Email and Online Interactive Communication - Is it really an effective tool for teaching?

By

Sallie J. Johnson, Ph.D. Candidate
CS-109 Course Monitor, Adjunct Instructor

Embry-Riddle Aeronautical University
College of Career Education,
Ft. Rucker Resident Center, Alabama
Salliejj@snowhill.com

ABSTRACT

Higher education has entered an information age in which power comes to those who have information and know how to access it. However, as more and more classes rely upon the integration of these technologies in classroom activities and assignments, instructors have discovered a pedagogical bonus – more frequent communication from the students using electronic mail (Email). However, with the use of these new electronically enhanced tools comes the need for assessment. Teachers who use electronic communication tools in distance learning programs want to know how effective these tools are in terms of student outcomes. Additionally, administrators want to know if the cost of the new technologies is justified in terms of student learning.

Introduction

The use of technology, and especially the use of telecommunications tools, has begun to change the face of education. As college classrooms begin to employ the latest technologies, both student-professor and student-student interactions can be extended and enhanced (Karayan & Crowe, 1997). According to Pardee (1997), "communication technology can serve as an extension of traditional classroom instruction." Pardee (1997) further states that use of an electronic news group or electronic discussion group has many benefits over the traditional forms of classroom discussion, citing convenience, depth of commitment, and exam preparation among these benefits.

Berge and Collins (1995) note, "We have entered an information age in which power comes to those who have information and know how to access it" (p. 4-5). According to Berge and Collins (1995) students recognize the importance of gaining competence with online communications for workplace preparation. However, as more and more classes rely upon the integration of these technologies in classroom activities and assignments, instructors have discovered a pedagogical bonus – more frequent communication from the students using electronic mail (Email).

Presently, in online learning environments such as distance learning programs and technically enhanced traditional classrooms, educational institutions have adopted different modes of communication. Many institutions of higher learning have been able to develop and support Multi-User Domains (MUDs) for collaborative classroom activities. Other institutions have developed distance learning courses using instructional television (ITV) classrooms, telecourses, and talking head presentations on the Web (Boettcher, 1998). Still more educational institutions, facing budgetary or scheduling constraints, may rely upon institutional laboratories where students can access the Internet via the World Wide Web (Web) and an Email system to gain valuable experience with these technologies (Oppenheimer, 1997).

Since, the Web is

still a relatively new environment for teaching and learning at a distance, faculty teaching and communicating online in various distance learning programs are still learning from their experiences. This new environment has prompted researchers to explore the possible effect of computer-mediated communication on pedagogy (Griffin & Anderton-Lewis, 1998). The early findings of communication patterns in online, distance learning courses appear to be more divergent than the traditional classroom communication patterns (Boettcher, 1998).

The Need for Quality Communication

In a qualitative study conducted by Babko (1998) regarding the preference of teachers to instruct in distance learning courses, a problem concerning communication was uncovered. The crux of the communication problem according to Babko's research (1998) is the quality of professor/student and student/student interaction.

Students expect educational experiences to be delivered through a variety of high-tech modes, but they also have come to expect personalized, high-touch access to services, instructors, and their classmates (Fulkerth, 1998). According to Gibson & Rutherford (1998) traditional classrooms allow for communication and interactions, with good use being made of all the skills and knowledge the students may already have. However, many forms of distance education do not allow any exchanges between the students and many Web based learning systems are also set up to miss out even though the Internet provides a great opportunity to include everyone.

Also, studies indicate that it is very important to include electronic communication tools into Distance Learning programs that promote and implement good student and faculty, and student to student interaction. Without a good plan and the proper use of electronic communication tools, much interaction and learning experiences can be lost (Gibson & Rutherford, 1998).

Even with a good plan for the proper use of electronic communication tools, without the proper training or experience on the faculty members part,

interactive communication can fail. Babko (1998) concluded that many instructors who try to build interaction into distance delivery courses often find it frustrating. One professor in Babko's (1998) study tried to include interaction into his course, but decided not to continue with it. This professor used the example of the audio bridge.

> "I never met those people. I had no idea of their background whatsoever. They were just voices on the radio, on the telephone… there was very little I could get for a discussion a lot of times. I would use my discussion techniques, but then, everybody was reticent to answer. It wasn't like a regular class where you could walk around and say 'okay, now let's see, what do you have to say? There were times when I did just do down the roll and call on somebody. But, they were now on the telephone in front of all the rest of the members of the class that they've never seen. They were not at ease" (Babko, P.H., 1998, p. 60).

Another professor in Babko's (1998) study explained that in his teaching style he presented concepts and required students to give feedback using "dialogue as to what this means and how it can be used and applied." He explained that, in his face-to-face classroom, "This certainly enhances the course. We're missing a lot of that on-line. That needs to be brought back in." He has identified limited interaction as a weakness in his own first attempt at distance education delivery (Babko, P.H., 1998, p. 60).

The Need for Investigative Research

Does access to online communications encourage students to contact instructors for help? Chizmar and Williams (1996) conclude that it does. Does this technology encourage active learning? Studies by Chizmar and Williams, Canagarajah (1997), and Manrique and Gardiner (1995) demonstrate that it can. Does computer-mediated communication between students and instructors alter the formal boundaries of the relationship between them? Chizmar and Williams (1996) argue that it has "a great

social leveling or equalizing effect." Does the informality of Email contribute to the perception of the instructor as facilitator? Berge and Collins (1995) note, "No longer perceived as the sole experts and information providers, teachers become facilitators and guides" (p. 6).

Might this mean that the faculty member spends more course time listening and reflecting back on thoughtful questions and confused comments? Is it possible to use this new environment to do what teachers have always wanted to do, but have been constrained by the classroom? Can this space be used to support rigorous intellectual relationships between faculty and students? As more expertise is gathered in this new teaching and learning space, might it not be true that the online course experiences are more satisfying for both teachers and students? Anecdotal evidence suggests that students feel closer to faculty and to their fellow students in online courses. Why might this be so? Are more truly intellectual conversations taking place when the faculty assumes more of a balanced talking and listening role (Boettcher, 1998)?

The Significance of Interactive Electronic Communication

One of the significant skills gained through college education is that of being able to write coherently for the purpose of communication. Electronic discussion and communication tools for distance learning programs are excellent tools through which these skills develop in a natural, non-threatening atmosphere. The quality of responses to the discussion improves because participants have enough time to think, process and fine-tune their ideas (Karayan & Crowe, 1997).

Electronic discussion tools also provide convenient interaction; students and teacher respond according to their time schedule. They are not rushed to produce "an answer" on the spot, as they are when in a traditional classroom situation. Students and teachers can respond and intellectually contribute when they are most alert. Some people function better in the mornings and some

function better in the evenings. Thus the electronic communications can provide an experience in distance education that is unconstrained by time and place. (Karayan & Crowe, 1997).

In a study by Griffin & Anderton-Lewis (1998), 138 business communications students were studies to determine the communicative effects of Email interaction between teacher and students. In their findings, it was noted that more than 89% of the students reported using Email for exchanges outside required course work. Additionally, Griffin & Anderton further concluded that the students' comfort level with their instructors, evidenced by the informal conversational diction and requests for help, suggested that Email did contribute to a social leveling that allowed instructors to be seen more in the role of facilitators. (Griffin & Anderton-Lewis, 1998).

One clear example of the possible increase in student/teacher interaction in distance learning courses can be seen at Montgomery College in Texas. The College has adopted the software application entitled CyberClass from HyperGraphics Corporation. This innovative software application has been adopted by many schools across the country and provides an Internet-based learning environment that allows instructors to post on the Internet syllabi, assignments, tests, and hot links without ever having to learn HyperText Mark-up Language (HTML). One instructor at Montgomery College in Texas claims that CyberClass has enhanced his course by allowing him to become more of a mentor and guide to his students. A Computer Information Systems Instructor from Montgomery College states; "The students are given responsibility and accountability for their studies. The Web provides me with feedback from the students and this further guides the mentor/learner experience." Additionally, his students report that they actually work closer together in CyberClass' classroom than in traditional classrooms and they claim that it has actually enhanced their learning experience. This increased collaboration and interaction is especially seen in the group project assignment. The instructor reports that CyberClass increases collaboration,

interaction and problem-solving in groups because there is a central location to post syllabi, tests, assignments, messaging, audio conferencing, text chat (Case Studies, 1998).

Students at Westminster College in Salt Lake City have used the World Wide Web to collaborate with students from University of California -- Santa Barbara for research projects. This is an excellent example of how the Internet brings university students together to share data online (Case Studies, 1997). This type of sharing online indicates a possible pattern of collaborative communications that stems from the opportunity to use the Internet for interaction and teamwork. Improving technologies make distance collaboration easier and more desirable. Learning to collaborate on the Web can greatly expand the student's learning experiences. Since many of Westminster's students commute or take classes part time, they benefit from having Web access around the clock and on their own time for interactive research and communication (Case Studies, 1997).

At the University of Connecticut a beta test site for Compaq Computer's Compaq Networked Multimedia Solution (CNMM), which is an innovative product that lets educators connect with elementary school students in real time, teachers-to-be can communicate with kindergarteners through sixth grade students at Natchaug Elementary school in Willimantic, Connecticut. The teachers-in-training observe and communicate with elementary school classes using a video link and the Web. According to Sue Collins, director of education at Compac Computer Corporation, CNMM lets students and teachers communicate, collaborate, and interact with each other and with experts such as a university professor, a field researcher, or a scientist, in a realtime learning environment that eliminates academic and geographic barriers. Live interaction with researchers and current events brings the classroom one notch closer to personal experience and allows the teachers-to-be and the students to bond (Technology across the curriculum, 1997).

In a study conducted by Karayan & Crowe (1997) on student perceptions of electronic discussion

groups indicated that electronic communication formats increased student-to-student interaction. This indication suggests that the instructor begins to act more as a facilitator of the learning process than as a director of learning when using electronic communication formats. Additionally, their research on student perceptions of the use of electronic discussion groups provided insight into the changed behaviors of participating students. These favorable results should encourage other faculty at the institution and elsewhere to include electronic discussions as an integral part of teaching in particular and the teaching-learning process in general (Karavan & Crowe, 1997).

However, according to Boettcher (1997), faculty who are employing Email communications with students find that online communications have many problems and inherent difficulties. One example is the variety in computer knowledge and usage among the students. Some distance learning students will be able to communicate via electronic mail and contribute to WebBoards or lists immediately, while less experienced students could take weeks in overcoming technical difficulties and technical comprehension problems and communicate electronically.

The Barriers and Issues in using Electronic Communication

Time is a major barrier in distance learning courses and in the online learning environment in general. Faculty members spend much more time with online courses than in the traditional classroom. We have a scattered amount of anecdotal evidence that faculty spend not only more time with online courses than with campus courses, but that they spend significantly more time with their sections of online courses.

In a Web posting from November 11, 1996, L. Estabrook, the Dean of a Graduate School of Library and Information Sciences at the University of Illinois noted that a faculty-student conversation during a class break could take 30 seconds while that same information might take 2-3 minutes to exchange in an Email. There also appear to be differences from one faculty to another. In the same Web posting from November 11, 1996, Estabrook noted that online

teaching can be "significantly more time-intensive" for one faculty member than another.

Faculty do everything they have been doing in the traditional classroom plus all the personal communication with the students online. And, it all being done with new tools and increased expectations. Now that faculty can communicate with students at anytime and anywhere, the expectation is that the faculty member it is always there. Consider how incensed or unsatisfactory students would be if their online faculty member said, "I'm sorry, but I only answer students' Email on Tuesdays and Thursdays between 3 and 4 p.m." But, faculty can and should set some rules about when they are available and the expected response time (Boettcher, 1998).

Is it known how much time faculty members spend with their students? The answer is no because there have not been enough conclusive studies to know. One useful approach to measuring the amount of time faculty are spending on student and course communication suggested by Boettcher (1998) is to try to estimate the amount of time that a given faculty subject spends with each student over the course of a semester. Early estimates—about 2 hours per student, including student testing and evaluations but not lectures or preparations—have been rejected by some faculty. Frank Jewett of the Cal State System Office did a presentation on this topic at the Syllabus meeting at Cal State Poly at Pomona in March, 1998. Jewett noted that although the 2-hour per student figure is rejected, sometimes vigorously, that if one calculates the number of hours per week in a semester, divides by the number of hours available for student interaction, and then by the number of students, that it becomes apparent that two hours is about right. It is simply not possible to spend much more time than that. Many professors feel that they need or should spend more than two hours per student, but there are simply not enough hours in a semester to do so. It is no wonder that faculty often feel stressed by the demands of online teaching, student communications, and student evaluations (Boettcher, 1998).

A major issue concerning interactive communication in most online learning

environments is the new communication patterns that are developing (Boettcher, 1998). For example, in the traditional classroom there are well-defined and established patterns of communication. The most accepted pattern of communication is primarily from the faculty to the students and from the students back to the faculty. This is a very efficient model of communication. The teacher is speaking to 25-30 students at the same time, and their eyes and body language communicates the likelihood that they are listening (or not) and understanding (or not). In this environment it is often assumed that the faculty member is the one and only expert. The established teaching paradigm is the faculty member as the lecturer—dispensing information to the students. And instructional television (ITV) classrooms, telecourses, and talking head presentations on the Web reinforce this model of knowledge flowing in one direction. However, in the online environment the lines of communication are more divergent. In the online classroom environment there are fully linked networks of communication lines—threads between all the members of the Web course community and between multiple groups as well. This network pattern of communications between faculty and students and between and among students and groups of students creates a powerful tool for inviting and supporting student involvement. It is suggested that in these online networks, students are more likely to contribute their experiences, share their insights, and frame thoughtful, reflective questions. If students are more likely to contribute in this online environment, then the course experience – creating a knowledge community among the student group and a knowledge base within each individual—springs from many more seeds. Expertise can come from many directions, thus enriching the learning experience. However, in this highly interactive, contributory environment, confusion could be more prevalent as well (Boettcher, 1998).

Additionally, accoring to Boettcher's (1998) research, instructors and universities are gradually learning that a Web course is not just a "class" (as in classroom) on the Web.

The Web is truly a different environment. In the online environment the lines of communication are more divergent than in the traditional classroom. Boettcher (1998) concluded that research was needed to understand interactive communication and the expectations of what students have for interaction with faculty in a distance learning course experience.

The Western Cooperative for Educational Telecommunication (WCET) (1999) support Boettcher's (1998) conclusion in a recent project they conducted. The WCET's project resulted in the development of a set of Principles of Good Practice for Electronically Offered Academic Degree and Certificate Programs. These principles were also adopted and enhanced by the board setting up the new Southern Regional Electronic Campus (SREC) (1999). Under the section on "Curriculum and Instruction" is stated the following: "The course provides for appropriate interaction between faculty and students and among students." (p.24). Then the "Faculty Support" section of the principles from the SREC, follows with: "The program or course provides adequate equipment, software, and communications to faculty for interaction with students, institutions, and other faculty." Similar statements are part of the quality standards issued by the Norwegian Association of Distance Education (NADE, 1999). Section 10 on "Course Delivery" includes standards such as: "... real two-way remote communication must occur to a considerable extent." (10.1.2) and ".. teachers' tasks should include real teaching and guidance of the students in a way that takes care of the individual student's needs." (10.2.1) (NADE, 1999).

Another issue in which student teacher communication is important in online learning environments is in the student's perceived instructional immediacy. Teacher immediacy has received a great deal of attention in the instructional communication literature. Originally conceptualized as teacher nonverbal behaviors that either increase or decrease the degree of psychological distance between teacher and students (Andersen, 1979), immediacy was later refined to include teacher verbal behaviors (Gorham,

1988). Nonverbal behaviors include teacher use of eye contact, body position, gestures, facial expression, touch, space, and vocal qualities (Andersen,1979; Richmond, Gorham, & McCroskey,1987). Verbal behaviors include teacher use of student names, questions, feedback, praise, and humor (Gorham, 1988), among other behaviors. Together, it has been established that instructor use of nonverbal and verbal immediacy has an effect on students, most notably in the areas of student affective learning (Andersen,1979; Christensen & Menzel,1998; Christophel,1990; Gorham, 1988; Plax, Kearney, McCroskey, & Richmond, 1986), behavioral learning (Christensen & Menzel, 1998), and perceived cognitive learning (Christophel, 1990; Gorham, 1988; Jordan & Merkel, 1994; Richmond et al.,1987). Instructor immediacy has also been associated with perceptions of instructor clarity (Powell & Harville, 1990), instructor use of humor (Gorham & Christophel, 1990), instructor socio-communicative style (Thomas, Richmond, & McCroskey, 1994), instructor effectiveness (Gorham & Zakahi, 1990; Moore, Masterson, Christophel, & Shea, 1996), student motivation (Christensen & Menzel, 1998; Christophel & Gorham, 1995; Frymier, 1993, 1994), and student learner empowerment (Frymier, Shulman, & Houser, 1996). However, these studies have been conducted within conventional classroom settings, and researchers have devoted little attention to the instruction or communication taking place in the distance learning classroom (Freitas, Meyers, & Avtgis, 1998).

Conclusions

The incorporation of electronic communication like Email and the Internet into learning environments, especially in distance learning courses can complement textbooks, video taped class lectures, and interactive projects. Additionally, most traditional textbooks, mostly used in distance learning courses, necessitate and encourage more contact and more incidental computer-mediated communication (CMC) between students and instructors (Hartman, et al., 1995). Additionally, even business instructors, according to Berge and Collins (1995), recognize

the need to assure their students' competence and confidence in the use of the most basic online communication tools they will see in business: Email and the Internet.

However, with the use of these new electronically enhanced tools comes the need for assessment. Teachers who use electronic communication tools in distance learning programs want to know how effective these tools are in terms of student outcomes. Additionally, administrators want to know if the cost of the new technologies is justified in terms of student learning (Karayan & Crowe, 1997).

Reference List

Andersen,J. F. (1979). *Teacher immediacy as a predictor of teaching effectiveness.* In D. Nimmo (Ed.), Communication yearbook 3 (p. 543-559).
Thousand Oaks,CA: Sage.

Babko, P.H. (1998, May). *Influences upon higher education faculty use of distance education technology.* Florida Atlantic University Dissertation.
p. 60.

Berge, Z. L., & Collins, M. P. (1995). *Computer mediated communication and the online classroom.* (Vol. 2, pp. 1-10). Cresskill, NJ: Hampton Press.

Boettcher, J.V. (1997, November/December). Internet Pitfalls: what *not* to do when communicating with students on the Internet. *Syllabus*
Magazine. (Vol. 11, No.4). p. 46,50,52.

Boettcher, J. V. (1998, August). How many students are "just right" in a Web course? *Syllabus Magazine.* (Vol. 12, No. 1). p. 45,47-49.

Canagarajah, A. S. (1997). Safe houses in the contact zone: Coping strategies of African-American students in the academy. *College Composition and Communication.* (Vol. 48, No. 2). p. 173-196.

Case Studies. (1997, October). Westminister College: students share data online. *Syllabus Magazine.* (vol 11, No. 3). p. 40.

Case Studies. (1998, August). Montgomery College: CyberClass. *Syllabus Magazine.* (Vol. 12, No. 1). p. 40, 41.

Chizmar, J. E, & Williams, D. B. (1996). Altering time and space through network technologies to enhance learning. *CAUSE/EFFECT.* (Vol.19,
No. 3). p. 14-21. [Accessed Online: July 22,1997].
http://causewww.colorado.edu/informationresources /ir-library/html/cem9634.html.

Christensen, L. J., & Menzel, K E. (1998). The linear relationship between student reports of teacher immediacy behaviors and perceptions of state motivation, and of cognitive, affective, and behavioral learning.
Communication Education. p.47,82-90.

Christophel, D. M. (1990). The relationships among teacher immediacy behaviors, student motivation, and learning. *Communication Education.*
p.39, 323-340.

Christophel, D. M., & Gorham, J. (1995). A test-retest analysis of student motivation, teacher immediacy, and perceived sources of motivation and demotivation in college classes. *Communication Education*. p. 44, 292-306.

Freitas, F., Meyers, T., and Avtgis, T.A. (1998, October). Student perceptions of instructor immediacy in conventional and distributed learning classrooms. *Communication Education: Speech Communication Association*. (Vol. 47, No.4). p. 336-372.

Frymier, A. B. (1993). The impact of teacher immediacy on students' motivation: Is it the same for all students? *Communication Quarterly*. p. 41, 454-464.

Frymier, A. B. (1994). A model of immediacy in the classroom. *Communication Quarterly*. p. 42, 133-144.

Frymier, A. B., Shulman, G. M., & Houser, M. (1996). The development of a learner empowerment measure. *Communication Education*. p. 45, 454-464.

Fulkerth, B. (1998, November/December). A Bridge for Distance Education: Planning for the Information-Age Student. *Syllabus Magazine*. (Vol.12, No. 4). p. 28, 30, 71.

Gay, L. R. (1996). *Educational Research: competencies for analysis and application, 5th Edition*. Englewood Cliffs: New Jersey. p. 7-8,11-14, 208-212, 218-224, 227-230.

Gibson, J., & Rutherford, P. (1998, April). *Learners are teachers too in our virtual classroom*. Amsterdam: Computer Networks and ISDN Systems. (Vol.30, Issue 1-7). p. 718-720.

Gorham, J. (1988). The relationship between verbal teacher immediacy behaviors and student learning. *Communication Education*. p. 37, 40-53.

Gorham, J., & Christophel, D. M. (1990). The relationship of teachers' use of humor in the classroom to immediacy and student learning. *Communication Education*. p. 39, 46-62.

Griffin, F., Anderton-Lewis, L. (1998, June). Enhancing connections between students and instructors: African-American students' use of computer mediated communication.

Business Communication Quarterly.
New York. (Vol. 61, No. 2). p. 9-19.
Jordan, F. F., & Merkel, A. M. (1994, November). *The relationship of selected and communication climate variables to cognitive learning in the college classroom.* Paper presented at the annual meeting of the Speech Communication Association, New Orleans, LA.
Hartman, K., Neuwirth, C. M., Kiesler, S., Sproull, L., Cochran, C., Palmquist, M., & Zubrow, D. (1995). Patterns of social interaction and learning to write: Some effects of network technologies. In Z. L Berge. & M. P Collins Eds.), *Computer mediated communication and the online classroom.* Cresskill, NJ: Hampton Press. (Vol. 2) p. 47-78.
Karayan, S., Crowe, J. (1997, April). Student perceptions of electronic discussion groups. *T.H.E. Journal.* (Vol.24, No. 9). p. 69-71.
Manrique, C., & Gardiner, H. W (1995). Computer-mediated communications applications in selected psychology and political science courses. In Z. L. Berge & M. P. Collins (Eds.), *Computer mediated communication and the online classroom* Cresskill, NJ: Hampton
Press. (Vol. 2) p. 123-136.
McMillian, J.H. and Schumacher, S. (1993). *Research in Education: A conceptual introduction., 3rd Edition.* New York: Harper Collins.
p. 14-15, 383-385, 388-391, 395-396.
NADE (1999). Norwegian Association of Distance Education. [Accessed online: April 1999]. http://www.nade-nff.no/nade-nff/nadeindx.html.
Oppenheimer, T. (1997, July). The computer delusion. *The Atlantic Monthly.*
(Vol. 18, No. 1).
Pardee, M. H. (June, 1996), Using Email, Web Sites & Newsgroups to enhance traditional Classroom Instruction. *T.H.E. Journal.* (Vol. 23, No.11). p. 79-82.
Plax, T. G., Kearney, P., McCroskey,J. C., & Richmond, V.P. (1986). Power in the classroom VI: Verbal control strategies, nonverbal immediacy and affective learning. *Communication Education.* p. 35, 43-55.
Powell, R. G., & Harville, B. (1990). The effects of teacher immediacy and clarity on instructional outcomes: An intercultural assessment.

Communication Education. p. 39, 369-379.
Richmond, V. P., Gorham,J. S., & McCroskey,J. C. (1987). The relationship between selected immediacy behaviors and cognitive learning. In M. McLaughlin (Ed.), *Communication yearbook 70*. Thousand Oaks, CA:
Sage. p. 574-590.

SREC (1999). Southern Regional Electronic Campus. *Survey Report of SREB State*
Regulations as They Apply to Distance Learning. [Accessed online: 4/99:]

http://www.srec.sreb.org/student/srecinfo/survey/distancelearning.html.

Technology Across the Curriculum. (1997, October). University of Connecticut: Students/Student teachers bond via Internet. *Syllabus Magazine*. (Vol. 11, No. 3). p. 35.

Thomas, C. E., Richmond, V. P., & McCroskey, J. C. (1994). The association between immediacy and socio communicative style.
Communication Research Reports. p. 17, 107-115.

WCET (1999). Western Cooperative for Educational Telecommunication.
Principles of good practice for electronically offered academic degree and certificate programs. [Accessed online, April 1999].
http://wiche.edu/telecom/projects/index.htm.

The Author

Sallie J. Johnson is an adjunct faculty member for Embry-Riddle Aeronautical University at Fort Rucker Resident Center who resides in Dothan, Alabama. She is the CS-109 Introcuction to Computers Course Monitor for the Extended Campus of Embry-Riddle Aeronautical University. She is a Ph.D. Candidate in the Computer Technology in Education program at Nova Southeastern University in Ft. Lauderdale, Florida. Ms. Johnson has been an adjunct computer and managerial faculty member for over seven years teaching for Embry-Riddle Aeronautical University at Fort Rucker Resident Center in Alabama; Hickam AFB Resident Center in Honolulu, Hawaii; Wheeler Teaching Site at the Wheeler Army Air Field in Hawaii; NAS Corpus Christi Resident Center in Texas. Additionally, she taught international and military students in Okinawa, Japan for the University of Maryland, Asian Division. Sallie holds a Master of Arts degree in Human Resource Development from Webster university where she graduated with honors. Additionally, Ms. Johnson holds a Bachelor of Science Degree in Psychology and Education from the University of the State of New York and an Associate of Science Degree in Music and Education from the University of the State of New york. In 1984, Ms. Johnson was selected as one of the Outstanding Young Women in America by Who's Who. She was recognized in the national Dean's list in 1992 for a perfect 4.0 Masters Degree GPA, was awarded the Who's Who Among America's Teachers honor in 1994, and was recognized in the International Who's Who among American Professionals in 1997,1998, and 1999.