Distance Learning for Languages:
All DL is not created equal

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Abstract
We look at one example of Distance Learning to highlight the fallacies still apparent in the planning, curriculum, and execution of new theories developed in the early era of the worldwide web, also known as Web 1.0. Applying general practices to a particular situation, such as language learning, produces even more anomalies and practices that do not produce the intended effect. As the research moves forward, it is important to see how it is applied in a real world situation.

Distance Learning has been with us since the First World War, with mail-in exercises. The Internet has brought a whole new pace and approach to Distance Learning. Adapting materials and practices has been uneven at best. Too often, one approach is taken for all subject areas. Language learning, with its unique set of skill development, should be treated differently, and follow more of a training approach, rather than what now passes for Distance Learning.

People remember things better if you put them into a story (Schank, 1991). This is a collection of ideas on Distance Learning (or Distance Education, or Distributed Learning, or E-Learning, or web-based learning). To highlight good practice and show how good intentions can go wrong when applied in the wrong situation, I will use a recent online teaching situation to show how things can go wrong and how to fix them by referring to a collection of research and common practices in CALL (Computer Assisted Language Learning).

The Story with Insights

Attending a workshop by Roth Colvin Clarke at the Distance Teaching and Learning Conference in Madison Wisconsin in the summer of 2006, I got to talking about Tokyo. Another participant, (let’s call her Dana), approached me and said there was a Japanese Class available for me to teach online. Thinking more of my wife, I accepted her card and got in touch with her on return to Tokyo. My wife, a Nagoya native and teacher of business Japanese in various companies around Tokyo, demurred, stating a lack of technical knowledge. Dana sent me another email about 6 months later asking whether I could teach an online course in Japanese.

I was intrigued, and started to investigate.

Teaching online requires three sets of skills. The first and most easily acquired is technical
knowledge; how to use a computer, the software and communication tools necessary to conduct a class online. The second is pedagogical knowledge, or how to teach, and how to adapt that teaching to the online situation. The third is the content area (often called Domain) of the subject taught; in this case, the Japanese language.

Distance Learning is expanding at a rapid rate in the United States on all levels of education and is followed by other developed nations.

More than one-third of the world's population is under 20. There are over 30 million people today qualified to enter a university who have no place to go. During the next decade, this 30 million will grow to 100 million. To meet this staggering demand, a major university needs to be created each week. (Daniel, 1996, in Brown & Adler, 2008)

More institutions are offering more courses, and many more students are enrolling. According to the NCES (www.nces.ed.gov), in 1997 and 1998 there were 1.7 million enrolments in distance courses (Ice & Edelson, 2001). In ten years, total online enrolment grew from 17 million in 2002 to 18 million in 2007, and grew from 10% to 20% of total enrolment (Abramson, 2007). It is estimated that approximately 20% of all students at the college and university level in the US are currently taking some online distance education. Some colleges now require that students take at least one course online.

The Company

AMDG is an online school set up to provide high school courses in all areas to home-schooled students, vocational students and to schools and school districts so that they may round out their curriculum. They are accredited, so are able to offer courses for high school credit toward graduation. They have a partnership with AOL@school, a much larger clearinghouse of students and courses. AMDG offers more than 200 courses online according to their catalog. More than 50 of these are foreign languages. The main office is in Atlanta, Georgia.

If I was going to be part of an online teaching experience, I wanted it to be the best, or at least one that was typical. Some due diligence was required. On the surface, things seemed very well organized. I then checked the amount of web traffic flowing into the site and noticed a large decrease over the year preceding, which was worrisome. I was not able to contact any current teachers before starting the course.

After submitting an application, I was directed to send my financial data, along with my social security number to an address near New Orleans. Reluctant to divulge such important information, I used Google maps and satellite to find the house in a very nice suburb of New Orleans, evidently unscathed by Katrina, for there were many pools in the backyards, and
large houses set far apart. The person to whom I was to send the information had a last name of Morse. Evidently, she is a relative of Greg Morse, the founder and President of AMDG. Greg Morse is very well known in IT Education circles on the Internet. Business must be good.

The support of an organization is essential for online teaching and learning. The courses developed are time intensive and require much more preparation than a regular course. Some say it requires at least 10 hours for each hour of instruction. If you include multimedia elements such as online audio, video, and interactive elements, that ratio could easily reach 100-to-1. A set of questions that should be posed for any course developer (or, increasingly, team of developers) is posed by Oblinger and Hawkins (2006) and excerpted here:

- "What is the best use of the faculty member, an expensive institutional resource?"
- "Do we have a process for strategically investing in course development?"
- "Do we confuse providing content with creating a learning environment or delivering a course?"
- "What is the return we hope to see from our investment in course development?"

(Oblinger & Hawkins, 2006, p. 15)

Thus online learning in a formal situation is one that is best served by economies of scale. Having large numbers of students allows for the financial resources to create a course that is engaging, demanding, and yet flexible enough to work with many different learning styles and levels of abilities.

As more and more universities put their courses online, we will see a kind of natural selection, where the better courses will attract more students, allowing for more development money to improve further. As courses are offered among groups of universities, this trend will continue until a few large concerns will handle most of the online course management of education at the secondary and tertiary levels. University of Phoenix and Blackboard are two early entrants that show signs of domination. MIT, Stanford, Harvard and Duke are poised to turn their physical assets into online success.

The Job

The responsibilities of an AMDG teacher were more of a managerial nature than pedagogical. I was told that the materials had already been prepared, and that I was to use those without much variation. I was free to add supplementary materials, but a framework had already been developed that I was expected to adapt to.

Teachers were paid about $100 dollars per student per 18-week semester. This would yield an adequate amount if the classes were large and the materials were uniform in presentation.
Because Japanese was an elective course, the administrators thought I would have approximately 20 students in one class. The reality, after I had agreed to participate, was that there were a total of 12 students spread over 3 class levels (8 in the beginning level, 1 in a remedial course and 3 in an intermediate course). This, of course, required much more preparation and management of students. When I balked, it was noted that the materials needed updating and some curriculum development would be included, to round out compensation. That never materialized.

My first job teaching English was at a Berlitz school in Barcelona more than 30 years ago. Berlitz is famous in Europe for charging the most for its classes, and paying its teachers the least (I lasted one month). Central to the success of Berlitz is the Method. Teachers are strictly controlled and content is separated from delivery. The teacher is more of a delivery machine, with little cognitive requirements to follow the pattern practice that is a keystone to the Berlitz Method. It was the worst work experience of my life.

XML, or eXtensible Markup Language was developed based on HTML, the code that is the basis of the original World Wide Web. XML allows a developer to separate the content from the delivery. Using “tags” with the content allows the developer to plug that content into as many different frameworks or templates as she wishes. One might use the same content in a web-based course, a training session, an advertisement or as an answer to an FAQ, plugged into different templates. Web 2.0 (Ryan, 2007) uses Ajax and RSS to achieve this on a wider level, with input from different users as content and added to different templates on the fly in blogs, wikis, SNSs and podcasts, for example. New developments, labeled Web 3.0 point toward the Semantic Web, which uses a sub-rosa language (Resource Description Framework, or RDF) to tag content so that computers can understand and manipulate it via “agents” to allow information to flow from one computer to another without specific requests by the user.

The technical aspect of online teaching sometimes seeps into the pedagogy, where it interferes with learning. One very good example of this is the Multimedia Principle, a term coined by Clark and Mayer (2003). The penchant for course designers to present text and audio (or even text and video) as new input for the learner is very common, even though this causes a perceptive dissonance that leads to reduced comprehension on both the visual and auditory channels of the learner. Separating content from the pedagogical engine (the teacher in this case) reduces the effectiveness of the entire course.

The Materials

After accepting the courses, my next step as a teacher was to integrate the online materials offered into some cohesive whole. The online content was broken down into weekly units
each with eight parts\textsuperscript{v}. Students were expected to finish these eight parts each week, along with one discussion question in an online discussion area. My task was to give feedback and grade the work.

Most of the online material was based on a textbook, the weakest part of the course. The textbook was rather old fashioned, large and only had one distributor in the USA. Over the course of the semester it went out of print, or at least some students were told that. The book was also expensive, about $80 with the accompanying workbook, and it took 2–3 weeks to arrive. It was lucky I was on vacation in the US, because the book did not arrive at my US address until one day before the course started. The CDs\textsuperscript{vi} followed about a week later.

Most maddening were the two sets of developed work that needed to be completed, and their labeling. Modules, Activities, Lessons, and Homework, all paralleled each other, referring to different sets of pages in the textbook. Juggling three different courses also increased the confusion.

Basing an online course on a paper textbook ensures the students have the worst of both worlds. The online computer-generated flexibility is not used, and the accessibility of the book is neither. The case of AMDG reflected a common practice today in Distance Learning; the porting of text material without change to the digital medium. For example, most activities and assessments were scanned copies of the text. Students would print out the scans, write their answers on them, scan them and send them in to me. The Berberich Rule that says “If it can be done on paper, it should be,” is not applied here. There is often no effort to change the materials when moving from text to online materials.

Part of this is the requirements by school boards that must be complied with for accreditation. The other is the inflexibility of the organization. Obviously, this may be the case for Japanese only, since it is such a niche subject. Other courses are better developed for online training. Again, the economy of scale enters in here. For adaptive courseware, large populations are required.

Successive iterations of development need to be integrated into the course for seamless interactivity. The last teacher had added significantly to the course but used her own web site and structure, and tacked it onto the textbook, and didn’t bother to change the labels. More on this in our next section; the interface.

Writing programs such as Daedalus or CommonSpace have been around for more than a decade, yet are often not integrated, most likely because of their cost. This leads to symptoms and unfortunate results of entire swaths of skills being ignored, such as, in this case, little or no interactive writing. The online bulletin board system, based on the open source, which is either free or very low cost, is often rarely used because of training costs
in time and money. Newer interfaces are available, but not used by the faculty, and therefore not integrated into the course. For example, a wiki or social software such as Facebook would have been much more useable to students of that age.

The Interface
Working with the students and administration halfway across the world was an exhilarating feeling. The interface consisted of three elements, or tools. The communication channel for administration was email, the student asynchronous contact was through a Course Management System (CMS), and the synchronous communication was done using a Virtual Classroom.

I was able to use web-based email to contact the day-to-day admin that was my lifeline to the school. This quickly turned into something I wanted to avoid because it tried to emulate the email client Outlook. Clunky in its offline incarnation, this web-based email was slow and made finding messages difficult through a very old-fashioned archiving mechanism. Most disconcerting was the fact that I could only send messages in English. Japanese text was not supported.

The Course Management System (CMS) was open source, much like the one I had been using for years. Sakai started to diverge from my familiar Moodle\textsuperscript{vii} almost immediately, however. Sakai was monolingual (or at least it was set up that way). Moodle is multilingual. Sakai had one short menu that could not be moved or changed. Even though there were elements for things like Podcasting, Chat room and Discussion, the great bulk of the web site was taken up by workhorse adaptations from paper; Announcements, Assignment Drop Box, Syllabus, Calendar, Grade book, Resources. The biggest fault with the software was the default number of items in a window. With only 10 items, you had to click on a drop down box to get more, so many would completely miss assignments or messages because they were 11th or 12th on the list. Overall, this software was adequate for what it was required to do. It could have, however, been used to much greater effect.

![Figure 1 Sakai is the back engine for this open source CMS. Moodle (not pictured) is better adapted to handle multilingual situations.](image)

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\textsuperscript{vii} Moodle is an open source software that allows educators to easily create and manage online courses. It is widely used for online learning and is available in many languages.
The Virtual Classroom was the most underused part of the classroom. With the time difference I began “teaching” at 10 PM, running to midnight. I was initially told that I was to meet twice a week like this. Then I was told once a week was OK after the smaller numbers, and finally was told it was optional. Setting up the Java scripts and audio interface (no video), I found myself wishing for a conference call on Skype. Much better quality. In the end I only met online with students in the virtual classroom twice. All other times the students either could not or were not interested in attending. More on this in the student description.

While the elements used above were familiar to most students from their paper-based counterparts, components such as webcasts, scavenger hunts, brainstorming, case studies, and language games could have been easily integrated.

Moodle integrates many different kinds of assessment tools into their courseware management system which are then automatically tabulated. Feedback on a question, distractor and answer level can be automated and automatically tabulated. None of this was available in Sakai, instead causing the teacher/administrator to handle it manually. If a student does not submit an assignment through the Sakai system and instead chooses to send it by email for example, there is no way to enter this fact into the online grade book. Most vexing is the inability to enter any kind of Japanese script into the system (kana or kanji). This makes online feedback either a choice of representing kana by using romaji, or the teacher handwriting comments, scanning them and attaching the file to feedback messages. Audio comments can be used, but that requires creating the audio in a separate application and attaching it to the text comments. For a Course Management System, Sakai is not very manageable in a multilingual, multimedia environment.

![Image](image.png)

**Figure 2** Bottom section of the Wimba Virtual Classroom. Video is available, but was not enabled for our classes. Most students or schools in my class did not have the hardware set-up to do audio.

The Horizon Wimba virtual classroom allows for synchronous access to students. Another Open Source software, Wimba is often used for online business meetings. Once set up, it works well with optical fiber Internet connections (high-end broadband), and high-end computers. Hardware and software considerations need to be assessed carefully in a non-personal setting such as a school room or computer lab, where many students “attend” these kinds of classes.
The Administration

Complexity is the curse of an online course. Since the CDs were so expensive, there was a layer of administration not just at the headquarters, but also at the local school. The simplest was the shelving and distribution of the audio CDs. Even this caused problems, as some students could not access the CDs.

To help with the testing and act as a feedback mechanism, each school or parent was assigned the tasks of monitoring student progress and acting as a coach when problems arose, and then proctoring the midterm and final exams. Since none of the mentors could speak or understand Japanese, their participation was limited to non-pedagogical aspects. The role of the mentors was never made very clear, especially for the exams, where they were expected to administer the exams, and the exams were provided as part of the regular coursework, but the teacher was expected to provide the final, which is redundant.

Figure 3 The Outlook web access tried to emulate the offline program by Microsoft. It was a bad imitation of a bad email program. Notice the Page selection in the top right corner. When the list of email gets to the bottom of the window, it disappears without indication unless you select the right page.

Cobbling together a decentralized system that is inherent in any distance learning program, and using onsite mentors, proctors or tutors is one way to personalize the learning. Coordination of those mentors with the teacher should be on an ongoing basis. With the teacher making a weekly report about each student, the mentors had enough information about progress, but the teacher only heard of dire problems after a student had been experiencing them for an extended period of time. A mechanism for coordinating information is unduly complicated by the non-additive principle of communication, where the more elements you introduce to a channel of communication, the complexity increases on a log scale. With the teacher, student, parent, CMS (with Chat, virtual class, assignments and comments), mentor and administrator involved, communication becomes unwieldy very quickly.
The Students

Initially the knowledge that the students were from all over the United States, in places like the northern New Mexico desert and the suburbs of Washington DC was heady, but soon gave way to problems. Some students had learning disabilities; others had other barriers such as hearing loss. On the other end of the scale gifted students raced through the material and asked for more. Some were home schooled, some from rural school districts that lacked the means for a dedicated Japanese teacher.

This atypical variety meant that overall class interaction became almost impossible. The only time the Virtual Classroom worked was when students from a single school attended the session. Class-level interaction did not work for homework, activities or any other part of the course. I was, in effect, tutoring all individual students.

The logistics involved with students in such different situations also limited any kind of communal work. Some institutions or homes were simply not equipped with the sound hardware to participate in the Virtual Classroom with anything more than typed chat. The fact that they were spread over 4 time zones also made scheduling of any kind of synchronous activity more difficult.

Improvements

As we can see, Distance Learning on the web is still in its relative infancy, and improvements are constantly being made. Recent theories are promoting a socialized form of learning, reflecting Web 2.0 tendencies. As corporations, governments and other institutions use Distance Learning, a leading style and paradigm will evolve. Other systems will enjoy success as niche players, promoting learning in a special Domain, set of skills (such as language learning) or technique that has to be learned. Variation will enhance this leading style of Distance Learning if it is capable of assimilating a wide variety of practices under one set of procedures.

Experts offer a number of ways to improve. Jimmy Wales and Rich Baraniuk (2008), (founders of Wikipedia and Connexions) advocate for open source texts (online and in paper) and resources that can be mixed and matched using XML or even RDF. “But the puzzle pieces of the Open Education movement have now come together so that anyone, anywhere, can author, assemble, customize and publish their own open course or textbook.” (Wales & Baraniuk, 2008)

The social way of learning and the Social Learning movement is a significant departure from the Cartesian view of learning, where knowledge and understanding are socially constructed, instead of knowledge being a substance and pedagogy as knowledge transfer.
“This perspective shifts the focus of our attention from the content of a subject to the learning activities and human interactions around which that content is situated.” (Brown & Adler, 2008, p. 14)

Notes
i From Tell me a story, page 11: “As we have seen, thinking involves indexing. In order to assimilate a case, we much attach it someplace in memory. Information without access to that information is not information at all. Memory, in order to be effective, must contain both specific experiences (memories) and labels (memory traces). The more information we are provided with about a situation, the more places we can attach it to in memory and the more ways it can be compared with other cases in memory. Thus, a story is useful because it comes with many indices. These indices may be locations, attitudes, quandaries, decisions, conclusions, or whatever. The more indices we have for a story this is being told, the more places it can reside in memory. Consequently, we are more likely to remember a story and to relate it to experiences already in memory. In other words, the more indices, the greater the number of comparisons with prior experiences and hence the greater the learning.”

ii I was never able to find what the four letters AMDG meant. It is not on their web site, or at least it is not apparent (the web site has no search tool). Find information about AMDG at http://www.amdg.ws/. A Google search yielded a Catholic Jesuit organization with the same acronym, but no indication whether it was related to the school or not.

iii The course catalog is kept at a different web site (with no link back to AMDG), http://www.notitiatutus.com/vhs/common/catalogue.htm and includes regular high school curriculum, vocational training and Advanced Placement courses. The main page of notitiatutus says, “Hello World, Notitiatutus.com.”

iv hosted at another company, rsmart.com

v Introduction, Objectives, Teaching Strategies, Readings, Activities, Threaded Discussion Topic, Assessment, Alternate Assessment.

vi on CD-R discs

vii Moodle is a vibrant international community formed around the open source software of the same name. With over 40 language versions and regular updates, this software has outpaced Sakai in language learning and education by a factor of at least ten to one. See moodle.org.

Bibliography


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