Smart Classrooms And Hybrid Courses

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Abstract

Many new technologies have expanded the capabilities of what educators may accomplish in the classroom. This paper points out how some of these technologies have been incorporated into the Spanish Curriculum at the US Coast Guard Academy. Specifically addressed are issues of how these technologies may be used while maintaining sound pedagogical practice, an issue which remains unclear to many, and which is continually changing with each new technological advance. The paper discusses: how the internet is being used in and out of the classroom, to what extent students are using it, what student reactions to it have been, how it enhances the student learning process and some ways in which these methods may be used in other disciplines.

Introduction

sing technology in the classroom means many things to many people, and what a technologically enhanced classroom signifies is constantly shifting. Not too many years ago it meant having an overhead projector in the room, perhaps alongside a slide projector. Portable televisions equipped with a VCR might have been the next "big thing". When computers became affordable for individuals and schools, one might have taught with an Apple IIc or two in the back corner of the room, quite likely not entirely sure how to build them into the curriculum. From those days we have jumped light years into today where a typical classroom might enjoy an electronic whiteboard that will save whatever notes you write on it, an internet equipped teacher's station, perhaps individual student desks equipped with recessed monitors and sliding keyboards and a wireless infrared mouse, a TV/VCR/DVD player routed through a central computer that will project any and all images to the front of the room or even disseminate these onto individual student computers.

This paper discusses how some of these technologies are being used in the Spanish classroom at the US Coast Guard Academy. Specifically, I address the following issues:

- What technologies I am using in the class and how
- What technologies I am having the students use out of the classroom and how
- Which technologies are appealing most to my students
- What students reactions have been to the use of technology
- How much of this can be applied in other disciplines and some simple "How-to's"

What is a "smart" classroom at the US Coast Guard Academy?

At the US Coast Guard Academy, a smart classroom incorporates the following features:

A teacher station at the front of the classroom with:

- Networked PC with wireless mouse
- Visualizer
- DVD/CD
- Sound controls
- Television (some with cable access)
- VCR
- Ceiling mounted projector with zoom and other features
- Ceiling mounted speakers
- wall-jacks for students' laptops

Of these, in my Spanish classes I regularly use during class meetings:

- The teacher station: for accessing lesson plans, video/audio clips & etc.
- The projector: for projecting lesson plans and etc.
- The speakers: for the audio clips in particular

My classes are student-centered and communicatively oriented. What this means, in a nutshell, for me, is that the course is structured such that students do the majority of the talking while I am more or less standing back, watching the show, so to speak¹. I will step in to re-direct someone who looks like s/he is off-course, or to stop an activity that is going long on time. Beyond that, I'm more or less a sometimes bystander, sometimes secretary making note of what's going on and sometimes director; but rarely am I the "star of the show". A standard class meeting will consist of accessing and projecting the day's lesson plan, projecting it to the front of the room and then simply going through typical Foreign Language Classroom Communication activities. What the internet-accessed and projected lesson plan adds is, for me, immeasurable. [Figure 1-a.] The projected lesson plan, for the most part, does nothing but sit there, unless a student gets "lost" in class. If this occurs, s/he simply has to look up to the board to see where we are. Group work is greatly enhanced by the ease with which I can project a group's work to the front of the classroom by including text-boxes in the day's lesson plan and typing in what they have discussed/summarized/found/concluded. [Figure 1-b.] In this way, the entire class can benefit from each group's efforts. Likewise, if we are going to be working on a particular grammar exercise, for instance, one that has students conjugating verbs in the body of a text [Figure 1-c...], I can project these to the front of the classroom as well. If we are hosting a Spanish Bingo [Figure 2.], I can project it to the front of the room so the class can check the winner's linguistic accuracy: students like to check one another's claims of victory because there are prizes; I like to check as a class, so we can all catch common pitfalls as a group. Along the same vein, when working with new vocabulary, a crossword puzzle generated with Hot PotatoesTM, [Figures 3-a and 3-b.] or other software, can be projected to the front of the room and we can fill it in as a class once everyone has finished it individually. A PowerPointTM developed Jeopardy! TM-game [Figure 4.] is an activity that works wonderfully in the classroom and which can be easily accessed played in class as a competitive exercise. Finally, any and all audio/video clips are delivered in the classroom via the web. [Figure 5.] I do this for two reasons:

- 1. I can access, stop, pause, and start over without worrying about cassettes, either audio or video, right from the projected lesson plan.
- 2. If the clips are on the web, they are on the server, which means students can access them later from their rooms if they wish.

Student-accessed media: out of the classroom

Apart from the standard textbook we use, <u>¡Arriba!</u> ©, and its ancillaries, all course materials are delivered via the web: the syllabus, test reviews, assignments, audio materials, video clips and more. I do not use BlackboardTM, WebCTTM, or other similar packages simply due to my own preference. I've used them before and they are wonderful packages, but they have too many items that I just do not use and have some limitations that I did not like. For many people, however, these types of suites are definitely the way to go.

From my course main pages, students may access the syllabus and within the syllabus, may access: audio clips for homework or pronunciation practice; daily lesson plans to peruse prior to class or for review after class; I incorporate OverLibTM popups for onscreen translations and for helpful tips (more on this later); and also links to useful or required websites for various cultural, lexical or grammatical issues.

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¹ For a much more extensive explanation, see Omaggio.

As reported by my students², they spend, on average, 64 minutes per week using the various electronic components I have made available to them. This is divided up into the following distinct uses:

- 15 minutes/week using online flashcards
- 11 minutes/week using pronunciation recordings
- 8 minutes/week using audio homework files
- 30 minutes/week on the syllabus and other areas of the course page

Apart from the main page, of all the materials I provide online, the most accessed are, in order:

- Syllabus
- Flashcards
- Pronunciation Recordings
- Conjugation Page
- Audio Homework Files
- Project Instructions (for compositions, presentations & etc.)

ENS Caldwell's results are not surprising, for the most part. Most college students want to know what they need to turn in, therefore, the syllabus, which has the daily homeworks on it, is the most highly accessed page. What I did find surprising was that the pronunciation recordings, which consist of nothing but a series of words pronounced accurately, were so highly accessed. With this knowledge in hand, I greatly increased the amount of audio materials available to my students this semester. There are now practice interviews online, various songs (sung, dreadfully, by me), discrete vocabulary items and more.

What students are saying about the technology in and out of the classroom

Anonymous end of semester course-critiques and the study done by United States Coast Guard ENS Caldwell confirm what many suspect: students understand that technology informs their learning, and, more to the point, allows them to learn via a medium with which they have grown up and with which they are very comfortable. Some selected comments about the website from course-critiques³ are:

- The website is the courses [sic] greatest asset
- Helped me study greatly [sic]
- Got lots of great info in there!
- It was helpful and updated regularly
- Website was my lifeline!
- Electronic sources like doc Waid's website are a great help
- I liked the organization
- Once I started using it, I realized that it had lots of the book's information, but it was easier to access

As for quantifying the student reactions, I posed the following items to students:

On a five-point scale (Strongly Disagree | Disagree | No opinion | Agree | Strongly Agree) please respond: I thought the course website was:

- user friendly
- used well in the classroom
- helpful to me outside of the classroom
- a good idea over-all
- a distraction and a waste of time

² Results based on survey and analysis conducted for me by ENS Matthew Caldwell, USCG, in the Spring of 2003

³ Course-critiques were from Spanish II, Spanish I-II and Spanish IV Spring 03

The responses were overwhelmingly positive:

- user friendly: 54% Strongly Agree 41% Agree 5% No opinion
- used well in the classroom: 68% Strongly Agree 32% Agree
- helpful to me outside of the classroom: 63% Strongly Agree, 32% Agree, 5% No opinion
- a good idea overall: 68% Strongly Agree, 32% Agree
- a distraction and a waste of time: 15% Agree, 10% Disagree, 75% Strongly Disagree

While I have not yet had time to quantify this semester's end of semester findings, I do have some interesting results as to how students are preparing for exams. In my first post-test survey in Spanish III, I posed the following question to the sixteen (16) students enrolled: "In preparing for the exam I used the following strategies/methods/tools (check all that apply)⁴:

re-read textbook 13	highlighted/ marked textbook 7	went over workbook exercises <u>6</u>	reviewed diaries <u>0</u>	class notes 7
personal flashcards 1	personal vocabulary lists <u>7</u>	study group(s) 2	studying with a class partner 2	WKBK CD pronunciation/ sound files <u>0</u>
practicing with a native speaker <u>0</u>	online practice exam 14	Other online exercises 2	online flashcards 9	online lesson plans <u>9</u>
language lab materials <u>0</u>	meeting with professor 1	Spanish tutors <u>0</u>	Other (list all o	other) <u>No "other" listed</u>

What I extract from this is that students felt that they would get the most out of 1. the online practice exam; 2. the textbook; 3. the online flashcards/lesson plans (tie). Of 18 possible resources they could have used, three of the top four most utilized were electronic, web-delivered items. Furthermore, a quick scan through the end-of-term course critiques from this semester reveals, again, the overall sentiment towards the use of technology in and out of the class is extremely high; with comments such as, "It was extremely helpful", "It was very, very useful", "Easy to access and helped a lot", "Can I give the website a higher rating than what's on the scale, like a SA+++?"

Materials and Software that are easily transportable to any discipline:

The first step to doing any of this is to have your school's IT department set up a folder for you, preferably, as a subfolder within your department's inter or intranet folder. The folder should be set up so that you have full read/write access. Once that is done, all you have to do is save whatever documents you want your students to have access to on that folder. Perhaps the most important thing to do is to organize yourself and your electronic materials before putting materials into that folder. My standard breakdown is:

Main folder \rightarrow Course Folder \rightarrow Course particulars folders \rightarrow Materials

For instance, for my Spanish I students to access a particular lesson plan, they would follow this link trail:

Waid \rightarrow Spanish I \rightarrow Course syllabus \rightarrow lesson plan for the day

Any WordTM document can be turned into a web page, simply by doing a "Save as HTML". However, that's not the prettiest way of doing it, particularly if you're going to be digging into the code to install java or other

⁴ Underlined numbers indicate how many students checked that box.

features. My recommendation would be to purchase Microsoft FrontPageTM if you're already using WindowsTM software. FrontPageTM is as easy to use as WordTM once you get the layout of it. Another popular item is DreamweaverTM by MacromediaTM. Regardless of what you use, inserting pictures, links, tables and etc. all work more or less the same as in WordTM, just click the icon and search your files for what you need. Making links to existing internet pages is as easy is clicking the paperclip icon and then going to the page you want students to access. Just as easy is making links to materials you have generated for students. Click on the paperclip icon and then go to your directory (the folder that IT created for you) and double-click on the item to which you wish to link. It's incredibly easy.

Slightly more advanced is the installation of OverLibTM popups. [Figure 6.] These must be inserted into the code of your web page manually. Download and instructions available at:

• http://www.bosrup.com/web/overlib/

While one does need some rudimentary knowledge of html, these popups are very easy to use, maneuver and manipulate. Once you get the hang of them, they're worth it due to all of the wonderful things you can do. For instance, you can take a picture or a digital image of a famous painting and turn it into an image map where students may scroll over different areas of the image and get instructor's comments on them. I use popups often for translations, for "helpful tips", reminders of mnemonic devices and many other things as well [See Figures 5 and 6.].

Hot PotatoesTM is another free download that allows you to easily create many different activities for your classes. I quote, from their website:

The Hot Potatoes suite includes six applications, enabling you to create interactive multiple-choice, short-answer, jumbled-sentence, crossword, matching/ordering and gap-fill exercises for the World Wide Web. Hot Potatoes is not freeware, but it is free of charge for those working for publicly-funded non-profit-making educational institutions, who make their pages available on the web. Other users must pay for a license⁵.

Since the Coast Guard Academy is on a closed intranet, rather than a publicly accessible internet site, we had to pay the \$100 licensing fee. However, that price was well-worth the small investment. My students have been able to use many different activities generated by this little piece of software and other professors in my department have used it as well. One History professor uses it to incorporate crossword puzzles into his exams.

As I mentioned earlier, a PowerPointTM-generated JeopardyTM game works incredibly well [Figure 4.], and, when announced that it will be used in competitive fashion in a forthcoming class, students really do try to out-do one another. They study in groups, they quiz each other and, in general, really prepare well whenever they've got this type of competitive situation. The process of creating the main board is simple, one simply uses the "auto-shapes" button to create the initial box for the categories and then cuts and pastes it as many times as one has categories. Then the process is repeated below these top boxes for the individual questions. Each of these boxes is linked to the individual slides that contain the answer/question. Any type of background, animation, customization that you can imagine is do-able with this.

Finally, for other types of javascripts and tutorials or freeware/shareware you may go to:

- http://www.wsabstract.com/
- http://www.scriptsearch.com/
- http://www.freewarejava.com/
- http://www.webreference.com/
- http://simplythebest.net/?page
- http://dynamicdrive.com/

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⁵ http://web.uvic.ca/hrd/hotpot/index.htm

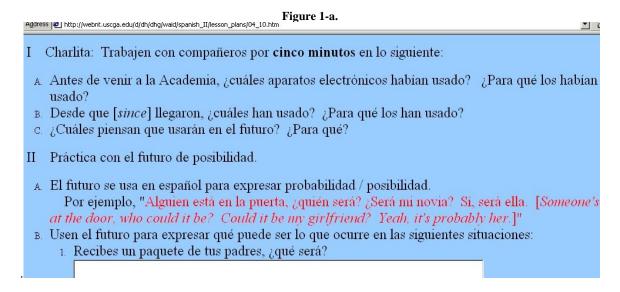
There are, of course, many other sites, some simple to navigate, others more complex. The ones I list all have easy downloads with simple to use instructions. What these sites offer are small pieces of code that add dynamic effects to a page which, when used properly, that is, not for effect, but for content, can add an incredible boost to many, many different types of courses.

Perhaps the most important decision one can make, apart from document/folder organization is the choice of how users will navigate one's site. Will there be text links? Will you use buttons? Will you use some type of menu? I prefer the menu option, simply because you can put the most important or most used parts of your site right on your main page without losing window-space to text links. The most flexible and easy to use menu that I have found is one developed by Ger Versluis of the Netherlands. [Figure 7.]. I enjoy the (as far as I can tell) unlimited number of sublevels one can place in the menu and, furthermore, the ability to create it once with "dummy" categories and then copy it whenever it is needed with whatever new site information one needs. For instance, I initially created it for my main page, so students could go to their course pages. Then I added it to each course page for easy navigation to syllabus, test review, audio sections... Then I added it to the course syllabus. My department also asked me to build them a new page incorporating the menu due to the fact that it can "hover", that is, as you scroll up and down the page, the menu stays on screen with you. The submenus are easily changed as well: a must for any department that regularly rotates faculty and staff; as do the US Military Academies. This menu can be downloaded free from: http://dynamicdrive.com/dynamicindex1/hvmenu/index.htm

Simply put, there are very few things that can do more for student-learning than giving them the materials and tools they need around the clock. The internet and these other tools afford an easy way to do this. Even non-technically inclined people, such as myself, can learn how to do very innovative things, in pedagogically sound ways very, very quickly.

References

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A. Agree in PERSON with who is doing the possessing
B. Agree in number and gender with what is possessed:

My book = Mis libro
My books = Mis libros
Tom and Jessie's friend = Su amigo
Tom's friends = Sus amigos

C. Possessives go BEFORE the noun
D. Práctica: 3-10

Figure 1-c

| http://webnt.uscga.edu/d/dh/dhg/waid/spanish_I/Lesson_Plans/11_16.htm

¡Buen provecho! Con uno o dos compañeros, diseñen la cena **perfecta** (incluso entrac [appetizers], plato(s) principal(es), bebidas, postres... Después uds. van a presentarle l perfecta a la clase.

Ejemplo: En la cena perfecta, nosotros servimos como entrada una ensalada prepa, lechuga, tomates y zanahorias. Después, para otra entrada, servimos camarones frit mantequilla y una sopa de tomate. Los platos principales son pollo a la parrilla y y cerdo. Para el postre tenemos flan y helado de chocolate. Las bebidas para los adul cerveza y después café. Y a los niños les servimos leche o jugo.

La cena perfecta: De Jaime y Karen

Entrada(s): Papas fritas con salsa de tomate y tortillas y salsa

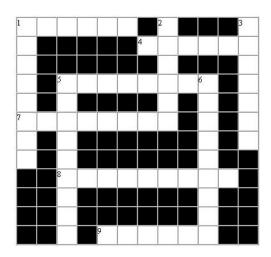
Plato(s) principal(es): Un bistec grande y langosta

Figure 2.

estudia mucho	habla con su familia todos los días	tiene que estudiar mucho esta semana	practica un instrumento	escucha música de rap		
camina 2 millas por día	baila todos los fines de semana	acampa [camps]	conversa con amigos frecuentemente	viaja a otros estados durante el año		
esquía en las montañas	llega a clase a tiempo [on time]	hablamos español <u>Alex yyo</u> <u>hablamos</u> español	le gusta trabajar	estudia todos los días		
mira televisión	navega en bote de vela [sailboat]	prepara bien para exámenes	regresa a casa los fines de semana	tiene frío		
canta [sings]	tiene sueño	estudia historia	tiene hambre	necesita ayuda con el español		

Figure 3-a.

Crucigrama



Horizontal:

- 1 Es un sillón, pero grande. Para tres personas
- 4 Duermo aquí por las noches (jy a veces durante el día!)
- 5 Aquí pongo mi carro y mis herramientas

Vertical:

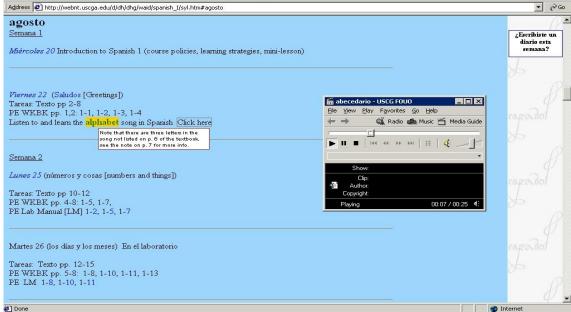
- 1 Veo fútbol americano los lunes por la noche sentado aquí
- 2 En este cuarto hay una televisión, un sofá, un sillón y muchas veces
- ? Cuando actor cucio vor anui Puado ancontrar productos achacialas

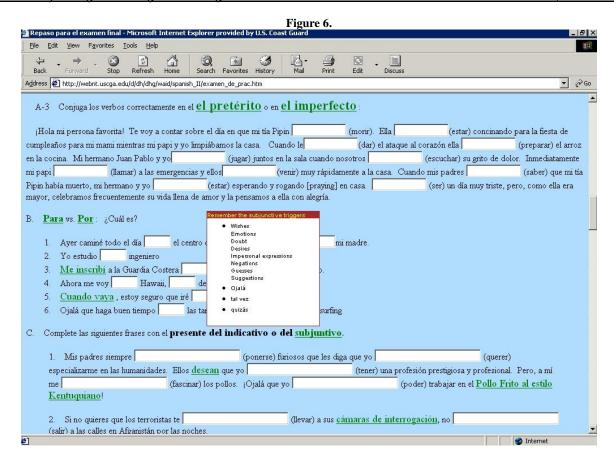
Figure 3-b.

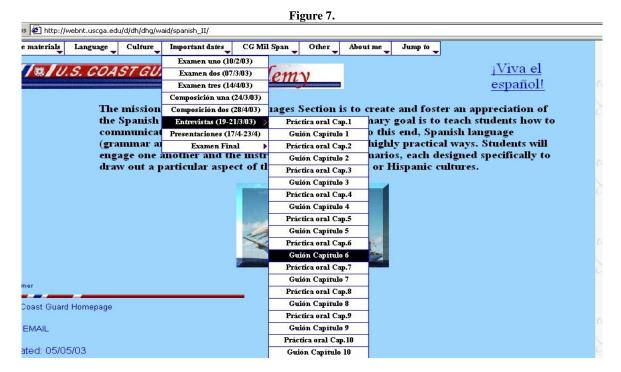
Crucigrama



Figure 5.







Notes