

BE VOCAL: Characteristics of Successful Online Instructors

John R. Savery
The University of Akron

Abstract

While classroom teaching and management strategies are well documented, the online learning environment presents different challenges and benefits. Teaching in an online environment requires a special set of teaching skills since many of the strategies and tactics associated with best teaching practices are somewhat constrained by the primarily text-based environment. The VOCAL approach summarizes the key characteristics that a master instructor utilizes to be effective in an online environment. VOCAL is an acronym for Visible, Organized, Compassionate, Analytical and Leader-by-example. The ability of the teacher to effectively infuse these characteristics into their instructional practice – to BE VOCAL - will promote a supportive, challenging, constructive, rigorous and effective instructional environment. Instructors who practice a VOCAL approach will have more productive learning environments, fewer management problems and more positive learning experiences with their students.

A survey of 2 and 4-year educational institutions by Waits and Lewis (2003) reported that “[i]n the 12-month 2000–2001 academic year, there were an estimated 2,876,000 enrollments in college-level, credit-granting distance education courses, with 82 percent of these at the undergraduate level” (p. 1). A survey of public school districts by Setzer and Lewis (2005) reported that “[d]uring the 2002–03 12-month school year, 36 percent of public school districts had students in the district enrolled in distance education courses” (p. 17). Setzer and Lewis (2005) further note that “there were an estimated 328,000 enrollments in distance education courses among students regularly enrolled in public school districts” (p. 20).

The continuing expansion of distance education in post secondary institutions and K-12 educational environments has produced numerous articles explaining what online instructors should do to teach effectively in this ‘new’ environment. The suggestions provided here are based on ten years experience teaching in blended learning environments including web-enhanced classes, distance learning classrooms and fully online courses. The intention is to integrate the existing foundation of ‘best practices’ in teaching (Chickering & Erhmann, 1996; Chickering & Gamson, 1987, 1999; McKeachie, 2002), with the design of learning environments that foster student ownership for learning (Savery, 1996, Savery, 1998; Savery & Duffy, 1996) and provide a useful mnemonic that summarizes the key characteristics of effective online teachers. These suggestions are intended for instructors who are relatively new to the online teaching environment, and also as a reminder of lessons learned for more experienced online instructors. Simply stated, to maximize their effectiveness as teachers in the online classroom instructors need to **BE VOCAL**. Please note, this does NOT mean that instructors need to “talk” a lot. The attributes of each VOCAL characteristic are detailed

in the sections that follow, with specific examples to illustrate how the characteristic might be realized in a variety of online learning environments.

Background

To put some parameters on this discussion, the terms online learning, web-based instruction, and distance education are similar in meaning and can be positioned on a continuum that incorporates many different instructional and technological formats. The ten levels of web integration proposed by Bonk, Cummings, Hara, Fischler, and Lee (2000), describe a continuum that begins with using electronic means simply to market the course and concludes with the entire course being available online and part of a larger internet based instructional program (i.e., a course within an online curriculum). While the VOCAL characteristics should be present at all levels of web integration they are particularly important as the amount of teaching and learning that takes place in the online environment increases.

The formats for delivering instruction to learners can vary greatly but for our purposes will be clustered into three groups: 1) blended learning environments where instruction is primarily face-to-face and instructors and students utilize content specific digital resources (i.e. commercial databases, GIS applications, authoring software, and web-based tools) to extend the classroom, and 2) a hybrid format where the class meets face-to-face a number of times over the semester, but the majority (~30% or more) of instructional interactions such as content delivery, communication, learning management and assessment take place within a learning management system (i.e., Blackboard, ANGEL, WebCT or similar environment- note: Blackboard is a registered trademark of Blackboard, Inc., ANGEL is a registered trademark of AngelLearning.com, WebCT is a registered trademark of WebCT, Inc.), and 3) the entirely online learning environment where the instructor and the students never meet face-to-face and the development of the online learning community and the teaching/learning process are mediated by the tools contained in the online environments. The VOCAL strategies are applicable to varying degrees in all of these formats.

The **VOCAL** acronym is intended to identify the characteristics of an effective online instructor as one who is: **V**isible, **O**rganized, **C**ompassionate, **A**nalytical, and a **L**eaders-by-example.

Visible: Why It Matters?

In a face-to-face classroom where students and the instructor meet in the same **place** at the same **time** for a shared experience, there is a high degree of two-way visibility. The instructor faces the class and communicates verbally while the student sits and listens. Students are able to see and hear the instructor, and form opinions about the instructor in terms of organization, vocal quality, speech patterns etc. With larger classes (30+ students) it is often difficult for the instructor to get to know the students as individuals, particularly if the transmission mode of instruction is used. There are limited opportunities for one-on-one communications and the quiet students tend to be missed.

The verbal instruction may be supplemented with printed handouts, a Power Point presentation, and possibly audio or video.

In an online learning environment where the students and the instructor meet for a shared learning experience in the same **place** (an online classroom) but at **different times**, the dynamic is much different. Verbal communication is largely replaced by text. The online classroom can be a scary place for students and instructors who are unfamiliar with the environment. Long periods of time can pass during which – from the student perspective – the instructor has been absent. If the student perceives that the instructor is not participating, they often form a perception that the instructor is not concerned about teaching/learning. As a consequence, students are more likely to adopt a passive role for themselves.

Visibility is closely linked with the concept of social presence (Fabro & Garrison, 1998; McIsaac & Gunawardena, 1996; Rourke, Anderson, Garrison, & Archer, 1999). Social presence is defined as the degree of awareness of another person in an interaction and the consequent appreciation of an interpersonal relationship (Walther, 1992). Social presence is the degree of feeling, perception and reaction of being connected to another intellectual entity and in the context of an online learning environment, social presence impacts online interaction (Tammelin, 1998; Tu & McIsaac, 2002). Gunawardena (1995) argues that social presence is necessary to improve effective instruction in traditional and technology-based classrooms, and as was shown by Garramone, Harris, & Anderson (1986), when the level of social presence is low, interaction is also low. A lack of social presence may lead to a high level of frustration, a critical attitude toward the instructor's effectiveness, and a lower level of affective learning (Baker, 2001; Hample & Dallinger, 1995).

In a hybrid or blended learning environment (Singh, 2003), where the majority of the class is conducted online but some face-to-face sessions are included in the instructional blend, there is an opportunity for the instructor and the students to become acquainted before moving into the online environment. The initial face-to-face meeting is critical in establishing face and voice with the learners. Experienced teachers know the importance of the first class sessions in establishing shared understandings and expectations with their students. This is equally true with online classes. Subsequent text based communication should use the same voice – either formal or informal – as that used in the initial meeting. Students will read the messages and hear the instructor's voice speaking to them.

In a completely online instructional environment, instructor visibility is absolutely critical. Students need to know that the instructor is attending to them even though they do not meet in a face-to-face classroom. Similarly, instructors need to know that the students are actively attending to their learning tasks and being self-regulatory.

Suggested strategies. Instructor visibility is demonstrated through public and private communication channels. Public visibility would include:

- 1) A web site with personal and professional information about the instructor. This 'personal' web site should reflect the personality of an instructor and allow the students to get to know them better. Information to place on the website might be a recent photo of the instructor, pictures of their pets, a list of favorite places to visit, books recently read, and so on. The key idea is to enable students to initiate

- conversations on topics of shared interest. There will always be time to discuss course content but this will become easier when the ‘strangeness’ has been reduced.
- 2) Instructor comments made in a timely fashion to the shared discussion forums to let students know that you are reading their messages.
 - 3) Broadcast messages in the form of email to all participants.
 - 4) Banner notices on the Welcome page updated regularly. This technique may be used to recognize a contribution or event in the life of a particular student, or to provide a general announcement about a recent resource or article of interest.
 - 5) Updating the shared calendar with assignment due dates, or ‘Tuesday’s Trivia Question.’ The specific vehicle used will depend on the capabilities of the online learning environment.
 - 6) In the near future, as bandwidth constraints are removed instructors and students will be able to interact through brief video clips and audio messages. Properly done this technology can provide for strong visibility and social presence.

Private visibility refers to selective attention to an individual (or defined group/project team) within the larger learning community. The format is usually an email message to a student recognizing a positive contribution or achievement, or in a different situation, an email message to a student to encourage participation, or discourage an undesired behavior. These messages are intended to make the student aware that the instructor knows who they are and what they are doing. Private visibility is designed to remove the anonymity that can occur in online environments. In the case where student groups are formed and the instructor is a member of that group, the communication amongst the group can be limited to just that group. At the practical level, it will help the instructor to keep a class list and note who has been sent a private message to ensure that all students are included, and this leads us to the next key characteristic: organization.

Organized: Why It Matters?

When teaching in an online environment, it is absolutely essential that the instructor - and by extension all aspects of the course - be carefully and completely organized (Simon, 2000). Adults that choose to take an online course (correctly or incorrectly) assume that it will be easier to fit an online course into their already crowded schedules. This is also the case with high school students whether they are taking Advanced Placement courses or courses intended to supplement or replace traditional face-to-face classroom instruction. Learners who choose an online format will want to know what is expected of them, how many assignments, and when assignments are due so that they can organize their time to meet course requirements. An interesting by-product of online teaching and learning is the increased responsibility that is placed on the learner to become better time-managers and self-directed learners (Smith, 2002). The ability to be a self-regulated learner is particularly important in distance learning environments (Palloff & Pratt, 1999; Zimmerman & Schunk, 1989) and many institutions that provide online instruction offer students an opportunity to assess their level of readiness for online learning prior to taking courses (e.g. Capella University <http://www.capella.edu/default.aspx> or University of Illinois (online) <http://www.online.uillinois.edu/>). The purpose of these self-assessments is to encourage

the learner to reflect on the characteristics of successful online learners (i.e. self-motivated and self-regulated) and to set clear expectations for required performances.

Organization also means anticipation. Experienced classroom teachers – those who have taught a grade or subject area several times- prepare instructional materials for their students that are ‘bulletproof’ meaning directions are clear for all assignments, instructional materials have been thoroughly reviewed and problems that developed in previous teaching sessions have been addressed. It is better to have more materials prepared than might be needed. In an online environment, a very high level of specificity is important given the possible time delay in questions being posed, answers received and the potential for wasted effort. Most learning management systems (LMS) provide a shared calendar feature that instructors can use to post assignment due dates or online activities such as a chat session with a guest speaker. If the online course is more linear this ‘calendar’ feature can be replaced with a document that simply lists the assignments and the due dates. Regardless of the method used, it is essential that learners be able to find schedule information in ONE place and keep that one source current and accurate.

An experienced instructor with extensive knowledge of the subject matter will be able to introduce current affairs/articles or news items into a traditional face-to-face classroom. Given the asynchronous nature of the online environment there are limited opportunities to be spontaneous and attempts to do so must be carefully planned. Some suggestions follow:

Suggested Strategies:

- 1) Require your students to take an online self-assessment and report back (to you or the class) on what they think are the characteristics of a successful online student.
- 2) Prepare your syllabus carefully and thoroughly (Fullmer-Umari, 2000) and post it on the LMS so it is easily accessible by your students. A well-conceived syllabus is pre-emptive in that it answers learner questions before they are asked.
- 3) Provide the course assignments and due dates early in the course so students know what to expect and when. Use the capabilities of the web-based environment to hyperlink resource documents to assignments.
- 4) Prepare a document that explains the “Do’s and Don’ts” of your online class. Describe rules for netiquette, for comments in the discussion forums, and for communicating concerns to the instructor. Some instructors have students send an email message acknowledging that they have read the Class Rules and agree to abide by them.
- 5) Anticipate the need for a ‘non-instructional’ venue for online discussions by creating a discussion topic such as ‘The Coffee Shop’ for non-course related discussions. This Coffee Shop is usually created within the discussion forum area of the LMS with a clear mandate to be used for social talk.
- 6) Consider creating a discussion forum topic that allows for posting of current affairs information. Assign one or more students the task of adding a weekly news item that links to central themes in the course.
- 7) Use different formats for online resources and label each clearly (pdf, htm, doc, ppt). Allow students to select which format is most useful to them– i.e., students who need to download files and those who are comfortable with reading online. Provide information and links to specific applications such as Adobe Reader for pdf files.

- 8) As the instructor, you can use the capabilities of the LMS to control access to course materials. A selective release function manages files so that new instructional material is made available to the student only when mastery of previous material has been demonstrated. Depending on the sophistication of the LMS this may or may not be feasible. The purpose of this function is to allow the student to progress at their own best pace while ensuring that the instructional objectives have been achieved.

Compassionate: Why It Matters?

Many adults choose an online format because of the conditions they face in the real world. Many are working full time and/or raising their children and/or taking care of their parents. In an effort to upgrade their skills or qualifications they are adding this online course to an already crowded existence with many conflicting demands on their time and energy. Students in an online course are also subject to the whims of computer and network technologies. Technology literacy and functional competence are required/expected of online students and too often their knowledge of technology is both superficial and brittle. When some aspect of the online world is not working as expected, some may simply give up, while others may become frustrated.

High school students who take online courses are often not your typical students. Some students are taking classes as part of a home-schooling program. Other students that have not succeeded in a traditional school for a variety of reasons (Rouse, 2005) are taking online courses as a last option. Successful learners utilize their skills at self-regulation and meta-cognitive awareness (Bransford, Brown, & Cocking, 1999), and the need for both is greater in an online environment. The relationship between the instructor and the high school student in the online course requires careful attention and management. If the Visibility and Organization elements are present then attending to the emotional well being of the learner is much easier.

Online environments are surprisingly intimate. Learners are willing to share details of their personal lives in an email to the instructor that they would not share in a face-to-face classroom. Email provides an unusual combination of intimacy, privacy, and distance that does not exist in a traditional classroom setting. When students literally 'bare their souls' to the instructor, a level of compassion is required of the instructor that exceeds what would normally be required in a regular classroom. This is a reality in online teaching and there are no easy answers. It is necessary for the instructor to deal with each situation as it occurs and ensure that as much as possible they treat each student fairly. The rules for dealing with a student who informs you that they have an illness, or a member of their family is in crisis, or a close relative has died, are not written in any manual but comes from the heart.

Suggested Strategies:

- 1) Give students permission to communicate directly with you (as the instructor). The pressures of daily life are often unplanned – a sick child/spouse/parent can wreck havoc on the best intentions of completing an assignment by the due date.
- 2) In the threaded discussion topics for the class introduce an All About Me category. This will introduce the members of the online community to their co-voyagers in the online class. When a student reveals that they are a single parent

- with three children and a full-time job (or some other reality) it will help the members of the community grow together. Names on the class list become ‘real people’ and everyone in the class begins to learn more about each other.
- 3) Use established ice-breaker techniques like a discussion topic that asks learners to a) post a message about themselves that contains two truths and one lie, or b) to share something about themselves that they are most proud of, or c) to share something that nobody knows about them (a hobby or talent).
 - 4) When a student shares information with the instructor (e.g. death in family) ask if you can share this with the rest of the online community. The visibility element mentioned earlier applies to all members of the online community so this is a fair request – but permission is necessary.
 - 5) If necessary, remind students of the Class Rules (see Organization) concerning expected conduct, levels of participation, and how you will respond to unanticipated problems.

Analytical: Why It Matters?

Instructors need to manage the online learning environment and ensure that students are completing assignments and achieving the intended learning outcomes. More importantly, students need to receive timely feedback on their performance and their progress toward achieving the course objectives. Preparing and sharing a well-defined assessment strategy and assessment activities is a critical part of being organized. Collecting and interpreting student data is part of being analytical. Fortunately, most learning management systems provide systems and tools to support assessment activities and to provide the instructor with data on each student.

Some online testing formats may or may not be appropriate depending on the assessment plan created for the course, the content domain and the intended learning outcomes. It is relatively easy with most LMS to create an online quiz with multiple-choice questions, true/false questions or short answer responses. The concern here is with the type of information being tested. Since the online student has access to all course resources while taking the quiz (books, articles, websites), asking recall type questions is pointless. Questions that test the learner’s ability to synthesize information and apply it to a specific problem or scenario can be very revealing of how well students are integrating the concepts acquired through instruction. The LMS controls access to the quiz through student login authentication and the instructor can specify when and for how long the quiz will be available to students. Scores on the binary type questions (M/C and T/F) can be sent to the student and the instructor upon completion of the quiz. The instructor may need to score the short answer responses separately. Online tests are one form of assessment. The LMS also allows instructors to post assignments that contain detailed instructions, clearly stated assessment rubrics and resource materials to support students. As with a quiz, the LMS controls access to the quiz through student login authentication and the instructor can specify when and for how long the assignment will be available to students.

As noted earlier, successful learners are active participants in the learning experiences (Swan, 2004). In an online learning community this means engaging in the ongoing discussions of content and concepts related to the themes of the course. The

LMS will allow the instructor to ‘track’ students within the online environment and provide a summary of learner activity. This summary will list number of visits to the course site, number of messages posted to the discussion forum, and number of messages read by the student. The instructor should check this information source early in the course and at regular intervals to ensure that all students are participating and to advise any that may be less active to become more engaged.

Suggested Strategies:

- 1) Provide smaller and more frequent assessments and spread assessment activities across the course. This strategy helps reduce test anxiety and provides learners with additional opportunities to process course concepts and content (Northedge, 2002).
- 2) Consider using face-to-face exams with your students for learning outcomes such as applied demonstration of skills that could only be assessed in this format. The University of Phoenix (<http://www.uopxonline.com/>) has satellite offices where students go in person to take a proctored final exam to determine their grade.
- 3) When using online assignments specify the format for completed work that will be submitted electronically by the students (font size, headers, margins, word processing application). Specify also the file naming conventions students are to use such as [lastname]-essay.doc as this will help you to sort submitted assignments using the alphabetized class roster.
- 4) Provide opportunities for students to evaluate the online course at the mid-point as well as at the end of the course. Reflection can foster an appreciation for accomplishments and afford an opportunity to clarify perceptions.
- 5) Provide clear expectations and guidelines for assessing participation. This can be in the form of assigned leadership roles for discussions of the readings or as an expectation for a minimum number of substantive postings to each discussion thread within a given period of time.

Leader-by-Example: Why It Matters?

Everything an instructor does in the classroom and in the online environment should model best practices in teaching. Students will take their lead in the areas of visibility, organization and compassion from the instructor. The instructor sets the tone for the online learning community early in the course and maintains it until the final class.

Six general strategies for assisting student performance through teacher-student interactions were described in detail by Gallimore and Tharp (1990) as: 1) Modeling - offering non-verbal behavior for imitation, 2) Contingency Management - rewarding desired behaviors through praise/encouragement, or to control undesirable behaviors through punishment in the form of reprimand/censure, 3) Feeding Back - responding to learner performance in relation to a given standard or set of criteria including grades, 4) Instructing - direct teaching/telling and assigning of tasks. Often embedded in other means of assistance it occurs whenever the teacher assumes responsibility for assisting performance. 5) Questioning - assisting the learner as a prompt, to assess as in a test question, to stimulate thinking, or to provoke creations by the student, 6) Cognitive Structuring - to help the learner organize 'raw' experience by providing a structure for

thinking/acting. The deliberate/conscious application of these means of assistance by the instructor in an online learning environment, particularly through the vehicle of computer-mediated communication is an important component of leadership as examined by Kirkley, Savery, & Grabner-Hagen,(1998).

Specific Strategies:

- 1) Introductions – share information about yourself with your students both formally with a website that you have created or informally as part of the threaded discussions.
- 2) Follow-through with promises. If you commit to doing something (providing an online resource or grading an assignment) model responsibility by completing that task in the allotted time.
- 3) Model the WRITE WAY to communicate in an online environment. Share the strategies described by Lewis (2000) for effective communication in the largely text-based online class.
- 4) Utilize the public and private channels of communication to ensure that you are visible to your students – without dominating the conversations.
- 5) Plan for and implement an end of course activity to bring closure to the class, reinforce what was learned, revisit some high points in the course, and acknowledge the contributions by members to the success of the learning community.

Summary

Each of the VOCAL characteristics has been described and both general and specific examples for implementation have been provided. Instructors who adopt the VOCAL characteristics will become more Visible, Organized, Compassionate, Analytical, and a Leader-by-example and improve their performance in the online instructional environment. Each VOCAL component contributes to a positive teaching experience for you and a successful learning experience for your students.

References

- Baker, J. D. (2001). The effects of instructor immediacy and student cohesiveness on affective and cognitive learning in the online classroom. (Doctoral dissertation, Regent University, 2001). *Dissertation Abstracts International*, 62, 06. 2081 UMI No. 3018333.
- Bonk, C. J., Cummings, J. A., Hara, N., Fischler, R. B., & Lee, S. M. (2000). A ten level Web Integration Continuum for Higher Education: New Resources, Partners, Courses, and Markets. In B. Abbey (Ed.), *Instructional and cognitive Impacts of Web-based Education*. Hershey, PA: Idea Group Publishing.
- Bransford, J. D., Brown, A., & Cocking, R. (Eds.). (1999). *How people learn: Mind brain, experience and school*. Washington, DC: National Academy Press.
- Chickering, A. W., & Gamson, Z. F. (1987, March). Seven principles for good practice in undergraduate education. *AAHE Bulletin*. Retrieved April 2, 2005 from <http://aahebulletin.com/public/archive/sevenprinciples1987.asp?pf=1>
- Chickering, A. W., & Gamson, Z. F. (1999). Development and adaptation of the seven principles for good practice in undergraduate education. *New Directions for Teaching and Learning*, no. 80 (pp. 75-81). Jossey-Bass Publishers
- Chickering, A. W., & Ehrmann, S. C. (1996). Implementing the seven Principles: Technology as Lever. *AAHE Bulletin*, October, 3-6. Retrieved April 1, 2005, from <http://www.tltgroup.org/programs/seven.html>
- Fabro, K. G., & Garrison, D. R. (1998). Computer conferencing and higher-order learning. *Indian Journal of Open Learning*, 7, 41-53.
- Fullmer-Umari, M. (2000). Getting ready: The Syllabus and Other Online Indispensables. In K. White & B. Weight (Eds.), *The Online Teaching Guide* (pp. 95-111). Boston, MA: Allyn & Bacon.
- Gallimore, R., & Tharp, R. (1990). Teaching mind in Society: Teaching, schooling and literate discourse. In L. C. Moll (Ed.), *Instructional Implications and Applications of Sociocultural Psychology* (pp. 175-205). New York: Cambridge University Press.
- Garramone, G. M., Harris, A. C., & Anderson, R. (1986). Uses of political computer bulletin boards. *Journal of Broadcasting & Electronic Media*, 30, 325-339.
- Gunawardena, C. N. (1995). Social presence theory and implications for interaction and collaborative learning in computer conferences. *International Journal of Educational Telecommunications*, 1, 147-166.
- Hample, D., & Dallinger, J. M. (1995). A Lewinian perspective on taking conflict personally: Revision, refinement, and validation of the instrument. *Communication Quarterly*, 43, 297-319.
- Kirkley, S. E., Savery, J. R., & Grabner-Hagen, M. M. (1998). Electronic teaching: Extending classroom dialogue and assistance through e-mail communication. In C. J. Bonk & K. S. King (Eds.), *Electronic collaborators: Learner-centered technologies for literacy, apprenticeship, and discourse* (pp. 209-232). Mahwah, NJ: Erlbaum.
- Lewis, C. (2000). Taming the Lions and Tigers and Bears: The WRITE WAY to Communicate Online. In K. White & B. Weight (Eds.), *The Online Teaching Guide* (pp. 13-23). Boston, MA: Allyn & Bacon.

- McIsaac, M. S., & Gunawardena, C. N. (1996). Distance education. In D. Jonassen (Ed.), *Handbook for research on educational communications and technology* (pp. 403-437). New York: Scholastic Press.
- McKeachie, W. J. (2002). *Teaching Tips* (11th ed.). Boston, MA: Houghton-Mifflin.
- Northedge, A. (2002). Teaching by Distance Education. In W. J. McKeachie (Ed.), *Teaching Tips* (11th ed., pp. 258-267). Boston, MA: Houghton-Mifflin.
- Palloff, R. M. & Pratt, K. (1999). *Building Learning Communities in Cyberspace*. San Francisco, CA: Jossey-Bass.
- Rourke, L., Anderson, T., Garrison, D., & Archer, W. (1999). Assessing social presence in asynchronous text-based computer conferencing. *Journal of Distance Education*, 14(2). Retrieved April 1, 2005 from http://cade.athabascau.ca/vol14.2/rourke_et_al.html
- Rouse, K (2005). *State's cyberstudents held back at higher rate*. Denver Post Wednesday, January 26, 2005. Retrieved April 1, 2005 from <http://www.denverpost.com/Stories/0,1413,36%257E53%257E2674016,00.html>
- Savery, J.R. (1996). *Fostering Student Ownership for Learning*. Unpublished Doctoral dissertation. Indiana University, Bloomington, IN.
- Savery, J. R. (1998). *Toward a theory of ownership for learning*. Paper presented at the meeting of American Educational Research Association, San Diego, CA.
- Savery, J. R., & Duffy, T. M. (1996). Problem based learning: An instructional model and its constructivist framework. In B. Wilson (Ed.), *Constructivist learning environments: Case studies in instructional design* (pp. 135-148). Englewood Cliffs, NJ: Educational Technology Publications.
- Setzer, J. C., & Lewis, L. (2005). *Distance Education Courses for Public Elementary and Secondary School Students: 2002–03* (Report No. 2005–010). Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved April 2, 2005 from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005010>
- Simon, M. (2000). Managing Time: Developing effective online organization. In K. White & B. Weight (Eds.), *The Online Teaching Guide* (pp.73-82). Boston, MA: Allyn & Bacon.
- Singh, H. (2003) Building Effective Blended Learning Programs. *Educational Technology*, 43(6), 51-54.
- Smith, M. K. (2002). Malcolm Knowles, informal adult education, self-direction and andragogy, the encyclopedia of informal education. Retrieved April 2, 2005 from www.infed.org/thinkers/et-knowl.htm
- Swan, K. (2004). *Relationships between Interactions and Learning in Online Environments*. Retrieved April 3, 2005 from <http://www.aln.org/effective/index.asp>
- Tammelin, M. (1998). From Telepresence to Social Presence: The Role of Presence in a Network-Based Learning Environment. In S. Tella (Ed.), *Aspects of Media Education: Strategic Imperatives in the Information Age*. Media Education Centre. Department of Teacher Education. University of Helsinki. Media Education Publications 8.
- Tu, C. H., & McIsaac, M. S. (2002). An examination of social presence to increase interaction in online classes. *American Journal of Distance Education*, 16(2), 131-150.

- Waits, T., & Lewis, L. (2003). *Distance Education at Degree-Granting Postsecondary Institutions: 2000–2001*. Retrieved March 30, 2004 from <http://nces.ed.gov/surveys/peqis/publications/2003017/>
- Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, 19, 52-90.
- Zimmerman, B. J., & Schunk, D. H. (Eds.), (1989). *Self-Regulated Learning and Academic Achievement: Theory, Research and Practice*. New York: Springer Verlag.