
- 3. Part Three, Storytelling, Creativity and Self Reflection, questions related to these topics.
- 4. Part Four, Outcomes and Impact of the Course, I ask about skills and work habits, teamwork and collaboration, attitude, self-image and course highlights.

Interviews that ranged from forty-five minutes to one hour and twenty minutes duration were held at the participant's convenience. The interviews were conducted at a location agreed upon by the participants. Two students were interviewed in the researcher's home, five were interviewed by telephone, three were interviewed in their own homes and the other seven were interviewed in the researcher's

office at OISE/IUT. The researcher acted as the interviewer. These interviews were recorded on audiotape and were later transcribed.

The goal of the interview process is to understand how the participants understood and made meaning of their experiences. "If the interview structure works to allow them to make sense to themselves as well as to the interviewer, then it has gone a long way toward validity", states Seidman (1991, p.17).

Data Analysis

The data from the transcripts were coded and analyzed in light of all themes that had emerged from reflecting on the teaching of the course and from the interviews with the participants. In the interviews, the participants looked back on what they accomplished to reflect once more on what might have been gained from the course regarding creativity and various skills.

Themes explored in this research included the following: holistic approach to curriculum, computer technology and the Web, constructivist learning environment, collaboration and teamwork, communication about self, creativity and the arts. Regarding holistic teaching practices, specific teaching strategies such as drama and storytelling activities were examined. Looking at computer technology and the Web included revisiting the needs assessment, course objectives and the design of the course.

Regarding the idea of a constructivist learning environment, materials collected demonstrate course Web pages and examples of the use of e-mail and forums. To illustrate collaboration and teamwork I revisited examples of team presentations and Web page projects completed by participants. For communication about self, namely reflection and evaluation, materials examined included logs or journals and examples of self evaluation and peer evaluation. As to creativity and the arts, I took note of comments made regarding these concepts during the interviews. In addition to the examples from these sources, I reviewed a teaching journal that I kept in the final semester that the course was delivered.

Throughout the analysis process, I reflected on the truthfulness of the responses I was examining. "The question of validity is one of meaning: Does the ultimate depiction of the experience derived from one's own rigorous, exhaustive self-searching and from the explication of others present comprehensively, vividly, and accurately the meanings and essences of the experience" (Moustakas, 1990, p.32)?

In this study, the participants were all successful students. Students who were not successful in the course were those who did not attend with any regularity and who did not complete the assignments. The only triangulation that was possible came through the variety of artifacts from both my teaching materials and the work

submitted by the students.

I was able to generalize from the interview data. I found that the participants interviewed were representative of those students who made up the population of my classes. Using multiple sources of data (student e-mail, evaluations, postings to forums, assignments, teacher's course materials and field notes) was helpful in expanding the interpretation of the interview data.

This qualitative research, using the heuristic process was reported in a narrative style of writing. Excerpts from teacher and student reflections were examined in light of the questions related to the study. "At every step along the way, the heuristic researcher exercises intuitive clues and makes necessary shifts in method, procedure, direction, and understanding which will add depth, substance, and essential meanings to the discovery process" (Moustakis, 1990, p23).

In order to batch together interview responses according to themes, I used a computer program called NUD*IST. This program allowed me to input the transcripts into a database for the purpose of coding the documents. "It becomes possible to look at data in different ways, and to try out new analytic approaches even though there is no guarantee that they will work. This kind of activity is important because it potentially increases creativity in dealing with one's data" (Fielding, 1998, p.57). The computer can accomplish analytic possibilities otherwise difficult to accomplish. The acceptability and credibility of data is enhanced with the more scientific approach of using computers. There still exists a climate of not entirely sympathetic academic response to qualitative studies.

My use of a database program was simply to organize the material so that I could gather together marked sections of the transcripts and other documents for easy access. To be able to use the program for this required a considerable investment in learning the basics of the software, time that might have been spent just as profitably in cutting and pasting paper documents in the time honoured tradition. As programs become more user-friendly and intuitive, hopefully they will increase in value to the qualitative researcher.

In writing about the use of computers in research, Tesch makes an important point when she says, "Computers will not control you; your power is much greater than theirs" (Tesch, 1990, p305). She also speaks to the idea that qualitative research is to a large extent an art where the data are reduced leading to a result that others can accept. "The result of the analysis is, in fact, a representation in the same sense that an artist can, with a few strokes of the pen, create an image of a face that we would recognize if we saw the original in a crowd" (Tesch, 1990, p304).

Rationale for the Research

Educators find themselves in a serious situation; students are crowding into computer commons. Most of us need to know how to use computer technology. There is much to consider. We need to be aware of details concerning classroom ergonomics. I taught in rooms not originally built to house computer labs, with incorrect lighting, unsuitable tables and chairs not designed for keyboarders. Of even more concern to me, was finding a way to teach with computers about computers in a holistic way that did not alienate but rather celebrated learners. Drilling and testing with the student and the computer having merely a two-way interaction seemed to me to be an ineffective and unsatisfying way of learning.

The examination of the artifacts related to this course was to gain a better understanding of what was involved in building a course, one that used elements that on first acquaintance seem mismatched or even contradictory. I believe there is a perception of technology as a tool of science where logic and left-brained thinking prevailed. The holistic picture also includes a sense of community and connectedness, where students work together using the arts to explore as they clarify their place in the world. This implies a right-brained and intuitive way of working as well as integration of right and left brain functions. "Here, the student is seen not merely as a component of the economy, but as someone who will best contribute to the world by becoming an individual capable of feeling, thinking and acting in an integrated way. In this type of education the student learns to develop a healthy relationship with the inner self as well as others".

These days the educational landscape is dominated by a push towards "connectivity" via the emerging computer technology and the Web. The computer as a learning tool and the use of the Internet in the curriculum is a legitimate concern on all levels. It presents an ever-changing panorama of possibilities that are quite costly from a number of perspectives. Moving into the information age requires costly retooling of the educational environment and a demand for trained teachers oriented to the development and delivery of curriculum using technology.

I believe a student-centered approach to computer applications curriculum is one that is beneficial to educators and learners alike. We can use arts-based activities and team collaboration to guide students towards competitive readiness for the corporate world. Strategies like the constructivist learning environment can prepare the whole learner to deal with real life situations. Storytelling, creative drama, multimedia, presentation skills, facility with the World Wide Web are all forms of creative problem-solving. These activities depend on clear communication for effectiveness in learning and interacting with the world. Travelling the Internet highway it is possible to blend ideas from essentially arts-based concepts with developing skills in computer technology.

When students came into my classes, it was not uncommon for

them to come with a form of technophobia and a fear of failure. Computers for some are still the unknown. Unless one has a special rapport with these machines, they can be instruments of torture, prickly antagonists throwing impossible problems in our paths just when urgent assignments are due. I believe an effective way into a comfortable rapport with computer technology can be found in the use of what de Kerckhove calls the connected medium par excellence, the Web. He reminded us that "connectedness is one of mankind's most powerful resources. It is a condition for the accelerated growth of human intellectual production" (de Kerckhove, 1997, p.XXXI). It is an ideal medium for learning more from our stories - enhancing the ideas and allowing learners to produce their visions in a most creative fashion.

I believe it is important to determine the most effective ways to work with computer technology in teaching. I do not propose an invitation to the wholesale embrace of the media but a thoughtful examination of what works and doesn't work. I believe that there are universal, timeless principles involved in teaching and learning, no matter what the curriculum or the media by which it is delivered. I think that the skills of engagement and meaningful communication are born in heart-felt modes of artful expression. I see teachers scrambling to get acquainted with new media that can be integrated into their teaching practices. Because of the relative instability of the emerging technology, there is a kind of chaos that promotes misunderstandings.

Technophobic educators may feel threatened by the overwhelming nature of the new media. I am convinced that the instability and complexity of the tools may be irrelevant. By focusing on holistic and arts-based practices, it may be that educators can flow with change in a way that is beneficial to learners. Transformation - as a result of learning, can be enhanced by the use of the exciting new tools from technology, as they help us to tell and to learn from our own stories. "Our growth as teachers may consist in turning around on our sense of teacher self and then remaking it" (Diamond, 1991).

The good guys in the westerns of my childhood wore white hats and the bad guys wore black ones. I knew what to expect. With my teachers, their true character became apparent through their encounters with me and with other students. A few were unspeakably incompetent and at worst, cruel. Large numbers were mediocre and forgettable. There were a few shining lights with whom I rejoiced to learn. They were my inspiration in this inquiry.

Conclusion

Throughout the investigation of this experimental Computer Applications course, indications of success or suggestions for improvement were examined. "It is not enough for teachers to work to keep current of the latest software and hardware uses, but they must also develop the necessary theoretical and critical perspectives to

accompany their new knowledge" (Hawisher & Selfe, 1997, p318].

Now that the teacher and the students had integrated the learning into their everyday lives, how were they able to use the discoveries made in the computer applications course? What effect did this course in computer applications with its emphasis on holistic and arts-based methods have on all concerned?

The six heuristic method phases (Moustakis, 1990) for the research were explored in this inquiry. From the initial engagement with the research questions and the pilot study, the researcher went through an immersion stage of deep involvement with the study. There was an incubation period in which to gather thoughts about what had transpired to date. The researcher then moved into the illumination process with the creation of the review of the literature and in writing about the methodology. Through the creation of the research proposal, the illumination phase was completed.

From the research proposal, the inquiry moved into the data collection and analysis phase in order to assist in the explication of this work. The themes so far suggested were revised. "Ultimately a comprehensive depiction of the core or dominant themes are developed" says, Moustakis (1990, p31).

Finally came the writing of the thesis and the creative synthesis. In the final stage of this heuristic investigation, the rigorous, exhaustive self-searching added to the explications of the participants comprehensively, vividly and accurately portrayed the meanings and essences of the experience. "Our genius lies in our capacity to make meaning through the creation of narratives that give point to our labors, exalt our history, elucidate the present, and give direction to our future" (Postman, 1996, p.7).

References

de Kerckhove, D. (1997). Connected intelligence. Toronto. Somerville House Publishing.

Denscombe, M. (1998). The good research guide for small-scale social research projects. Philadelphia: Open University Press.

Diamond, C.T.P. (1991). Teacher education as transformation. Philadelphia: Open University Press.

Fielding, N.G., & Lee, R.M. (1998). Computer analysis and qualitative research. Thousand Oaks, CA: Sage Publications, Inc.

Hawisher, G. E., & Selfe, C. L. (1997). Situating portfolios: Four perspectives. Logan, UT: Utah State University Press.

Kahn, F. & Coburn, J. (1998). Clips from the Heart. Technology &

Learning, 18 (9), 52-56.

Miller, J.P. (1996). Making Connections. Why: A magazine about life (Spring), 39-49.

Moustakas C. (1990). Heuristic Research: Design, methodology and applications. Newbury Park, CA: Sage Publications.

Palmer, P.J. (1998). The courage to teach: Exploring the inner landscape of a teacher's life. San Francisco: Jossey-Bass Publishers.

Postman, N. (1996). The end of education: Redefining the value of school. New York: Vintage Books, Random House, Inc.

Seidman, I. E. (1991). Interviewing as qualitative research: A guide for researchers in education and the social services, New York: Teachers College Press.

Seltzer, R. (1995). Picture Power. Internet World, 6, 84-85.

Tesch, R. (1990). Qualitative research: Analysis types and software tools. Bristol, PA: The Falmer Press.

Selia Karsten, BA, MFA, Ed.D, is a professor in the Marketing and e-Business Program at Seneca College. She can be reached at , or 416 491-5050 Ext. 6318

Contents

Copyright © 2004 - The College Quarterly, Seneca College of Applied Arts and Technology

[•] The views expressed by the authors are those of the authors and do not necessarily reflect those of The College Quarterly or of Seneca College.