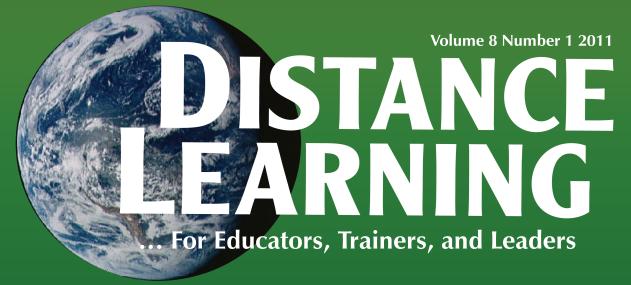
An Official Publication of the United States Distance Learning Association



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- ▲ The Value of Instructional Technology in a K-12 District
- ▲ Staying Connected, Informed, and Organized Utilizing Novell GroupWise
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EDITOR

Michael Simonson simsmich@nsu.nova.edu

MANAGING EDITOR Charles Schlosser cschloss@nsu.nova.edu

Assistant Editor

Anymir Orellana orellana@nsu.nova.edu

EDITORIAL ASSISTANT Khitam Azaiza azaiza@nova.edu

COPY EDITOR Margaret Crawford mec@netins.net

Association Editor

John G. Flores jflores@usdla.org

PUBLISHER

Information Age Publishing 1600 North Community House Road, Ste. 250 Charlotte, NC 28277 (704) 752-9125 (704) 752-9113 Fax www.infoagepub.com

Advertising

United States Distance Learning Association 8 Winter Street, Suite 508 Boston MA 02108 800-275-5162 x11

EDITORIAL OFFICES

Fischler School of Education and Human Services Nova Southeastern University 1750 NE 167th St. North Miami Beach, FL 33162 954-262-8563 FAX 954-262-3905 simsmich@nova.edu

PURPOSE

Distance Learning, an official publication of the United States Distance Learning Association (USDLA), is sponsored by the USDLA, by the Fischler School of **Education and Human Services** at Nova Southeastern University, and by Information Age Publishing. Distance Learning is published four times a year for leaders, practitioners, and decision makers in the fields of distance learning, e-learning, telecommunications, and related areas. It is a professional magazine with information for those who provide instruction to all types of learners, of all ages, using telecommunications technologies of all types. Articles are written by practitioners for practitioners with the intent of providing usable information and ideas for readers. Articles are accepted from authors with interesting and important information about the effective practice of distance teaching and learning.

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Distance Learning is for leaders, practitioners, and decision makers in the fields of distance learning, e-learning, telecommunications, and related areas. It is a professional journal with applicable information for those involved in providing instruction of all kinds to learners of all ages using telecommunications technologies of all types. Articles are written by practitioners for practitioners with the intent of providing usable information and ideas. Articles are accepted from authors with interesting and important information about the effective practice of distance teaching and learning. No page costs are charged authors, nor are stipends paid. Two copies of the issue with the author's article will be provided. Reprints will also be available.

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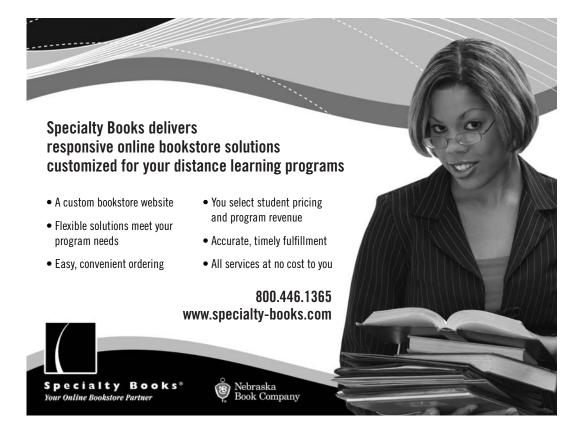
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Online Learning Opportunities for K-12 Students in Florida's Nassau County

Kari Burgess-Watkins

INTRODUCTION

esearch suggests that in approximately 4 years, 10% of all courses will be computer based and by 2019, 50% of all courses will be online (Christensen & Horn, 2008). In Florida, school districts must provide full-time virtual instructional programs to students in kindergarten through Grade 12.



Kari Burgess-Watkins, Technology Integration Specialist, Nassau County School District, 1201 Atlantic Avenue, Fernandina Beach, FL 32034. Telephone: (904) 491-9941. E-mail: burgesska@nassau.k12.fl.us

While the Nassau County School District has been using Internet-based courses for high school credit recovery purposes, the district did not have an established full-time virtual school program. During the 2006-2007 school year, Nassau County public high school students earned 201 one-half credits through the online credit recovery program offered by the district (Rodeffer, 2007). The number of one-half credits earned increased to 614 during the 2007-2008 school year (Rodeffer, 2008). Due to budget constraints, the district reformatted the credit recovery program for the 2008-2009 school year and students earned 235 one-half credits through the online program (Burgess-Watkins, 2009). In addition to the online credit recovery courses offered by the district, Nassau County public school students have been enrolling in online courses offered through the Florida Virtual School.

In the 2009-2010 school year, Nassau County School District opened the Nassau Virtual School, which offers free online courses for eligible elementary, middle, and high school students residing in Nassau County. Nassau Virtual School provides online learning for current public school students, hospital homebound students, home education students, and private school students. The implementation of the full-time K-12 virtual instructional program has been a daunting task. Fortunately, other innovative K-12 Florida districts have been offering distance education programs for a few years and have proven instrumental in establishing the necessary framework for Nassau Virtual School. The Nassau Virtual School team met over the course of a year to determine the mission, goals, objectives, programs, courses, budgets, policies, procedures, job descriptions, teacher pay schedules, website development, advertising, and other administrative tasks.

MISSION STATEMENT

The mission of the Nassau Virtual School is to extend educational opportunities for growth to all students through a flexible online environment, and thereby foster the development of each student as an inspired life-long learner and problemsolver with the strength of character to serve as a productive member of society (Nassau County School District [NCSD], 2010).

GOALS AND OBJECTIVES

The goals of the Nassau Virtual School are to:

- meet the legislative requirements for K-12 students as established by Section 1002.45 of the Florida Statutes;
- provide public high school students with an online opportunity for credit recovery, grade forgiveness, and supplemental or acceleration coursework;
- provide all eligible hospital homebound students with the opportunity to take courses online;
- provide students in Grades 9-12 with an online opportunity to earn a high school diploma;
- provide online courses for Nassau County home education high school students; and

• Provide online courses for private high school students residing in Nassau County.

In order to meet the requirements of the legislation as well as fulfill other needs of students within Nassau County, Nassau County School District is using a multifaceted approach. Nassau County School District uses Florida Virtual School Full Time (FLVS FT) for students in Grades K-12, a franchise of the Florida Virtual School for students in Grades 6-12, EdOptions for students in Grades 6-12, and Florida Adult and Technical Distance Education Consortium (FATDEC) courses for adult education students.

FLVS FT FOR GRADES K-8

Florida Virtual School in partnership with Connections Academy created FLVS FT. By signing a contract with FLVS FT, Nassau County families and students have access to a high performing "A"-rated public virtual program (Connections Academy, 2011). The full-time, 180-day comprehensive program is offered to Nassau County kindergarten through 12th grade students. In order to qualify for the FLVS FT K-12 program, the student must reside in Nassau County School District's attendance area and meet one of the following criteria:

- the student has spent the prior school year in attendance at a public school in this state and was enrolled and reported by a public school district for funding during the preceding October and February for purposes of the Florida Education Finance Program surveys;
- the student is a dependent child of a member of the United States armed forces who was transferred within the last 12 months to this state from another state or from a foreign country pursuant to the parent's permanent change of station orders;

- the student was enrolled during the prior school year in a school district virtual instruction program under this section or a K-8 Virtual School Program under s.1002.415, Florida Statutes; and
- the student has a sibling who is currently enrolled in the school district virtual instruction program and that sibling was enrolled in such program at the end of the prior school year.

Through the FLVS FT program, students benefit from the flexibility of online courses, Sunshine State Standards curriculum, highly qualified Florida-certified teachers, regular communication, and personalized, instruction (Florida Virtual School Full Time, n.d.).

The majority of the FLVS FT K-8 curriculum is in print and supplemented through online content and resources. Once a student has applied and the district has verified eligibility, Connections Academy ships all of the required learning materials directly to the student's home.

FLVS FRANCHISE FOR GRADES 6-12

In order to provide FLVS courses to Nassau County students in Grades 6-12, Nassau Virtual School signed a franchise agreement with the FLVS. The franchise courses are taught by local Nassau County School District teachers. Nassau Virtual School teachers, students, and parents benefit from the expertise of the FLVS in terms of online instruction. instructional management, student management, support, and technology infrastructure. Teachers and students can login and work on their coursework any time and from any location with access to the Internet. In order to participate in the Nassau Virtual School franchise courses, the student must meet one of the following criteria:

• be enrolled in a Nassau County School District public school;

- be enrolled as a home education student with Nassau County School District; and
- be enrolled in a private school and whose legal guardian is a Nassau County, FL resident (NCSD, 2010).

HOME EDUCATION STUDENTS

High school home education students residing in Nassau County may retain home education status and utilize Nassau Virtual School courses to enhance their curriculum. Students have access to all offered courses and can take one or as many as six online courses per semester. The student's parent or guardian acts as guidance counselor to approve course selection (NCSD, 2010).

PRIVATE SCHOOL STUDENTS

Full-time private high school students residing in Nassau County can take one or as many as six online courses per semester with Nassau Virtual School. All private school students are required to meet with their guidance counselor in order to register for Nassau Virtual School courses.

HOSPITAL HOMEBOUND

High school hospital homebound students can take one or as many as six Nassau Virtual School courses with the approval of the hospital homebound facilitator and the guidance counselor from the student's home school. Course selection is determined by the student's guidance counselor (NCSD, 2010).

COENROLLED STUDENTS

Public high school students enrolled in a traditional Nassau County high school can take courses online with Nassau Virtual School as part of their schedule. A student's schedule may not exceed six courses between the schools. All public school students are required to receive approval from their guidance counselor in order to register for Nassau Virtual courses (NCSD, 2010).

Full-Time Diploma-Seeking Students

The full-time online program allows students to earn a regular high school diploma and complete their coursework online with Nassau County School District certified teachers. Students report to a campus for FCAT Testing and other assessments as necessary. Students are able to customize their education for accelerated learning or to accommodate their individual needs. In order to participate in the Nassau Virtual School diploma seeking program, a student should:

- have been promoted to the next grade the previous school year;
- have a 2.5 or higher grade point average;
- have scored at Level 3 or above on the FCAT Reading and Math during the previous school year; and
- meet all Nassau County Student Progression Plan Criteria (NCSD, 2010).

SELF-EVALUATION ONLINE LEARNING QUIZ

Online learning can provide opportunities for students to take courses any time and from anywhere; however, this style of learning may not be appropriate for every student (Florida Virtual School [FLVS], 2009). FLVS has developed a list of technical competencies, access, and learning style questions to help students determine if online learning is an option for meeting their educational needs.

In order to help a student determine if he or she will be successful learning in an online environment, he or she should carefully consider the FLVS "Is online learning for you?" questions (FLVS, 2009) prior to requesting Nassau Virtual School courses. If the student can answer "YES" to ALL of the questions, online learning may be a viable option for his or her educational needs (FLVS, 2009). If the student answers "NO" to two or more, he or she will likely experience difficulty and should resolve these issues prior to attempting online coursework (FLVS, 2009).

TECHNICAL COMPETENCIES

and Access

- Taking into consideration my personal, academic, work and extracurricular activities (sports, clubs, etc.), will I be able to devote as much or more time to my online class, as I do for my traditional studies?
- Am I comfortable using the Internet as a means of communication and research?
- Do I own or have access to a computer with Internet access and e-mail?
- Do I know or I am willing to learn how to copy, cut, and paste text/files between programs?
- Am I willing and able to learn and apply new software applications?

LEARNING STYLES

- Am I able to prioritize tasks, organize assignments and complete assigned work by the required date?
- Can I solve problems and work through difficulties independently?
- Are my writing, reading and communication skills above average?
- Do I prefer to work alone on assignments?
- Can I read and follow detailed instructions on my own without an instructor lecturing and giving verbal explanations? [Questions adapted from Florida Virtual School's Tips for Students signing up for FLVS classes (FLVS, 2009).

COURSES

Nassau Virtual School offers 42 middle and high school courses in the following sub-

ject areas: career education, critical thinking, English, Spanish, math, science, and social studies.

INSTRUCTION

The majority of the Nassau Virtual School policies are derived directly from the contract with FLVS. Nassau Virtual School teachers are required to speak via telephone with students and their parents at least once per month. In addition, the teachers and students interact regularly through e-mail, voice mail, and telephone. Students are encouraged to contact the teacher when there is any type of academic need. Teachers are required to respond to all e-mail and voicemail within 24 hours during the regular work week (Monday-Friday) and weekend communication (Saturday-Sunday) should be handled with integrity and professional judgment. All communication between the teacher, student, and parent is documented in the course management system. Unlike the traditional classroom where the student must move on with the rest of the class or physically attend their next class, in a virtual course, the student can call the teacher and work through the material until he or she is able to understand it (NCSD, 2010).

COURSEWORK

Students are expected to login to each course for active participation at least three times a week. All Nassau Virtual School courses have a pace chart. The pace chart outlines exactly what is expected to be submitted by the student on a weekly basis. Each student is required to submit a specific amount of coursework each week in order to maintain the appropriate pace. Teachers work with the student to modify the pace chart to reflect a traditional, extended or accelerated pace. Failure to maintain the required number of weekly submissions will result in warnings, grade penalties, and potential withdrawal from the course. If a student will not be participating in a course due to travel or other commitment, the student must be on pace and notify the teacher in advance of the planned absence in order to discuss assignment completions and pacing (NCSD, 2010).

GRACE PERIOD

The grace period provides the student with an opportunity to "try out" the course while allowing the teacher to evaluate the student's performance. A student may drop a course without academic penalty by notifying the teacher before the 28th day in the course. If a student is not "on pace" with the coursework during the grace period, the teacher will contact the student and parent. If the student remains "off pace" by the end of the grace period, the student will be administratively dropped from the course without academic penalty. After the 28th day of the grace period, the student will earn a grade for the course regardless if the grade is passing or failing. Students must maintain pace in order to stay enrolled in the course (NCSD, 2010).

Assessments

The teacher regularly conducts discussionbased assessments at certain points within the course with each student via telephone. During these assessments, the teacher discusses the student's coursework and the course content in order for the student to demonstrate mastery of the content while also verifying the authenticity of his or her work. Each student is required to take a final exam in all Nassau Virtual School courses. The final exam helps the teacher validate the student has demonstrated mastery of key course concepts and standards. The student is expected to take the exam as directed by the teacher. With the intention of maintaining the integrity of all Nassau Virtual School courses and grades, the teacher may choose to facilitate or require an oral or a face-to-face assessment at any point in the course (NCSD, 2010).

ACADEMIC INTEGRITY

In order to participate in Nassau Virtual School courses, the student must agree to the FLVS academic integrity policy. Academic integrity means:

- Your work on each assignment will be completely your own.
- Your collaboration with another classmate on any assignment will be preapproved by your teacher.
- You will not practice plagiarism in any form.
- You will not allow others to copy your work.
- You will not misuse content from the Internet.
- You will not give any assistance to students scheduled to take the course in the future.
- Your parent or guardian will attest that you completed the work on your own (NCSD, 2010).

TEACHER RESPONSIBILITIES

As outlined in the Nassau Virtual School teacher's job description, teachers are expected to (NCSD, 2010):

- instruct assigned classes based on the curriculum established by Nassau Virtual School/Florida Virtual School;
- identify, select, create, and accommodate the needs of students with varying backgrounds, learning styles, and special needs;
- assist students in accomplishing course/ program objectives;
- establish an environment that is conducive to learning and active participation in learning activities;

- establish relationships with students and parents through e-mail and monthly phone conferences;
- monitor student progress and encourage students to maintain pace established by the virtual school pace charts;
- participate in professional development and faculty meetings;
- utilize all required and recommended Nassau Virtual School computer applications.;
- maintain accurate and complete records in accordance with laws, rules, policies, and administrative regulations;
- regularly check the usage logs to verify that students are active in the course;
- provide timely feedback to students on their assignments and assessment tasks; and
- follow the policies stated in the memorandum of agreement as required by the Florida Virtual School Franchise Agreement.

In order to ensure each teacher effectively performs his or her assigned teaching responsibilities, virtual classroom walkthroughs are conducted based on a model from Broward Virtual School. During the observations, the teacher and program manager simultaneously view various portions of the course management system and discuss instructional practice, student progress, and studentteacher communication to make certain quality teaching and learning are taking place within the virtual classroom.

PARENTAL INVOLVEMENT

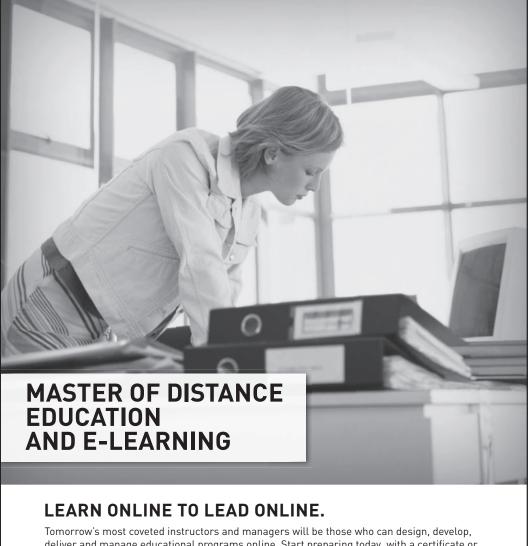
While the student is responsible for all of his or her own coursework, parental involvement is critical component to the student's success in online learning. A parent or guardian should consider the following questions in order to determine whether online learning is a viable solution for the parent or guardian and child. As a parent, are you willing to:

- Know and use your child's username and password to access their grade book, announcements, assignment feedback, etc?
- Make sure assignments, tests, and quizzes have been completed?
- Check weekly to see submitted assignments and grades?
- Help your child determine and stick to a schedule?
- Encourage your child to ask questions, call the teacher, or e-mail the teacher when he or she needs help?
- Provide the teacher with your e-mail address to receive monthly progress reports?
- Discuss problem areas with your child and communicate with the teacher and guidance counselor as often as needed?
- Make yourself available to discuss your child's progress with the teacher?
- Provide a quiet study space for your child with access to the Internet, telephone, and printer?
- Contact technical support as needed? [Questions adapted from Marion Virtual School's Making Virtual Learning Work —Tips for Parents (Marion County Public Schools, 2009)].

Nassau Virtual School offers students and parents a choice regarding their educational options. Together they must decide whether the student should attend a traditional brick and mortar school or opt to participate in a flexible educational model. Students take online courses for a variety of reasons, such as the opportunity to learn at their own pace, the ability to work and go to school, rigorous training schedule, or to makeup credits from academic setbacks. The Nassau Virtual School bridges a gap for those students whose needs are not being met in the traditional classroom. Since the legislative mandates regarding online learning are still new, Nassau Virtual School has the chance to be a part of the development process for K-12 online learning in the state of Florida. As Nassau County School District strives to implement online learning in the K-12 environment, Nassau Virtual School will continuously evolve and work with other districts to meet the diverse needs of Nassau County students as well as the requirements of the legislation and Florida Department of Education.

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The Value of Instructional Technology in a K-12 District

Loretta Cannistraci

INTRODUCTION

nstructional technology is defined as "the study and ethical practice of facilitating learning and improving performance bv creating, using, and managing appropriate technological processes and resources" (Richey, 2008). Prior definitions focused on instructional technology as a resource such as a program or a machine. The evolution of the definition from a tangible item to the latest definition is a result of the research and theory that have become a foundation for instructional



Loretta Cannistraci, Director of Information Systems, Salem Public Schools, 29 Highland Avenue, Salem, MA 01970. Telephone: (978) 740-1158. E-mail: lorettacannistraci@salemk12.org technology as it is viewed today. Theory looks at how learning occurs, motivation, communication, change and diffusion. Research focuses on learner characteristics, instructional strategies, needs assessments, evaluations, and cost effectiveness. Given the impact of research and theory on instructional technology, what is observed in the classroom is based on practice (Saettler, 2004).

THE SCOPE OF INSTRUCTIONAL TECHNOLOGY

One of the most important functions of technology is within instruction. Instructional technology supports the curriculum and learning of the teacher as well as the students within the classroom. Instructional technology, also referred to as educational technology, can be of considerable value to a K-12 district as long as the structure within which instructional technology operates is supportive. As with any system, integrating instructional technology is part of a larger system within which several individual components impact the creation of an environment that will nurture the integration of instructional technology. Instructional technology is influential in (a) informing technology, (b) improving the quality of teaching and teaching staff, and (c) enabling students to expand their learning. The use of technology is influenced by the network infrastructure, the quantity

and quality of hardware, and the network bandwidth. Earlier definitions of instructional technology referred only to these components and not to the actual impact of each resource on student learning. Without a viable network and equipment, the use of technology would lead to frustration and eventually lack of use. The technology needs to be transparent so that the focus remains on the task at hand rather than the tool being implemented to accomplish the task.

How technology is supportive of district operations and functions is also important. Administratively, student and staff information systems support informational needs for many district databases such as special education programs, lunch programs, library systems, data analysis to inform instruction, and electronic data submissions to the state Department of Elementary and Secondary Education and the federal Department of Education. The use of technology within these administrative functions fosters instructional technology through informing instruction.

The availability of professional development is another consideration today as the importance of educating our educators in the use of these new resources is realized. This continuing professional development is valuable not only in formal coursework in higher education prior to graduation but also once the teacher is in the classroom. With new technologies appearing every day to support instruction, educators need to keep informed and learn the significance of instructional technology and its impact student achievement.

Rogers' (2003) theory of diffusion of innovations is an important theory to consider for effective professional development for learning about instructional technology. This theory addresses understanding not only at what rate new ideas and technology diffuse through society over time but also how and why. Rogers adds that teachers will be more apt to use a new tool if they are in need of an improved means of helping students grasp concepts. Ease of use and access to coaching will also positively impact teacher use of new resources. The five stages of innovation adoption are knowledge, persuasion. decision, implementation and confirmation (Rogers, 2003). Making teachers aware of the technological resources available to them is the first step toward the use of these resources within instruction. Support from the technology integration specialist is a method to persuade teachers to move toward the decision to use the resources within instruction. Implementation will follow when teachers are confident the resource will support teaching and the results of the implementation leads to a confirmation that technology integration will support instruction.

INSTRUCTIONAL TECHNOLOGY IN SALEM, MASSACHUSETTS

Given the value of instructional technology in a K-12 district, let us examine how it is used in a small urban city in the northeast part of the United States. Salem, Massachusetts is located north of Boston and has a population of 41,343 (U.S. Census Bureau, 2006). Salem is home to Salem State College as well as five K-5 elementary schools, two K-8 schools, one 6-8 middle school and one 9-12 high school. Founded in 1626, it became a major seaport and famous for the 1692 Salem Witch Trials. Tourism is a major industry in the city of Salem today (Welcome to Salem, Massachusetts, The City Guide, n.d.).

During the past few years, the Salem Public Schools district in Salem, Massachusetts has provided administrators, educators, and students with the network infrastructure and hardware conducive to the effective use of technology in instruction and productivity. The trend in many districts has been to invest millions of dollars to infuse schools with the hardware, software, and infrastructure necessary to bring technology into the learning process (Price & Stokes, 2003). The missing component has been the provision of effective, sustained professional development to successfully utilize technology especially within instruction (Overbaugh & Lu, 2009). According to federal No Child Left (NCLB) legislation, adequate Behind yearly progress (AYP) is defined as the minimum level of improvement that states, school districts, and schools must achieve annually. As a district that has not made AYP, it is evident that teachers will benefit from quality professional development to enhance instruction with technology (Matzen & Edmunds, 2007).

Advancements in technology require teachers to learn the benefits of using technology to enhance instruction prior to using technology within classroom instruction (Anderson, 2000). As society relies more and more heavily on technology in every facet of existence, it is important that teachers learn to use technology to improve instruction and prepare students for life in the twenty-first century. Teacher quality is an important consideration as educators are required to continuously analyze data and modify instruction to accommodate the diverse needs of all learners, especially since the district student population is mainly Hispanic and about one third of our students are on individualized education plans (NCLB report card, 2008).

As our students progress through their years in Salem schools, it is necessary to provide them with the technological background necessary to graduate skilled, productive members of the twenty-first century. The students of today do not have the same needs, skills, and learning styles as the students of the 1980s and 1990s. Known as "digital natives," our students do not know life without technology; without a computer, cell phone, digital resources. Those of us born before the inception of technology are known as "digital immigrants" and are forced to learn how to use technology just as if we were learning a new language. Salem graduates must be life-long learners capable of dealing with the rapid change of a digital age.

Technology has been available to students and educators in the Salem Public Schools K-12 district since 1984 with the development of a computer literacy program for students and staff. Equipped with a few Apple computers, the program began to introduce administrative uses of technology and eventually expanded into computer-aided instruction. During the mid-1990s Salem began to construct a small system of local area networks in each of the schools to allow access to the Internet.

The first Salem Public Schools Technology Plan covered 1997-2002. Prior to this document, no districtwide plan existed. The current technology plan addresses Salem technology initiatives from 2008 through 2012. During the fall of 2010, the technology plan will be revisited to assess progress and adjust the plan for future growth. The technology plan is key in keeping the district focused and moving forward with integrating technology into district functions including but not limited to instructional technology.

The district has now replaced the older T1 connections with fiber at each of the schools and all schools are now connected through Verizon's Switched Ethernet Services. The Salem K-12 district now supports about 2000 computers available for staff and students and our network has expanded to encompass almost all school instructional areas as well as all administrative offices. The network is now a true wide-area network allowing for district level server-based resources such as a library system that connects the libraries in all the schools, a student information system, staff information system and numerous resources for instruction. We have met the state recommended ratio of 5:1 ratio for all students but the age of the computers is now beginning to limit access to more advanced technology. Computers need to

be upgraded and replaced on a regular schedule to ensure that students and staff can access effective productivity and achievement resources within instruction. Much as computers are upgraded as much as financially possible, the growing budget limitations have caused much of the hardware to become limited in enabling integration of instructional technology.

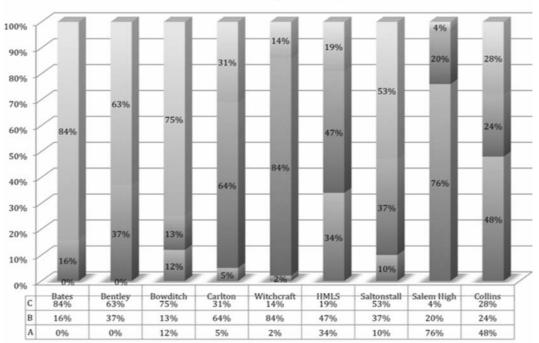
In order to allow for the expansion of technology into each school, the district's administration began a renovation project in 1980 to build the backbone for the necessary infrastructure. Table 1 shows the date each school was renovated and the percentage of students attending each school out of the total number of students within Salem Public Schools. The last column shows the comparable percentage of computers from the total of computers in the district. The Nathaniel Bowditch School and the Carlton Elementary School were new building constructions. The percentages show the distribution of computers as equitable.

The number of computers, however, is not a true indicator of the quality of the computers at each school as shown in Figure 1. The Massachusetts Department of Elementary and Secondary Education recognizes three categories of computers. Type A computers (bottom in this chart) are less than 3-years-old and are capable of supporting the newest technologies available. Type B computers (middle in this chart) are between 4 and 8 years but cannot support newer resources. Type C computers (top in this chart) are over 9 years old and in most cases cannot access many Internet resources. Clearly, it can be seen here the impact that hardware and infrastructure have on instructional technology.

If instructional technology is so valuable to the Salem K-12 district, how can is be sustained in light of restricting budgetary limitations? The district currently employs three technology integration specialists to work with over 500 teachers in nine schools. One technology integration specialist works full-time at the high school with about 140 teachers while a second technology integration specialist works full-time at the middle school with about 60 teachers. The remaining 300 teachers in the seven elementary schools share the third full-time technology the technology integration specialist. The Salem district is fortunate to have this last technology integration specialist since the elementary technology integration specialist position was eliminated in the 2008-2009 year. From August 2000 through June 2008, the seven elementary schools shared 3.5 technology integration specialist positions. Budget

School	Renovation	Percent Enrollment	Percent Computers
Horace Mann	1980	7	5
Bentley	1992	11	7
Collins Middle	1994	14	18
Saltonstall	1995	9	7
Bates	2000	7	9
Bowditch	2001	11	14
Witchcraft Heights	2003	10	12
Carlton	2004	4	3
Salem High	2008	27	25

Table 1.Date of Renovation, Percentage ofDistrict Enrollment, and Percentage of Computers



% A - B - C Computers by School

Figure 1.

issues caused the elimination of these positions but recognizing the importance of the work these specialists perform, the district was able to find funding to return one position during this school year. The problem became how to share this person among so many schools and teachers and the idea for the "Learn IT, Use IT, Share IT" program was born.

The Learn IT, Use IT, Share IT program was developed to support the technology integration specialist in working with staff to make full use of the technology resources available. This program provides Salem teachers with several resources that can be used within classroom instruction. Instructional technology specialists support teacher use of these resources. The development of the Learn IT, Use IT, Share IT program is provides teachers with the opportunity to explore resources that might be useful for instruction at their grade level or subject area. Using a website and the program, the technology integration specialist can provide teachers with information about these resources and provide tailored professional development to facilitate teacher use of theses resources. Further communication then translates into one-to-one or group training and more use of the resources (Barkley & Bianco, 2002).

An initial professional development day was held in September 2009 during which teachers were made aware of the availability of several resources. Teachers were given online access to technology standards for teachers and students, curriculum standards by subject and by grade, the employee handbook, the Massachusetts Department of Elementary and Secondary Education Data Warehouse for data analysis, the website for staff resources and the FirstClass e-mail system for collaboration and communication. The teachers were also introduced to Atomic Learning, an online resource that provides online training for teachers to learn to use the online environment and software programs available in the district. Additional online instructional resources include Internet Safety curriculum, Study Island, BrainPop, BrainPop Jr., and BrainPop Español.

Both BrainPOP and the iSafe Internet Safety program are new resources. Study Island has been available for 3 years but has not been used consistently. The addition the technology integration specialist supports teachers in learning how to effectively use each of these three products and allows for the evaluation of teacher use of these tools.

BrainPOP provides short, online, educational movies aligned to curricular state standards in subject areas such as, English, Math, Social Studies, Science, Arts and Music. Interactive quizzes, games, and activities are also available to engage students and support instruction. BrainPOP can be used with grades 4-12 while Brain-POP Jr. is used with grades K-3. The district's Hispanic population can make use of BrainPOP Español where BrainPOP content is presented in Spanish. BrainPOP was selected because it is a resource that provides support for grades K-12 in all curriculum areas ("BrainPOP About Us," n.d.).

Study Island is a web-based tool in which content is derived from state standards and standardized tests. The program provides for parental involvement, ongoing skill practice, and assessment mechanisms. Online access to the program and the variety of instructional formats motivates students to use the program while learning curriculum-related information. Teachers have access to usage reports for each individual student as well as aggregate information for all students within the class. Teachers can assign specific areas of Study Island to support classroom instruction (Study Island Online Massachusetts Standards Mastery and MCAS Preparation, n.d.). The technology integration specialist has worked with teachers to align Study Island with the district's Everyday Math program and to access Study Island reports which inform teachers about individual student and class understanding of math concepts as they are learned.

The Internet Safety curriculum is provided by i-SAFE, Inc. The K-12 curriculum focuses on cyberbullying, personal online safety, and online social networking. Through the use of this curriculum teachers educate students to utilize the Internet safely and responsibly. Teachers present the Internet Safety curriculum to students as Internet resources are used within curricular instruction ("About i-SAFE," (n.d.). Internet safety is a new area teachers are responsible for teaching. The district has purchased this curriculum to facilitate its inclusion into instruction. In light of increased use of technology and the possibility of increased cyberbullying, the district is placing an emphasis on informing students, staff and parents in this critical area.

REASONS FOR INTEGRATING INSTRUCTIONAL TECHNOLOGY

The goal of education is not simply to impart knowledge to students, whether K-12 or adult learners, but also to teach students of any age how to learn. Learning is no longer contained in a classroom but is a life-long process for teachers as well as students (Blocher, Echols, & Sujo de Montes, 2003).

Teacher integration of technology for teaching and learning in their classrooms is now considered essential and no longer just a possible addition to instruction (Hall, Fisher, Musanti, & Halquist, 2006). Hall et al. suggested a number of factors that hinder the use of technology within instruction, such as lack of common time during which peers can discuss teaching challenges, lack of a common structure for educators, little motivation to improve current practices, and limited infrastructure, programs, and equipment to facilitate technology integration (Hall et al., 2006).

Training in the effective use of technology must have content, continuity and immediate application (Pardini, 2002). Both Anderson (2000) and Eib (2002) found teacher instruction must be focused to support integration and instruction design. Additionally, Pardini (2002) stated that training opportunities must also accommodate the different learning styles of teachers. Pardini also mentioned the importance of knowledgeable support staff at each school to facilitate the process of technology integration (Pardini, 2002).

Barriers, such as teacher attitude and anxiety, can hinder the effectiveness of professional technology development and its transfer into instruction (Brinkerhoff, 2006). Teachers fear or are skeptical of insufficient time to prepare for a lesson using technology, hardware, software or network problems. Lack of opportunity to co-teach because of incompatible schedules is another barrier (Brinkerhoff, 2006). Matzen and Edmunds (2007) found that as teachers became more confident in their use of technology, integration into instruction was more successful. Teachers who had access to a working network, hardware, and software in addition to peer coaching as needed found student achievement improved, especially for lowperforming students, with the added use of technology (Matzen & Edmunds, 2007). When professional development includes a component specific to classroom instruction, where teachers are also learners, teachers can observe and model effective teaching using technology, and during these sessions, the teacher works with a mentor or coach as a team providing instruction in the classroom (Matzen & Edmunds, 2007).

self-directed learners and will support our teachers to facilitate learning in an environment where students are active participants in what and how they learn (Matzen & Edmunds, 2007). The challenge before us is to move forward as technology continues to evolve in order to provide students, staff, and administrators with access to technological resources that support teaching and learning.

The technology integration specialists work with classroom teachers to maximize the effectiveness of instructional technology. Educators need time with technology integration specialists for professional development and exposure to new resources in order to embrace instructional technology. The Learn IT, Use IT, Share IT program and the use of technology integration specialists as instructors, mentors, and collaborators for district educators contribute to Salem's success in implementing instructional technology within the classroom.

Salem is part of the evolution of instructional technology. James D. Finn (1964) predicted, "The educational future will belong to those who can grasp the significance of instructional technology" (p. 27). Using its limited resources in people, infrastructure, resources and time, instructional technology is becoming part of the culture of our schools. Our administrators, our teachers, our students, and our community expect instructional technology to be transparent within our schools. With technology continuously changing, our goal to integrate instructional technology throughout our schools can never been accomplished but we are educating our staff and students toward that end. Salem is preparing its students by using instructional technology and leading them to lifelong learning.

CONCLUSION

Technology will help our students become skilled, knowledgeable, independent, and

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"The educational future will belong to those who can grasp the significance of instructional technology."

-JAMES FINN (1964)

Staying Connected, Informed, and Organized Utilizing Novell GroupWise

Sharon Eckstein

The need for effective communication and organization has always been a priority in the business world as well as in the field of education. The use of the Novell GroupWise Collaboration and Productivity Software in the workplace promotes efficiency in day-today communication and organization for all personnel. Communication and organization are the foundation for success therefore training personnel to utilize the communication software in order to



Sharon Eckstein, 6th Grade Language Arts, Medina City Schools, Claggett Middle School, 420 E. Union, Medina, OH 44256. Telephone: (330) 636-3600. E-mail: ecksteis@mcsoh.org acquire all its benefits will increase levels of productivity.

It is common practice for professionals to carry an agenda with scheduled appointments and notes of upcoming events and tasks, and it is becoming more commonplace for professionals to keep electronic records that can be accessed through some type of device such as a computer, Blackberry, or other form with access to the Internet. These records are readily available and accessible keeping the busy professional organized and productive.

MAKING CONNECTIONS

In the field of education, connecting with administration, colleagues, parents, and professional resources outside of the district is common practice. The task of communicating regularly is simplified, direct, and prompt when using e-mail. Each category of communication holds its own value and purpose.

• Administration. Communicating with administration is vital and good leaders will promote frequent, meaningful communication. Scheduling staff and private meetings with staff as well as keeping staff updated is a daily task. Keeping an electronic file of upcoming events is streamlined in using Novell GroupWise software. According to Tallerico (2005), maintaining an open line of communication enables the principal to stay current in order to provide and obtain feedback:

information forwarded to you should influence your decisions about when to attend a particular group's meetings, what kind of clarification or motivation might be needed to keep the group's work on track, and how to modify the balance of leadership pressure and support for each group's efforts. (p. 86)

- Colleagues: Sharing instructional strategies through collaboration provides a framework of support. As Fogarty and Pete (2007) noted, "it provides the emotional support for change as well as the expertise for developing skills" (p. 42). Collaboration between colleagues offers encouragement and knowledge for assistance in ease of transitioning when needed and day-to-day experiences. For an instructor, making quick connections throughout the day during planning periods or between classes can be easily achieved with the use of e-mail. Sending documents and resource attachments via e-mail brings focus to face-toface meetings utilizing time during the meeting in a productive and efficient manner.
- Parents: A top priority for teachers and administration is communicating with parents. Parents would like to be informed about the progress of their child. Using e-mail in promoting generalized communication with parents is important. Although personal issues regarding student behavior or academic progress should not be published online in e-mail format, setting up conference times or clarifying assignment requirements is easily accomplished through email. Personal issues are best addressed in phone conversation or in face-to-face meetings. E-mail can be a vital tool in basic and necessary parent communication when used for suitable purposes.

• Professional Resources: On a larger scale professionally, e-mail is an essential tool in networking and, for instance, acquiring up-to-date information from professional organizations. Most professionals belong to one or more profesorganizations sional that provide newsletters, articles, and other types of information such as workshops or conferences related to the designated field. The majority of organizations use e-mail in updating members of the latest innovations in the given field as well as scheduled events.

E-mail communication provides an array of benefits for professionals in sharing information and providing support. The same is true when conversing online with administration and parents. Professional development offers a critical link to national and international resources in the field enabling the receiver to benefit from increased exposure to articles, newsletters, and other types of information and innovations in the specified field.

BASIC USE

Most of us have had experience in using email of some sort, whether for business or personal purposes. E-mail is a common way to stay in touch with friends and communicate short messages to business associates. Novell GroupWise communication system, when employing all the features, is a tool that saves time and provides organization. The basic features of the program are not unlike that of a personal e-mail system but it offers much in the way of organization and time management for the busy professional.

Basic elements of the system include sending and receiving e-mail and a compilation or running record of each. The running record should be kept to a minimum, however, in order to save space on the server. Organizing required e-mail in file folders will allow quick retrieval, and removing those that are low priority or unnecessary to file will eliminate electronic clutter and free up wasted space. A large electronic e-mail system with many users will quickly accumulate unneeded e-mails both received and sent if the user does not delete them and empty the trash.

The system provides for sending direct messages in the body of the e-mail and of course allows for attachments. The e-mail component also offers spell check for use when composing e-mail. The attachment feature provides ease of sending documents across the building as well as across the district. It is useful to provide materials beforehand, for instance to those that will be attending an upcoming meeting. Using the attachment feature to send files or notes allows the receiver to print necessary items and also keep an electronic copy of the material in their personal file for future use.

ORGANIZING E-MAIL

Organization in the workplace can be challenging and time consuming. For instance, sorting, documenting, labeling, and filing hard copy papers comprised of multiple topics and used for various purposes is time consuming and a lot of physical space is needed. These filing tasks can be done easily by using the e-mail software. Staying organized is uncomplicated with the use of e-mail. Using the cabinet, calendar, and checklist functions of e-mail eliminates the need for physical space required for filing hard copy documents, correspondence, and notes in filing cabinets in an office or classroom. The convenience of storing information in one area electronically for quick retrieval saves time and in turn increases the level of staff productivity.

• **Cabinet:** The filing cabinet feature provides the use of file folders for ease of categorizing and streamlining e-mail. Retrieval of e-mail when consolidating items in the filing system or cabinet using the software program is efficient and effortless. Items retrieved electronically can be printed, sent, deleted, or prioritized using the checklist feature.

- **Checklist:** Using the checklist feature allows the user to prioritize e-mail for ease of keeping track of tasks and follow up on correspondence. This is easily accomplished using the arrow buttons by clicking and relocating the e-mail. Items are categorized by subject; due date and name of the sender are also displayed.
- Calendar: Time management is vital for busy professionals. As Kouzes and Posner (2007) urged, "spend your time and attention wisely. Spend this precious nonrenewable resource on the most important values" (p. 78). Staying organized using the electronic calendar feature daily will save time, money, and frustration. Easy access to the calendar option in the menu bar is shown in Figure 1. Being organized in this way allows more time and direction in completing top priority tasks. Calendar functions in the e-mail system provide a systematic way of keeping track of appointments, notes, and tasks. Appointments can easily be organized and accessed from various forms of online technology when using this function. Figure 2 displays how notes and tasks are also readily displayed and available for use. Making use of the calendar options will simplify daily scheduling and create conscientious, organized, and productive staff.

TRAINING

The goal of establishing a proficient workplace is reached with the involvement and contributions of all stakeholders. Providing asynchronous training to new employees as well as established employees who may not be utilizing the communication software program to attain its full benefits will be advantageous for staff as well as admin-

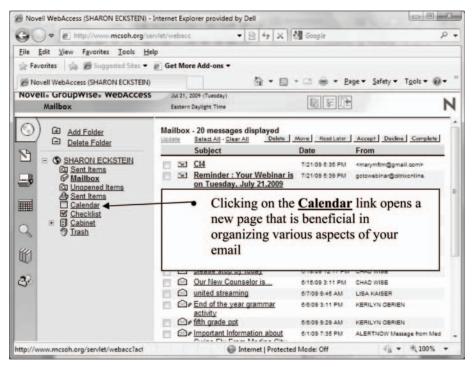


Figure 1. Link access to the calendar in the menu bar of displayed e-mail.

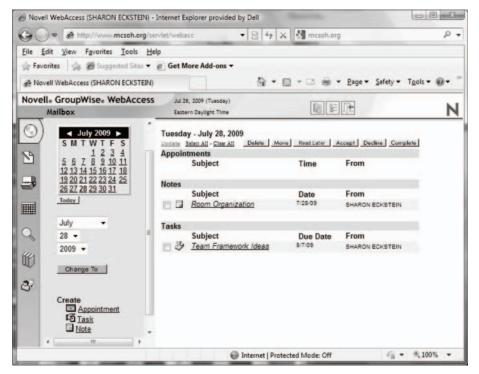


Figure 2. Display appointment, notes, and tasks in an organized fashion.

istration. There are several choices in achieving an effective training program. Considerations would be time, cost, topic, and usefulness to the organization as well as staff members. Instruction related to concrete topics such as using a software program such as Novell GroupWise can be accomplished through use of an instructional video. Creating a video for this reason may require time but the longevity of its uses far outweighs the initial cost.

Depending on the size of the organization and locations of staff, the instructional video may be accessed online. In having the video retrievable in this way a userfriendly environment and an asynchronous method of training is created. This may be a productive first step; Ko and Rossen (2004) suggested that "the tools an institution uses and the support it offers very much influence the choices you'll need to make" (p. 18). Considering available resources first will help in determining how best to proceed with training. When first working with e-mail and its related organization system, staff may need to revisit portions of the video in order to become proficient in using the system. Thus, having the video available will remove pressure from the employee to remember everything learned in one sitting. Providing access to the video eliminates the need for the trainee to ask for assistance. Thus, the trainees will feel more confident in keeping themselves organized. The final outcome of a well-planned and accessible training program will bring about well-organized and productive employees.

New employees may also be involved with training related to the structure of the organization, its policies, and procedures; thus, a mentor or coach may be assigned. This is an effective way of new staff members becoming accustomed to the organization as well as providing much needed support in assisting new staff. In discussing the issue of support, Kouzes and Posner (2007) stated, "strengthening others is essentially the process of turning constituents into leaders—making people capable of acting on their own initiative" (p. 269). With proper and accessible training resources staff will be confident in making contributions individually as well as collaboratively to the organization. Communication is a critical component in the training process as well as once new staff is acclimated and working at full capacity in their new position. Therefore, accessibility to training resources provided for the email communication system need be available and implemented at the onset of employment.

CONCLUSION

Communication is the foundation for a productive organization, whether in a business or academic setting. Communication must engage administration, staff, parnetworking, and those ents, with opportunities for professional development; simply stated, all stakeholders must communicate effectively. Prompt and frequent communication in responding and initiating conversation through e-mail offers colleagues the opportunity to communicate in an informal, meaningful, and timely fashion.

E-mail is recognized as a mainstay of communication and not difficult to navigate for the user. However, training is important for new staff or those that may be having problems with organization. Training will affirm the user is aware of the organizational features of the software that may otherwise not be used effectively. Time and money are a minimal investment for an organization in the long run when using an asynchronous style of training for software programs or concrete topics. Providing a concise video that clearly shows how to use the e-mail system simplifies the process for the administration as well as the staff concerned. The cost in producing a training video for the Novell GroupWise Collaboration and Productivity Software

program far outweighs the opportunity cost involved of failing to properly train staff in the fundamental workings of the communication system utilized by the organization.

E-mail is one of the major forms of communication used worldwide. It is used on a daily basis and is less time-consuming and costly than making long distance phone calls. E-mail must, however, not be substituted for making more personal connections with administrators, colleagues, and parents through phone calls or face-to-face meetings. E-mail serves a great purpose when used in the proper circumstances and with generalized issues. All stakeholders utilizing the Novell GroupWise Collaboration and Productivity software program effectively will strengthen the foundation of the institution, keep the lines of communication consistent and open, and assist with staff organization in a productive and efficient way.

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Learners' Motivation in a Distance Education Environment

Khitam Azaiza

INTRODUCTION

otivation is "a force or drive that influences behavior to achieve a desired outcome" (Millette & Gorham, 2002, p. 141, as cited in Jung, 2006). Motivation is one of the key factors affecting students' performance and learning, particularly online learning success (Cole, Field, & Harris, 2004; Ryan, 2001 as cited in Smart & Cappel, 2006). Learners' motivation evolves with commitment to their study goals and to their institution. Motivated students are those who



Khitam Azaiza, Web Developer/Analyst, Nova Southeastern University, 1750 NE 167th St., North Miami Beach, FL 33162. Telephone: (954) 262-8466. E-mail: azaiza@nova.edu are willing to achieve their goals, prepare for class, and turn in assignments on time. Student motivation is crucial because it is related to students' learning outcome (Jung, 2006). This article briefly addresses the elements of learners' motivation, the variety of motivating factors that distance education students may experience while pursuing their educational goals include self-motivation, learner-to-learner interaction, instructor-to-learner interaction, and content and institutional support.

ELEMENTS OF LEARNER MOTIVATION

The goal of motivational design is to develop tools and strategies that are helpful in increasing learners' motivation in achieving their objectives. Thus, for the last 20 years Keller has been developing and testing the learner motivation theory for systemically integrating motivation into instructional plan (Driscoll, 2005). Keller's theory consists of four different characteristics of learners' motivation which is known as the ARCS model of motivational design:

Attention can be gained by employing several methods. These methods can be perceptual or inquiry. Perceptual attention can be gained through the use of (a) surprises that catch the learners' interest with the course, (b) hands-on activities such as games to get the learners involved with the course and the instructor, (c) variety of methods in presenting the course materials such as video, discussion group, group projects, presentation, et cetera, and (d) balance amount of humor and real examples to maintain learners interest in the course. The inquiry method can be achieved by providing questions or problems as activities for the learners (Learning Theories Knowledgebase, 2009).

Relevance refers to things we perceive in meeting personal satisfaction (Driscoll, 2005). Relevance contributes to increasing learners' motivation by using real examples and language that learners are comfortable with (Learning Theories Knowledgebase, 2009). Keller addressed six elements to enhance relevance: experience, present worth, future usefulness, needs matching, modeling, and choice. By following these elements, the learners will increase their personal desire to learn (Learning Theories Knowledgebase, 2009). Instructors should relate coursework to their learners' experience, and they should provide examples and opportunities that match learners' values and motives (Driscoll, 2005). Driscoll stated "finding ways to actively engage students in learning can be an effective means in motivating them, irrespective of whether they yet see the relevance of the learning activities" (p. 336).

Confidence helps in engaging learners with the learning environment. Learners' confidence can be enhanced by helping them to understand the success of their learning. This success can be achieved by providing objectives for learners to help them estimate the probability of success, allow for meaningful success, and permit growth during the learning process. Furthermore, providing feedback is an important factor to support learners and help them achieve success (Learning Theories Knowledgebase, 2009).

Satisfaction can be achieved through natural consequences, positive consequences, and equity (Driscoll, 2005). Natural consequences can be generated by providing opportunities to use newly acquired knowledge in a real setting and that cause the learner to feel that skill is useful (Driscoll, 2005; Learning Theories Knowledgebase, 2009). Positive consequences can be achieved by providing learners with rewards such as verbal praise and real or symbolic rewards. Equity can be achieved by matching outcomes to expectation but not to over-reward the easy tasks (Driscoll, 2005; Learning Theories Knowledgebase, 2009).

Many elements during the developing of a course can affect motivation (Keller, 2006). These elements include materials teachers or designers use, teachers' behaviors, the structure of a lesson, and the overall structure of the course (Keller, 2006). Each element of Keller's theory helps teachers and designers to analyze different teaching approaches and enhance their teaching skills by employing motivational strategies (Keller, 2006). These strategies provide instructional designers and teachers with strong and effective ways to intemotivation grate learning in а environment (Driscoll, 2005). According to Clark (2001), there are huge cultural differences in motivation that would be a factor to influence the design of instruction. It is important to consider student interest and learning styles in order to effectively implement instruction. Since motivation plays an important role in students' learning, media and method should constantly be changed and adapted as delivery tools of instruction to avoid boring students with more of the same.

FACTORS OF LEARNER MOTIVATION

According to Jung (2006), there are two types of motivation: primary and secondary. Primary is an unlearned way to be motivated and it occurs naturally by addressing bodily needs of food, sleep, feeling of self-esteem, and confidence. Secondary motivation, on the other hand, occurs when motivation is provided by people who surround us. Secondary motivation can be divided into subfactors: extrinsic or intrinsic. Extrinsic motivation can be rewards and punishments or can be derived from some value associated with the activity. For example, students who display classic signs of extrinsic motivation will study for the SAT or ACT test and keep retaking the test until they achieve the appropriate score to be awarded a scholarship or to get them into their dream university. On the other hand, intrinsic motivation involves one's own needs such as choosing to read or write a book for personal pleasure.

Most motivated distance learners, especially women, are self-motivated. The development of women's self-motivation and self-directedness in any educational undertaking is important. With all of life's responsibilities, including family, children, and housing, women learners are encouraged to manage their time, practice control over their own learning processes and goals, and be able to function effectively with the limiting factors of their respective society (Gokool-Ramdoo, 2005). According to Chen (2001), most successful online learners are self-motivated, self-directed, and responsible. On the other hand, unmotivated learners will express negative perceptions of their online course.

Learner-to-learner interaction is another factor of motivation. Interaction provides motivation, feedback, and dialogue between learners as well as instruction (Chen, 2001). This occurs during learners' interaction via discussion activities, chat sessions, group projects, and/or Furthermore, peers consultations. blended course format is another way for interaction among learners. Blended courses can help to motivate learners who would otherwise feel isolated in a fully online course (Durante & Koohang, 2003). Interaction can lead the learner to construct personal meaning.

Among the most important factors that influence the motivation of learners is the relationship between learners and instruc-

tors (learner-to-instructor interaction). This relationship is the best way to motivate learners and to increase their learning outcomes (Sahin, 2008). Thus, communication is very important in a distance learning environment. This will create motivation for learners, which leads them to function effectively and achieve their educational goals. The communication in distance learning can be easily translated for use with several types of media such as Elluminate, chat, discussion, and so on. In rural communities, instructors may use cell phones to text messages students to keep them engaged and motivated. Contributions to the asynchronous discussion board, a synchronous chat room, or a combination of the two are additional tools instructors use in students' motivation and satisfaction when accessing and manipulating online courses. One group that was interviewed in Churchill's (2005) study summed up that

the important elements of e-learning are timely access to the course materials, engaging e-learning materials, reliable technical infrastructure, and most important, the e-tutor, who facilitates the elearning experience by encouraging, monitoring, and inviting responses from participants, and ensuring smooth operation of the course. There should also be a contingency plan when things go wrong. (p. 5)

Instructors should strongly consider motivation during the development of a course curriculum. According to Simonson (2005), distance instructors are "becoming designers, organizers, motivators, and assessors, among other things; roles that teachers have long been advocating as vital to the education process, even more important than presenting" (p. 40). Instructors need to create interactive resources such as graphs, models, spreadsheets, and simulations to help students interact with the course content (Sahin, 2008). It is also incumbent on the learner to be engaged with the course through chat, discussion group, and problem solving activities.

Instructors' immediacy behavior is very important to motivate students. Instructors who use vocal variety, address students by name, and respond to students' inquires with prompt action are considered immediate instructors (Jung, 2006). Increasing the distance between the instructor and the student presents both challenges. Learners need to feel comfortable and want to be able to get in touch with the instructor as needed. The instructor, on the other hand, needs to encourage students and make them feel that he or she is always there to help.

The instructor should use multiple ways of providing quick feedback (e.g., FAQs, automated quizzes, self-assessments, peer review of work, and instructor feedback on discussions and on assigned activities). The instructor should be able to manage students' expectations for faculty response time to individual or group questions. Feedback lets students know that the instructor received their questions or assignments. Furthermore, providing feedback is an important factor to support learners and help them achieve their success

Institutional and content motivations are the most important factors for accomplishing successful distance education programs. In order for an institution to have an effective online course, important tools must be available. For example, Al-Quds-Open University (QOU), which is located in Palestine, uses valuable tools to offer an effective, motivated, and enthusiastic course (Matheos et al., 2007). The QOU also has the staff to support the courses including academic specialists, instructional designers, and technology specialists in online development, video and audio production, and multimedia production. To be able to motivate learners, the staff and faculty must also be motivated because a person would not provide something that he or she doesn't have. Thus, using the case in QOU, staff in the media production center are offered continuous opportunities for training. The trained staff are required to share their new skills with the rest in the department, which will definitely develop a motivating and an effective atmosphere within the department. As result, they work together as a team and are willing to produce the best quality materials needed to have successful online courses (Matheos et al., 2007).

Training faculty is very important to have a motivated online environment. Faculty in a distance education environment should be aware of the technology used for delivering content; "Teachers must know something about the potential of technology to facilitate learning and to enhance their own effectiveness" (Beaudoin, 1990, p. 1). Teachers should be able to use tools effectively and incorporate them to meet the learning outcomes. Thus, ongoing training on teaching using technology within online course is essential. Beaudoin (1990) asserted "in-service programs must offer convincing, no-nonsense and ongoing training that deals with how to teach at a distance, not merely how to manipulate new instructional technology" (p. 5).

Many universities have a department designed solely for training faculty to use all the available tools for delivering online courses effectively. Many universities offer a student support center including learning assistance center and tech support center to motivate students to persist in their programs. Students can access the learning center online to improve their skills in mathematics, reading and writing academic materials, research and so on. Individual tutors will address a student's particular questions, etc. The online service could include both prepackaged learning materials and live tutoring (Matheos et al., 2007). Students may access the tech support system via phone, live chat, or e-mail for any technical difficulty they may face in their online courses. Furthermore, the

media center is a very important factor in the motivation of online students. Students will have the motivation to continue with their program if they have easy access to all necessary research materials.

SUMMARY

Motivation in a distance learning environment is the key success for learners to achieve their educational goals. Furthermore, motivation helps learners gain knowledge faster. The concept of Keller's theory, the ARCS model, is to systemically integrate motivation into the instructional plan (Driscoll, 2005). Self-motivation, learner-to-learner interaction, instructorto-learner interaction, content, and institutional support are the major motivational factors that definitely have an effect on students' performance and persistence in distance education. McKeachie (2002, as cited in Smart & Cappel, 2006) stated that "Students who are motivated to learn will choose tasks that enhance their learning, will work hard at those tasks, and will persist in the face of difficulty in order to attain their goals" (p. 19).

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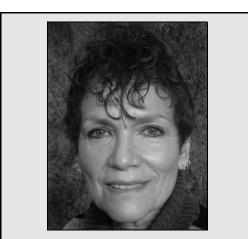
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Virtual Campus at Valencia Community College A Unique Approach

Nemir Matos-Cintron

INTRODUCTION

hree-dimensional virtual worlds are no longer uniquely the subject of science fiction or computer games but are becoming embedded in the fabric of the twenty-first century's social environment. Virtual worlds have the ability to mirror or diverge from reality presenting the opportunity for collaboration, exploration, and role-playing, and for participation in a wide range of experiences in a safe and engaging way (Kelton, 2007). They differ from the structured environ-



Nemir Matos-Cintron, Learning Technology and Alternative Delivery, Valencia Community College, 1800 South Kirkman Road, Orlando, Florida, 32811. Telephone: (407) 582-1956. E-mail: nmatoscintron@valenciacc.edu ment found in a computer game in that there are no rules to determine a winner, nor are driven by competition or the intent of attaining a goal. People enter these users created virtual communities by adopting an avatar and venturing into an environment that is both similar and different from the real world.

SECOND LIFE

Developed by Linden Labs, Second Life is perhaps the most popular multiuser virtual environment and it is becoming increasingly prevalent in mainstream society. Second Life is the largest Internet usercreated, 3D virtual world. If Second Life were a country, it would have a population of 12 million inhabitants (New Media Consortium and Educause Learning Initiative, 2007).

This open source virtual community is part of the Web 2.0 social media applications. Similar to other social networking sites such as Facebook and My Space, it allows users to share media, connect with friends, and to experience a feeling of presence and connectedness to a community. Second Life goes beyond the two-dimensional and static nature of other social networking sites in that user-controlled avatars can navigate the environment by walking or flying, teleporting to other regions, and can make use of numerous gestures such as waving, dancing, or sitting down (New Media Consortium and Educause Learning Initiative, 2007).

SECOND LIFE AT VALENCIA

The user demographics for Second Life reveal that 26% are between the ages of 18 to 24 years and 38% are between the ages of 25 to 34. The combined user demographics represent two thirds of the Second Life accounts, a target population of great interest for higher education (Kelton, 2007). The student demographics for Valencia Community College reveal a still younger population clustered in the first adult bracket but when combined, they mirror the profile of Second Life users. Fifty-eight percent of students are grouped between the ages of 18 to 24 years and the median age of a Valencia student is 20 vears old (Office of Institutional Research, 2008). Sixteen percent of Valencia students are between the ages of 24-34. Nevertheless, the combined demographics of Valencia students between the ages of 18-34 also represent two thirds of the student body (Office of Institutional Research, 2008).

The Horizon Report of 2007 identified virtual worlds as an emerging technology likely to have a large impact in teaching and learning in higher education in 2 to 3 years adoption time. The forecasting of the Horizon Project, a research-oriented initiative conducted by Educause in collaboration with the New Media Consortium seems coming to fruition although still to reach critical mass.

Valencia Community College is among more than 200 universities or academic institutions nationwide having a presence in Second Life. Its virtual campus resides in one of the near 300 virtual islands devoted to educational purposes (Kelton, 2007). Approximately 700 instructors around the world are using immersive environments such as Second Life to provide an engaging context for teaching and learning in fields ranging from the arts, humanities, to the sciences. The faculty at Valencia is part of this growing group of educators (Antonacci & Modress, 2008).

THE MAKING OF VIRTUAL VALENCIA

The initiative to develop a Second Life virtual campus at Valencia was spearheaded by Angelique Smith, director of learning technology and alternative delivery, as an opportunity for faculty to engage with peers through the world in learning new ways to teach and engage students in immersive learning environments. She also envisioned Second Life as a platform for students to learn more twenty-first century skills as computers and technologies continue to evolve (A. Smith, personal communication, December 2, 2009.

The initiative surpassed its initial scope when instructional designer Eddie Howell became involved in the development of a virtual campus for Valencia Community College. Howell has been creating multimedia since 1991, including 3D characters and virtual environments and for the past ten years, and has been advancing his knowledge in virtual technologies and simulations in education. The time was ripe at Valencia to use virtual worlds to reach beyond the institution boundaries and provide students with the opportunity to learn in an immersive environment that could overcome the limitations of time and space.

Howell conceived the environment as an open space and drew inspiration from the architectural forms of the brick and mortar campus. He was inspired by the cylindrical and avant garde look of the East Campus library but took it further to create a virtual campus without walls. Furthermore, he built the virtual classrooms setting them up above cloud level freeing the ground level for welcome and student interactive areas (E. Howell, personal communication, November 24, 2009).

After conducting an online survey, Howell designed the Virtual Campus, integrating both the needs of the students and faculty members. The welcome area has a campus directory and shelves with free objects which provide students and prospective students with information about Valencia Community College. In addition, the environment includes a "sandbox" hands-on area where students can build their own items for 6 hours before the virtual items are returned to them (E. Howell, personal communication, November 24, 2009).

The virtual classrooms provide a space for active learning and multimedia interactivity. Howell customized the open classrooms for seating and enabled technologies for audio and video display. Instructors are able to bring objects to personalize the classroom environment and students are encouraged to finish the classroom by contributing themselves objects and sharable media (E. Howell, personal communication, November 24, 2009).

THE VIRTUAL CLASSROOM AT VALENCIA: A CASE STUDY

The majority of faculty members at Valencia Community College belong to the generation born before the digital explosion initiated after 1980. The average age of full time faculty is 47 years old (Office of Institutional Research, 2008). Using Prensky's (2001) term, we see that "digital immigrants" are teaching a generation of "digital natives." Howell, however, considers the skills needed to teach in a virtual world, such as Second Life, as not inherently different from those needed to navigate the two-dimensional Internet and asserts that most faculty members were able to adapt to websites and course management systems in the first digital wave. The skills needed, in his estimation, are the ability to be organized and self-motivated to be an independent explorer (E. Howell, personal communication, November 24, 2009). Professor Ed Frames, a 70-year-old senior faculty member, fits this profile. He is one of the educators who are taking the adoption of Second Life to what Rogers identified as critical mass. Rogers considers that critical mass in the diffusion of interactive innovation is reached at the point when enough individuals in a system have adopted an innovation so its further rate of adoption becomes self-sustaining (Rogers, 2003, p. 343).

Frames, who teaches a fully synchronous honors world mythology class using Second Life, saw the advantages of teaching through a 3-D learning environment after attending an Honors conference. This learning immersive experience affords him new opportunities that are not available in regular online courses. On the verge of renouncing online teaching, finding insurmountable the transactional distance of the asynchronous online environment, Second Life became the natural extension of the traditional classroom and paradoxically afforded Frames more, not less, teacher control (E. Frames, personal communication, November 20, 2009).

Emulating his most admired teacher, Confucius, who believed that education was the key to success and self-realization, inspired his selection of his avatar. Having an avatar to interact with students restored a sense of connectedness and presence, absent in the disembodied online classroom. The virtual physical embodiment possible in Second Life provides an educational experience that elicits emotional involvement and implies a higher level of engagement (Kelton, 2007). Students are so deeply connected to the master teacher personae they complain when Frames changes his avatar when trying to adopt an identity that would best suit the topic of the session (E. Frames, personal communication, November 20, 2009).

Counterintuitively, what attracted Frames to an immersive environment such as Second Life, was the capability of doing what he knows to do best in his "first life": lecturing, and it is deeply personal. Most of his PowerPoint presentations, playing on a projection screen in his virtual classroom,



Figure 1. World mythology class.



Figure 2. Professor Ed Frames avatar.

are based on his travels around the world. They include visits to historical and archeological sites such as Machu Pichu in Peru and Chichen Itzá in Mexico. As he shows the slides, Frames fields questions from students in the text chat, simultaneously

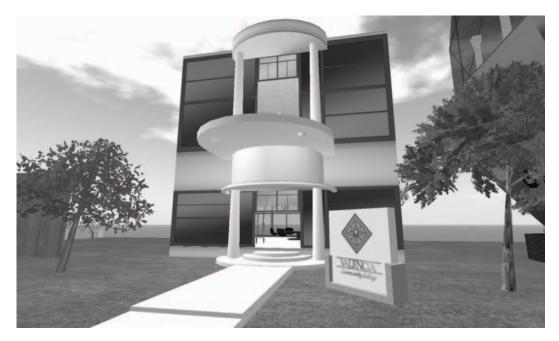


Figure 3. Valencia Community College Virtual Campus in Second Life.

explaining the significance of myth and worldview. The Virtual Valencia classroom in Second Life surpasses the brick and mortar environment, as he is able to use his ideas decorating the classroom so that when students come in, they find a different theme especially suitable to a world mythology class (E. Frames, personal communication, November 20, 2009). Virtual objects pertaining to the myths of the given culture he is analyzing, decorate the classroom without walls. During the Latin American mythology session, a massive Devotional Stone of the Sun sat at the center of his virtual classroom as he deciphered the meaning of a world that gave way to conquest and colonization by the Europeans.

One of the unique features of Second Life is that it is an open world. Different from the brick and mortar classroom, or an online chat room inside a learning system, Second Life is always open. This virtual world is persistently available for exploration and learning. Once in Second Life, this persistence extends learning beyond a defined space since there are other worlds to explore and people to meet (Robbins-Bell, 2008). Furthermore, the immersive nature of the experience as participant in virtual worlds offer learners an opportunity for engagement with other times and places (Jeffery & Collins, 2008). Frames considers that feature enriches a world mythology class since he can combine his lecture with virtual field trips to museums and environments dealing directly with the cultures referenced in his course.

Interestingly enough, Frames is not consciously aware of the strides he is making in this virtual environment which are gradually taking him to a learner-centered level of teaching. He is graciously unaware of the deep sensory shift he is experiencing as he lectures in a multimodal communication learning environment. Frames uses voice chat to deliver his lecture but students are asking questions and making comments in the text chat. Students are also communicating among themselves using the instant messaging channel. There is a lot of simultaneous communication that is unacceptable in a real life classroom (E. Howell, personal communication, November 24, 2009). His perception is that students are comfortable while he is speaking to type in questions that appear on the screen, knowing they are not disrupting his lecture as he has time to finish his sentence before responding.

Another big step toward learner centered practices is to hold an end of semester virtual get together in which Frames discusses possible ways of improving the world mythology course. As a result, he has relinquished control of selecting the sites to visit during class, thus empowering students to assume responsibility in the learning process. Each week two students are assigned to scout and select beforehand the worlds to be included in the virtual field trips. Furthermore, students serve as guides during class taking the group to the most interesting points. Attendance to the virtual field trips consists on taking snapshots of the visited worlds, a feature enabled in Second Life, to be submitted as screen captures via email to the instructor (E. Frames, personal communication, November 20, 2009).

Underlying apparent seamless lecture sessions is the ability to integrate pedagogical, managerial, social, and technical tasks to create an immersive learning experience (Collins & Jeffery, 2008). Frames opens the session with two general questions related to mythology but tied into the lecture, such as inquiring about the role of concepts of giants, and small people and their origins. At the same time, he creates a friendly and social environment in which learning is promoted and makes students comfortable with the technology to the extent that it is seamless. In addition, he performs the managerial task of setting the agenda of activities and virtual field trips, and he establishes procedural rules and manages the interactions with leadership during the session. Focused on the capability to lecture in this environment, he seems unaware of the level of dexterity and proficiency he exhibits in performing these faculty roles in the context of a complex immersive learning environment.

LEARNING RESULTS

At the end of this journey into a world mythology class in Second Life at Valencia Virtual campus, the question of rigor arises: does media have an effect on learning or is it the instructional method the independent variable that produces the desired effect of learning? It is understood that one case study cannot confirm a correlation between media employed and learning outcomes. Nevertheless, the retention rate in the Second Life world mythology class is 100%; in the three semesters that Frames have taught the course in the immersive environment of Second Life, there has not been a single dropout. A charting of grade averages based on the virtual class versus the brick and mortar experience revealed a higher grade point average for those enrolled in the threedimensional immersive version of the world mythology class (E. Frames, personal communication, November 20, 2009). Frames must be doing something right in order to enjoy such success.

CONCLUSION

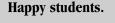
In an environment where constructivist theories have a profound impact in the way educators approach online learning, there are unique methods that defy the theoretical framework under which best practices are outlined. It is important to take into account the specific context of teaching and learning. Is lecturing totally outmoded? Is the time of the "sage on the stage" totally over? On the other hand, is it possible for three-dimensional virtual environments to elicit a transformative immersive learning and teaching experience and provide a "second life" for seasoned faculty members who otherwise resist teaching online?

Further inquiry is needed to understand the interplay of life experiences of a master teacher within a three-dimensional immersive learning environment. It is, nonetheless, clear that user created virtual worlds, such as Second Life, provide a platform for faculty and students to interact in an environment flexible enough to accommodate different teaching and learning needs and styles (Schlemmer & Backes, 2008).

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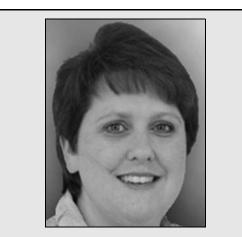
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Improving Distance Education Program Quality Through the Implementation of a Center for Excellence

INTRODUCTION

hanges in technology and the needs of society are creating a demand for more educational offerings via distance education. To answer this need, George C. Wallace State Community College, currently known as



Lisa Starling Sanders, Graduate Student, Nova Southeastern University, 106 Dothan Road, Abbeville, AL 36310. Telephone: (334) 585-1041. E-mail: lsanders@nova.edu

Lisa Starling Sanders

Wallace Community College or WCC, offers courses through their distance education program. Over the course of 9 years, the offerings have expanded over 700% (R. C. Joiner, personal communication, November 5, 2008). To ensure quality in the growing number of courses offered through the distance education program, WCC implemented a Center for Instructional Excellence (CIE) during the spring semester of 2005. This article will review the history leading up to the implementation of the distance education program and the response to evaluation-identified needs in the form of CIE.

BACKGROUND

Established in 1947, WCC is a comprehensive community college located in southeast Alabama that served approximately 3,700 credit students and 1,500 noncredit students in the fall semester of 2007 (Barefield, 2008). According to the 2007 Fact Book (Barefield), in 1999, the State Board of Education, in an effort to promote efficiency and reduce duplication of services within the state college system, merged Sparks State Technical College in Eufaula with Wallace Community College in Dothan. Today, the college serves students from campuses in Dothan and Eufaula and sites in Fort Rucker as well as two Alabama Department of Corrections facilities. The college offers associate degrees in arts, sciences, and applied sciences, as well as certificates in technical programs.

WCC is one of 26 public 2-year colleges in the Alabama Community College System. The Alabama State Board of Education is responsible for providing leadership, oversight, and policy development for the system. WCC is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools, and individual programs are accredited by appropriate professional and occupational organizations.

The WCC mission statement is: "Wallace Community College seeks to provide accessible, quality educational opportunities, promote economic growth, and enhance the quality of life of its constituents" (Barefield, 2008, p. 30). As a comprehensive community college, WCC fulfills its mission through college-level credit, continuing education, economic development, student development, and support programs and services (Young, 2004).

The college primarily serves a ninecounty region of Southeast Alabama along with the contiguous 14 counties in southwest Georgia and eight counties in the panhandle of Florida (George C. Wallace State Community College, 2009a). WCC's service area is in transition and has long been characterized by rural isolation, changing demographics, low family incomes, low educational levels, and pervasive social problems (Young, 2004). Many undereducated residents have traditionally worked in agribusiness and textile industries (Young). However, jobs in both sectors are being lost to technology and global competition, and new service sector and manufacturing jobs that are being created generally require a higher level of education and training than those jobs being lost (Young, 2004). These and other

economic trends present new challenges and opportunities for the institution.

DISTANCE EDUCATION PROGRAM AND CIE

Following the merger of WCC and Sparks State Technical College, WCC began an analysis of institutional effectiveness. The process worked closely with WCC students, faculty, staff, and administration, college advisory committees, foundation board members, area employers, and a cross section of other College stakeholders (Young, 2004). Their goal was to identify and analyze institution strengths and weaknesses, and community needs. The result of their effort was a 5-year strategic plan which defines institutional goals and priority initiatives for advancing WCC. One of the major goals defined in this strategic plan was to develop a distance education program.

In response to this goal, WCC began its distance education program spring semester of 2000 with six faculty members offering seven courses and serving 176 students (George C. Wallace State Community College, 2009b). Subsequent semesters showed an increase in faculty participation, course offerings, and enrollment. However, an evaluation of the program identified three problems (Young, 2004).

The first problem identified was that there were inadequate distance education offerings for students. Although the college had offered some courses through distance education, such efforts lagged far behind student demand. A 2003-2004 survev revealed that 93% of students indicated that because of employment schedules, course demands, and family responsibilities, they would prefer courses offered via web-based distance education as opposed to courses in the traditional mode (Young, 2004). At the time, less than 7% of the college's 664 courses were offered through distance education, and less than 10% of full-time faculty members had incorporated web-based information into their courses, developed course webpages, or brought courses online (Young, 2004). For many of the 63% of WCC students who both work and attend classes, use of the Internet to obtain information to apply in traditional courses or complete courses in a distance format had become a necessity (Young, 2004). Nearly 70% of WCC students indicated a desire for increased use of audiovisual media, distance learning, and other technology (Young, 2004).

The second problem identified was that there was limited access to technology and insufficient faculty training in technology. A limited number of WCC faculty had integrated advanced technology into instruction. The majority of faculty relied entirely on traditional teaching methodologies which often failed to address the multiple learning styles of a diverse student body or take advantage of technologies students routinely use at work and at home. In a 2003 survey, nearly 80% of faculty indicated a desire to improve their knowledge and skills for using instructional technology in their classes (Young, 2004). A companion student survey found that 87% of students were disappointed at faculty's inability to provide web-enhanced or distance courses (Young, 2004). Faculty lacked training, equipment, software, and staff support for using advanced technologies. The result was faculty frustration and, more importantly, diminished student success.

The third problem identified in the distance education evaluation was that there was an insufficient technology infrastructure within the college. The college's technology infrastructure was insufficient to handle increasing demand for instructional support. The college had no equipment to convert and edit video for multimedia presentations, and no personnel to train instructors in multimedia production and utilization. To address these three problems, four goals were identified (Young, 2004). The first goal was to promote excellence and innovation in teaching, support services, and instructional delivery. The second goal was to improve faculty capabilities for meeting the needs of an increasingly diverse student population. The third goal was to improve student opportunities by expanding nontraditional learning options. The final goal was to improve the infrastructure for supporting the teaching/ learning environment.

The solution to correcting these problems and meeting these goals was the creation of a CIE in spring semester 2005. This center became responsible for managing the initiative to strengthen the college's technology infrastructure for supporting instruction, designing and implementing a mentoring program to improve faculty members' ability to apply advanced technology in the classroom and through distance education, and to provide training and instructional design resources for developing course materials and courses for distance education.

To strengthen faculty capabilities in utilizing technology in the teaching/learning process, WCC established CIE to provide training and support for faculty, with a focus on strengthening skills in the use of technology. Structured as a multiservice resource facility, the center supports faculty in revising and developing curricula and course materials and assessing their efforts to integrate technology into instruction. Faculty benefits from opportunities to interact with Center staff and peers.

The CIE design is based on models at other institutions, including Lansing Community College in Michigan and New River Community College in Virginia (Young, 2004). CIE is equipped with computers, office productivity and web authoring software, multimedia technology including professional video recording and editing equipment. CIE is under the authority of the college president, and reports to the dean of academic affairs through the coordinator of academic programs. Within CIE, a distance education technology specialist, web/media technician, media assistant/technician, and lab supervisor report to the director of CIE. Also, CIE is advised by a 15-member steering committee comprised of representatives from all divisions and levels of the college.

The role of CIE is constantly changing; however, they are charged with carrying basic functions. One of the basic functions is to support innovations in and promote the use of technology to enhance teaching and learning. They are also to provide educational opportunities for effective teaching and learning. Also, they should increase access to, and use of, web-based teaching and learning tools. Lastly, they are charged with expanding support for and share best practices of professional development for both full-time and adjunct faculty.

In addition to these functions, CIE works closely with all divisions of the college to continually strengthen the technology infrastructure needed to meet the goals set. Strengthening WCC's technology infrastructure continues to provide faculty with resources to support instructional innovation, including electronic classrooms, software for web authoring and other applications. CIS found that technology such as document cameras, "smart tablets," recording equipment, web authoring, and video production hardware and software were some of the technologies needed to enhance distance delivered courses.

Another initiative that CIE launched to meet the goals set, was an online mentoring program. Faculty who had led WCC's effort to use technology and in distance delivered instruction were identified and appointed as mentors for faculty to be trained. Mentors received advanced training, as well as advanced hardware and software to support their efforts. Working with CIE, mentors developed an online mentoring program comprised of six instructional modules: (1) planning an effective web-based course; (2) presenting material effectively in a web-based format; (3) engaging students; (4) promoting student interactivity and dialogue; (5) assessing what/how students are learning in the format; and (6) managing a web-based course. Also included in this online mentoring program are samples of each of the topics included in the modules, additional documents for further research, and a way to communicate with CIE staff, faculty mentors, and to post questions on a discussion board.

In addition to strengthening the technology infrastructure and sponsoring an online mentoring program, CIE also offers other resources to assist faculty. These resources include classroom and one-onone training in online course development, summer institutes on distance education course best practices, current instructional trends and techniques, support from instructional design professionals, additional software and hardware, as well as stipends or release time for distance education course design. In addition, CIE provides assistance to help faculty develop webpages and web-based management tools to support both online and lecture courses; develop skills in using electronic classrooms; employ advanced presentation techniques; and incorporate the Internet in existing courses. CIE encourages and sponsors distance education faculty members to broaden their knowledge base by attending conferences such as International Conference Educational on Media, Multimedia, and Telecommunications (ED-MEDIA).

WCC currently utilizes WebCT, a proven system for delivering courses via the Internet, for course development and delivery. Using WebCT, CIE provides an online CIE Support Center. This support center contains the Wallace Online Standards which was developed to provide faculty with guidance on what is expected in a quality distance education course. The CIE Support Center also provides examples of how to implement Wallace Online Standards within a course as well as additional support and training.

The Wallace Online Standards (George C. Wallace State Community College, 2008a) has varying degrees of requirements based on whether a course is considered a web-enhanced course, a hybrid course, or a distance delivered course. The Wallace Online Standards defines a webenhanced course as a course in which 100% of teacher-student interaction is conducted in a face-to-face environment. A hybrid course is defined as a course in which more than 50% of teacher-student interaction is conducted in a face to face environment. A distance delivered course is defined as a course in which less than 50% of teacher-student interaction is conducted in a face-to-face environment.

A distance delivered course, according to the Wallace Online Standards (George C. Wallace State Community College, 2008a) must be equivalent to a face-to-face course. It must also comply with the standard minimum template requirements of posting the syllabus and instructor contact information. The course must identify all technology requirements, such as office productivity requirements, web browser add-ons, .pdf reader, et cetera. It should also outline skills needed by the student to successfully complete the course, such as basic computer skills. One of the most important standards is communications. Each distance delivered course must have clear directions for communication, must include timely and appropriate interaction between students and faculty as well as interaction between students. Lastly, Wallace Online Standards requires each course to meet specific instructional design standards which include specifying student learning outcomes with a complement of supporting course materials and appropriate assessments.

Also included in the Wallace Online Standards (George C. Wallace State Community College, 2008a) are guidelines for evaluating courses. The guidelines indicate a review process will begin as soon as course is approved for development and continue throughout development. Once a course is designed, an initial review will be conducted followed by a periodic review to be conducted during the first semester of implementation. The criteria to be evaluated include basic course design, such as alignment with curriculum and outcomes, syllabus, interactivity, et cetera; a review of instructional processes, such as student interactivity and instructor accessibility; and institutional processes, such as academic credentials, training, and services.

Since the inception of CIE in 2005, each distance education course has been reviewed, evaluated, and subsequently revised to meet the Wallace Online Standards for Distance Education Courses. Today, more than 32 courses are offered by over 20 faculty and generate an average of over 3,500 credit hours (George C. Wallace State Community College, 2009b). According to the 2008 Spring Student Service Survey, 88% of students who responded to the question "For me, the number of courses offered through the Web (distance education) is:" rated course availability via the World Wide Web as "excellent" or "satisfactory" (George C. Wallace State Community College, 2008b). According to the 2008 Spring Distance Education Survey, students responding to the question "How would you rate the overall quality of instruction that you received via the Internet?", rated satisfaction with faculty delivering courses via the World Wide Web as 4.1 on a 5.0 scale" (George C. Wallace State Community College, 2008b). This 81% approval of online courses at WCC "well exceeds the overall requirement" of a rating at or above 68.75% (George C. Wallace State Community College, 2008b).

CONCLUSION

WCC began its distance education program with a few inexperienced but willing faculty. Through the efforts of the college and CIE, the distance education program today has flourished in the number of courses offered, faculty offering courses, and students enrolling in courses. More importantly, the program is flourishing because of the efforts by CIE to promote a culture of quality within distance delivered courses. Based on student services surveys and student distance education surveys, the effort is paying off in the level of satisfaction students have in the number of courses offered and the quality of individual courses. Therefore, the conclusion can be made that the CIE is a major contributing factor in WCC's distance education program success.

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Over the course of 9 years, \dots distance education offerings have expanded over 700%.

Asynchronous Algebra I Preparation Programs

Erik Skramstad

INTRODUCTION

ittle information has been gathered on the Algebra I learning activities and perceptions of public secondary distance education students. This is partly due to few investigations into the effectiveness of distance education environments as an alternative for high school students (e.g., Blomeyer, 2002; Hughes, McLeod, Brown, Maeda, & Choi, 2007; Phipps & Merisotis, 1999; Smith, Clark, & Blomeyer, 2005). Numerous investigations have been utilized in the postsecondary settings to extrapolate current education theories with adult learners (e.g., Allan et



Erik Skramstad, 884 Angelus Oaks Dr., Henderson, NV 89011. Telephone: (702) 450-0663. E-mail: skramsta@nova.edu al., 2004; Dutton, Dutton, & Perry, 2002; Flowers, Jordan, Algozzine, Spooner, & Fisher, 2004; Lazari, & Simons, 2001; Picciano, 2006; Weems, 2002) along with effective practices (Roberts & McInnerney, 2006). Also, studies tend to pivot upon technology, pedagogy, or teacher (Nguyen & Kira, 2000) rather than the student.

An environment that has shown positive results in Algebra I with alternative high school students is Louisiana Virtual School (LVS). LVS is a byproduct of Florida Virtual School and has seen tremendous growth in Algebra I standardized test scores. The Algebra I Online Project at LVS has also seen student course completion rates of 84% since implementation (Fox, 2006).

The following highlights a case study of an asynchronous distance education environment. This setting's history and methods employed to prepare students and staff is discussed. Alternative methods to prepare students for the asynchronous Algebra I environment are also deliberated upon.

CASE STUDY

A school district in the Western United States has a distance education high school available to public secondary students. This school, dubbed Asynchronous High School (AHS) for anonymity, offers distance education courses to secondary students completely online in an asynchronous learning environment. AHS utilizes the same curriculum goals as traditional schools within the district while offering students an alternative educational means in earning a high school diploma. Standardized testing shows a disparity in the math scores in relation to other subject areas at the school. This is compounded by an administrative concern regarding students in the ninth grade Algebra I courses and familiarity with distance education pedagogies (E. Wade, personal communication, January 12, 2008). Student familiarity with distance education may affect the perceived content interteacher-to-student interaction, action, student-to-student interaction, and content activities within the asynchronous Algebra I environment.

The Algebra I course is a one credit, year-long program designed for high school freshmen. The course is taught at a distance utilizing asynchronous activities. The course studies patterns and structure in number systems. Students of this course are expected to use a variety of mathrelated concepts to solve problems, work equations, and translate graphs. It is expected for students to use calculators, computers, and related software as instructional tools to fulfill the credit requirements of this course.

Algebra I at AHS has seen students have difficulty with course content and drop out of the online program (E. Wade, personal communication, January 12, 2008). This is one of the first online experiences students have when transitioning to AHS from other educational environments. Retaining students after exposure to the distance education environment has proven to be difficult.

The AHS instructional environment has been undergoing continual change since the 2004-2005 school year. At that time, the campus evolved from a part-time distance education institution that relied upon instructional video to a diploma-granting, online high school. In the 2004-2005 school year AHS presented student coursework and instructional materials through live online sessions and web/video-based lessons. These materials were made available to students 24 hours a day, 7 days a week (Nevada Annual Reports of Accountability, 2005). In the 2005-2006 school year AHS continued to provide materials 24 hours a day, 7 days a week while presenting student coursework and instructional materials through live online sessions and web/ video-based lessons. The use of interactive computer technologies was utilized in the 2006-2007 school year (Nevada Annual Reports of Accountability, 2007). The 2007-2008 school year brought several advancements where AHS progressed into a fully online high school where all courses are taken and supported in the online arrangement as well as great interest in teacher-tostudent interactions surfaced as the teacher-to-student ratio was decreased to increase interactions (Nevada Annual Reports of Accountability, 2008).

Another focus of AHS was the implementation of several professional development activities and orientations for students, parents, and staff. In 2004-2005 professional development of teachers consisted of blending face-to-face and online skills. In the same year, students and parents had the opportunity to attend numerous orientations. Two orientations were held in the Fall, and four mid-year. Virtual homeroom sessions for students and parents were also held to distribute and retrieve feedback before the second semester. School administrators and staff also presented AHS information at regional and community meetings (Nevada Annual Reports of Accountability, 2005). Orientation sessions for students and parents continued in the 2005-2006 school year with an attendance rate of 75%. The staff continued professional development of teachers with the blending of face-to-face and online training skill sets (Nevada Annual Reports of Accountability, 2006). In 2006-2007 an up-to-date website was established for the school as a mode of continual communication between campus staff and the

community. Parents were given e-mail addresses to all instructors of their child while students had direct access through course social software. Student and parent orientation sessions continued at the beginning of each term (Nevada Annual Reports of Accountability, 2007). In 2007-2008 weekly professional development sessions were established for all full-time instructors. Orientation sessions were implemented for parents and students along with the informational website for communication with AHS staff (Nevada Annual Reports of Accountability, 2008). These annual orientations aid in developing participant familiarity to the distance education environment and foster studentto-teacher communication.

Communication between students and teachers has also been addressed by manipulating class sizes at AHS. In 2004-2005 the average math class size was 10 students before being reduced to seven the following year (Nevada Annual Reports of Accountability, 2005, 2006). In 2006-2007 average class size more than doubled when mathematics had 16 students but was then reduced to 11 for 2007-2008 (Nevada Annual Reports of Accountability, 2007, 2008). The variations in class sizes were directly related to attempts made for aiding students in peer and instructor communication. This communication has also been addressed through tutoring services now provided by AHS where potential face-to-face synchronous and distancebased opportunities exist (E. Wade, personal communication, February 11, 2011).

Student performance on standardsbased tests helped to guide AHS goals and objectives. Proficiency ratings on these tests range from emergent/developing (ED), approaches standards (AS), meets standards (MS), and exceeds standards (ES). These tests currently encompass reading, writing, and math proficiencies. Reading proficiency (see Table 1) has been the highest performing category while writing (see Table 2) trails slightly. Mathematics (see Table 3) has historically been the lowest performing proficiency for the AHS student body (Nevada Annual Reports of Accountability, 2006, 2007, 2008) even though specific professional develop-

School Year	Reading			
	Emergent/ Developing	Approaches Standards	Meets Standards	Exceeds Standards
2005-2006	0%	3%	38%	59%
2006-2007	0%	3%	44%	53%
2007-2008	0%	0%	8%	92%

Table 1. Reading Proficiency

Table	2. Writing Pi	roficiency

	Writing			
School Year	Emergent/ Developing	Approaches Standards	Meets Standards	Exceeds Standards
2005-2006	0%	3%	91%	6%
2006-2007	1%	8%	81%	10%
2007-2008	0%	0%	92%	8%

School Year	Math			
	Emergent/ Developing	Approaches Standards	Meets Standards	Exceeds Standards
2005-2006	0%	14%	62%	24%
2006-2007	4%	32%	47%	17%
2007-2008	4%	24%	53%	19%

Table 3.Math Proficiency

ment activities, manipulated class sizes, and student orientations have been held to develop this content area.

ALTERNATIVE PREPARATION METHODS

Transactional distance is the perception of space between participants, communication, and content of a setting. Social presence is the participation in communication with others which can be influenced by ease, experience, and method (Mykota & Duncan, 2007). Lacing educational goals into participant communication and interaction can be an effective pedagogical approach for increasing positive perceptions of the online learning environment (Garrison, Anderson, & Archer, 2000). Consistent and positive interactions among participants indicate learners were more likely to stay within the distance education setting. Passey (2000) affirms the fundamental necessity for heightened levels of social interaction and support within the K-12 distance education environment. For these reasons, it is assumed that these perceptions may be contributors to student math proficiency.

Several specific preparation programs have been developed by the author to combat the issues in asynchronous Algebra I courses. The Virtual Algebra Preparation Program (VAPP) develops transitioning student abilities and proficiencies throughout middle school grade levels. The Intensive Orientation Program (IOP) builds transitioning student abilities during a 2week window. Supplemental Support Strategies (SSS) encompasses specific activities for transitioning students once they have entered the asynchronous environment.

VIRTUAL ALGEBRA PREPARATION PROGRAM

VAPP is a focused middle school environment that gradually develops blended and asynchronous learning competencies. VAPP deviates from traditional instructional practices through the mode and environment in which instruction takes place. Students in VAPP experience a blended learning environment where instructional coursework is disseminated face to face and asynchronously. The instructional calendar allows for face-toface instruction for coursework during the sixth- and seventh-grade levels (see Figure 1). Eighth grade students complete coursework in a blended distance learning setting where additional face-to-face support is provided during the first semester while the second semester transitions into a blended learning environment with a larger focus on asynchronous learning (see Figure 2).

VAPP would adhere to curriculum guidelines set forth by the state and district in which it resides. These guidelines allow VAPP to employ a variety of learning materials and differentiated strategies in curriculum dissemination. Instruction facilitated face-to-face utilizes traditional practices infused with technology, Black-

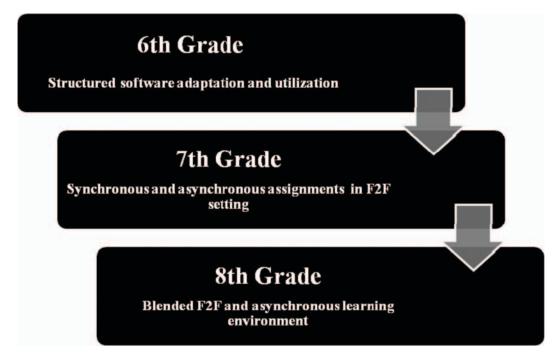


Figure 1. Middle school grade level blended learning adaptation and utilization.

	Se	emester O	ne	
Monday F2F	Tuesday Asynchronous	Wednesday F2F	Thursday Asynchronous	Friday F2F
		•		
	Se	emester Tv	vo	
Monday Asynchronous	Tuesday F2F	Wednesday Asynchronous	Thursday F2F	Friday Asynchronous

Figure 2. Eighth grade learning environment calendar.

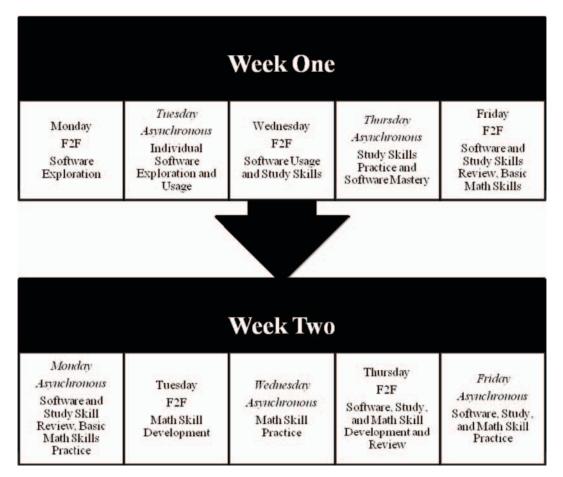
board and Centra software, along with ample use to increase student efficacy.

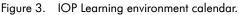
Upholding the district curriculum and implementing a long-term transitional strategy for incoming distance learners could be an effective way to increase student performance, especially in the math courses at AHS. This approach can, and would most likely need to, be adopted for each of the content areas at the middle school campus. Students at the seventh grade level would then have the skills in each content area they will be exposed to in the high school curriculum.

INTENSIVE ORIENTATION PROGRAM

IOP would be an abbreviated version of the VAPP. IOP would take place for 2 hours each morning over a 2-week period before the start of the freshman year at AHS. IOP would utilize a blended learning environment of face-to-face and asynchronous settings to develop transitioning students' software knowledge and use, study skills, and math abilities. The calendar for this program would also alternate instructional settings to address the asynchronous environment, allow for individual practice, and then readdress asynchronous nuances experienced during practice sessions (see Figure 3).

IOP allows participants, instructor, and students of the Algebra I course to interact with each other in a blended setting before the fully asynchronous term begins. This interaction can aid in developing the social presence of participants. Social presence is integral in distance education environments; students who experience social presence approaching that of the traditional classroom are more likely to remain in the course (Visser, Plomp, & Kuiper, 1999) and be interactive within the learning experience (Gunawardena & Zittle, 1997). Comfortable communication also





encourages students to engage in critical thinking (Garrison et al., 2000) and in course dialogues (Danchak, Walther, & Swan, 2001). Research has also shown that learners in distance education environments look for personal interaction with instructors and peers (Miller, King, & Doerfert, 1996). Active student engagement also directly affected learning outcomes (Gao, 2001). Feedback garnered by the student from the instructor also effect student motivation and participation in the learning environment. LaPointe and Gunawardena (2004) found that learning outcomes were not only affected by instructor interaction, but also by peer interaction. Anderson (2002) has noted that interaction is central to the learning process of distance education courses. McDonald (2002) has also observed that interaction is a critical component of distance education courses. IOP addresses the software, study, and math skills needed in the asynchronous environment while considering the social presence of participants.

SUPPLEMENTAL SUPPORT STRATEGIES

SSS utilizes social presence and transactional distance theories to develop an interactive environment within the asynchronous setting. Social presence is seen as a strong link between critical thinking skills within a learning environment. Intertwining effective educational goals with pleasurable communication and interaction of participants can be a direct contributor to student retention and satisfaction (Garrison et al., 2000). Student persistence is also linked to instructional techniques and pedagogical practices of online courses (Tello, 2007). Planning appropriately for the distance setting is vital for participant perceptions of transpired learning.

Transactional distance is a learnerguided theory that focuses on individual learners through effective pedagogies that encourage motivation, learning, and achievement for every participant in an educational setting (McCombs & Whisler, 1997). Studies have shown that transactional distance affects learning experiences when little communication is used (Chen, 2001; Vonderwell, 2003). Course completion rates are also affected by the transactional distance perceived by students. SSS specifically addresses students in the asynchronous environment through activities that develop class climate and technical support.

Class climate can be developed through SSS at the beginning of the instructional term within the Algebra I course. Gettingto-know-you activities to develop student cohesiveness, cooperation, and involvement have been suggested by students themselves (Talvitie-Siple, 2007). These strategies also address each learner's needs through participant backgrounds, characteristics, general abilities, and individual requirements. This information can then be used to develop an understanding and plan for facilitating interactive work among participants, content, and instructor (Simonson, Smaldino, Albright, & Zvacek, 2006).

Class climate is also determined by student motivation, which can be directly attributed to relevance. Success has been witnessed in computer-based algebra courses by effectively applying real-world cross-curricular learning experiences to enhance electronic pedagogies while increasing student-to-student interactions (Dickensheets, 2001). Applying mathematic pedagogical approaches that utilize multiple representations has shown positive effects on attitude and achievement by engaging students (Carraher, 2001) while increasing significance to the learner (Haas, 2005). These factors have been shown to help retention rates among distance education high school students (Roblyer, 2006) by effectively implementing successful distance education practices.

The technical support aspect of SSS is focused on the course software being used. Research has shown student frustration with course software can impact their perceived transactional distance and motivation (Talvitie-Siple, 2007). Students would participate in instructor led activities navigating the different facets of the course software. Students would then have the opportunity to participate in peer group activities to practice navigating the software being utilized. This would include playback features, material and assignment folders, as well as e-mail and communication features.

SUMMARY

Focused strategies in the Algebra I environment have been developed and implemented in public secondary distance education environments. AHS has had varying degrees of success with student proficiency in this content area while applying a variety of strategies ranging from orientations, professional developments, and changes to class size. This setting is attempting to increase proficiency in standardized testing. Three specific alternative preparation methods have been developed and deliberated upon for this need.

VAPP focused on the middle school environment to gradually develop blended and asynchronous learning competencies. VAPP students experience a blended learning environment where instructional coursework is disseminated face-to-face and asynchronously. This approach is the most intensive in developing competencies and skills needed for students to attain success in asynchronous Algebra I environments.

It is recommended that IOP take place for 2 hours each morning over a 2-week time period before the start of the freshman year at AHS. The IOP would utilize face-to-face and asynchronous blended learning environments to develop transitioning students' software, study, and math skills. Developing the social presence of students in this preparation method is highlighted before the asynchronous Algebra I term begins.

Social presence and transactional distance theories were key components in developing the SSS preparation method for students. SSS specifically addresses students in the asynchronous environment through activities that develop class climate and technical support. Class climate is addressed through getting-to-know-you activities that build upon student cohesiveness, cooperation, and involvement. Technical support would focus on navigating the course software being utilized.

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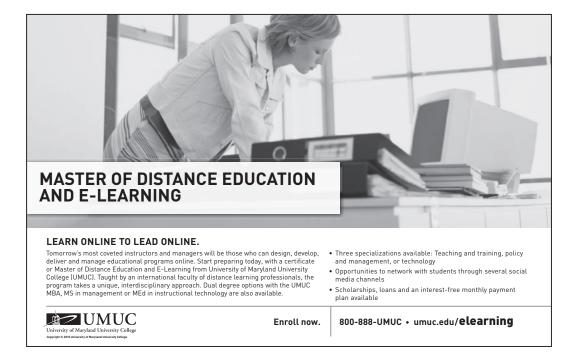
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HealthStream Online Learning That Meets Today's Medical Challenges

Dean J. Tozzoli

Today's HealthCare Environment

HEALTHCARE—ONGOING CHANGE

In *Futuring: The Exploration of the Future* (2005), Edward Cornish of the World Future Society predicted that rapidly developing technologies and a long-lived, increasing population were going to be two of the most influential trends of the twenty-first century. Nowhere is the impact of intersection of these trends felt so strongly than in today's healthcare industry. As a society and as



Dean J. Tozzoli, Senior Learning Center Consultant, Danbury Health Systems, 24 Hospital Avenue, Danbury, CT 06810. Telephone: (203) 739-7575.

individuals, we demand that our healthcare be provided by educated, competent people who are skilled in using the most modern equipment and techniques available.

Change and ongoing transformation are ways of life in all aspects of the modern U.S. healthcare systems. Social and political upheavals in the world of care giving are in the news, and caregivers and patients alike await the impact of what these revolutionary changes will mean to them. Cost controls and reallocation of operational resources are under close governmental and media scrutiny. However, long before recent headlines predicted fundamental changes in how doctors and hospitals would manage and treat the next generation of patients, ongoing development and reinvention has been a daily routine in most clinical facilities. The increasingly expanding "knowledge explosion" (Spafford, Schryer, & Hrynchak, 2006) in healthcare has demanded that caregivers develop ways to assure that they are practicing the safest and most effective healing methodologies available. Consequently, today's healthcare environment includes rapidly emerging new diagnostic, treatment, and documentation systems and hardware.

INCREASING REQUIREMENTS

Those who are tasked to enforce healthcare quality expect that hospital outcomes not only reflect current best practices, but pave the way for future performance improvement. For example, national accreditation agencies such as the Joint Commission on Accreditation of Healthcare Organizations require hospitals to demonstrate not only a practice of care that reflects current clinical expertise, but to also ensure that protocols and mechanisms exist to provide continuous quality improvement and developmental activities (Ruthemeyer, 2000). It is no longer enough that caregivers are knowledgeable in their fields of expertise-today's healthcare providers must demonstrate ongoing acquisition of professional and technical competencies (Ruiz, Teasdale, Haijar, Shaughnessy, & Mintzer, 2007). Competency now implies more than knowledge alone-it also implies that the caregiver can provide documentation on demand that they possess the skills to enable them to maintain proficiency, now and in the future.

NEW TECHNOLOGIES AND PRACTICES

Touring a modern hospital can appear like watching scenes from a science fiction movie. The use of robotic surgery apparatus, 3-D imaging scanners, gene therapy equipment, telemedicine viewers, and similar futuristic technologies is now considered routine in many major medical centers. Of course, sophisticated equipment does not run itself, and healthcare workers must be specially recruited and trained in increasingly focused levels of specialization to gain expertise in its best practice application.

The practice of education itself within the healthcare community is in a state of flux. Many caregivers have traditionally learned new clinical skills by formal or informal apprenticeships, but clinicians are beginning to recognize that such educational practices may no longer be appropriate in today's age of increased oversight and accountability, improved instructional education technologies, and increased expectations in efficiencies and outcomes. Nambiar (2009) provides evidence for the need for universal adoption of more structured training processes that include clear training standards, regular update and assessments, and formalized feedback mechanisms that rate the efficacy of the educational experience, even as the author cites a shortage of qualified educators available to manage such programs.

HEALTHCARE EDUCATION— NAVIGATING THE LOGISTICS OF TIME AND SPACE

The challenge of delivering timely competency-based education in healthcare facilities is complicated by operational time and space logistical dilemmas inherent in the clinical workplace environment. Most hospitals operate 24 hours per day, 365 days per year, and often at multiple onsite/ offsite locations. Danbury Health Systems of Danbury, CT, for example, is anchored by a 373 bed inpatient hospital, but as of this writing also consists of 52 offsite locations including primary care centers, diagnostic centers, specialty treatments centers, and support offices for billing and information technology services (Danbury Health Systems, 2010). Employees at most of these locations must demonstrate competencies to state and national accreditation agencies just as if they were onsite at the hospital building itself.

For many years, healthcare organizations have regularly conducted ongoing mandatory traditional classroom training activities in order to attempt to meet regulatory requirements. These training sessions often required that participants travel from offsite facilities to classroom locations, resulting in shortages of staffing at their work locations or in the expenditure of expensive overtime pay if training was offered during nonworking hours. However, staffers may be forced to skip scheduled training sessions if high patient volumes prohibit employees from leaving their workplaces to attend, which is not uncommon. Unlike in many other industries where operational productivity times can be strategically managed to provide scheduled developmental opportunities, healthcare daily patient volume and acuity workloads are difficult to predict. In emergency room trauma services, for example, several studies have attempted to correlate weather patterns with trauma admissions in order to schedule staffing more appropriately (Friede et al., 2009). Regardless of how valid these correlations may be, longrange weather prediction is in itself an unreliable science, and newer, technologybased educational strategies needed to be developed in order to deliver the right education to healthcare staffers at appropriate times when they could take advantage of it.

THE HEALTHSTREAM PLATFORM

A BRIEF HISTORY OF HEALTHSTREAM

The HealthStream Corporation was founded in 1990 in Nashville, TN, with the purpose of creating technology-based solutions to address the healthcare industry's educational challenges (M. Condra, HealthStream Senior Director of Communications, personal communication, April 5, 2010). Initially, the company focused on installing software for healthcare clients on their local servers, and today all content is provided through its Internet-based application. Since its inception, HealthStream has grown by acquiring several competing healthcare education content and delivery providers, and in 2007 launched a healthcare research and data service after acquiring two prominent providers of such products (About HealthStream Research, 2010). Today, HealthStream is considered the leading provider of such services in the United States, with 1,974,000 healthcare employees at over 1,600 healthcare organizations online with active accounts on their Internet-based learning network.

Despite recent economic downturns, the company has experienced steady growth, including an online learner increase of over 14% from 2008 to 2009 (HealthStream, 2010).

HOW HEALTHSTREAM FUNCTIONS

HealthStream requires that clients provide initial and then twice-monthly updated data transfers of each employee name, employee number, department, hire date, job code, and similar information in order to automatically create and maintain accounts for them in their database. Customers are charged monthly usage fees based upon the number of active employees in the database, and inactive employee records are archived for reporting purposes. Client organizations must nominate systems administrators to create authored programs, assignments, and reports, who are then sent to HealthStream's headquarters in Nashville for 3 days of systems training. Once activated, client organizations are provided a gate Internet address for all employees and administrators to access the system's remote database. Typically, this address is posted on hospitals' internal Intranet pages, but it may also be accessed from any Internet-connected computer.

Once active, hospital systems administrators may immediately create course assignments from HealthStream's core regulatory library. Library access includes unlimited use of 60 courses on general safety, compliance, and customer service related topics. Employee learners may be assigned courses individually, or system administrators can create employee assignment groups based upon their departments, job titles, dates of hire, or any combination of search criteria. Learners receive notifications of assigned courses with required due dates on their corporate e-mail accounts. Employees log onto their password-protected accounts, click on links to assigned coursework, and take any assessments incorporated into the course. Administrators can determine passing percentages of assessments, as well as any permitted number of retakes allowed. Once completed, records of course completions are entered into the individual employee's electronic transcript, which also maintains a calculated record of any earned continuing education credits.

Administrators may also choose to have custom coursework created using Health-Stream's authoring tools. Authors can be selected by administrators from any employee in their database, who are then issued licensed copies of Macromedia Contribute for the purpose. Typically, course material is created via fill-in-the-blank html templates, or simply transferred from digitized PowerPoint slides. Authors using the standard authoring tool can choose to include text, digital pictures, clip art, or brief animated Flash files digitized from video or created from programs such as Adobe Captivate. An optional enhanced authoring tool includes the use of a gallery of medical clip art and animated medical illustrations, video editing tools, and SCORM 1.2 level compatibility for the inclusion of courses created outside of the HealthStream system.

Online courses may be published as stand-alone entities, or may be assigned as blended courses that include in-person workshops. The system allows authors to create templates of regularly assigned live courses (such as annual nursing training marathons) and then create copies of these templates with individual day, time, and location variability. Learners can then choose the workshops that are logistically possible for them to attend, and the system will automatically close registration or create wait lists for classes that are booked to capacity. Courses can be programmed to require learners to successfully complete online coursework before being allowed to register for live classes, or conversely may require that learners sign onto the Health-Stream system to complete competency

assessments and evaluations following the completion of the live workshops. Any number of required or optional learning and/or assessment modules may be included in a single assignment, which must have a specific final due date referenced in the assignment.

System administrators may also assign coursework purchased from Health-Stream's courseware library. Hundreds of professionally produced programs on numerous clinical, human resources, financial, personal development, and administrative topics are available. Many of these programs include the granting of continuing educational credits upon completion of an included competency assessment.

Upon receiving notice of a required assignment, employees can log onto the system to complete online coursework asynchronously at an opportune time before the due date. The system continuously tracks course completion progress, and will automatically resume coursework at the last viewed position if the learner is interrupted and returns to the system later. Learners may also choose to sign onto the system at any time to examine and print their transcripts, retake previously completed courses, or take any coursework in the HealthStream library. Learners have the ability to take online courses from home, but are routinely discouraged from doing so because of overtime and support issues.

Perhaps one of the most useful features of the HealthStream platform is the ease with which the system can generate completion reports. While individual transcripts and certificates of completion may be printed and filed in department records, administrators can readily generate electronic reports at a moment's notice that satisfy regulatory agencies such as state inspectors or the Joint Commission, both of whom require that all hospital employees receive regular training on a variety of subject areas. Individual departments often must also show course completion data to clinical accreditation agencies on demand. The standard systems administrator interface facilitates the generation of custom reports, and currently lists 51 available standard report types, each customizable with multiple criteria reporting options (HealthStream Learning Center Administration Center, 2010).

BENEFITS AND LIMITATIONS OF UTILIZING HEALTHSTREAM FOR HEALTHCARE EMPLOYEE EDUCATION

HealthStream has many practical benefits to organizations that make it worthy of consideration as a tool to address an organization's educational challenges. Because HealthStream is a subscription-based service, healthcare organizations do not need to invest in new educational hardware, software, or support infrastructure to launch, maintain, or update the learning management system. The platform can be made operational in days, and its interfaces for learners, administrators, and authors is intuitive, easily trained, and readily managed by employees at all levels. Electronic records reduce reliance upon paper files and realize savings from any associated cost reductions. According to HealthStream, their customers report that system utilization decreases operational risks associated with untrained staff while improving educational compliance by 20% to 30% (HealthStream, 2010). Online learning is also an appropriate tool for utilization by young employees entering the workforce, since Hopkins (2008) identifies e-learning modalities as a preferred educational choice of new millennial generation nurses.

Limitations of the HealthStream platform are primarily in its inflexibility to assimilate standard webpages and associated tools often incorporated in commercial Internet sites. Administrators who desire these features cannot readily employ local Internet page designers, but must purchase software from Health-Stream's courseware library, upgrade to paying for the enhanced authoring tool, or limit themselves to the basic functionality of the standard authoring tool.

UTILIZATION AND SUSTAINABILITY

Rogers (2003) defines one of the measures of success of an innovation in an organization as a function of its sustainability, which is related to the degree of participation in the innovation by the members of the organization over time. By these criteria, the innovation of e-learning as introduced into the educational culture of a vibrant western Connecticut healthcare organization via the HealthStream platform has been very successful (see Table 1). Utilization of HealthStream at Danbury Health Systems began slowly after the system was operationalized in 2003, but continues to gain momentum and increased utilization as some department managers begin to understand its potential in leveraging online education as a cost-effective and practical instructional tool.

While the HealthStream system was originally contracted primarily as a costsaving, convenient utility for the completion of annual Danbury Health Systems mandatory training, management now sees employee education, development, and communication opportunities provided by the platform as an efficient way to help them achieve many of their clinical and operational goals. Online coursework at Danbury Hospital consists of education on patient privacy regulations, nursing quality, new drug interactions, equipment operation, safety procedures, cost-savings processes, coding management, surgical techniques, new infection control protocols, and numerous other clinical topics requested by administrators and managers to meet the demands of a changing healthcare world.

Year	Learners	Course Assignments	Course Completions	Per Learner
2003	393	669	511	1.3
2004	2,381	4,265	3,983	1.67
2005	2,678	8,098	7,352	2.74
2006	2,841	17,457	14,789	5.20
2007	3,295	21,937	19,333	5.86
2008	3,679	41,393	29,371	7.98
2009	3,931	38,946	34, 938	8.89

 Table 1.
 HealthStream Utilization at Danbury Health Systems

The HealthStream system is being prepared for new innovative educational strategies for the near future. Nursing has purchased electronic mannequins that integrate into HealthStream via wireless Internet connections to provide nursing staff with asynchronous opportunities to complete the practical components of online CPR and ACLS coursework. While physicians have been slow to get on board, exploration has begun to consider the platform for use of meeting new medical educational goals, with the possible expansion of system availability to 450 community physicians by the fall of 2010 (M. Miller, Danbury Health Systems Vice President of Medical Affairs, personal communication, March 19, 2010).

CONCLUSION

Cornish (2005) predicted that technological advances have helped people live longer, and, if trends continue, that our life spans will continue to grow as technologies and associated knowledge continue to develop. If true, our longer lives will require newer medical technologies to maintain and enhance our quality of life in later years, and the successful implementation of these technologies will require trained and dedicated healthcare staff to bring them to our bedsides. Technology provides us with new problems to solve, and concurrently with the opportunities to solve those problems. HealthStream is a technology-based educational tool that integrates well into solving the needs of twenty-first century organizations and employees.

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HEALTHSTREAM IS A TECHNOLOGY-BASED EDUCATIONAL TOOL THAT INTEGRATES WELL INTO SOLVING THE NEEDS OF TWENTY-FIRST CENTURY ORGANIZATIONS AND EMPLOYEES.

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The Virtual Campus at the International Academy of Design & Technology-Online

Andrea Vassar

INTRODUCTION

he International Academy of Design and Technology (IADT) is a for-profit, 4-year art and design career college. It has traditional "brick and mortar" campuses in 10 cities in the United States. IADT is owned and operated by its parent company, the Career Education Corporation (CEC). In 2005, CEC began to discuss the initiative to expand IADT into



Andrea Vassar, International Academy of Design & Technology, 5104 Eisenhower Blvd., Tampa, FL 33634. Telephone: (813) 889-3406. E-mail: avassar@academy.edu

the field of distance education with the addition of a new branch campus—the International Academy of Design and Technology-Online (IADT-Online). Leaders at both CEC and IADT envisioned a virtual college that could serve as a selfcontained branch campus, as well as offer distance education opportunities to the current traditional IADT students in a hybrid format. IADT-Online offers prospective students a way to earn a careerfocused, creatively driven degree.

IADT Online offers the opportunity to earn a degree tailored to your dreams, imaginative ideas and creatively motivated professional goals. When innovative technology hooks up with the power of a broadband Internet connection, amazing things become possible for motivated students who have the talent to think visually and communicate graphically. (IADT, 2009b)

The cornerstone of the IADT-Online virtual college is the proprietary learning management system (LMS), the Virtual Campus (VC). The VC was developed by a team of information technology specialists, instructional designers, and software developers at CEC. After conducting research of currently available LMSs, the team determined that an entirely new LMS, rather than an existing proprietary system, was the best solution for IADT-Online for two reasons: the ability to have control over the look and feel of the interface so that it could match the existing IADT brand identity; and to integrate with the college database system, CampusVue, already in use by all of the IADT branch campuses.

The Virtual Campus was launched along with newly developed online general education and graphic design courses in July of 2007. This has since been expanded and students can now pursue degree programs in the following areas: graphic design, web design, web development, fashion merchandising, advertising and design, game production, and digital media production (IADT, 2009a). In the last two years the VC has grown and evolved with these new programs into a very successful LMS; upgrades and new features are continually being added to improve the quality of interaction for both students and instructors.

Today, the IADT-Online VC provides quality educational experiences to over 1,400 online college students and approximately 900 hybrid students at the traditional campuses (Carlson, 2009). It is a vibrant learning community. As frequently debated in the field of distance education regarding virtual learning environments, it is a place that is far from "virtual," where actual interactive, engaging, and innovative learning in happening in real time (Simonson, Smaldino, Albright, and Zvacek, 2009).

KEY FEATURES OF THE VIRTUAL CAMPUS

The Virtual Campus is a fully functioning online college campus. It has many of the key features that students expect to have access to on a traditional campus. There are some features that are only available through the technology of the online environment and are currently unavailable to traditional students. These features include: 24/7 technical support, online student services, and instant messaging with all contacts, classmates, and instructors. An example of the VC interface can be seen in Figure 1.

The VC can be accessed by any computer platform through a standard Internet connection. Certain aspects of the VC can also be accessed through mobile technology. The VC uses MobiClass, a mobile software program that supports a long list of mobile devices. MobiClass allows students to stay current with their courses by allowing them to download course podcasts, download course videos, view class assignments, access school e-mail, check their grades, and access faculty contact information (IADT, 2009c).

Many best distance education practices are an integral part of the VC. Both synchronous and asynchronous learning are supported and encouraged through its design and technological features. The VC is divided into five distinct areas, each one designed to assist the students in their learning: the classroom, online library, learning center, virtual commons, and technical support.

THE CLASSROOM

The virtual classroom is the place where all essential learning activities occur both in real-time and on-demand. Online students can access important information that they need in order to successfully complete each course. Figure 2 shows an example of an online course in the VC. The students can access the course overview which includes the syllabus and the list of assignments for the course. The course work section of the virtual classroom includes the discussion board feature. The discussion board assignments are mandatory for all online students for every course to ensure quality interaction with the course content. The course work feature includes a course gallery where the art and design students can post their class proj-



Figure 1. IADT-Online Virtual Campus.



Figure 2. IADT-Online classroom.

ects for critique by both instructors and peers. This is also the section where students submit assignments and receive communication from their instructors regarding their grades.

The most dynamic feature of the virtual classroom is the interactive learning section. This section has three main areas: course materials, small group discussions, and live chat. The course materials are Flash-based, animated, and interactive materials and provide additional course content that supports the reading assignments, individual and group projects, and discussion boards. An example of interactive material is seen in Figure 3. The small group discussion feature is a vehicle for instructors to organize students into groups for the purposes of collaborative learning assignments and projects.

The live chat feature is the cornerstone of the virtual classroom. All courses are required to provide two live chat sessions per week on pertinent course topics such as software demonstrations, lectures, and project critiques. Live chats are primarily delivered synchronously, but are recorded for students to use asynchronously. Figure 4 shows a recorded live chat session that can be viewed by students at their convenience. The live chat feature is also used for all additional synchronous academic events including tutoring, academic advising, meetings, and seminars.

Adobe Acrobat Connect Pro is the software that is used to support the live chat feature. It is an effective, robust tool that can be used for eLearning due to its design and capabilities. Adobe promotes Adobe Acrobat Connect Pro for specific online classroom use:

Technology should make eLearning a rich, interactive experience—not a slow, cumbersome ordeal. That's why Acrobat Connect Pro offers a captivating interface and interactive tools to help participants learn and retain the material that you teach in virtual classes and self-paced



Figure 3. Flash-based interactive learning material.

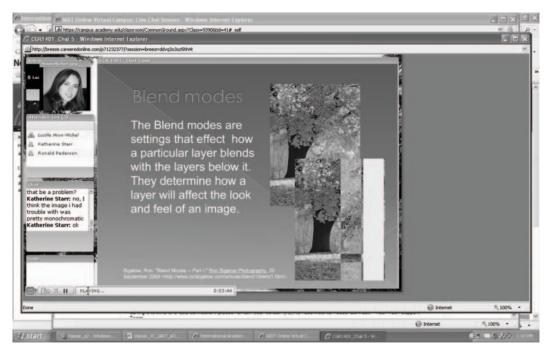


Figure 4. Live chat session.

courses—and enjoy doing it. You can quickly design compelling courses with templates and a library of content, teach more effectively with instructor management tools, and track learner progress to make sure your eLearning is actually achieving its goals. (Adobe, 2008, p. 2)

The flexibility and interactivity are the elements that make the IADT-Online VC classroom a successful learning environment. Students are able to learn at convenient times and to collaborate with their instructors and classmates to complete career-focused, problem-based learning tasks.

ONLINE LIBRARY

The VC online library, or eBrary, is a full-service online media center as seen in Figure 5. The IADT-Online VC library is linked to the CEC-owned company-wide online library the CECbrary. The CECbrary is used by all colleges and universities in the CEC system of school and therefore can provide extensive media resources to all its schools. Online students have instant access to these electronic library resources.

The eBrary provides student access to eBooks through NetLibrary, PsycBOOKS, and Safari Tech Books. The eBrary also subscribes to an extensive list of online library databases featuring journals and periodicals including the new resource, EBSCOhost Mobile, for learners who access course content via mobile technology. Additionally, the eBrary has web learning resources that are listed by subject. This is a list of about 2000 webpages selected by librarians, students and instructors as being high quality information sources on the topics discussed in the IADT-Online general education and design courses (IADT, 2009b).

There is always a qualified, professional online librarian available to assist students with research questions at flexible times. This assistance is provided either through specific live chat times, the instant messag-

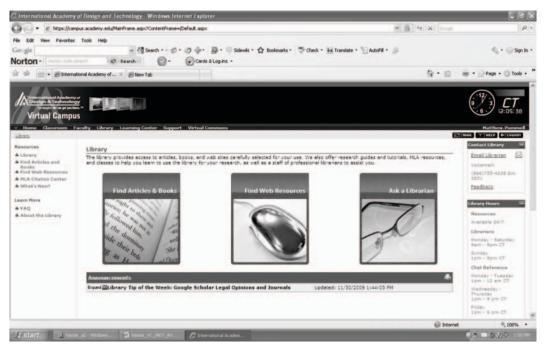


Figure 5. Online library.

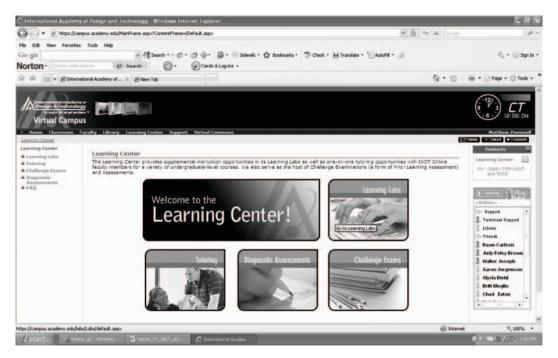


Figure 6. Learning Center.

ing feature, e-mail, or phone. There is also the MLA Citation Center to assist with the formatting and citation of sources in research-based papers and assignments.

LEARNING CENTER

The Learning Center (LC) feature of the VC provides an additional level of indepth educational support to online students. The LC is shown in Figure 6 and encompasses learning labs, tutoring, diagnostic assessments, and challenge exams. Learning labs are a unique student-centered feature of the VC. Learning labs are geared toward students' areas of interest. Learning labs are available in two forms generic interactive Flash-based tutorials (as seen in Figure 7) or specially recorded Adobe Acrobat Connect Pro live chats conducted by instructor on pertinent and/or specialized design topics.

Students attend live tutoring sessions in the LC in a variety of subject areas including college-level mathematics and English composition. Tutoring sessions are also offered in core concentration subject areas. Tutoring sessions are scheduled by individual instructors and conducted through the live chat feature.

The diagnostic assessments and challenge exams in the LC are designed to assist students in the preparation for lifecredit test-out examinations. Students who possess certain prerequisite skills, educational experience, or life experience can qualify to take an examination and earn college equivalency credit for those skills and experience. The LC gives them a way to prepare themselves for the test-out process.

VIRTUAL COMMONS

The Virtual Commons is an online community that allows IADT-Online students to participate in social networking opportunities with other students and instructors. The Virtual Commons also has the instant messaging feature that is integrated

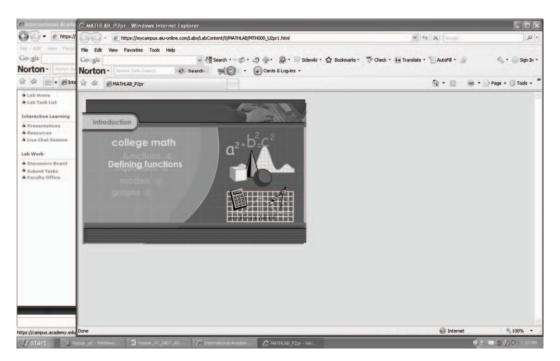


Figure 7. Interactive learning presentation.



Figure 8. Virtual Commons.

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Figure 9. Profile listing in the Virtual Commons.

into every "place" a student visits in the VC. This feature can be seen in Figure 8. Like all social networking websites, the Virtual Commons allows its users to create profiles (Figure 9) and become "friends" with other members of the university community. These friends become part of a student's social network.

Like traditional students, online students want to get involved in campus life. This can be challenging in a virtual learning environment. The Virtual Commons in the IADT-Online VC provides students with student club opportunities. Virtual student clubs have faculty moderators, members, and hold virtual club meetings using the same live chat feature that is used in course delivery. These clubs are academic in nature and give the students a chance to participate in book and movie reviews, get career advice, join interactive discussion boards, and attend dynamic presentations (IADT, 2009b). A sample of these clubs is listed here: Graphic Design Club, Military Students Club, Study-Buddy Club, The Fashion Forward Club, and The Freelancer's Society.

During each term, the student clubs in the Virtual Commons host an event. An event is a live chat session in which guest speakers discuss topics related to the subject area of the club. The guest speakers have a wide knowledge base of the club's subject matter and provide valuable information to students on this topic. Topics for events originate from club members and the faculty moderator. Events typically last one hour and provide time for a question and answer period.

TECHNICAL SUPPORT

A feature that is always present but very much working in the background is the 24/ 7 technical support feature. This is where students go to get technical assistance, important software downloads, and the ability to check a computer for the required Internet browser plug-ins. The technical support area also includes contact information for important functional departments of the online university such as financial aid, student accounts, student services, and the registrar.

Technical support runs on a ticket system as shown in Figure 10. If a student has a technical issue, he or she submits a ticket and a professional information technology specialists work on its resolution, contacting the student when the ticket is closed. Students can also contact technical support from the instant messaging screen, by email, or by phone. Because technology is a part of every experience in the VC, technical support keeps things running smoothly so that students can focus on the important task at hand—learning.

Advantages and Limitations of the Virtual Campus

According to Simonson et al. (2009), there are many advantages, as well as limitations, of online learning as compared to conventional teaching. Some of these advantages are: the fact that students can participate from a variety of locations; access asynchronous course components 24 hours a day at their convenience; work at an independent pace; learning materials are available across the Internet and work on multiple platforms; the Internet can provide a student-centered learning environment; and online courses provide a variety of active learning experiences that allow for different learning styles.

There are also limitations of online course delivery models, including: potential students do not have the access to the technology; well-designed online courses require many labor-intensive resources; courses that were teacher-centered are not sufficiently adjusted and adapted to the learner-centered model; instructor-student communication and feedback may be significantly delayed and can affect the quality of learning; bandwidth limitations impact the use of advanced technologies;

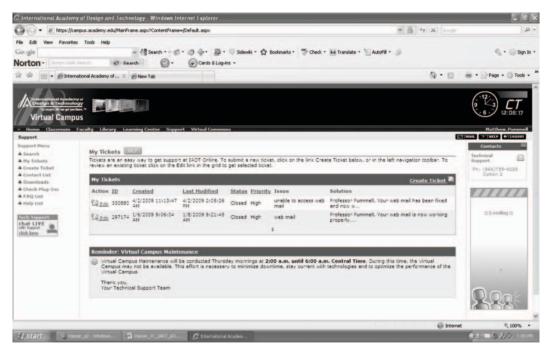


Figure 10. Technical support.

and the technical support infrastructure may be minimal.

When compared to these lists of advantages and limitations, the IADT-Online Virtual Campus measure up very well. It is a vibrant learning environment with very few limitations. The advantages of the VC are its flexible delivery model, student-centered learning, interactive experiences, and creative community. The two biggest limitations of the VC are the significant amounts of bandwidth space required to deliver the industry-current technologies and the time and resources it takes to produce the quality interactive learning experiences (Pummel, 2009).

FLEXIBLE DELIVERY MODEL

The VC emphasizes the flexible delivery model by providing many types of learning in multiple formats. Students can participate in both synchronous and asynchronous learning. They can access course materials from anywhere, at anytime via the Internet, as well as through advanced mobile technology applications and devices. Students learn independently and have control over when, where, and how they learn course content.

STUDENT-CENTERED LEARNING

The primary focus of the VC is on the student. This is evidenced by the many indepth support services available to students, from the extensive online library resources and customized web resources to the personal tutorials, interactive learning labs, and student-centered extracurricular clubs. The VC at IADT-Online is all about the student and the students' learning experiences are designed to provide them with quality career-focused education.

INTERACTIVE EXPERIENCES

Every "place" in the VC is interactive from the classrooms to the technical support center. Instant messaging is a feature throughout the campus. Each classroom has a library of course-related interactive materials. The Learning Center and the Virtual Commons also provide students with interactive experiences. The live chat, the foundation of the VC, is completely interactive allowing the students and instructors to communicate in real-time.

INDUSTRY-CURRENT TECHNOLOGY

CEC and the IADT family of schools have invested many resources on the technology behind the Virtual Campus. The VC is industry-current and provides many applications of advanced technologies including multimedia, graphic, and mobile delivery options. The students participate in the classrooms using the latest Internet meeting software, Adobe Acrobat Connect Pro. Additionally, the students at IADT-Online pursue art and design degrees that require them to use the newest graphic, web, and production software-Adobe Creative Suite 4 Master Collection. Every student and instructor is provided with this software so that they can effectively learn and use these tools in the virtual classroom.

CREATIVE COMMUNITY

The Virtual Commons is a unique feature of the VC allowing students to collaborate with mentors and peers through a common social networking community. This experience greatly enhances every online student's learning experience through the networking opportunities associated with the student-centered clubs and events. This creative community effectively mirrors and simulates the networking that occurs so often in the professional design community. This gives students a real-world experience that transfers to their potential careers in design and technology.

BANDWIDTH LIMITATIONS

The greatest limitation for the VC is the advanced technology that it utilizes and relies on for course delivery. Bandwidth limitations are a serious concern for the CEC and IADT instructional designers and developers. They are tasked with the creation of interactive multimedia and video content that must be effective when delivered via the Internet. Similarly, the same bandwidth issues that affect content development also have an impact on the live chat feature and content delivery. Although video is enabled in the live chat application, many instructors choose not to use this option because it "bogs down" and "lags" during the class causing the flow of course content delivery to be interrupted. In response to this issue, many instructors choose to deliver the chats only using the audio features.

COURSE DEVELOPMENT

An additional limitation to the VC is the amount of time, funding, resources, and personnel involved in the creation of original content and its continual updating. IADT-Online is part of the larger corporation, CEC, and must rely on budgetary and resource limitations from this level of administration. This significantly slows the natural cycle of curriculum development and causes great frustration for those at the local administration level. The VC is proprietary and the program chairs and instructors have very little control over quickly changing course content to meet the ever changing students' needs (Pummel, 2009).

SUMMARY

The IADT-Online Virtual Campus is an exemplary distance education application. It is obvious that attention to best practices of distance education were considered by the CEC and IADT instructional designers and software developers during the creation of the VC. This virtual career college has a long list of advantages when compared to the relativity few limitations. The highlights of the VC are its interactive, student-centered, flexible features; the utilization of advanced instructional and webbased communication technologies; and the truly unique creative social networking community of the Virtual Commons. In the words of an IADT-Online graphic design instructor, Glen Perotte (2009), the Virtual Campus is "an exciting, interactive experience for the students."

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In the words of an IADT-Online graphic design instructor, the virtual campus is an exciting, interactive experience for the students.

Challenges and Tips for Conducting Research and Developing Information Literacy

Using Search Engines and Online Databases

Natalie B. Milman



Natalie B. Milman, Associate Professor of Curriculum and Pedagogy and of Educational Technology, The George Washington University, 2134 G ST, NW, Washington, DC 20052. Telephone: (202) 994-1884. E-mail: nnmilman@gwu.edu

WHAT IS INFORMATION LITERACY?

nformation literacy involves the ability to locate, use, manage, and synthesize information effectively for a variety of purposes (American Library Association, 1989). As noted in the overview of the S.O.S. for Information Literacy website (2006), "At no time in history has the ability to locate, organize, evaluate, manage and use information been more critical for today's learners" (para. 1). Many would also argue that such skills are just as significant for today's students at every educational level as they are for those working in nearly any field, and especially in distance education. The importance of developing and applying research skills is also evident in a number of standards promoted by different organizations such as the Association of College and Research Libraries Information Literacy Competency Standards (http://www.ala.org/ala/

mgrps/divs/acrl/standards/informationliteracycompetency.cfm), the Partnership for 21st Century Skills (http://www.p21 .org/index.php), the International Society for Technology in Education (National Educational Technology Standards for teachers, students, and administrators, http://www.iste.org/standards.aspx), the International Association for K-12 Online Learning (iNACOL, http://www.inacol .org/research/nationalstandards/index .php), and the Common Core State Standards (http://www.corestandards.org/thestandards). Yet developing proficiency in information literacy is challenging. It is difficult not only because it involves working at the higher levels of Bloom's revised taxonomy which involves analysis, evaluation, and creation (Anderson et al., 2001), but also because aspects of it, such as conducting research using digital resourcessearch engines and online databases-are not foolproof.

WHY IS CONDUCTING RESEARCH USING SEARCH ENGINES AND ONLINE DATABASES CHALLENGING?

Conducting research and locating, managing, and synthesizing one's findings are essential in our information-rich society. However, anyone who has done a search using an online search engine such as Google (http://www.google.com/) or Yahoo! (http://www.yahoo.com/) has likely learned that locating useful information can be tough. It is problematic not only because the results of the search may not be what one is looking for or is inaccurate, but also because the number of "results" found on a topic can be overwhelming. For example, the outcome of a simple search in Google of "information literacy" was about 7,690,000 results. Alternatively, the same search on Yahoo! yielded 26,600,000 results.

Google Scholar (http://scholar.google .com/), another search engine tool, provides the opportunity to search for scholarly sources such as journal articles, theses, abstracts, and court opinions. However, its relevance is debated (Howland, Wright, Howell, & Dickson, 2009). Even so, several librarians (e.g., Badke, 2009, Howland et al., 2009; Weiss, 2009) view it as a beneficial resource for conducting research, but it should not be the only tool used, as Badke (2009) asserts: "While [Google Scholar is] a tool with a large index, it's not comprehensive and should be seen as one resource among many" (p. 3).

Badke's quote is also applicable to online databases such as the Education Resources Information Center (ERIC, see http://www.eric.ed.gov/), which is free, or subscription-only databases such as Lexis-Nexis Academic (see http://academic.lexisnexis.com/). These tools, most often used for academic research (e.g., research paper for a course) also offer an avenue for researching scholarly sources. However, they, too have limitations. One often has to conduct searches using several online databases to ensure one "captures" all of the relevant sources needed. Moreover, the sources are only as good as what the database indexes.

WHAT ARE SOME TIPS FOR CONDUCTING BETTER SEARCHES?

There are several strategies one can employ to conduct better searches using search engines or online databases. Some are:

 Become familiar with the search tool. A first step in conducting good searches is understanding how such tools collect and organize data, which is called "indexing," and how best to conduct searches using the tools. Most search engines and online databases provide this information freely—it just takes examining the resources on the tool's respective website. For instance, ERIC provides information about how it develops its collection (see http:// www.eric.ed.gov/ERICWebPortal/ resources/html/about/

collection_development_process.html) , as well as searching in ERIC (see http://www.eric.ed.gov/WebHelp/Content/Searching%20ERIC.htm).

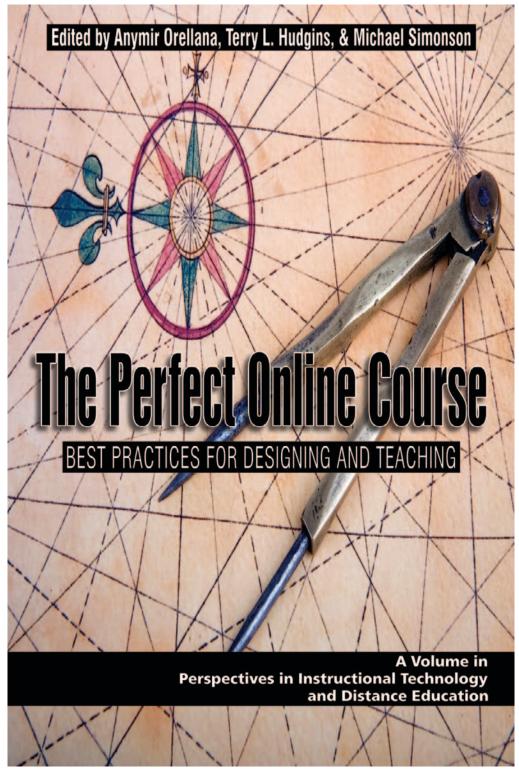
- Identify and use appropriate search 2. terms or "keywords." Consider the search terms or keywords you choose as your ticket to finding good information. However, one has to understand that the words one might think to use may not be the best ones for a particular topic or concept. Also, there might be other words used to describe the same concept. ERIC has a useful thesaurus that lists many of its search terms. For instance, for "information literacy," 14 other related terms are listed (see: http://eric.ed.gov/ ERICWebPortal/gotoThesaurusDetail.do?term=Information+Literacy).
- 3. Use Boolean operators. Boolean operators, the use of "and," "or," and "not" as part of one's search terms can help one find more relevant information on a chosen topic. However, not all search tools use these in the same way—so again, become familiar with how the tool works.
- 4. Keep track of and organize your search terms and outcomes. Although most instructors or supervisors do not ask for a record of one's search terms for a research paper, it is a good idea to keep track of the search terms and outcomes of one's searches. Two helpful tools for accomplishing this are Zotero (http:// www.zotero.org/), which is free, and RefWorks (http://www.refworks.com/).
- Get help from experts. Conducting research can be complicated especially when one finds an overwhelming amount—or too few (if the topic is too narrow)—resources on a topic. Librarians and media specialists in local and university libraries offer a wealth of knowledge about conducting research

using a variety of digital tools. Do not be shy about asking for help. Given the changes in search tools and upgrades, it is important to ask for help when needed.

No matter which tool one uses, searches are only as good as: (1) access to the specific tool, (2) the keywords indexed within these tools, (3) the keywords utilized by individuals conducting searches of these tools, (4) the resources indexed within these various tools, and (5) the way in which the tool presents results. Finally, just as search engines and online databases are not foolproof, researchers conducting research are fallible, too (e.g., in interpreting which sources are good to use or not). As objective as one might strive to be, there are aspects to conducting research that are subjective which should be acknowledged. Moreover, clerical errors can happen, too.

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Errol's Annual Guide to Cool Computer Tips and Websites to Improve Your Online Teaching

Errol Craig Sull

t's a new year, and with it come additional courses to teach in our wonderful world of distance learning. Of course, what makes this all possible is that



Errol Craig Sull, Online Instructor, P.O. Box 956, Buffalo, NY 14207. Telephone: (716) 871-1900. E-mail: erroldistancelearning@gmail.com marvel of technology the computer, and the more we know how to mine the riches of the Web the better we can make the computer work for us—and thus offer our students the best in an online educational experience. So, to help you in this ongoing pursuit I offer my annual collection of cool tips and websites chosen to make the life of a distance educator easier and more effective. (And while this is an annual list I will eagerly include helpful tips and websites you send me in future columns, so please—don't be shy: drop me your choices at erroldisatancelearning@gmail .com)

Always be on Top of Your Schedule

The distance educator has many deadlines (student assignments, discussions posts, exams, attendance, grades, etc.) and responsibilities; and if one is teaching more than one course—and especially for more than one school—these can become almost overwhelming to follow. Two effective online reminder sites will keep you on track daily. The first, Freminder.com, allows you to create a free digital appointment book; each time you enter a deadline, task, or appointment this service will email you reminders (daily, weekly, monthly, or annual). Also very effective is Google's Calendar feature (you need a Google e-mail—Gmail—account for its calendar, and the Calendar is located at the top of the page). Here, the appointment book is already set up; you simply add the item for which you wish to be reminded, and you can choose to be reminded X number of minutes, days, or weeks prior to the item.

DRASTICALLY AND EFFECTIVELY REDUCE SPAM—BEFORE YOU READ IT

Teaching online equates to much time spent on a computer, and thus more unwanted e-mails can find their way to your inbox; deleting this takes time, and some may accidentally get through and cause damage to your computer. To build on top of any spam filter you may already have try Cloudmark Desktop *One* http:// www.cloudmarkdesktop.com/—it checks incoming e-mail, determines whether it's spam, and automatically channels suspect messages to a spam folder.

CATALOG YOUR E-BOOK COLLECTION

More distance educators are using e-books in their courses, and this trend will only grow. It's important to keep track of these; not doing so can cost time and frustration—neither of which an online teacher ever needs. Enter Calibre (http://calibreebook.com/)—it surveys e-books and other relevant files on your hard drive or ereader, and then inserts them into Calibre's main directory. Once in the directory you can use the app to organize, categorize, and save to disk.

USE ONLINE REMINDER NOTES TO KEEP YOUR IDEAS ALWAYS AT THE READY

If you like those yellow sticky notes you'll find DeskNotes (http://desknotes.codeplex.com/) a great online version. You can create notes and move them around with ease—and as one teaches, online ideas of how best to teach, a new topic to discuss, a student that needs a follow-up, etc. happen all the time. Rather than jotting these down on a paper sticky note (or any type of paper) use DeskNotes to keep your ideas organized and categorized—and leave your desk note free! (Bonus: this software can also be used to remind you of upcoming appointments, deadlines, and events.)

NEVER AGAIN FORWARD E-MAIL WITH UNWANTED PRIOR ADDRESSES

A major "oops" many distance educators have experienced is forwarding an e-mail but forgetting to delete e-mail addresses (from the original e-mail) you don't want to receive the e-mail. This can result in major embarrassment—and more than one online instructor has lost employment or injured his or her reputation as a result. To be sure this never happens to you, click Forward, insert your own address in the To field, and place all addresses of folks you wish to receive the e-mail in the Bcc (blind carbon copy) field. Then, highlight and delete all previous addresses.

GET THE LATEST INFORMATION DAILY RELATING TO YOUR COURSE SUBJECT AND DISTANCE LEARNING

Google Alerts www.google.com/alerts allows you to create alerts on as many topics as you choose (one topic = one distinct alert), sending you an e-mail whenever new information appears on the Web specific to your topic. If one teaches English, for example—as I do—one can create an alert for Strategies for Teaching English Online; any time such an item is added to the Web you will receive an alert giving you a brief summary and its URL. This gives you the opportunity to build up your information on any number of topics to stay current with your subject, teaching strategies in distance learning, upcoming distance learning conferences, et cetera.

ENGAGE YOUR STUDENTS WITH FUN STUFF NOT NECESSARILY RELATED TO THE COURSE SUBJECT

Sugar is used to sweeten all sorts of food stuffs, and we can learn from this: use "sugar"-some interesting and intriguing websites-to add a more relaxed, fun, and upbeat feel to your class. Balanced with the core subject taught, as well as assignments, discussions, et cetera, and your course can be one students will want to visit more often. The content of these sites might also be incorporated into assignments and discussion, depending on your subject: Happy News www.happynews.com offers uplifting, positive, and hopeful news stories ... Mind Games (http://playwithourmind.com) has more than 100 word games, typing games, memory games, math games, logic puzzles, et cetera ... Optical Illusions (www.michaelbach.de/ot) presents and analyzes optical illusions from a scientific perspective (rather than a simple "Hey-that's cool!" approach) ... Radio Lovers (www.radiolovers.com) lets you listen to hundreds of old radio broadcasts, including Groucho Marx, Bob Hope, Blondie, Bing Crosby, Gene Autry, and many more ... You Were How Old When? (tinyurl.com/1z4v) shows one his or her age when a variety of events took place and how much older or younger one is than various personalities. Simply enter your birth date and press "submit."

NEVER BE WITHOUT A WI-FI HOTSPOT—ANYWHERE IN THE WORLD

Distance instructors are connected to their computers, and whether on vacation, at a conference, am emergency family visit, or work-related having wi-fi access is crucial. Enter Wi-Fi Finder (tinyurl.com/cqsek5>) —you will get more than 400,000 wi-fi access locations, in 144 countries; it tells you if the wi-fi is free, gives you street addresses, directions, and a map for each one.

HELP YOUR STUDENTS, HELP YOURSELF WITH SHORTER URL Addresses

Manv website addresses—URLs—are lengthy, especially those embedded deep in the web. These can take up premium space in e-mails, tweets, text messages, and other such mediums; also, the longer the URL the greater the tendency is to either not copy all of it or type it incorrectly. Two services are especially good at chopping these down to more manageable sizes. Bit.ly (http://bit.ly) has you type in or copy/ paste the URL in its original form, press the Shorten button, and a new, much shorter URL will appear. Goo.gl (http:// goo.gl) does the same: paste the long version of the URL into the input field, click the Shorten button, and the site delivers a new, abbreviated address you can copy and paste.

CREATE A BLOG

More distance instructors are introducing blogs—online journals—to their classes; it gives students (and instructors) an opportunity to offer on-going conversations opinions and information—about a specific subject or topic related to a course. Blogs can add richness and depth to any course, while offering an additional learning resource. The best blog services on the Web to help you create and maintain your blog: Blogger (www.blogger.com) ... Word-Press (www.wordpress.com) ... Windows Live Spaces (www.spaces.live.com) ... Weebly (www.weebly.com) ... Tumblr (www.tumblr.com).

Use Keyboard Shortcuts for Quick Commands

The quicker we can type the more time we save-and time management and solid efficiency are always important in any online course being taught. When an opportunity comes along that helps with this it's important to grab it, and one of these that many people don't use are common Windows shortcuts. What follows is a complete list for Windows XP (Windows 7 is still a work in progress because of its newness): Open Run box-WIN-R ... Open files and folders/Search window-WIN-F ... Minimize all windows-WIN-M ... Lock computer-WIN-L ... Open Utility Manager—WIN-U ... Switch among open programs—ALT-TAB Permanently ... delete an item-SHIFT-DELETE ... Open Task Manager—CTRL-SHIFT-ESC ... Open a Help file—F1 ... Take a screenshot and save to Clipboard-PRINT SCREEN ... Select all ... CTRL-A ... Copy—CTRL-C ... Paste—CTRL-V ... Print—CTRL-P ... Open—CTRL-O.

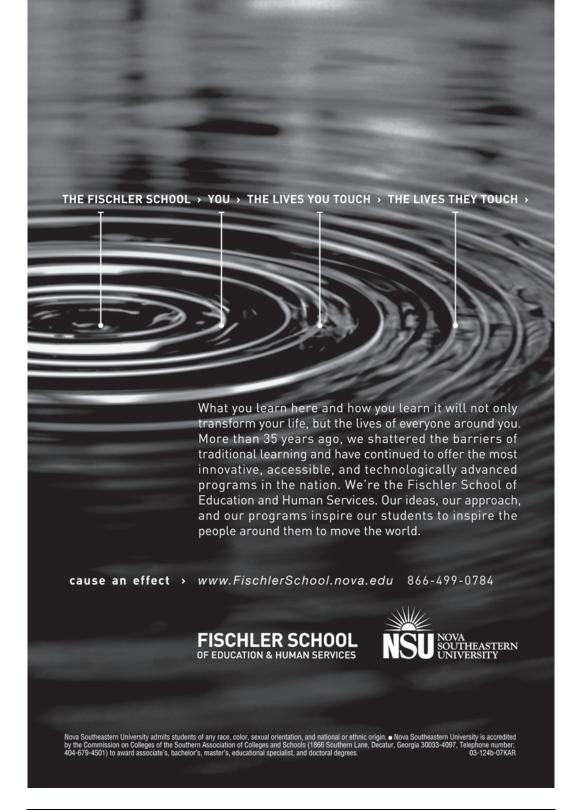
INCREASE THE NUMBER OF DOCUMENTS IN WORD 2007'S RECENT DOCUMENTS FOR QUICKER ACCESS

Each online course taught equals a multitude of assignments graded and returned to students as document files, and while Word 2007's default setting of Recent Documents will list 25 of these you can increase this number. The advantage: quickly find—then open—recent files and find files that you saved but forgot to save to their desired locations. To do this, Launch Word 2007, click the Office button (upper left corner of the Word window), click the Word Options button, then click Advanced. Scroll down to the Display area, then click the up arrow next to Show this number of Recent Documents to select a number more appropriate for your needs (max is 50).

DOWNLOAD AUDIOBOOKS

Audiobook titles are growing at an enormous rate, with online courses often incorporating them into courses in lieu of texts, in addition to texts, or merely to offer students another resource to augment what they already have. For an impressive selection of these visit BooksShouldBeFree (www.booksshouldbefree.com)—it is an online library of audio books available in .mp3 and iTunes podcast formats. (Other such sites include thoughtaudio.com, podiobooks.com, and librivox.org)

Remember: While a hammer can pound a nail, a toolbox can build, fix, redo, and finish.



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Ask Errol!

Ask Errol!

eral to start off Ask Errol for 2011. As always, be sure to send your questions to me at erroldistancelearning@gmail.com so I can include them in our next issue.

This column's selections ...

With the start of each of my online courses I can always count on one thing: a variety of excuses as to why an assignment or a dis-



Errol Craig Sull, Online Instructor, P.O. Box 956, Buffalo, NY 14207. Telephone: (716) 871-1900. E-mail: erroldistancelearning@gmail.com

Errol Craig Sull

cussion post was either late or not submitted/posted. While I do my best to handle these I'm also looking for any tips that can help.

Ah, you are so right-the selection of excuses does seem to grow, and yet unless we can definitively prove an excuse is a lie it can be difficult not to accept it. (Many online schools do have parameters on what can and cannot be accepted—be sure you are aware of your school's policies.) There are, however, several factors that can be considered, and chief among these is to listen with an open mind. It is because we HAVE heard so many excuses that we have a tendency to have a "Yeah, right, surehere we go again" mind set as soon as a student offers an excuse. Don't. Each student must be taken on a case-by-case basis, and more often than not the student will be telling you the truth. Be open to what the student is telling you; this way, you can "hear" everything the student says, thus giving you more information to weigh in on a final judgment as to whether or not the student is being honest.

One area of distance learning where I place much effort is in getting and keeping my students engaged, but I'm always on the lookout for suggestions from other folks. Can you give me a tip that might not at first seem apparent?

One of my favorite surefire "engagement tricks" is to immediately get my students involved in the course by asking them to send examples or situations where their lives or others' lives were/could be impacted by the subject I'm teaching. Nothing gets students more involved in learning than when they feel they have ownership in it-and this activity helps with this. First, they are telling you what it will be impossible for you to know: how each student can relate the best to your subject; this personalizes it for each one. Second, they are contributing to helping you build a "real" class in that it touches their lives and the lives of others they know or know of. And, third, by doing this each student has created just a bit more ownership into the course.

I'd like to believe that each student taking my online course is familiar with using a computer, and thus will have no trouble immediately jumping into all portions of the class. Of course, this is not the real world of distance education, and at times I encounter students who just seem afraid of the online learning environment. Any best ways to help these students overcome this hesitation?

There are a host of reasons a student may be very hesitant about being in an online course, and there are several items we can do to help allay their fears and make the online learning process an enjoyable one: (1) Have an engaging and friendly welcoming e-mail or post for your students-this sets the tone for the rest of the class, and when students get the sense you are there to help them they are more apt to become active members of the class. (2) Address student concerns prior to students mentioning them-by having a folder of questions with answers of major student problems I have previously encountered this not only helps to minimize these student concerns but also shows you as an online educator who really cares about his or her students-so important in helping to establish a strong rapport between you and your students.

(3) Respond to student e-mails and posts in a timely manner-you are the spark that decides if your course is going to be ignited by vibrant students or extinguished by apathetic ones, and one solid way to keep students engaged in the course with a minimum of angst is to respond to student queries both immediately and with a "I'mreally-interested-in-helping-you" tone. (4) If your school allows it, take the time to call all students at least once during your course, and especially the ones having a difficult time-often, just the sound of your voice can make the computer in front of the students come to life and quickly lessen any difficulties in accepting the online environment.

In teaching my online courses I do much writing—student e-mails, notes on assignments, postings to the class, et cetera, and although I've been teaching online for 4 years I still find my supervisors or some students will occasionally mention that my writing does not seem like it's written for my students, but more with me in mind. This is frustrating—I know you teach English and have been teaching online for many years, so you can you help me out?

Your problem is more common than you may think, as writing to students and writing in an online environment requires a delicate balance between our needs and the students' needs and our level of education versus that of our students. But two items to always keep in mind can greatly improve the overall-and constant-quality of any writing you do for your students: (1) Remember the #1 rule of writing-you write for the reader. Your writing is not about you-your achievements, your dreams, your family, your political beliefs, etc. Sure, there are times when experiences and anecdotes from your life may be very helpful to bring something into focus for your students. But whatever you write for your students it is not a bully pulpit to carry forth your own agenda. Additionally, remember that

abbreviations, acronyms, words, and phrases that are specific to knowledge you have may not be familiar to your students; when you need use these be sure to define or explain them: you never want your reader confused or bewildered by what you say. (2) Use language that personalizes you. Teaching at a distance has very obvious impersonal qualities to it, and for those students who are new to it this method of teaching can be very intimidating. Thus the use of your own voice—as a voice that comes form a real person, not computerese-becomes crucial. So: don't hesitate to use contractions occasionally ... use emotional language at times (including exclamation marks) ... once in awhile, use a personal experience or anecdote to make a point about something you are teaching ... every now-and-then use sentence fragments to show personal emphasis. These language "touches" all help to personalize a writer, thus making you and the course more "normal" for the students.

Microsoft just released Office 2010, and there are a host of other software packages that have also been updated; additionally, it feels that as soon as I buy a new computer it's already outdated. While I want to stay on top of technology it can also become rather expensive and time consuming to consistently upgrade—any suggestions?

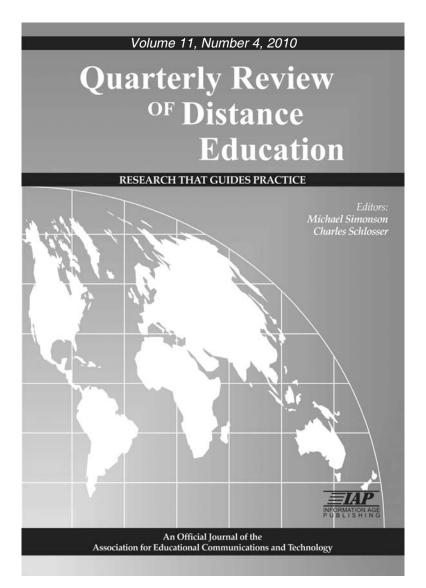
Some upgrades are based solely on how much you use a software package, the features you need, the speed you require from a computer, etc. There are two solid guidelines that can help: (1) Upgrade not for your heart but for your head. If you are deciding on an upgrade only for the newest whistles and bells, don't do it-you'll be spending your money on window dressing only. Decide on how the upgrade will be of help to you (you can always find product points of new releases online), and compare that help against the price of the upgrade. Bottom line: the primary reason to upgrade is to make your job as an online instructor more efficient, better organized,

and-overall-easier. (2) Know the difference between an update and an upgrade. These terms are often confused, and so you are clear on each, remember: an update (also called a patch) is a free "fix-it" that the product manufacturer makes available online to correct discovered problems with the product; the upgrade is not free, is a new version of a same product (Microsoft Office 2010, for example, is an upgrade of Office 2007), and can be purchased online or in a store. TIP: always be on the lookout for patches that are released (by registering your product online you will usually be automatically informed of any patch releases; you can also check the manufacturer's website).

This last item is one that was not submitted by anyone in particular yet is a summation of many questions I have received in different forms that pretty much come down to a 2011 New Year's resolution: resolved—to be a better distance learning educator!

I offer you the following to help ensure that that happens for you: (1) Make certain you are teaching because you enjoy teaching. If not you do need rethink your career choice. (2) Do a self-evaluation of your weak teaching strengths. By doing this we can quickly correct our weaknesses, thus becoming better online teachers. (3) Take any professional development courses your school offers-and do so with gusto. This not only improves your abilities as an online instructor but also shows the school your enthusiasm in teaching, assuring it made a great decision in your hiring. (4) Learn to better manage time, better organize life. The better you do these the easier and more efficient your course efforts will be-and the students will benefit greatly. (5) Enhance your efforts to engage and motivate students. Beyond professional development courses offered by your school, make it a point to take a course in teaching methods ... attend at least one conference related to teaching online or to your subject area(s) ... write an article for publication ... contribute to a professional forum or discussion ... help another become a better teacher ... read at least one book on your course area or online teaching, while continually reaching out to articles and essays on the same ... create a better approach or strategy or teaching one portion of your course—and recommend this to the school: these and other like efforts all help increase your motivation and passion for teaching.

REMEMBER: Questions not asked are like barbells and dumbbells never used: nothing is improved or strengthened by merely thinking of what can be—rather, we must act on it.



QUARTERLY REVIEW OF DISTANCE EDUCATION, SUBSCRIBE TODAY! WWW.INFOAGEPUB.COM of an online class, and activities to be taken during a class.

Before an online or blended class begins a learner should:

- Develop a personal and very formal organization plan for the course. This might mean the use of file folders for various course-related activities—either physical or digital—or the development of a study and learning plan where specific times are scheduled.
- Obtain a copy of the course syllabus and become familiar with the planned course activities, assignments, and requirements.
- Trouble-shoot all equipment and connectivity that will be used during the course.
- Find and file the instructor's name, address, e-mail, and telephone number.
- Send the instructor an e-mail introducing yourself, just before the beginning of class.

During an online or blended class the learner should:

• Obtain a list of other students in the class and find out about them, if possible. Often instructors will ask students to post a picture and short autobiographical paragraph. If so, save this information and review it to get to know classmates. If the instructor does not do this, then take the initiative yourself—contact your classmates and introduce yourself.

- Participate often when interactive instructional events are planned—early and late. Many online instructors use threaded discussions of relevant course topics—the best approach is to post early in the discussion, post comments reacting to what classmates have posted, and return to the discussion thread several more times to read what others have written and add additional posts to the thread.
- Identify classmates after a few weeks of instruction who seem to be ones you would like to "get to know better." Contact them and try to build a small study group—classmates you can bounce ideas off, and whom you will help when they have questions—build your own learning community.
- Contact your instructor periodically noncritical questions can be sent via e-mail, and for more complex or important issues, do not forget the telephone. Get to know your teacher, and help your instructor get to know you—be pro-active; most instructors appreciate this if it is not over-done.

And finally, while online learners may be solitary, they must not be idle.

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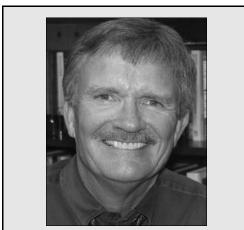
Solitary, But Not Idle

Michael Simonson

"If you are idle, be not solitary; if you are solitary, be not idle."

-Samuel Johnson, 1779

here has been considerable discussion lately about the problem of the solitary learner who is enrolled in a distance education course. Fengfeng Ke and Alison Carr-Chellman (2007) studied the solitary learner, and Simonson (2008) even discussed the solitary instructor; the instructor who works alone, outside a tra-



Michael Simonson, Editor, Distance Learning, and Program Professor, Programs in Instructional Technology and Distance Education, Fischler School of Education, Nova Southeastern University, 1750 NE 167 St., North Miami Beach, FL 33162. Telephone: (954) 262-8563. E-mail: simsmich@nsu.nova.edu

ditional instructional institution, with little or no contact with other professionals.

As distance education and virtual schooling have grown in importance and the number of students who learn at a distance has increased, the issue of the solitary learner has become a concern to many educators (Simonson, 2008). These concerns have produced a series of recommendations that are intended to reduce learner solitude by requiring learner action. In other words, the solitary learner must not be "idle."

Certainly, teachers of distant learners design their courses and build communities of learners, and plan activities that reduce the potential pitfalls of learning on one's own. Development of learning groups, use of social networking activities, and incorporation of synchronous audio and video instructional events are used by instructors to minimize the impression that a learner is alone.

However, there are also actions that students should take to ensure that they are not learning in solitude, even though they may be studying in isolation from their classmates. There are two categories of actions to be taken—those before the start

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