

Distance education: Is it Art or is it Science?

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Introduction

Distance education is becoming a more common method of curriculum delivery across grade levels in Australia, the United States and throughout the world. Especially in remote rural areas with sparse student populations, distance delivery of course work is often the only available means for students to learn and for teachers to teach. The days of taking courses by correspondence, when sending large bundles of paper back and forth through the mail was common, have given way to transmitting facsimiles or digital information between teachers and learners. Technological advances have allowed the mailbox to be replaced by telephones and computers.

An old argument questions if teaching is an art or a science. Is distance education an art or is it a science? In an effort to address that same argument in terms of the specifics involved with distance delivered courses, the following questions are probed:

- 1) How are different subjects taught via distance delivery?
- 2) What special approaches are necessary to promote student learning?
- 3) How does the online teacher know that the students are learning?
- 4) What methods of assessment and evaluation are available to teachers and students to address the accountability concerns of parents, school districts, state and national departments of education?

Some Useful Definitions

Distance education is defined by Wikipedia in the following manner:

Distance education, or distance learning, is a field of education that focuses on the pedagogy and andragogy, technology, and instructional systems design that aim to deliver education to students who are not physically "on site". Rather than attending courses in person, teachers and students may communicate at times of their own choosing by exchanging printed or electronic media, or through technology that allows them to communicate in real time. Distance education courses that require a physical on-site presence for any reason including the taking of examinations is considered to be a hybrid or blended course or program. (Wikipedia, 2008)

The Electronic University Consortium of South Dakota Internet site provides a more specific definition relating to the courses and activities presented via their affiliated institutions and programs.

Distance education is defined as all credit and non-credit education and training activities that are delivered via any electronic means. This excludes correspondence courses delivered by US mail, but in order to provide the fullest extent of options to you, the students, correspondence courses will also be listed. This does not include courses that are delivered face-to-face at on-campus or off-campus locations, nor does it include electronic delivery of courses between or among campuses. (South Dakota Board of Regents, 2004)

The author's experiences with distance education have included teaching and being a student in both blended environments, where short term on-campus residencies are required as part of the course, and in electronically delivered course work where students do not meet the teacher or other class members, depending completely on electronic means to communicate, primarily in an asynchronous setting.

Art is defined by the Merriam-Webster Online Dictionary as follows:

1: skill acquired by experience, study, or observation <the art of making friends>
2 a: a branch of learning: (1): one of the humanities (2) plural: liberal arts
b: archaic : learning, scholarship
3: an occupation requiring knowledge or skill <the art of organ building>
4 a: the conscious use of skill and creative imagination especially in the production of aesthetic objects; also: works so produced **b** (1): fine arts (2): one of the fine arts (3): a graphic art
5 a: archaic: a skillful plan **b:** the quality or state of being artful
6: decorative or illustrative elements in printed matter. (Merriam-Webster Online, 2008)

Synonyms listed for “art” include skill, cunning, artifice and craft, suggesting personal or creative power, technical knowledge and proficiency, ingenuity, and expertness in workmanship (Merriam-Webster Online, 2008). The definition and implications resulting from the listed synonyms certainly apply to the work that teachers do daily. It is argued that the same “art” is necessary to make distance education a successful endeavour for teachers and students.

Science is also defined on the Merriam-Webster Online Dictionary:

1: the state of knowing: knowledge as distinguished from ignorance or misunderstanding
2 a: a department of systematized knowledge as an object of study <the science of theology> **b:** something (as a sport or technique) that may be studied or learned like systematized knowledge <have it down to a science>
3 a: knowledge or a system of knowledge covering general truths or the operation of general laws especially as obtained and tested through scientific method **b:** such knowledge or such a system of knowledge concerned with the physical world and its phenomena : natural science
4: a system or method reconciling practical ends with scientific laws <cooking is both a science and an art>
5 capitalized: Christian science (Merriam-Webster Online, 2008)

It is interesting that cooking is characterized as both an art and a science. Teachers are required to study their subject areas, as well as their teaching practices, often earning degrees in education, an apparent “department of systemized study” as described above. As for education being a state of knowing, most can recall occurrences when self-doubt led us as teachers to think that maybe we have not learned our lessons well or that nobody could possibly have experienced the challenges to our knowledge and teaching abilities that a particular group of students was foisting on us. With the addition of technology to our teaching toolboxes, and the importance it plays in distance education, the “science” involved in lesson delivery takes on a new meaning.

The Art and Science of Teaching

In his recently released book, Robert J. Marzano (2008) shares examples of educational research regarding effective teaching practices and its impact on student learning, listing three components of effective classroom pedagogy: 1) use of effective instructional strategies; 2) use of effective management strategies; 3) use of effective classroom design strategies (Marzano, 2008, p. 6). He then goes on to identify and discuss 10 instruction design questions that he suggests all teachers should ask when preparing to teach.

1. What will I do to establish and communicate learning goals, track student progress, and celebrate success?
2. What will I do to help students effectively interact with new knowledge?
3. What will I do to help students practice and deepen their understanding of new knowledge?
4. What will I do to help students generate and test hypotheses about new knowledge?
5. What will I do to engage students?
6. What will I do to establish or maintain classroom rules and procedures?

7. What will I do to recognize and acknowledge adherence and lack of adherence to classroom rules and procedures?
8. What will I do to establish and maintain effective relationships with students?
9. What will I do to communicate high expectations for students?
10. What will I do to develop effective lessons organized into a cohesive unit? (Marzano, 2008, p. 7)

The science that supports his claims results from numerous educational studies and meta-analysis techniques to measure effectiveness based within these three components and around the 10 questions posed. In the introductory chapter, he states, “One might conclude from this that I believe teaching to be a science. It is certainly true that research provides us with guidance as to the effective nature of teaching, and yet I strongly believe that there is not (nor will there ever be) a formula for effective teaching” (Marzano, 2008, p. 4).

The questions that are posed and the examples, studies and data presented in the remaining 10 chapters of the book certainly address the art and science of teaching. The “science” involved attempts to systemically organize what is known about effective teaching and can be proven with data. The “art” involved provides questions for teachers to ask and answer based upon their own interests, training and talents. It is intimated that teachers will, through their observation, study and reflective processes, meet the criteria for developing the skill required to be an effective teacher. Hence, science, the study of teaching, and art, the process of teaching are united to develop effective classroom pedagogy.

It can be argued that teacher training and subsequent experience in the classroom will lead naturally to establishing the effective pedagogy in the classroom. However, what occurs when instruction is delivered outside the classroom? What are the additional challenges faced by those who teach and learn via distance education?

John Brandt (2008) discussed his beliefs about the question regarding the art and science of teaching. “I have come to believe *education is a craft*, practiced by people who are craftsmen or artisans; it is neither an art, nor a science” (para 8). Perhaps Brandt’s professional leaning, he is a psychology professor by day, requires that he interpret and redefine teaching, countering the possibility of education being an art or a science. His words do align with the “art” definition found in the dictionary. Another blogger, J.T. Spencer (2007), presented yet a different take on the question posed to educators. This comes from a teacher who reveals a depth of reflection that brings new meaning to what education is all about.

I begin to ponder the teachers I loved the most and I loved them because they never viewed me as a project. I was able to spot the craftsman teachers; the ones who had some sort of goal to accomplish, where I was simply a number on a spreadsheet. I no longer see teaching as an art or a science or even a craft, but as a relationship. It’s not as romantic. It doesn’t have any cool metaphor. Yet, in the end, it is meaningful. (para 10)

How are different subjects taught via distance delivery?

There are no limits on the subject areas taught via distance delivery. When one goes online to search for “online courses” or “distance education”, a plethora of offerings are available, especially in the United States. Entire universities make their business “distance education” including the University of Phoenix and Capella University. There are no shortages of high school programs or courses available, either. North American universities, in the United States and Canada, provide secondary course work online, in some instances granting diplomas, as well. Couched as a means for parents to home school their children, K¹² Inc. provides enrolment in course work for grades K-12 (K¹² Inc., 2008). The homepage presents information for students, parents, teachers and administrators about the curriculum and the benefits of enrolment.

Students in Alaska have had online learning opportunities for grades K-12 for several years. There are currently nine “correspondence schools” listed in the state (Alaska Department of Education

and Early Development, 2008). Some provide synchronous online classes and have course work available for pre-elementary to grade 12. As suggested by the term “correspondence school”, most courses that are available online are taught by teachers who facilitate exchanges of assigned work and student assignments. Often, students have little interaction with other students, relying primarily on the evaluations provided by the corresponding teacher to determine progress and success. Whether the teachers and students exchange materials via facsimile machine or email and attached documents, assignment completions can be posted or sent twenty-four hours a day, seven days a week. Learning is self-paced, although timelines are provided with due dates for assignments and assessments by teachers.

The author completed two such courses in an eight-week period several years ago, both earning three under graduate college credits. Because the courses were required to be completed prior to teacher recertification could be awarded, necessity created a keen interest and motivation to do the best job possible in the shortest amount of time. Those same courses have been failed by others who, given a full year to complete the required course work, were not so motivated, allowed themselves to fall behind the established time table and forgot that they were enrolled in the course until their notice of failure appeared. For these types of correspondence courses, motivated learners can be successful, but their success is under their own complete control, as is their possibility of failure.

Blended courses often require students to participate in on-campus orientation and training prior to returning to their homes for online course delivery. Textbooks, assessments and syllabi are provided during this period. Students are also able to interact with the teacher and other students who are enrolled in the class. Once back at their home sites, students are familiar with the course, the instructor and their classmates. Hence, when interactive “chat” sessions or asynchronous email exchanges or online postings are shared, each student can “picture” the teacher and classmate making comments or responding to assignments. At Alaska Pacific University, online classes taught through the Rural Alaska Native Adult (RANA) program are blended, requiring a three to four-day on-campus residency at the start of each semester. RANA program director, Elizabeth Sullivan, offered this validation of the importance of the short-term residency. “Our program connects the students to the university, to a purpose and to one another, irrespective of what courses they are individually taking. There is a community element built in from the beginning.” (Bohi, 2008)

In addition to the residency requirement, several Internet browser friendly interfaces have been tested since the RANA program’s beginning a decade ago. Students were originally required to attend chat sessions for 1.5 hours each week on appointed evenings and also had assignments to post to the online forums, providing both synchronous and asynchronous learning opportunities. During those days, the author incorporated telephone conference calls into his teaching methods, resulting in students asking to do away with the regular chat sessions in favor of voice interaction via telephone. Two years ago the program switched to an interface called “Elluminate Live” that provides chat, voice capability and an interactive whiteboard with several additional features that allows additional engagement between students and the teacher. In addition, the 1.5 hour sessions are recorded and available for viewing and listening later, providing students who may miss a session the opportunity to “catch up” on their own schedule. Content and input from the teacher and students can be reviewed in preparation for assessments or assignments, as well. Additional information about the educational capabilities and applications of Elluminate Live can be found at <http://www.futureu.com/technology/illuminate.html>.

A pronounced difference between the former correspondence courses and the newer online or blended courses involves the current technology being used for course delivery. It is imperative that the online teachers and students make the best use of the most currently affordable and available technology to best serve the needs of students and maintain their excitement about and engagement in their learning. For the online teacher, this sometimes means allowing students to suggest, create and demonstrate their own technological capabilities, using the latest technological expertise they have mastered. This also requires online teachers to stay abreast of what students are using and adjusting instruction to incorporate those technologies into their teaching. As an

example, podcasts are gaining popularity as a method of delivering and archiving academic material. Students are already very familiar with using MP3 files and many have the technological tools to listen to music and files that are digitally recorded, stored and broadcast. An online educator could make good use of this tool to increase student interest in reviewing recorded material or for selecting content to be learned in a digitally recorded format. (Associated Press, 2008)

What special approaches are necessary to promote student learning?

Distance education is not an appropriate choice for every student nor can it be used to provide learning that is superior to what can be experienced in classrooms with real time interaction among and between students and teachers. However, in some instances, especially in remote areas or where students have limited time to engage in learning, distance education is a good solution to the problems these conditions create. The distance educator is faced with the same challenges that the regular classroom teacher encounters in terms of promoting student learning, although limits to proximity, inability to make eye contact or incorporate body language as part of the communication process are lacking. Otherwise, preparation for online teaching is much the same as that for classroom teaching.

As suggested by Marzano (2008), attention must be given to the instructional, management and curriculum design strategies to promote student learning and accomplish effective pedagogy. In the case of instructional strategies, engaging students in whatever mode of delivery is being used is paramount. Students must be familiar with the technologies being applied and must be able to interact with the fewest distractions possible. At Alaska Pacific University, a technical specialist is available at each Elluminate Live session to assist students who are having connection difficulties or cannot fully utilize the tools available in the session. Students must be able to participate fully if they are to have the full opportunity to learn the material being presented. As an instructor, the author prepares slides in advance of each session to be uploaded to the whiteboard capability. The slide format below greets the students in the ED344 class whenever they access the Elluminate Live or recorded sessions.

WELCOME TO OUR 12th ED344 ELLUMINATE SESSION!



ARE YOU READY TO FINISH DISCUSSING YOUR LOCAL AGENCIES AND MOVE TO OTHER TOPICS?

These slides are prepared as a slide show in the Microsoft Office Power Point application, serving as the organizing notes for both the students and the teacher. Students quickly acclimate to the discussion and interactive chat capabilities and appreciate the organizational component provided by slides that are controlled by the instructor. The slides can transition every two to three minutes, necessitating a slide show of some 30-45 slides per session, depending on the topics under review and the extent of student participation expected. Creating a familiar environment in the Elluminate Live session provides students at a distance the same familiarity enjoyed by students in real classrooms where they see the regular bulletin boards, posters and other visual cues that set the tone for learning.

Managing student responses and making sure that everyone participates presents the same challenges experienced in regular classrooms. Because the interface allows the instructor to see who is speaking or read what is being shared via the chat window, monitoring participation can be facilitated. Students are better prepared to answer questions and provide their own ideas when they are expected to do so. Providing questions for discussion in advance or assigning particular questions to individual students for discussion at the next session helps them prepare for their learning opportunity. Just as a teacher attempts to involve each student in the regular classroom in discussions, the online instructor can do the same. Knowing one's students and being able to interject bits of interesting information based upon individual knowledge and interests works just as well online as it does in the regular classroom. When assignments are required to be submitted, prompt attention to timely scoring and reporting may be more important to online learners because they do not have the luxury of attending classes daily. In fact, their connection to learning the material can be limited to the number of sessions attended online, if the instructor does not assist in keeping the content fresh, does not provide "offline" opportunities or requirements to continue learning, or does not interact asynchronously on a regular basis with all students.

Preparing for instruction online begins a long time before the first class meets. The author has found students appreciative of a tentative schedule that outlines, on a weekly basis, the topics to be discussed in each session, the assignments that will be due between sessions and any reading or researching activities that will be expected between sessions or in preparation for the coming one. Given the time constraints of the weekly online interactions and knowing that the semester will proceed at a much faster pace than expected, advance planning for instruction is a must. Students have less difficulty staying the course if they know what will be expected of them during their engagement with the subject being taught. Just as a familiar online environment is important to keep students engaged, providing a schedule with regular times for completing and returning assignments keeps students focused and assists in their successful endeavours throughout the course. In addition, presenting scoring guides or rubrics for assignments prior to assignments being completed gives students clear expectations for performance. A selected portion of a 15-week tentative schedule example below allows students to anticipate the assignments that will be part of the course.

ED344 Tentative Schedule – Spring 2008

<u>Meeting#</u>	<u>Topic/Concept</u>	<u>Activity</u>	<u>Assignment</u>	<u>Notes</u>
1 1/8&9	What is Health & Physical/Movement Education?	Introduction/Syllabus Moodle/Internet Resources	Select and review an article for next week. Post on Moodle.	Find National, State and local standards for Health Education
2 1/17	Health Education: + The need + Teacher role + Planning for instruction	Examples of current health education practices – “The Great Body Shop”	Select a content strand for K-3 level lesson Start Personal Plan	5 – minute presentations start next week
3 1/24	K-3 level Health Education lessons Grades 4-6 intro	5– minute presentations	Select a content strand for 4-6 level lesson	5 – minute presentations next week
4 1/31	4–6 level Health Education lessons Grades 7-8 intro	5 – minute presentations	Select a content strand for 7-8 level lesson	5 – minute presentations next week
5	7-8 level Health	5 – minute presentations	Select and review a Health	This is your last health

2/6	Education lessons		article for next week. Post on Moodle.	article review.
6 2/13	Health & PE curriculum in ASD	Health curriculum review	Select and review a PE article for next week. Post on Moodle.	Find National, State and local standards for Physical Education. This is your first PE article review.

How does the online teacher know that the students are learning?

Checking for understanding or learning is part of every teacher's lesson plans. Sometimes the check is performed at the beginning of a lesson, to determine current knowledge or understanding. In some instances, a check for understanding is conducted during a lesson to determine how closely students are aligned with the content being taught, often with a quiz or other formative assessment type. Depending upon the goals and objectives of the lesson, a summative test may be used to determine how much students can recall regarding the content taught. If the lesson has been conducted to train students for coming assignments or in preparation for more complex projects or applications of skills and demonstrations of understanding, the extent of student learning may not be realized or demonstrated for some time. For the online teacher, not different for the classroom teacher, checking for understanding must occur often and be varied in its application.

Directly "calling on" students while they are online can provide immediate feedback regarding an individual student's learning or understanding at that point in time. Providing pointed questions that are posted for all students to answer immediately provide clues to student understanding. Some software applications allow participants to post answers to questions without other class members seeing their postings. The instructor can track student answers and display a comparison of anonymous answers. In asynchronous settings, questions can be posted with requirements that answers be posted to a common response area for all students to read. Soliciting comments as part of the assignment requirement can allow students to interact with one another's responses, expressing support for statements, agreement or disagreement. In this manner students are responsible for their own development of understanding and being able to express and defend their understanding.

The questions below were posed to an Integrated Science class prior to their online session. Each of the 11 students was responsible for answering a question during the synchronous Elluminate Live session, as well as understanding that presented by peers.

Here are your questions...

*What are the eight planets and one dwarf planet in order from closest to the sun to the farthest away? What feature lies between the orbits of Mars and Jupiter?
(Student 1)*

What is meant by the term "astronomical unit" (AU) with reference to planetary distances from the sun? What is the AU assignment for the Earth? (Student 2)

What is the difference between "fission" and "fusion" regarding energy production? Give an example of each. (Student 3)

The obvious advantage to synchronous checks for understanding versus asynchronous checks is the immediacy of the response. Especially when live contact time with students is limited, being certain that students are understanding content prior to releasing them to continue with assignments or to explore new information becomes very important. In a regular classroom,

students can be asked to share progress with their peers or the teacher at different times during the day or week, allowing timely feedback and providing opportunities for demonstrating content understanding or application of skills. Similarly, several institutions in the United States are experimenting with advanced uses of synchronous opportunities for students and instructors to include online office hours, “live collaboration” and sharing documents via Google Docs. (Villano, 2008)

The author has used the asynchronous methods of checking for understanding explained in the previous paragraph with students supporting the practices, especially as a way of assisting in their development of understanding. Being able to exchange ideas, question and defend their postings and having this activity be a regular part of the learning process was considered a significant and important practice in the course where it was employed.

The Weekly Prompt Question (WPQ) below provides an example of an asynchronous assignment posed to students. Following is the posted schedule for the coming week, including the WPQ answer reminder.

This is your second "weekly prompted question". Do the following: a) Go to the Alaska Education and Early Development website, (<http://www.eed.state.ak.us/standards/>) select the "Alaska Standards: Content and Performance Standards for Alaska Students" link. b) Select a Content Standard from Reading, Writing, Mathematics or Science to "unpack". (copy and paste to a word processing document) c) Find the correlating Performance Standard. (copy and paste to a word processing document) d) Go back to the standards website and select the "Grade Level Expectations" link. e) Select a grade level for the content and performance standard you have chosen. (copy and paste the GLE information to a word processing document)

Here are the questions you are to answer in this forum...1) Compare the "Content" and "Performance" standard you chose. What is different about the two? Which do you think is easier to understand or put into practice? Why? 2) What GLE did you select for the standards chosen? How does a student at that level demonstrate "understanding" for the standard chosen? 3) What do you notice about the GLEs for this standard as you move up in grade level? What about down in grade level (if appropriate)? 4) In your opinion, do the activities listed meet criteria for being "valid" and "reliable"? Explain your answer. 5) Read your peers' answers and make comments regarding their posted information. (Do you agree with what they have stated? Did you notice anything more or different when you looked at the standards and GLEs?)

The following was posted on the Moodle site, reminding students about the coming week's activities.

4 September - 10 September

Illuminate at 1730 - Purposes of Assessment and Evaluation

Weekly Prompted Question #2 - Due 9/11 at 1700

Assessment and Evaluation

What methods of assessment and evaluation are available to teachers and students to address the accountability concerns of parents, school districts, state and national departments of education? This question is being asked more and more at all levels of education, including post-secondary education. Assessment can be described as formative or summative measurements of student progress or success or failure (Merriam-Webster Online, 2008), but in terms of determining the value of online education, a more comprehensive means of evaluation is necessary. As defined online (Merriam-Webster Online Dictionary, 2008), evaluation means “to determine the significance, worth, or condition of usually by careful appraisal and study.” The assessment and evaluation of online education is being conducted by interested parties, especially institutions that offer only online delivery options, but reports have a tendency to be skewed and do not compare results of regular

education efforts. WestEd in partnership with Edvance Research, Inc., prepared a recently released report for the U.S. Department of Education that is intended to be used as a guide for evaluating online programs (WestEd, 2008). Included in the report are cautions and suggestions regarding how a “careful appraisal and study” can be conducted by institutions offering comparable online and on-campus delivered courses. In the meantime, online educators can assess and evaluate the effectiveness of their online course or courses by soliciting information from the students enrolled in those classes.

Students are candid in assessments and evaluations of themselves, their peers and their teachers, especially if they are informed that their perspectives are valued and will be used to guide future teaching and learning. A truly insightful account of technology savvy students’ education expectations demonstrates their willingness to share perspectives in answer to three questions: 1) What experiences in school really engaged you? 2) How do you use technology in school as opposed to outside of school? 3) What are your pet peeves? (Prensky, 2008, p. 34)

At Alaska Pacific University, the following open response question is used as part of the university course evaluations providing narrative student feedback regarding the varied aspects of two online classes. Responses from two online classes taught by the author demonstrate how students valued the delivery method as well as content and expectations.

What did you like about this course?

Student 1 (Class 1): I knew exactly what I needed to do as far as assignments we were concerned.

Students 2 and 3 (Class 1): Online convenience.

Student 4 (Class 1): The Elluminate for distance learning.

Student 5 (Class 1): The weekly prompts were easy to follow and understand.

Student 6 (Class 2): I loved the Elluminate sessions with classmates and the peer-to-peer learning that was a result.

Student 7 (Class 2): We had to make a personal plan for ourselves. I tried to make mine as realistic as possible and it worked!

In an effort to address accountability requirements for learning community stakeholders other than students, student assignments, projects and products can be displayed online for all interested parties to view. Electronic portfolios are becoming more and more important as a means of recording and displaying student work. In some accrediting bodies, student portfolios are becoming requirements and testaments to proof of student engagement, progress and learning. However, the support for use of such portfolios, even in elementary schools, has been available for some time (Abrenica, 1996). On her Internet homepage, Dr. Helen Barrett (2008) provides a guide to electronic portfolio development as well as examples of portfolio uses for differing purposes.

Where supported by local school policies and technological expertise, the online educator can create an Internet page to showcase assignments, due dates and student work when appropriate. School districts often provide homepages for teachers to post information that can be accessed by the public, including parents and students. It seems appropriate that online educators should provide online access to the resources, information, goals and objectives of their courses to interested parties. As discussed in the WestEd report (2008), parents or other stakeholders can be provided opportunities to evaluate online learning through questionnaires designed to allow their input and answer specific questions about distance education quality.

Is Online Education an Art or a Science?

As most answers to the old question about whether education is an art or a science affirms that both art and science are responsible for quality or effective education, the same applies to online education. However, because there is a dearth of research being published regarding the effectiveness of online education, possibly because its history is fairly short compared to that of regular classroom education, the online educator is responsible for becoming an artist in delivering content and a researcher in assessing and evaluating the effectiveness of online delivery. In fact,

developing the knowledge base and a system for knowledge rests on the shoulders of all those who teach online courses.

In the United States, the Virtual Center for Online Learning Research publishes a peer reviewed electronic journal online, *The Journal of Interactive Online Learning*, accessible at <http://www.ncolr.org/jiol/>, an example of how research regarding what is being learned about distance and online education can be conducted and shared. Since 2002, online educator articles have been posted for public review (Journal of Interactive Online Learning, 2008). In Australia, the Open and Distance Learning Association of Australia, Inc. provides *Distance Education*, a peer reviewed international journal publishing original research in “distance, open and flexible education” (Open and Distance Learning Association of Australia, Inc., 2008). This 24th SPERA conference brings together online educators with international experience in an effort to address the changes needed to make rural education more successful and to report the findings of educators involved with online education and the changing “Face of Learning”.

For those who are online educators, you must continue to do the science, to study your practices and report your findings so that others can benefit from your efforts and become artists in their own online learning environments. For those who have not delved in the practice of online education, be prepared to face the challenge and embrace the opportunity as a chance to enhance your own pedagogical effectiveness, using what you know works in regular face-to-face classrooms and incorporating the best practices into delivering content online. Also pay attention to the emerging technology and take advantage of professional development opportunities to learn how to use these advancements. Look forward to the “new” learning that students are already exploring using Web 2.0 and familiarize yourself with what is being called Personal Learning Environments (Waters, 2008). And most importantly, pay close attention to the latest technology favoured by and currently used by the students you teach and what they have to say about the art and science we incorporate into our teaching efforts.

References

- Abrenica, Y. (1996). Electronic portfolios. Retrieved June 23, 2008 from <http://edweb.sdsu.edu/courses/edtec596r/students/Abrenica/Abrenica.html>
- Alaska Department of Education and Early Development. (2008). Alaska statewide correspondence schools. Retrieved June 21, 2008 from <http://eed.state.ak.us/Alaskan-Schools/corres/Directory.cfm>
- Associated Press. (2008). N.M. school tries to reach students via podcast. *Education Week*. Retrieved June 20 from http://www.edweek.org/ew/articles/2008/06/21/120770-podcastcampus_ap.html
- Barrett, H. (2008). Electronic portfolios.org. Retrieved June 23, 2008 from <http://electronicportfolios.com/>
- Bohi, H. (2008). Online education. *Alaska Business Monthly* 24(6), 72-73.
- Brandt, J. (2008). Is teaching an art, or a science? Maine ASCD Weblog. Retrieved June 21, 2008 from http://maineascd.blogs.com/maine_ascd_weblog/2007/04/is_teaching_an_.html
- K¹² Inc. (2008). K¹². Retrieved June 21, 2008 from <http://www.k12.com/>
- Marzano, R.J. (2008). *The art and science of teaching: A comprehensive framework for effective instruction*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Merriam-Webster Online. (2008). Art. Retrieved June 20, 2008 from <http://www.merriam-webster.com/>
- Merriam-Webster Online. (2008). Assessment. Retrieved June 23, 2008 from <http://www.merriam-webster.com/>
- Merriam-Webster Online. (2008). Evaluation. Retrieved June 23, 2008 from <http://www.merriam-webster.com/>

- Merriam-Webster Online. (2008). Science. Retrieved June 20, 2008 from <http://www.merriam-webster.com/>
- Open and Distance Learning Association of Australia, Inc. (2008) The ODLLA journal distance education. Retrieved June 23, 2008 from <http://www.odlaa.org/publications/-publications.html>
- Prensky, M. (2008). Young minds, fast times: How tech-obsessed iKids would improve our schools. *Edutopia* 4(3), 32-38.
- South Dakota Board of Regents. (2004). Definition of distance education. Retrieved June 20, 2008 from <http://www.sdbor.edu/euc/definition.htm>
- Spencer, J.T. (2007). Is teaching an art or a science? Musings from a not-so- master teacher. Retrieved June 21, 2008 from <http://www.teacherlingo.com/blogs/jtspencer/archive/2007/08/28/is-teaching-an-art-or-a-science.aspx>
- Villano, M. (2008). Taking the “A” out of asynchronous. *Campus Technology* 21(11) 38-43.
- Virtual Center for Online Learning Research. (2008). *The Journal of Interactive Online Learning*. Retrieved June 23, 2008 from <http://www.ncolr.org/jiol/>
- Waters, J.K. (2008). Personal learning environments. *Campus Technology*, 21(10), 44-49.
- WestEd. (2008). Evaluating online learning: Challenges and strategies for success. Retrieved June 20, 2008 from <http://www.ed.gov/admins/lead/academic/evalonline/evalonline.pdf>
- Wikipedia. (2008). Distance education. Retrieved June 20, 2008 from http://en.wikipedia.org/wiki/Distance_education

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