crewes_notebook

Developer Notebook - Entry #1

Developer Notebook - Entry #2

<u>Developer Notebook - Rubric Self evaluation</u>

<u>Developer Notebook - Entry #3</u>

Developer Notebook - Entry #4

Developer Notebook #5 – UDL Practices

Developer Notebook - Entry #6

David Crewes
CEP820
Developer Notebook

Developer Notebook - Entry #1

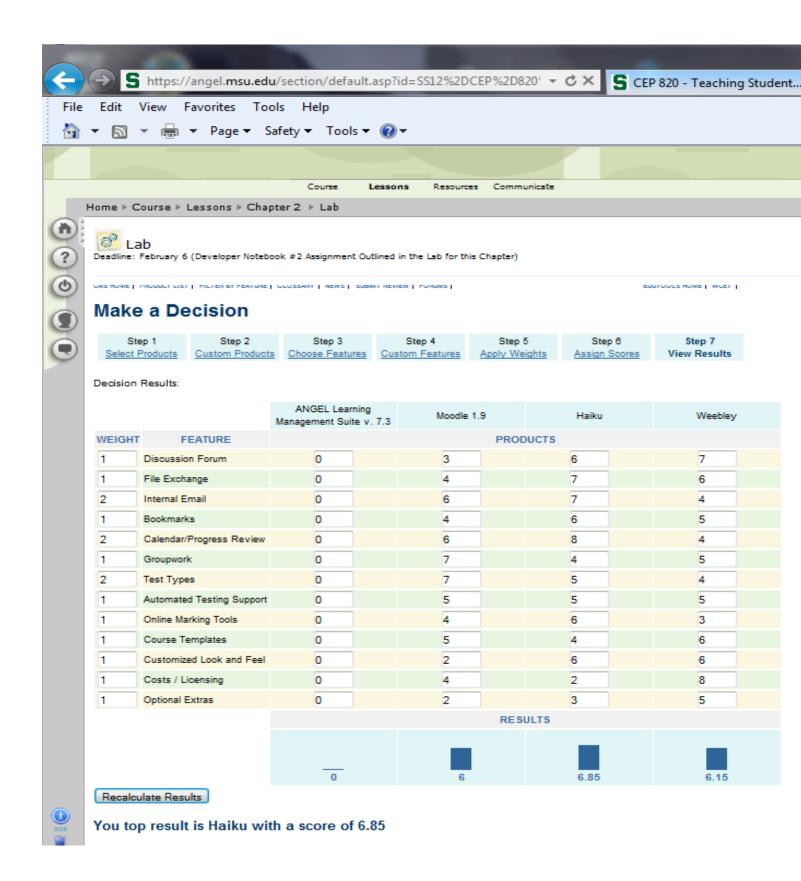
- What proof is there for the effectiveness of online learning?
 - -Where should I start? I can start with the meta-analysis studies on the effectiveness of online learning (U.S. Department of Education Evaluation of Evidence-Based Practices in Online Learning) or the entire list of Reports and Documents on the iNOCAL website, detailing the successes of online learning and subsequent programs.
- What questions remain for you about online learning and teaching?
 - -The only question I have are those for the policy makers and bureaucrat: If online learning is such a hot topic, and has been recognized as a vital part of student success, why continue to take away my funding and and restrict my access to computers and technology?
- What initial thoughts do you have about the standards for online learning and teaching based on your review of the rubrics?
 - -I think that most of the standards are acceptable. The initiatives call for instructors to be held accountable for the instruction they give in class, such as sufficient knowledge and use of technology and the applications, proper use and responsibility of using online learning and require continuing professional development by teachers to stay on top of technology.

In an effort to enrich my classroom, I would like to develop a beginning to an online course for the following:

- Grades 9-12 (mostly Freshmen)
- Earth Science
- Plate tectonics, Volcanoes and Earthquakes
- I'm not quite sure what my class would "look like" but I would like to use the online course in a blended role together with classroom engagement. The course would be set up to explore different websites, videos, models and online activities to supplement the classroom teaching.
- The course would utilize a variety of applications depending on the subject matter and learning
 activities. For example, sometimes students could explore and learn on their own then collaborate
 on the results to be discussed afterwords, other times, activities would help to reinforce
 ideas already discussed in class. Online discussions would also be used to initiate and foster
 communication and inquiry.

- Assessment would vary, but could be in the form of projects and presentations (electronic or other), student documents (single or collaborative) and online assessments (forms or quizzes).
- Participation would be mandatory, but all students are not created equal. Some have no computer
 experience and no access to the Internet at home, so this will be taken into consideration. Correct
 web site documentation and citation will have to be discussed and explored, plagiarism and copying
 will need to be discussed, as well as behavioral etiquette in discussion forums and collaborative
 activities.

Developer Notebook - Entry #2



This is the screen capture of my LMS analysis. It looks like I analyzed 4 systems, but I only really looked at 3. I had to pick two from the list in order for the program to work, and the other two I added manually. The 3 that I looked at were Moodle, Haiku and Weebley.

- Are you surprised by the result? Why? Why Not?
- No, Not really. I could kind of tell which of the three was going to be the best just by the way I answered each question.

- Which CMS are you going to use for this course? why?
- I think I am going to give Haiku a whirl. I really liked what I saw when I was plunking around A close second was Weebley, which is what I have used before and didn't quite like. It didn't quite allow me do do what I wanted at the time. I will have to pay a minor fee to be able to set up all my classes in Haiku, but \$4 dollars a month is worth it.
- Why is this CMS a good match for your course and curriculum?
- I'm not sure it is yet, only time will tell. I will say that the things I would like to start doing in my own classroom to be able to initiate a more blended style of learning were easier in Haiku than in Weebley. Online guizzes, discussion forums, and paperless assignments are some of the things I wish to look at.
- What additional tools/functionality, if any, might you need beyond the features available in the CMS you have chosen?
- Baby steps, man. I think I will be content with all that Haiku offers right now. I still don't know what shape my "online endeavor" will end up taking, and as it stands right now, I like what I see.
- What support will you need to be successful in this endeavor?
- Actually, all the support I needed was right there on the website. The help menus and help topics answered
 all the questions I had. It helped me understand a few of the intricacies of the LMS right while I was there,
 modifying my own shell. It was almost a pleasurable experience.

Developer Notebook - Rubric Self evaluation

With the multitude of all the available rubrics out there, I had a difficult time trying to decide on one that had the specific goal of my "online class" as I am designing it. I plan to use my LMS as a hybrid class with traditional classroom learning supplemented by the online module. The closest rubric that I found to help with that goal in mind was from the Open and Distance Learning Quality Council. It was still oriented to a full online experience but did address some of the hybrid topics. Here is the link: http://www.odlqc.org.uk/outcomes.htm

Some of the standards are not really applicable to what I want my online class to address, but I will include those aspects of the standards that do have some bearing on my plan.

*Special Note:

In my initial investigations with Hiaku, the free version only allowed one class to be set up. Not knowing if I was going to like the entire idea, I did not want to invest the money on setting up more classes and couldn't see the point of only letting one of three classes access to the LMS. That being said, I decided to use my AP Chemistry class as my Haiku Guinea Pigs. The outcome is the same and my goals are also similar but the target audience is a bit different. This is an advanced class of Seniors and Juniors who will sit for the AP Chemistry test on May 7th, in order to receive some type of credit for a college equivalent Chemistry class. The only additional aspect to the projected use of the LMS is that I am using as a basis for communication and planning. Daily activities, online assignments/assessments, class notes and other links have been added to help with the overall flow of the class. I hope this does not create any difficulties with your assessment of my LMS. Please contact me if there are any issues.

Based on the rubric that I chose, this is the self-evaluation for my course as it stands now.

STANDARDS in

OPEN & DISTANCE LEARNING

© ODL QC December 2005

STANDARDS I: OUTCOMES

- **A.** Each course includes a clear statement of what the learner can hope to achieve on successful completion 3
- B. The methods, materials and support offered by the course are sufficient to achieve the intended outcomes 2
- **C.** Each course starts from a clearly stated level of ability and facilitates learner progress to a greater level of ability 2
- **D.** Statements that the level of ability inherent in the outcome can be matched to a nationally-agreed level of qualification are supported by appropriate evidence. When courses lead to degrees then those degrees are properly validated NA
- E. Where time limits for course completion are imposed by the provider, they are clearly stated, along with any possible extensions to this and related cost implications 3
- **F.** Any assessments set by the provider during or on completion of a course are appropriate and adequate to ensure a proper assessment of the learner's ability and achievements to date, and the results communicated to learners 3
- **G.** Documentary confirmation of outcomes is available where appropriate to all learners on course completion 2
- **H.** Where the outcome of a course is the declared competence to sit examinations offered, or be otherwise assessed, by another external organisation, the learner is informed of this, and of the respective responsibilities of provider and applicant, prior to enrolment NA
- I. The course and its objectives are placed in a wider educational, vocational & professional context -3

Note: Some of the standards addressed here are not applicable to my "hybrid" online course, but for the most part I think that communicated outcomes in the physical classroom and the understood outcomes explained in the course description (support of the AP Exam) are clear but could possibly use a bit more depth and extent to assure in building confidence in taking the test.

STANDARDS II: RESOURCES

- A. All resources supplied are appropriate to the needs, knowledge and experience of a stated group of learners 4
- **B.** The provider takes all reasonable steps to ensure that course materials are effective and do not contain significant errors of fact, misleading or out-of-date information, concepts or approaches 3
- **C.** Course materials are designed for a specific and clearly stated level of learner support, and suitable opportunities for such support, where intended, are built into the material -3
- D. Course materials are structured to facilitate individual study & the development of study skills 3

Note: Resources available to students in the course are applicable to current learning levels and are chosen to support ideas addressed in the classroom atmosphere. Simulations offer another avenue of comprehension, while videos and animation offer support and clarification of already explained topics.

STANDARDS III: SUPPORT

- **A.** The provider maintains and demonstrates a clear commitment to helping learners achieve their educational goals 4
- **B.** The learner has overall responsibility for his or her own learning, and is informed that the provider's role is supportive 4
- **C.** Support offered is sufficient to meet the reasonable needs of learners, encourage the learning process and facilitate successful completion of the course 2
- D. Support is offered on a prompt, timely and wherever possible personal basis -2
- **E.** Support offered is appropriate to the level of the course 3
- **F.** The provider has adequate procedures to handle any difficulties between the learner and the provider, and learners are made fully aware of all the avenues open to them to resolve those difficulties 4
- **G.** Learners are encouraged to complete their courses. Progress is monitored, and learners are provided with prompt and helpful comments on their progress in relation to learning expectations and goals 4

Note: My students have no doubt why I am here and who it is I am looking out for. They know they can email via the course site, school email, and cell phone text. I want every one of my students to receive a five on the exam and I tell them that every day. I also tell them I know they have the ability to prove me right, and a little bit of hard work will prove it to them. I am always available to talk, help, or to vent to. My only downfall is that I am spread too thin. My support with the feedback in the physical class is sometimes a bit tardy and often times not thorough enough.

STANDARDS IV: SELLING

- A. The provider, its staff, representatives and agents, conduct all promotional activity in a fair and ethical manner, follow commonly accepted best practices, and comply with all relevant legislation 4/NA
- **B.** All advertising or promotional material gives a clear, accurate and balanced view of the provider, its personnel, its provision, the objectives and outcomes of that provision or the ease with which they can be obtained. All information included is real, current, and verifiable -4/NA
- **C.** All enquiries from potential applicants are handled promptly, appropriately and sympathetically. In particular, staff engaged in promotion do not offer educational advice unless competent to do so
 - NA
- D. Providers selling through home visits take particular care to avoid the possibility of mis-selling NA
- E. The applicant is made aware of his or her responsibility to assess the suitability of the course, and in particular in relation to their own needs, qualifications, capabilities and aspirations, before enrolment 3
- **F.** Providers offer sufficient information to enable each learner fully to assess the suitability of a course, including an opportunity to discuss it with the provider prior to enrolment NA
- **G.** Prior to enrolment on a particular course, the prospective learner is made properly aware of all terms and conditions relevant to that course, either in the prospectus or similar material, by correspondence, or in discussion with the provider 3
- H. Access requirements imposed by the provider for any course are appropriate, kept to the necessary minimum and published 3
- I. Enrolment when completed is confirmed to the learner, who then has a pre-defined period within which to withdraw from the course NA

Note: Most of this section applies to the selling and distribution of the course to outside parties. This will not ever happen. If anyone would like to have access to, and use therein, my class, all they need to do is ask and I will gladly put them on the roster. This is about learning and helping students to achieve on a particular difficult Advanced Placement Test. Anything I can do for anyone, whether they are in my class, at my school or are in an entirely different state is irrelevant. I will gladly help when I can. This will never be about making more money.

STANDARDS V: PROVIDERS

- A. The provider maintains and demonstrates a strong commitment to educational values 4
- **B.** The provider is financially responsible and can meet its obligations to learners -3
- C. The provider adopts widely accepted norms of good ethical business and employment practice 3
- **D.** Where the provision occurs in another country, the provider ensures adherence to all relevant legal requirements NA
- **E.** All staff and tutors are suitable for their positions, and possess appropriate qualifications and experience

- 3

- **F.** All tutor support is of high quality. Where a provider employs more than one tutor, steps are taken to ensure that tutor support is consistent throughout the provision NA
- **G.** Learner records are sufficient, accurately maintained and up to date. Learners' concerns about the confidentiality of their records are respected 2
- H. Sufficient resources are available to ensure that every learner receives an adequate individual service- 2
- I. The provider adheres to all ODL QC Standards in Open and Distance Learning, and complies with all reasonable requests made by the Council NA
- J. The provider is committed to continuous improvement 4

Note: Since I am the only provider and tutor available, some of these objectives are not applicable. My students know that education is high on my list of accomplishments and I try to instil that sense of importance every chance I can get. They know that this is for my own education and I strive to be a better teacher to benefit them in a roundabout manner. I always ask for feedback on any new activity I try, whether online or in the classroom. Student feedback often drives my own improvements and changes.

STANDARDS VI: COLLABORATIVE PROVISION

- A. Any provision delivered by two or more organisations is covered by a written agreement which clearly specifies the respective rights and division of responsibilities between the partners NA
- **B.** One organisation (the "principal provider") has legal responsibility for delivery of the provision, and the learner is made aware of this 3
- **C.** The principal provider has in place procedures which ensure that all aspects of a provision meet ODL QC standards NA
- **D.** ODL QC Accreditation is specific to a particular service and a particular named aspect of a provision. Providers must avoid statements which imply that their accreditation extends to services not explicitly covered NA
- **E.** Providers should not promote courses as their own if they are not NA

Note: Again, most of this section is not applicable. I am not sharing responsibilities, and do not plan to share them with anyone. This is my baby, and I am going to nurture it as I see fit.

Thank you for opening your class to me, for providing the screencast, and for discussing your course module in succinct and focused terms. I look forward to viewing your final project. ~April

Developer Notebook - Entry #3

Part - A

Since we only have about three more weeks of this class, the unit I am going to be focusing on is that of Chemical Equilibrium. We may finish the material by the end of CEP820, and if that is the case, I may also attempt to make another unit on Acid and Bases. I will decide this at a later date. Now keeping in mind the online course is AP Chemistry, we don't really get too creative. The AP Test is the end game. Everything we accomplish in class is to prepare for the AP Test. There are new activities that I can do with the online environment, but in the end, it is mostly being able to physically solve the problems dealing with Equilibrium that I will focus my instruction on.

- Learning Goals The learning goals of this unit consist of the students discussing why and how a chemical system comes to equilibrium and the characteristics of that equilibrium. In particular, they will be able to calculate the concentrations of the reactants and products present for a given system at equilibrium.
- Learning Outcomes Students will have access to different simulations online, there will be some videos and tutorial for them to watch and answer questions on, there will be some discussion forums, and also some online quizzes. One new aspect will be to analyze student responses to a free response question to see how comprehensive their answers are. We will then determine if more input will be needed for those types of questions. The format for that will probably be a discussion forum.
- Methods of assessments Correct answers to online quizzes, a passing grade on the classroom assessment, submission of a "free-response" answer to an AP Question, completion of online quiz covering the required video assignment.
- Course communication policy Communication is key for this class, we have utilized the schools email system, we text via smart phones, and there is a discussion forum on the course site that I hope to use this week. They know that they can always ask questions, and I am available and willing to answer. I have also required that they have partner assignments so they are responsible for some amount of collaborative learning. My students are all friends so student/student communication is not a problem.

Part - B

I really enjoyed the lab scenario assignment. I think it is good practice to put yourself in situations where you need to pick and choose your words carefully when responding to a potentially volatile situation. For the most part, my responses were right in line with everyone else's. The only differences were the extent of detail to the problem. I believe someone used the sandwich metaphor, when dealing with communications. Sandwich the bad news between two pieces of positive feedback. This is always a great policy. I have also learned over the years that I have to make sure my concern for each one of my students and their successes is known to the potential email recipient. I genuinely am concerned about all my students but many parents or students sometimes don't see that. The only other thing that I noticed that was different from my colleagues was that I was a bit harsher with the dealings of students in the third scenario. There are no excuses for being rude, mean and hurtful. Bullying in the educational process has no place and I will not tolerate it in my class. We all need to get along, and only through communication can that happen.

I think the most important thing that I have learned from the readings and my own experiences with my Hiaku course, is that communication is the key. In order for everyone to benefit from what I have to offer in my course, I have to have everyone contributing and communicating about our experiences. Since my course is being used as a blended hybrid class and most of the learning is in the classroom, what we experience online is used to support that classroom learning. We have to discuss the asynchronous activities in order to reap the benefits of those experiences. I will be able to offer more to this topic once I try to initiate some new aspects to my online course.

Developer Notebook - Entry #4

Here is the link to my Self-Assessment in Google Forms. I should have the results in a couple of days. https://docs.google.com/a/erschools.com/spreadsheet/viewform? formkey=dEZHWDFUWm9sTHRRdUhiN21XaFhMNFE6MQ#gid=0

This was a difficult assignment for me. Since I am using my online class in a hybrid setting, I don't have a wide variety of things to assess. I decided to use the AP Chemistry course as a whole, and then ask about certain elements of my online course. I hope this satisfies the criteria.

With respect to the rubric, if I ask questions concerning what my students think is the most important and the most beneficial, I can apply modify my instruction accordingly. Along the same idea, if my students are not following through with a topic that is crucial with their success in my class, I can notify them of that fact and illustrate why it is so critical to their learning. The rubric will also show me which activities my students almost always completed or enjoyed, and I can use that information to try to make the class more enjoyable. I hope that all the feedback from the rubric will help them to see the big picture of multi-level success in this AP Chemistry course.

The rubric, as I designed it, is not all for the students. I hope to be able to determine what activities my students like to engage in, which they believe are important, and which they have the most success with. This will allow me to develop new aspects of my online course and implement them in the future. Since I have always been honest and open with all my classes, I plan on sharing the results of the rubric with them and open discussions as a class. I believe it is important for students to have a hand in their own instruction. If my students have an opportunity to participate in the designing of their class, they will feel more connected to it and will want to be more successful with it.

The focus of my online course is, and will always be, support of the material we cover in class. As I progressed through this class, I have been adding content in my online class that I have found useful for myself. One important topic for my online class is to have a variety of different material and media. I don't want to focus in on one type of activity.

Another focus of my online course is student feedback. The reason I chose Haiku as a LMS is that the assessments and much of the embedded material I have at my disposal, can give students feedback as they use the applications. Such as the practice assessments and discussion forums. I don't think the students shouldn't have to wait for me to tell them if they are doing things correctly. Having access to the solutions online or having the capabilities of discussing the correct answers is an important part of building confidence in the class.

There has been one surprise in the focus of my online course. I did not think I would need to be able to use the ability for my students to be able to complete assignments and take assessments outside of class. However, as the AP Test clock ticks down, I find myself with very little class time left. The added time my students willingly (sort of) give me outside of class is a valuable resource that I am trying to utilize with this online course.

My goal for the future of my classroom is to be able to use technology to increase the effectiveness of myself and the learning and comprehension of my students. Haiku has assisted me with that so far and I plan on using this technology until the end of the school year. I think that what I have developed so far has assisted my efforts in

accomplishing those goals. I would appreciate any feedback that would make this experience for my student a memorable one.

Dave: I very much appreciate the level of thought and consideration you've put into this -- and for not only making it very clear and concise but also for sharing it with me! Thank you also for providing such detail and justifications that I am able to follow your line of thinking, your rationale for your pedagogical choices, and your fierce wonderings. Your thoughts on your own development and thinking regarding online courses are just great -- we continually learn and evolve and grow, ourselves, as instructors -- and that just makes for a better experience for our students. Great thoughts here! I hope that my comments are helpful, and I look forward to viewing your final product.

Best.

~April

Dave -- I wanted to touch base with you and thank you for your screencast. I've also shared it with the other instructors, and we agree that you are doing many good things with Haiku. You are clearly using it as a space to manage course materials, to post announcements, to share useful tools. However, we're not seeing where you have actually designed a learning experience with Haiku that would take advantage of the unique affordances of the web. We're not seeing how your students are engaging with content on the web, or where they're asked to do any kind of learning in this space. Chapter 13 comes closest to this with several assessments, but these don't meet the requirements of 3-5 actual lessons.

As you finish up your module, Dave, we would like to emphasize that your module must include a series of at least three lessons that engage students in meaningful learning online. Your current use of Haiku is great -- but for CEP 820, we need to see how you use the environment as a learning tool.

If you have questions, please do not hesitate to email.

Best,

~April

Hello, Dave: I have outlined my thoughts and suggestions regarding your course below.

Things that I particularly appreciate about your module:

- 1. I appreciate the pictures and personal touch that you have on your opening page: The mixture of personal pictures and classroom pictures, along with weather and a PollEverywhere question that deals with sports, creates a sense of community.
- 2. Class Information: Providing students with information about classroom expectations, the AP course itself, and your lab rubric is great.
- 3. The Self Assessment piece is a great meta-cognitive tool, prompting students to think about how their behavior, class tasks, and approaches to material impact their learning.
- 4. You've really created a set of resources for your students to access. Although these are undoubtedly things that you utilize within the classroom as well, you've gathered them together here -- which allows students to refer back to them and use them from outside of the class. I particularly like the Khan Academy videos!

Recommendations for improvement:

1. This really seems to be a collection of resources for students rather than several solid lessons that are required for CEP 820. However, especially in Chapter 13, it looks like you can easily achieve the lessons needed. For example -- in thinking about this in regards to Chemical Equilibrium -- it seems that you

could develop a pre-quiz or a set activity that is quick and activates students' prior knowledge. Then you could provide a graphic organizer for students to fill out as they watch the Khan videos that help them to understand the relationships and concepts that you are covering in this chapter. Third, they could complete the assessment that you've already provided (remember to make sure that your objectives, activities, and assessment is aligned). And finally (though you could move this to the 3rd step), you could provide a discussion forum where students discuss some aspect of chemical equilibrium -- either aspects that they missed in the assessment or further elaboration that you want them to explore. These four things, tidied into a group, would consist of one lesson. Does this make sense?

- 2. Typo: Each Chapter we cover in class has it's own sub-page in the Lessons and Materials page. Should be "its".
- 3. You probably discuss this a great deal in the face-to-face portion of your class -- but when I think about chemistry and the labs that go with it, I think about the accidents or injuries that might occur. You might want to address with this a page/lesson entitled "common mistakes" or "common injuries" and ways to prevent/decrease likelihood. Leveraging the affordances of video, you could even show quick "how-to" or "how-not-to" instructions --- or, better yet, have students create them.
- 4. I wasn't able to review the assessments in Ch 13 because they all closed April 12th & prior. I do like the idea, however, of having students receive that kind of immediate feedback!
- 5. I recommend providing students with the objectives at the beginning of each chapter so that they are absolutely positive regarding the goals for their own learning.

A really great start, Dave. I appreciate the work that you've done over the past several weeks to catch up - and what you have added to your module in order to provide more resources to your students. You still have substantial work to do in the area of lesson design, but the progress that I've seen thus far indicates that you are likely to complete these lessons over the next week.

Your grade for the module at this point is a 2.0. As we have discussed throughout this course, circumstances change, courses evolve, and improvements continue to be made. Thus, I encourage you to think of this as a beginning: make the changes that you need to make within the next several days and email me when I can provide another look.

Best,

April

Hi Dave,

I've just spent some time reviewing your online course module as well. I've read April's comments and agree with her general assessment of your work. So much of what you're doing is fantastic. You are using Haiku as an online extension of the work you do in class -- and this is a perfectly legitimate -- and indeed totally fabulous -- way to use a CMS. For CEP 820, though, we really did want to see you thinking about how you might also teach inside the CMS. I agree with April in that Chapter 13 on Equilibrium is very close to having most of the components of a well-designed online lesson. The idea, as April outlines, is to use the CMS not only as an extension, but as the actual learning space for your AP students. With the AP exam coming up, I can totally understand the constraints that you also face as you prepare your students for the test. I wonder -- could you include a collaborative writing activity for students -- either via the discussion forum in Haiku or on a shared Google Doc or even in a wiki -- where students could engage with a topic they're preparing for the exam? When kids see other students' answers, they'll inevitably learn quite a lot of content, but also about ways of expressing scientific ideas and structuring their arguments/ descriptions. I would definitely encourage you to include this kind of activity. Plus, I wonder if there are other activities that you could integrate without much trouble, but that would have a really great learning impact on your students? Is there a way for kids to create a visual representation of a chemistry concept? I just

attended a really cool session at the AERA conference about the impact of drawing on students' scientific understanding. As it turns out, when kids draw ideas, they learn more than kids who don't draw but just study. Could you have kids use Google Drawing or PixIr to create some sort of picture? They could use voicethread to upload their image and explain to their classmates -- it might be cool? Or, they could just paste their images in that shared Google Doc and provide a description beside it?

Anyway, Dave, these are some ideas to consider. April and I are in agreement that if you're able to create a learning experience for students, we'll be happy to adjust your assignment grade.

Let me know if you have any questions, Dave. Best, Michelle 4-23-2012

Dave,

I returned to your course and have reviewed the additional materials you opened and added. Thanks for these additional resources. I especially like the Prezi assignment since it's grounded in challenging conent, but also asks students to create a representation of their understanding. I have read your Developer Notebooks and I definitely see that because AP chemistry is driven by test preparation, the way that you've used Haiku hasn't necessarily been for instruction, or collaborative online knowledge building, or inquiry-based projects. I would argue, of course, that these kinds of activities would be supportive of advanced content learning in AP chemistry...but I also understand that kids need to become familiar with the test quesitons.

April and I will consult on your work, Dave and send you an email with any grade adjustments.

Thanks for continuing to apply yourself through to the end of the course, despite your many competing priorities.

Best,

Michelle

4-27-2012

Dave: As I reviewed your course, it is evident that you are pushing yourself to consider the affordances of a hybrid course and working to engage students within the CMS itself. As you've noted, it's difficult to build a face-to-face class and a hybrid course at the same time: the temptation is to utilize the CMS as a holding place for resources, notes, and deadlines instead of crafting an honest-to-goodness course, complete with objectives, lesson activities that integrate a wide-range of interaction with the content, the instructor, and with peers, and assessments that align with the objectives and activities. While I agree with you that perhaps the AP class was not the best choice for turning into a hybrid course this semester, I deeply appreciate that you've been willing to work through this challenge. In particular, we like the addition of the prezi assignment where students use a web-based application to represent their learning. These recent changes that you've made to your course show that you are on the right track. Michelle and I are in agreement that you have made sufficient changes to your course module to bring the module grade up to a 3.0.

Best regards, April

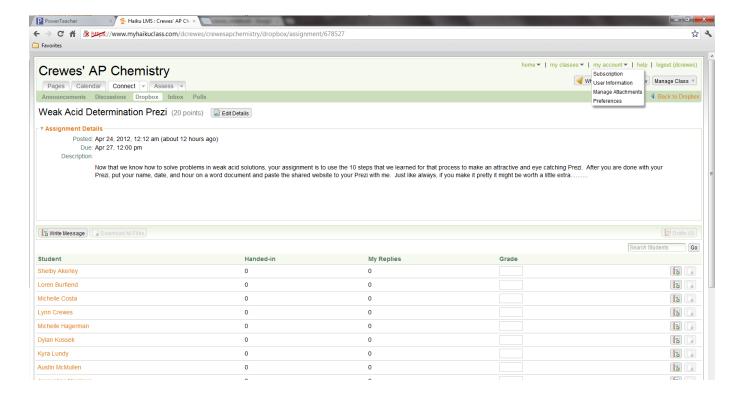
Developer Notebook #5 – UDL Practices

One particular topic that I think MSU has done an excellent job at making sure all us Master's students are aware of is the idea of a Universal Design for Learning, or UDL, for short. It was brought to our attentions that no two students read, understand, comprehend and process information the same way. In order to make the learning process in our classroom as productive and successful as possible, we need to vary our instruction to be able to reach all our differentiated learners. By providing and using multiple means of representation, concepts are more easily transferred and connection between ideas can be strengthened.

Teaching is an art that may take many years to come to fruition. It may take a while to determine what method is the most effective way to deliver material and reinforce ideas. UDL practices allow teachers to experiment and vary delivery so that all student learning in the classroom can be enriched. In this document, I will illustrate the techniques that I have employed to satisfy the UDL practices in my online module and I will also offer some insight into what other practices might be used in the future to assist in learning.

The first UDL guideline is to provide options to perception. This is usually done through alternate means of representation or modalities, such as vision, hearing and touch. I first offer the concepts through some sort of visionary medium. I might introduce topics in a PowerPoint, or a Word document, and then I would find a representation of the same information but through a different source, such as spoken word only. To assist with the final comprehension in the classroom, I have students feel the problems and solutions themselves. They might come up on the whiteboard and feel their way through their own calculations, using their own hands to write out the solution. Perhaps the most powerful perception guideline I have at my disposal is the actual laboratory itself. The sight, sound, and feel of an experiment is quite unlike anything ever experienced. I would like to be able to utilize that aspect of my class more to promote higher learning. I know that this is a *physical* activity that I would like to use to promote my *online* class, but the value of the experience greatly outweighs the online necessity. The idea of alternate means of representation is something that I would like to try to have more of in my online course. My idea is to offer an audio file that students can access when they have the time, something like a podcast. Just as I have tried to use different means of delivery to convey the learning concepts, students should be able to utilize this technique as well, which would take us to UDL guideline #2.

The guideline #2 is to provide options for language, mathematical expression and symbols. In all my course material, I strive to use at least two different means of representing data. While the first attempt may be the written word, I might then use a graph to display the same information, or even use a video or animation to deliver the same content. With all the clever and innovative Web 2.0 applications at our disposal today, one idea that I might try to bring to my course is to utilize different student delivery methods. If they are offered choices of display and delivery of their own work, students might have a greater sense of connection to their projects, and inevitably, to the learning. One option I would like to explore is the use of Prezi to organize and present ideas. We learn many rules in Chemistry and sometimes it is difficult to keep them all straight. Students can present their own take on a topic in a medium of their choice, Prezi being one of them.



The last UDL guideline is to provide options for comprehension. These include different scaffolds that students can use to access the knowledge obtained in the classroom. I have used various KWL activities, concept maps to highlight key ideas and relationships, and pre-reading inquiries to access prior knowledge. Perhaps one of the greatest tools I use in my classroom is the concept of a story. I use analogies, metaphors, or just events from my own life that I can tie into the learning of certain topics. I have even been known to, and I apologize for this, invent my own experiences to make a point. One technique that I have applied in my freshman Earth Science classes is to "chunk" the information so learning has something to build on and connect to. It has worked quite well and I think even the blended AP Chemistry classes can benefit from this technique. Since I have found that most of my students have difficulty with application of key processes, I think that they might benefit from more activities that ingrain new ideas with things that are known and familiar to them. Suggestions might be the extended and increased use of analogies, metaphors and mnemonic devices that help to tie the old to the new.

While my course could always use more UDL Practices to assure student success, I feel that I have done an adequate job in utilizing many of UDL guidelines already. The magnitude of practices available to enrich classes and engage learners is quite large. Wading through the techniques that work for each instructor is the difficult part. I continually strive to offer my students as many of these UDL Practices as possible, but there are many more waiting out there. I know that, in the end, the more I can offer my students, the greater success they will have in their learning and their own lives.

DCrewes CEP820 DN #6

Developer Notebook – Entry #6

The final piece to any great work is usually done retrospectively. While I am by no means saying that my Haiku online course "Crewes' AP Chemistry" is a great work, I will end this experience looking back on the successes and failures of my development choices. This experience has been extremely rewarding for me as I now can relate how much time

and effort setting up even a limited online learning environment can be. The experience was well worth the effort.

My first suggestion for online development is to make sure that the course you are setting up has a fit in the online community. I don't think that AP Chemistry was a good choice for development of a hybrid online course. Since this was a new prep for me this year, it was all I could do just to refresh the memory banks and come up with presentation material for the class. I had very little time or desire to develop new online activities to utilize in the class. Without immediate 1 to 1 computing for our students, signing out a computer lab, packing up all our stuff and hiking across the building wasted time that, I felt, could have been used to solve more problems in preparation for the "test". The AP Chemistry course is all about the "test" at the end of the year. It's about learning how to manipulate numbers, constants, equations and concepts to achieve a standardized level of competency. It's not necessarily about the *journey* that an interactive, online experience has to offer.

Sometimes it is necessary to play with the applications that you wish to use in an online course. Some work out, and some turn out to be a less than pleasurable experience that ended up to be a waste of time. I found myself hesitant to introduce new applications for fear of wasting valuable "test" preparation time.

My Earth Science class would have been a better fit for this type of environment. It is not as challenging for the students, so they can take the time to learn new programs and then collaborate on their learning in a rich and meaningful ways. There are also so much more usable media concerning Earth Science than AP Chemistry. This allows much more diversity in scope and application of Earth Science over AP Chemistry.

I feel that the Haiku LMS was a success, overall. The web page based browsing was easy to navigate, and the program was fairly easy to learn. I loved the calendar to keep track of homework, assessments, due dates, and my students liked the fact that if they missed a day, everything was right there on the calendar. The ability to import and embed different programs and applications made it kind of fun to play around. The discussion forums were well put together, easy to set up and use, and displayed the discussion results very well. The independent communication option was nice, but my students preferred to use our school email and, of course, text me with their smart phones. Some of my students also mentioned that they really liked the additional videos (Kahn Academy) that I posted online, with small surveys associated with the material, posted underneath. It is nice to be able to incorporate UDL practices to aid in student learning that have already been made for you to use free of charge.

The aspect of the Haiku LMS that I enjoyed the most was the ability to extend my teaching day. I could spend class time discussing difficult topics, showing solutions to difficult problems, offering help to those that needed it when they worked on their problems, and then they could go home and take their assessments online and receive immediate feedback on their answers. They could turn in assignments electronically, and I could grade and return them electronically as well. The extra time they gave me outside of class was well worth the effort of setting the assessments up for them. The great thing about the online assessments is that I used questions from previous AP Tests and AP Test Prep books. They were practicing AP questions while learning the material at the same time. As a bonus, Haiku would grade, score and tabulate the results for all my assessments, practices, and warm-ups for me. That is so cool!

So as we reach the end of this course, I have to reflect about the use of the LMS in my classroom environment. Is this something that I want to try to incorporate into all my classes? That would be a resounding, yes. I am looking forward to introducing it next year and I already have some great ideas for my Earth Science and Physics classes as well.

Dave -- This final entry is honest, reflective, and engaging. I appreciate your narrative style as you walk the reader through your challenges and successes this semester. This is one of things that we hope to see in this last assignment! I know that you've had a busy schedule with teaching full time and taking classes, so I really do appreciate the work that you've committed to CEP 820 and this hybrid AP course that you've developed. I have enjoyed working with you, following your reflection in your Developer Notebook, and watching your course evolve. I deeply appreciate your willingness to reflect and revise and to see your course as a naturally growing and organic entity. One of the challenges of crafting a hybrid course, as you've mentioned in your DN#6, is sometimes seeing how the content can be addressed or enhanced through the affordances of a CMS -- but you have proven that you are up to the challenge and seriously committed to ensuring that your students receive the best education possible.

I wish you the very best as you continue to implement and grow your course! Thank you for a great semester.

Warmly,

~April

Dave: You have earned a 3.5 for CEP 820. This takes in account the course module you created, the thoroughness of your Developer Notebook entries, and considerations of timeliness, investment, and responsiveness to feedback. Thank you for all of your efforts this semester; I really think that your students are going to benefit from the direction you're headed in! I wish you the best in your education endeavors.

Best regards,

~April