The use of information and communication technology (ICT) to encourage reflection, interaction, and collaboration for innovation and professional growth in higher and adult education.

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Abstract

The purpose of this exploratory case study is to describe efforts made to encourage reflection, interaction, and collaboration for educational innovation and professional growth in three contexts where interactive information and communication technology (ICT) was introduced. The study is framed in adult learning theory (Knowles, 1980; Merriam, 2001); face-to-face and virtual collaboration theory as conceptualized by Lawson (2003), Corrigan (2000), and Palloff & Pratt (2005); and team leadership, as reported by Kogler Hill (2004). Observational and archival data were collected and analyzed from a grounded theoretical perspective (Straus & Corbin, 1990). The study derives perspectives on the utilization of ICT to encourage reflection-on-practice, interaction, and collaboration from which cross-institutional, cross-cultural, and binational teams can develop educational innovation and professional growth in higher and adult education.

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In the age of accountability, the higher education community finds itself with two problems of practice: What role can information and communication technology (ICT) play in developing well-rounded practitioners conversant with both concepts of educational research methods and the educational policy and regulations that govern some aspects of their day-to-day routines in practice? How can ICT technology affordances help practitioners develop and maintain balance between conceptual knowledge and its application to address problems of educational practice in higher and adult education? The purpose of this study is to explore these questions and investigate the use of various ICT applications in service of higher and adult education functions of teaching, service and research in a complicated desert Southwest and Mexican context.

Theoretical Framework

Collaboration, teamwork, and learning, whether achieved between education professionals at different institutional levels in one country, or at the same level in two or more countries, are complex undertakings. Leading collaboration, teamwork, and learning are equally challenging across institutional and political boundaries.

Adult Learning Theory. The theoretical framework for this study draws from the literature on adult learning theory (Knowles, 1980; Merriam, 2001a, 2001b), learner centered psychological principles (APA, 1997), adult learner autonomy (Pierce & Kalkman, 2003), learning as a social activity situated in personal and professional contexts (Hansman, 2001; Lave and Wegner, 1991; Guskey, 2000) and the relationship between individual and organizational learning. All of these concepts emerge from a number of core assumptions that Knowles first posited: (1) learners feel a need to learn; (2) the learning environment is characterized by physical comfort, mutual trust and respect, mutual helpfulness, freedom of expression, and acceptance of differences; (3) learners perceive the goals of a learning experience to be their goals; (4) learners accept a share of the responsibility for planning and operating a learning experience, and therefore have a feeling of commitment toward it. (5) learners participate actively in the learning process; (6) the learning process is related to and makes use of the experience of the learners; and (7) learners have a sense of progress toward their goals.

Collaboration. The study is also guided by Lawson's conceptualization of collaboration as a developmental process (In Brabeck et al., 2003), Corrigan's understanding of collaboration as both process and product (2000. See Appendix A.), Palloff and Pratt's framework for developing collaborative teams in online learning environments (2005), and the role of various ICT affordances (Wolcott, 1996; Vrasidas and Glass, 2002) in supporting collaboration. Collaboration results from special designs (or interventions) that acknowledge that no one person, group, family, profession, or organization can achieve its goals autonomously. Finally, where there is uncertainty about the effectiveness of the *status quo* and a beginning awareness of the need for organizational or institutional change, the field is ripe for collaboration.

Team leadership and educational innovation. The study also draws from a research base on team leadership (Kogler Hill, 2004), which, of all conceptualizations of leadership, aligns

most closely with collaboration and adult learning in teams to address specific problems of practice. In this conceptualization, teams collaborate and learn across institutional, cultural, and political boundaries. Organizations are facing rapidly changing conditions with new technology, new structure, global economic competition, and increasing diversity. The organizational team structure is one way that an organization can respond quickly. Leading such teams is a complex undertaking and a critical one to team success in developing innovations that will provide the organization with a competitive edge and students with cutting edge educational experiences. Two specific leadership behaviors, (1) monitoring versus taking action, and (2) focusing on internal group issues versus external group issues, are of importance, and these leadership behaviors can be exercised by a formal leader or team members (McGrath, in Hackman and Walton, 1986, p. 76) to lead to educational innovation using various technology affordances that might not have been previously available (Wolcott, 1996; Vrasidas and Glass, 2002)

Methodology

This multiple case study is guided by a grounded theoretical perspective (Strauss & Corbin, 1990) and qualitative case study data gathering and analysis structured consistently with Merriam (1998) and LeCompte & Preissle's (1993) frameworks. Each author was a participant observer. One of us was professor of record for a hybrid introductory research methods course. Another was principal investigator of a school leadership project. The last was responsible for facilitating partnership and collaboration development between College of Education researchers and the educational research and higher education community in Mexico. The professor also provided ICT development support in the launching and maintenance of a website and a listserv for each of the other two projects. In addition, the professor designed and implemented ICT tools in the course described in this study.

We examined usage patterns as reflected by the number of hits recorded in a website, the message count and content analysis of two listservs, the peer review process facilitated by a Web-based proposal submission tool for a binational symposium, and usage patterns in a Blackboard course management system for a graduate level introductory research methods course. Open, axial and selective coding was used to analyze data, and analysis was triangulated among the three authors of this study and the literature on ICT and collaboration, interaction, reflection, and program innovation for professional growth in complex higher and adult educational contexts.

Data Presentation

Though these three case studies appear to be discrete, and they operate independently of each other, we argue that they do form a collective whole that contributes to ASU's *New American University* vision for a university that is responsible for the economic, social, and cultural vitality of the desert Southwest and beyond: The *New American University* represents a new way of thinking about the fundamental objectives of a university—teaching, research, and public service. (ASU, 2005)

Strategic actions toward this vision are (1) Provide quality education that is accessible to a broad population; (2) Create a highly educated workforce; (3) Generate economic growth; (3) Conduct transdisciplinary research for the public good; and (5) Maintain a global perspective. We will now describe three cases illustrative of the use of ICT to serve teaching, service, and research functions in ASU's College of Education.

Case One: Teaching (A Research Methods Course)

Introduction to Research and Evaluation in Education is a service course for the College of Education that surveys qualitative, quantitative, and mixed methods and provides graduate students an overview of the educational research methodological field in preparation for more extensive exploration of research methods through a course devoted to quantitative methods and another course devoted to qualitative methods. A problem with this course is that there is not enough time to do service to even an exploratory study in one semester, leaving students and instructor often frustrated as a result, and limited in the ability to form collaborative groups around a project.

This study describes one section of the course, in which the professor began to modify her thinking about its goals and objectives. She began to direct student thinking and reading away from an exploration of "good research" from a methodological orientation to one where ethical considerations were integrated with methodological ones (Hostetler, 2005). Her hunch was that using this orientation would provide a firmer ground for a culturally diverse cadre of students—some local residents, some from other states, and some from other countries—to form collaborative work teams that would focus on important, complex educational problems. The twenty-one students in this section developed literacy, teen pregnancy as it relates to school dropout, and holistic education, as lines of investigation and formed three groups, each representative of one line. Each group of seven students was charged with the task of conducting the first two phases of a needs assessment simulation, using Witkin and Altschuld's conceptualization (1995) as a point of departure.

In addition, international students were normally on campus all day, and some had communicative challenges with the English language. Others were part-time students in professional educational and other positions. Some were full-time university employees, including Student Services and Residential Life. Others were teachers in the local public schools, and a few were employed in various human services agencies. Each student had a different need that would be well served by ICT. The non-native English speaker benefited from the availability of archived information to which they could return more than once so that they would understand better what was being presented and discussed in class. The other students benefited from the flexibility that technology afforded when other professional commitments prevented their presence on campus for class or group meetings (some traveled as part of their employment responsibilities, and at least one lived about an hour away from campus).

How information and communication technology was used to encourage collaboration. The course was a hybrid course that met for face-to-face sessions at the regularly appointed hour. The purpose of face-to-face sessions was for the professor to deliver lectures on various research methods and students to facilitate discussion on a number of articles about concepts and epistemology of research and research methods. This time was the opportunity to check in with each other on the status of each student's contribution to the needs assessment simulation, to make additional assignments as the simulation proceeded over the course of the semester, and to consult with the professor on an *ad hoc* basis for clarification of their direction.

A number of communications tools were available, from which students were free to pick and choose as they saw fit: *Blackboard* course management system email and discussion board functions and a Directed Response Folio (DRF) on a Web-based collaboration tool called *Taskstream*. The DRF was organized according to the format of the needs assessment simulation product. Each section of the DRF provided question prompts to guide students through the simulation.

Students also prepared a presentation portfolio (a website) to introduce themselves to each other. They provided information about their previous background, why they were taking this course, what they hoped to achieve as a result of the course, and their professional interests. The objectives of this exercise were to help students gain confidence in their ability to manage the technology and to provide a backup opportunity for students to form work groups more quickly for the needs assessment simulation that followed. Both are consistent with Knowles' adult learning theory (Conrad and Donaldson, 2004).

Each group selected a different technology tool to support their efforts. For the literacy group, the tool of choice was the Blackboard discussion board, where they posted comments and drafts, which they worked collaboratively revising toward the final product. The group focusing on teenage pregnancy communicated primarily via email, and posted their final product as a website that one of the group maintained for the group. The third group had difficulty focusing their efforts because each had a particular perspective on holistic education that did not necessarily blend well with the others. Toward the end of a most frustrating process, one of the group took leadership as a coordinator of the rest of the group's work. Each provided a component (e.g., character education, civic education, progressive education, civility in higher education), which the leader compiled and attempted to weave together during the presentation.

Table 1
Introduction to Research and Evaluation in Education Representative Technology Statistics

	Hits	Percent
Blackboard Folders		
Syllabus	22	3.81
Course Resources	427	74.00
Assignments	62	10.74
Login Links	56	9.70
Blackboard Applications		
Announcements	221	11.93
Content Area	403	21.76
Communication Area	96	5.18
Email	59	3.18
Tools	236	12.74
Groups	286	15.44
Gradebook	320	17.27
Student Gradebook	132	7.12
Discussion Forums		
Holistic Learning Group Discussion	94	6.04
Literacy Discussion	797	51.28
Dropout Discussion	0	0.00
Reviews	663	42.66
Email Correspondence		
Number of Email Messages Sent by Students to Professor.	204	
Range of Email Messages per Student to Professor	1-27	

The Literacy needs assessment team made an impressive use of the Discussion Board tool in *Blackboard* to facilitate collaboration in their needs assessment project. The group generated 79 messages to communicate articles they found as well as arrange the logistics of assembling the report later in the semester. It was the only discussion board with such rich discussion that went beyond checking logistics and approached reflection toward collaboration. For example:

Student 1: "how is everyone doing? Are you able to find articles? I have found mine—it is called Raccoon? Wass Dat? It is about using native language and relevant experiences to teach reading to non-Anglo culture children. So it is not exactly about Latinos but I think the information can apply…

Student 2: Okay – the article I have is really a report from the Center for Applied Linguistics. It is titled "The Transfer of Skill from Spanish to English: A Study of Young Learners." It is pretty lengthy but I think the findings will help us. Essentially the findings support the practice of providing literacy instruction in Spanish to Spanish-speaking English-language learners as a means of helping them acquire literacy skills in English.

Case Two: Service (Learner Centered Leadership)

Learner Centered Leadership (LCL) for Culturally and Linguistically Diverse School Districts is a partnership project involving the Division of Educational Leadership and Policy Studies in the College of Education and four urban core Phoenix school districts. Three of the four districts serve children in grades K-8 and feed into the fourth district, a central high school district. Each of the districts had a high percentage of students and families in poverty and/or English Language Learners. Many come from Latin America with the majority from Mexico. The aim of the project was to prepare new school leaders, especially woman and Latinos, to assume positions as assistant principals and principals in these districts' schools. Approximately one hundred (100) people participated, either as aspiring, novice, or veteran building administrators, central office administrators, or higher educational faculty and staff (See Appendix B.). The project aimed for collaboration and partnership among the school districts and the university.

Learner centered leaders ask questions such as *What do I need and want to learn? Why is it important to learn? What motivates me to learn? How am I similar to and different from others? How do I know I've learned the right thing? How do I use what I've learned?* (Danzig, Zhang & You, in press). Expertise is derived from reflective skills, on the ability to think deeply about a problem and take action or make adjustments accordingly (Bansford, Brown & Cocking, 2000), but it is important to situate reflection and acquisition of knowledge in practical contexts. The College of Education's Learner Centered Leadership project exemplified the use of ICT to support reflection, interaction, and collaboration toward the development of leadership and professional expertise in school administration in urban schools.

How information and communication technology was used to encourage collaboration. A special challenge here to building strong collaborative relationships was the differing rhythms of the higher education and K-12 educational systems. Information and communication technologies were used in a number of ways to help bridge the gap. Project participants launched a project website to serve as a clearinghouse to link participants with human and information resources and a listserv to provide for interaction among participants whose daily routines for the most part precluded much face-to-face interaction at scheduled meetings. The project website was served by a back-office web-based subscription database system called *Quickbase*, which housed directories and archives.

Participants in Learner Centered Leadership accessed the project website to obtain information about each other's expertise and contact information. The first most frequently used function, as reflected by the number of hits in the *Quickbase* database, was to sign up to participate in summer book discussions that were held during the summers of 2003, 2004, and 2005. The second highest number of hits in the *Quickbase* database was in the Document Library, where presentations, forms, academic papers, and other documents were stored and readily available for download directly from the LCL website. The third most frequently

accessed *Quickbase* database was the Participant Directory, which included contact information and role descriptions for each of the participants in the project.

With reference to the ASU-LCL listserv, which was launched in December of 2002, 428 messages were distributed among at least 110 subscribers. LCL participants took advantage of the listserv's ability to accommodate subgroups and experimented with offering online book discussions of relevant books to participants' professional practice.

Table 2
Usage Patterns of *Quickbase* Tools and Listserv in Learner Centered Leadership

Quickbase	Number of Hit
Summer Institute RSVP	165
Resource Links	671
Resource Guide	740
Participant Directory	2,206
Mentor/Mentee Expertise Clearinghouse	443
Summer Reading Roundtable Sign-up	8,341
Document Library	3,987
ASU-LCL Listserv	**12/13/2002 – 7/11/2005**
Number of Posts	428
Number of Discrete Threads	82
Number of Posts Related to Summer Book Discussion (3 summers)	138
Number of Online Book Discussion Posts (2 summers)	116
Number of Posts Related to Professional Meetings	68
Number of Posts Related to Personal/Professional Accomplishments	27

Online book discussions elicited the richest content during the course of the project. Typical is this excerpt from a discussion of Kohl's *I Won't Learn From You*:

> When I first read "I Won't Learn From You," it was a true epiphany. I became more sensitive of the why of student behaviors. I was aware of their need to want to choose a role model from their own culture. … Many of us who participated in the Urban Systemic Initiative participated in a group that addressed equity issues in teaching mathematics. We studied teacher behaviors that students interpret as discriminatory or biased. We explored whether we taught "math" or taught students how to do math.

Case Three: Research (Extending the Educational Research Agenda with Mexico)

Exploratory and development activities in preparation for the development of research partnerships with Latin American educational institutions was motivated by a kaleidoscope of factors, unique to the desert Southwest. Many of the region's Latino population are transnational, frequently traversing the border.

Educators on the Arizona side of the U.S.-Mexico border face great challenges in schooling Latin American immigrant children, many of whose parents may have had less than the equivalent of a high school education in their native countries. Many of the participants in Learner Centered Leadership were in school settings where there were a significant number of such families in their schools, and they reported a number of initiatives in their schools that worked to help immigrant families make a transition from the educational norms of the country that they left to the educational norms of their new country of residence. Coincidentally to these efforts, exploratory research in Mexico on the topic of school dropout yielded data that indicated that the school dropout rate in Mexico was as high as it was in the U.S. This finding caused us to conjecture that the overrepresented Latino population among the ranks of Arizona school dropouts would have dropped out had they stayed in Mexico. Hence emerged the idea of focusing on school dropout (or *rezago educativo*, as it is known in Mexico) as the common

theme around which educational researchers from the U.S. and Mexico would gather for the first time. Approximately 200 researchers from U.S. Southwest and Mexico convened for the *First Binational Symposium of Educational Researchers* in Mexico City in March 2004.

How information and communication technology was used to encourage collaboration. Because prospective participants' institutional affiliations were to be on both sides of the U.S.-Mexico border, ICT played an important role from the beginning in the development of this event. A bilingual website was designed with the assistance of a professional graphic designer from California, and content was developed and published in both English and Spanish. SCEED staff and counterparts at the *Fundación Solidaridad Mexicano-Americana* (*Mexican-American Solidarity Foundation*) and the *Universidad Pedagógica Nacional* (*National Pedagogical University*) in Mexico City looked to this website for the latest information to coordinate logistics for the event as well as to provide a mechanism for the submission and review of proposals. Everyone was literally on the same page.

College of Education systems programmers worked with SCEED staff in developing a Web-based proposal tracking tool that researchers used to submit their proposals, and a group of reviewers from across the U.S. Southwest and Mexico accessed it to review them. Two review panels (one from Mexico and one from the U.S.) peer reviewed the proposals, and the two chairs (one Mexican and one from the U.S.) selected the proposals that would be presented at the *Binational Symposium*. Email correspondence leading up to the symposium was conducted via distribution list that ensured a personalized approach. A listserv was established after the symposium for the scholarly community that had established itself in Mexico City, and research partnerships that were forged at this event have been developing ever since. For instance, many presentations were submitted to academic journals on both sides of the border, and some are in the manuscript development process and awaiting publication.

Table 3
Information and Communication Technology Utilization Patterns in Binational Research

Total number of proposals submitted	71
Number of U.S. proposals submitted	38
Number of Mexican proposals submitted	33
Total number of proposals selected	33
Number of U.S. proposals selected	17
Number of Mexican proposals selected	16
Number of presentations in the website archive, including video, after the symposium	23
Number of video presentations posted in the website archive	9
Number of presentations accepted for publication in the *Bilingual Research Journal*	11
Number of messages posted on the listserv since May 2004.	40

The *juntos@asu.edu* listserv was the only communications tool of the three cases that was begun after the group had formed; it is also the youngest. Included in the archive is this message, initiated by a researcher from the Universidad Pedagógica Nacional-Puebla, Mexico:

> Hola, compañeros del simposio binacional, es un placer saludarles y desearles todo el éxito esta tarea que emprendemos, de retroalimentar este espacio de difusión y discusión de los tópicos que estamos realizando, felicidades por el sitio a los coordinadores y mucha suerte para todos los que participamos; será grato conocer sus avances de investigación por este medio. *[Hi binational symposium colleagues; it is a pleasure to greet you and wish you best success in this endeavor that we undertake, of feedback in this space about the topics that we are carrying out, happiness for [making] the website[available] to the coordinators and much luck for every one of us who participates; it will be welcome to learn of your research advances via this medium.]*

And here's a response from ASU:

> Amigos: Una de las figures intelectuales más controvertidas en EEUU hoy por hoy es un profesor de la universidad de Harvard de nombre de Samuel Huntington. Sus primeros ensayos sobre la cultura musulmana proco gran controversia hace algunos años. Despúes escogió como blanco las culturals latinas y muy especialmente la mexicana. En este artículo del periódico Tejano, *Texas Observer*, Dr. David Montejano, catedrático Chicano de la Universidad de California, Berkeley, hace un critica severa de su trabajo más reciente sobre la integración del migrante mexicano a l cultural estadounidense. Espero lo disfruten. *[Friends, one of the most controversial intellectual figures in the US today is Harvard professor, Samuel Huntington. His first essays about Islamic culture provoked a big controversy a few years ago. Later he chose as his target the Latino culture, especially the Mexican culture. In this article from a Texas newspaper, the Texas Observer, Dr. David Montejano, Chicano dean of the University of California at Berkeley, criticizes severely his most recent work about the integration of Mexican migrants into US culture. I hope that you enjoy it.]*

In this exchange we witness mutuality in the correspondence. In the first instance, the voice of the Mexican research community is heard. In the second instance, a U.S. colleague shares with both the Mexican and U.S. educational research community as peers.

Discussion

Educational research, leadership development, and teaching and learning are essentially social enterprises, and the literature that serves the next generation of educational leaders and researchers finds as its source a vibrant community of researchers. Leadership expertise and the ability to apply research findings for the well-being of immigrant students and families requires a knowledge base that does not end at the U.S. border because immigrant families did not leave their prior experiences in the country they left before they arrived in the U.S. Carolan and Natriello (2005) observe that "it is possible to unravel various structural features of research communities by examining their most recognizable and accessible artifacts—printed resources…there is much to be gleaned about the interworkings of an academic community through these artifacts (p. 27)." ICT tools enable the higher education community to engage students and each other in an expansive knowledge base that knows no borders and has the capacity to change preconceptions, encourage reflection, and improve professional educational practice. Activities related to the *Binational Symposium* have begun the expansion of a research network that is situated on both sides of the U.S.-Mexico border, and educational researchers and practitioners in both countries stand a lot to gain.

In this study we see an incipient transition in teaching, service, and research in the College of Education that is being facilitated in part through information and communication technological means. Of course none of the components is fully developed. The binational educational research literature is beginning to develop as researchers in Mexico and the U.S. explore and form collaborations and research partnerships through ICT and face-to-face means. Learner centered leaders are beginning to refine their reflective skills through the development of a networked learning community among them, using ICT to minimize logistical barriers brought about by physical distance and institutional differences. Graduate students on-campus are beginning to interact and collaborate more effectively across time, language, and cultural differences through a needs assessment simulation that is the focal point for a problem-based learning approach to an introductory course in research methods.

It is not clear yet that truly innovative uses of technology have emerged in these three cases. What is clear is that all three of the College's traditional functions are making similar journeys. Using a kitchen analogy, teaching, service, and research are as the ingredients in baking bread. They do not nourish as bread until mixed, leavened, and baked, and one cannot tell

where one ingredient ends and the next begins. ICT tools can be a leavening agent for blending teaching, service, and research into a nutritious whole. Time will tell whether the use of more advanced innovative ICT tools than those described in this study will further blur many artificial boundaries—including those between teaching, service, and research—and provide nourishment through a transnationally informed community of educational researchers and leaders.

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APPENDIX A

Environmental and Human Factors that Contribute to Collaboration

- Interdependent working relationships, collective action, and shared resources;
- A shared, collective identity;
- Sound intervention logic;
- Equitable relationships obtained through negotiations;
- Benefiting from conflict and competition;
- A collective voice and unity of purpose (one voice created from many—*e pluribus unum*);
- Shared language;
- Accepting diversity;
- Shared responsibility and accountability;
- Trusting relationships;
- Governance structures and processes;
- Inclusion of the relevant stakeholders;
- A coherent design for school improvement; and
- Data-driven, result-oriented evaluation and improvement systems.

Source:
Corrigan, D. (2000). The changing role of schools and higher education institutions with respect to community-based interagency collaboration and interprofessional partnerships. *Peabody Journal of Education, 75*, 176-195.

APPENDIX B

Learner Centered Leadership Participants

		Gender		Race or Ethnicity				
		Female	*Male*	*Afr-Am*	*As-Am*	*Cauc*	*Hisp*	*Nat Am*
Prospective Administrators								
Year 1 & 2 Enrollment	**n=**	**25**	**9**	**7**		**16**	**11**	
n=34	*%=*	*73*	*27*	*20*		*47*	*33*	
Current Participation	**n=**	**19**	**8**	**5**		**12**	**10**	
n=27	*%=*	*70*	*30*	*18.5*		*44*	*37*	
Rising Administrators								
Year 1 & 2 Enrollment	**n=**	**27**	**19**	**7**	**1**	**26**	**11**	**1**
n=46	*%=*	*59*	*41*	*15*	*2*	*57*	*24*	*2*
Current Participation	**n=**	**20**	**14**	**6**	**1**	**17**	**9**	**1**
n=34	*%=*	*59*	*41*	*18*	*3*	*50*	*26*	*3*
Accomplished Administrators								
Year 1 & 2 Enrollment	**n=**	**20**	**16**	**9**		**20**	**7**	
n=36	*%=*	*55*	*45*	*25*		*55*	*20*	
Current Participation	**n=**	**19**	**13**	**8**		**18**	**6**	
n=32	*%=*	*59*	*41*	*25*		*56*	*19*	

Information and communication technology (ICT) for innovation and growth in higher and adult education

Elsie Szecsy, Arnold Danzig & Josué González

College of Education, Arizona State University, Tempe Campus

- Powerpoint Presentation
- Paper

Information and communication technology (ICT) for innovation and growth in higher and adult education

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Research Questions

- What role can ICT play in developing well-rounded practitioners who know educational research methodological concepts and educational policy and regulations?

- How can ICT affordances help practitioners develop and maintain balance between conceptual knowledge and its application to address problems of higher and adult educational practice?

Theoretical Framework

- Adult Learning Theory
- Collaboration
- Team Leadership and Educational Innovation

Methodology

- Multiple case study
- Grounded theoretical perspective
- Qualitative data gathering
  - Usage patterns on website
  - Usage patterns on listserv
  - Usage patterns in online proposal review mechanism
  - Content analysis of textual data

ASU's Vision

- A new way of thinking about the fundamental objectives of a university: teaching, research, and public service.
- New American University
  http://www.asu.edu/president/newamericanuniversity/
  - Provide accessible high quality education to a broad population
  - Create highly educated workforce
  - Generate economic growth
  - Conduct transdisciplinary research for the public good
  - Maintain a global perspective

Case 1: Teaching

- A Research Methods Course
  - 21 students
    - 2 Latino
    - 17 Anglo [including 1 European International Student]
    - 2 Asian [International students]
  - Blackboard Course Management System
    - Folders
    - Applications
    - Forums
  - Email correspondence

Blackboard Folders & Discussion Forums.

	Hits	Percent
Folders		
Syllabus	22	3.81
Course Resources	427	74.00
Assignments	62	10.74
Login Links	56	9.70
Discussion Forums		
Holistic Learning Group	94	6.04
Literacy Discussion	797	51.28
Dropout Discussion	0	0.00
Reviews	663	42.66

Case 1: Teaching

Blackboard Applications. Email correspondence.

	Hits	Percent
Blackboard Applications		
Announcements	221	11.93
Content Area	403	21.76
Communication Area	96	5.18
Email	59	3.18
Tools	236	12.74
Groups	286	15.44
Gradebook	320	17.27
Student Gradebook	132	7.12

	#
Email Correspondence	
Email Messages to Professor	204
Range of Email Messages to Professor per Student	1-27
Dropout Discussion Messages	32

Case 1: Teaching

Case 2: Service

Learner Centered Leadership (LCL)

http://lcl.coe.asu.edu

LCL is an educational leadership partnership project to
- *Meet the need for principals and assistant principals specifically trained for service in four urban and culturally diverse Phoenix, Arizona, school districts;*
- *Develop innovative models to prepare future school administrators for service in culturally diverse, urban schools; and*
- *Mentor these four districts' beginning school administrators.*

  – Participants
  – Website usage patterns
  – Listserv usage patterns

LCL Participants

		Gender		Race or Ethnicity				
		Female	*Male*	*Afr-Am*	*Asian*	*Cauc*	*Hisp*	*Nat Am*
Prospective Administrators								
Year 1 & 2 Enrollment	n=34	73%	27%	20%		47%	33%	
Current Participation*	n=27	70%	30%	18.5%		44%	37%	
Rising Administrators								
Year 1 & 2 Enrollment	n=46	59%	41%	15%	2%	57%	24%	2%
Current Participation*	n=34	59%	41%	18%	3%	50%	26%	3%
Accomplished Administrators								
Year 1 & 2 Enrollment	n=36	55%	45%	25%		55%	20%	
Current Participation*	n=32	59%	41%	25%		56%	19%	

*** As of June 15, 2005**

Case 2: Service

LCL Website

	Number of Hits
Summer Institute RSVP	165
Resource Links	671
Resource Guide	740
Participant Directory	2,206
Mentor/Mentee Expertise Clearinghouse	443
Summer Reading Roundtable Sign-up	8,341
Document Library	3,987

ASU-LCL@asu.edu

12/13/2002-7/11/2005	Number of Hits
Number of posts	428
Number of threads	82
Book Discussion (3 summers)	138
Online Book Discussion (2 summers)	116
Professional Meeting posts	68
Personal/professional accomplishments posts	27

Case 3: Research

- Extending the research agenda with Mexico
  - First Binational Symposium of Educational Researchers
    http://simposio.asu.edu
    - Approx. 200 participants
    - Approx. equal distribution US and Mexican researchers

	#
Proposals submitted	71
US proposals submitted	38
MX proposals submitted	33
Total proposals selected	33
Total selected from US	17
Total selected from MX	16
Total on website after symposium	23
Video presentations posted on website	9
Presentations in process for publication	11
Messages posted on listserv since May 2004	40

Themes in Textual Data

- Approaching reflection and collaboration
- Self-reflection
- Mutuality and peer community

Discussion

- Research, leadership development, and teaching/learning are social enterprises.
- The source of literature to serve the next generation of leaders and researchers is a vibrant community of researchers.
- ICT enables borderless community and knowledgebase.
- ICT as a "leavening agent" to blur artificial boundaries, including those between teaching, service, and research.

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