DEVELOPER NOTEBOOK TABLE OF CONTENTS

NOTE

Below you will see that we have copied the prompts for each chapter that you will find in the D2L course. Because we are constantly updating the course, these prompts ARE SUBJECT TO CHANGE, so please do not work ahead, as you won't have the resources you need until the relevant chapter is open. Please enter your responses to each prompt where we've placed the three asterisks in blue. Make sure that your responses also keep the blue coloured font. This just makes things easier for us when reading and grading your entries as it helps us quickly identify responses and also provides you with an assignment checklist of sorts.

Instructor feedback will come in two forms: (a) marginal comments and/or (b) feedback at the end of your assignment entries (this will be in a different coloured font). After you've received feedback from us, we encourage you to respond to that feedback. If you wish to add to your entry, please do so in a different coloured font - this will make it

easier for us to see the changes you've made. In addition, you can reply to the marginal comments we make.

For every developer entry, please refer back to the corresponding D2L chapter and section for a complete description of the assignments.

Chapter 1

Foundations for Thinking About Online Learning

1. Engage **USING one of the grace periods for this assignment.

In your developer notebook for Chapter 1, we want you to reflect on the readings regarding the research, context, and design of online learning. Specifically, we want you to answer the following four questions. Please cite with author and date the readings that help to inform your responses to these questions (e.g., Smith, 2013).

What proof is there for the effectiveness of online learning? In 2009, the U.S. Department of Education reported findings from a meta-analysis that reviewed studies that compared the effectiveness of teaching in learning in online and blended learning environments to face-to-face learning environments. The meta-analysis found a small but significant advantage for online instruction over traditional face-to-face instruction; however, strictly online learning offered no significant gains over face-to-face instruction. Perhaps a more promising finding revealed that blended learning is more effective than either face-to-face learning or online learning (U.S. Department of Education, 2009).

A related finding from the meta-analysis revealed greater levels of effectiveness when the online pedagogy was expository or collaborative rather than independent in nature; and when the curricular materials and instruction varied between the online and face-to-face conditions. However, the findings are compromised by the fact that blended learning is associated with too many uncontrolled variables, such as, additional resources, instructional model, student interactions and extended time dedication, so the study cannot conclude that the improved learning outcomes are due to blended learning alone (Means, Toyama, Murphy, & Baki, 2013).

Using technology to give students *control of their interactions* has a positive effect on student learning, however, the medium of instruction by itself appears to have very little impact on student outcomes. One study found that the use of video or online quizzes, frequently utilized in online education, *does not appear to enhance learning* (U.S. Department of Education, 2009). As a result, poorly structured online courses that ignore best practice and produce learning outcomes that are simply equivalent to those resulting from face-to-face instruction are viewed as a waste of time and money by most educators and stakeholders because the online course does not improve learning outcomes (Means, Toyama, Murphy, & Baki, 2013). So, while higher-level skills like critical thinking and analysis can be assessed in online courses with well-designed online multiple-choice quizzes, a truly rich blended learning course that is considered worthwhile goes beyond multiple-choice testing and includes measures that encourage creativity, show how students arrive at answers, and stimulates collaboration. Thus, the positive effects observed in online/blended learning courses may have been attributed to other curricular features and pedagogical practices, which is why one study called for additional research that looks behind the instructional medium to isolate the characteristics of instruction that produce positive results (Means, Toyama, Murphy, & Baki, 2013).

To better prepare learners for the diverse demands of a global economy, schools have shifted their focus from what they are teaching to how they are teaching. Districts seek to be deliberate about teaching critical thinking, collaboration, and problem solving to all students, and through online & blended learning courses, they have the support and tools to do so. Blended learning courses and learning management systems allow assessments to occur in a completely different way, a way that allows the learner to reflect on their growth and construct new understanding based on prior knowledge as they work through the problem using

various tools and supports. However, without intentional planning, instructional methods, and technology implementation no 21st century learning initiative will be successful. Successful education has always been about engaging students whether it is in an online environment, face to face or in a blended setting. It is not enough to simply suggest that schools should shift to online or blended learning because they are better.

The remedy, though, for improving 21st century blended learning, may appear obvious: Mobile learning devices offer consolidated access to high- quality learning materials, including a myriad of tools within the supporting infrastructure built into the device (seamlessly integrated applications, calendar, internet capabilities, social media, multimedia, calculator, e-mail, notes, reminders, & management of technology), allowing users to do more with less. But don't be fooled; effective virtual courses are carefully thought before the device is even considered. Additionally, the framework should not be universal; it should be personal and match the unique needs of each learner. A key tenet of personalized learning is the ability of individuals to choose the right tools for the right tasks, which means the educator must be able to accurately measure student understanding regardless of the tool(s) they choose to support their thinking and learning. The blended course design should be both prescriptive enough to be *useful* and flexible enough to be *usable.*

What questions remain for you about online learning and teaching? I still have questions regarding the accreditation process. From a policy standpoint, it is an intriguing component to online learning. The school district I work in houses West Michigan Virtual, a virtual school that has partnerships with 16 schools all across Michigan to provide learners with options that will allow them to still earn a diploma. The graduates receive a Berrien Springs diploma through the partner virtual learning center. With that said, I know that some colleges don't recognize certain online courses because we've had athletes unable to take virtual classes on campus. Although, I know the virtual academy is accredited. I'm think there must be different types of accreditation. I am also interested in learning more about how to address student accountability issues and how parent-teacher conferences would look in a an online or blended learning course at the K-12 level. I know that communicating with parents whose children are in face-to-face classes can be difficult, so I have to imagine it would at least be equally as difficult in a virtual course.

Which iNACOL report did you choose to read? How does this report connect to the work you do? To your personal and/or professional lives? Don't forget to include the title of the report and a link to it. The iNACOL report that I read this week titled, Aligning K-12 State Policies with Competency Education focuses on competency education: what it is; how it looks; which states are embracing it; why it matters; and how states can upgrade their policies to reflect it. This article was particularly interesting to me as it relates to the professional work I do daily. The school district I work at implemented a standards-based grading and reporting initiative this year, so most of the article aligned with the goals we are trying to reach as a district and even provided new insights to old problems. Competency learning is measured by mastery rather time spent in the classroom, which is *ALMOST* the same as how we measure mastery in our school. Our current system allows students to progress because of age rather than ability or mastery. This problem hits close to home, as we just had to make a list of students who are "aged out" and get to excel from 8th grade to 9th grade, despite the clearly defined learning gaps. The report addresses this issue, as it appears to be problematic at the national level, but would require a new or upgraded competency policy. Moreover, "One of the Eight Ways to Upgrade State Policy" discusses accountability tests and how end-of-the-year state assessments brand schools as failures, whereas an accountability system using the core philosophy of competency education could provide meaningful feedback and supports to promote improvement and innovation in schools. When I first started teaching three years ago, the school I was hired into had just been branded a Focus School and were implementing an achievement redesign plan to meet requirements set by the state of Michigan for being on the persistently low-achieving schools list in 2011. However, two years

later, the school became a Reward School, which meant we were in the top 5% making the greatest gains in achievement. While our district endorses using achievement data to inform decisions about how to improve student performance, the new state designations quickly revealed to be problematic. Despite the rapid fluctuation from bottom to top within a two-year period, several other factors that negatively affect certain groups of students came to light. If our state adopted a competency education policy, our schools could focus on individual deficits and implement strategies that would prepare learners for the global economy. This system would give competency diplomas, or transcripts that reflect what they can do. This is an idea that is new to me, but essentially means that students progress as they become proficient, rather than based on their age. They move at their own pace, whether their pace slows down or accelerates.

What initial thoughts do you have about the standards for online learning and teaching based on your review of the rubrics? After going through the assigned readings this week and then reviewing the different rubrics, I feel overwhelmed. There are so many important factors to consider, whether assessing online learning or evaluating the effectiveness of an online program or instructor. The rubrics varied from one source to another and I got lost in the length and specifications on several rubrics; however, there were features that I did appreciate, like the digital citizenship component. I think it is crucial that learners establish themselves as safe, smart, and responsible Internet users and that as educators we hold them accountable to those standards. NEA's "Guide to Teaching Online Courses" serves as a guide for administrators, policymakers, or educators who are in involved in hiring, training, and supporting online teachers. The guide goes through the general development of an effective online education system, but then focuses in on the skills teachers need to teach effectively online, the professional development necessary to acquire those skills, and the models schools need to evaluate and improve online teaching. Basically, the purpose of the rubric is to ensure the quality of online instruction and educators. I liked the transparency of this rubric and the "what this looks like" section. The iNACOL report had a similar purpose, but was much lengthier and had standards for pretty much every component of online learning. The NETS, on the other hand, are geared more towards students and were general in comparison.

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1. Design

Also, start imagining what you would like to create. Please tell us:

Grade Level: Middle School Learners in 8th Grade

Subject: 8th Grade Geometry; Math

Particular Curricular Module: This particular curricular module will explore the Pythagorean Theorem. It will take place during the 8th grade geometry unit. During this unit, the learner will explore proofs of the Pythagorean Theorem/Converse and will apply the Pythagorean Theorem in two and three dimensions to solve real world and mathematical problems.

Learning Goals for the Module: I broke down the module on the Pythagorean Theorem into 4 different sections, which could potentially be the lessons I explore later in this course when we develop our online course more. The specific learning goals are bulleted below each lesson.

1. Pythagorean Theorem

- TLW use mathematical properties to discover the Pythagorean Theorem.
- TLW explain a proof of the Pythagorean Theorem
- TLW use the Pythagorean Theorem to find unknown side lengths in mathematical and real world contexts.

2. Converse of the Pythagorean Theorem

   - TLW explain a proof of the Converse of the Pythagorean Theorem.
   - TLW use the Converse of the Pythagorean Theorem to identify whether the given triangles and/or side measures form a right triangle.

3. Pythagorean Theorem in the Coordinate Plane

   - TLW determine the distance between two points in the coordinate plane, which do not lie on the same horizontal or vertical line, by creating right triangles and applying the Pythagorean Theorem.
   - TLW use the Pythagorean Theorem to determine lengths of diagonals in given quadrilaterals in the coordinate plane by creating right triangles and applying the Pythagorean Theorem.

4. Applications of the Pythagorean Theorem in two- and three- dimensions.

   - TLW use the Pythagorean Theorem to find the measure of the diagonal in a three dimensional figure.
   - TLW apply the Pythagorean Theorem to find unknown side measures of three dimensional figures.
   - TLW use the Pythagorean Theorem to determine lengths of diagonals in given quadrilaterals.
   - TLW calculate areas of composite figures using the Pythagorean Theorem to calculate missing measures.
   - TLW apply the Pythagorean Theorem in two and three dimensions to solve real world problems.

Classroom Interactions: I hope to utilize social media and discussion boards (on a learning management system) to encourage collaboration and reflection amongst learners. In addition to those two methods, I will keep up with email regularly so that learners can be in contact with me if they need to see support or have questions. I elaborated on the classroom collaboration piece further in the section below.

Potential Methods of Assessment: Using a learning management system (not sure which one yet), students will have ample resources available to them to support their understanding in the online module, (i.e. study guides, practice problems, quizzes, chapter reviews, lecture videos, notes, etc). I plan to give quizzes and collect data using Google forms or some other learning management system. Quizzes will occur after each skill/lesson is completed. In addition to the more traditional resources and assessments, I plan to assign problem solving learning tasks that span the entirety of the module. With learning tasks, the assessments and tools occur much more naturally and are embedded throughout. The tasks will develop as the unit does, and it will require reflective journal-like posts as well as mathematical reports of their findings along the way. The learning tasks should mimic how we work through problems in real life and the assessments should unfold naturally. The process can be as subtle as knowing to use GPS on a cell phone when you need directions or Google to lookup a formula or conversion. When students learn to embrace tools that are available, they can move along in the problem solving process at their own speed, on their own terms. I think I would need to record a metacognitive memoir to show students how I would work through a learning task. This will help the learners become aware of the various tools available to them and will show them they are not confined by traditional classroom tools. I could also model the reflective process to them this way as well. This could be something that their peers read and review, as well.

Other technologies will enable me to assess how well students communicate for a variety of purposes and in a variety of ways, including in virtual-networked environments, which can be as general as a classroom

Twitter hashtag. As an educator in an online, virtual environment, I hope to embrace applications that allow interaction with large networks of people. These applications enrich education and allow for unique assessment opportunities. Networked apps like Instagram, Facebook, FaceTime, SnapChat, Gmail, Safari, Twitter, Pandora, Blogger, and Pinterest remove learning barriers and stimulate collaboration, providing a framework for students to interact with others and question new ideas. The process involves self-assessment and peer-assessment as well as reflection, which help students to think more deeply about the learning process and move from the known to unknown by building on ideas they are already familiar with. Discovering the connections and regularities within knowledge they already have is empowering. Reflective periods, using a learning management system like Moodle or Blackboard, allow students to learn from their mistakes and experiences by accommodating what they thought to be true with what they have found to be true, all while documenting their progress. Naturally, this learning process serves as an effective assessment framework that allows me to provide timely feedback to reflective posts and that allows learners to collaborate with each other in a digital space.

The assessment opportunities are endless. Learning through simulated environments: blogs, Twitter, apps, polls, networked sites, etc are only a few amongst the many resources available that allow educators to assess student learning and provide timely feedback. For example, data collected from polls and Google forms, allows the teacher to identify trends and misconceptions and then use those findings to inform instruction. Those findings also inform the student on their levels of proficiency and should guide and inform their practice and work, too.

Learning Outcomes for the Unit: Students will take a summative assessment at the end of the unit that covers all of the mathematical concepts and learning goals. Students will also submit the final draft of their performance task with revisions and mathematical representations that reflect their findings. The task will also include a reflective piece regarding the entire learning process. I hope that the performance task helps learners value the process rather than the final outcome; that it helps them move beyond being an *answer finder.* Overall, I will take into account the summative assessment covering the mathematical skills, the performance task, and the collaboration portion throughout when identifying whether students have achieved proficiency in each of the learning targets. I also hope to have transparent rubrics with clearly defined scales for the quizzes, the summative assessment, collaboration contributions, and the performance task.

Issues to Consider: When utilizing social media for classroom collaboration, cyber bullying and parent permissions come to mind. Also, monitoring inappropriate discussions could be a potential issue as well. Internet connectivity and the availability of tools, such as calculators, for off campus students who are enrolled in the online course could be a potential issue. The information and tools have to be easily accessible to all. Some ethical issues that come to mind are cheating on assessments since they are online. Also, whether or not the online course is accredited and learners can earn credit for the learning.

Hi Lindsey, Very solid and thoughtful work in your first entry. Please see margins for comments. Please keep in touch with any questions. Thank you, Anne

Engage: 6/6

Design: 4/4

Chapter 2

Course Management Systems

2. Play

Link to Comparison Spreadsheet

CMS Comparison Spreadsheet

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2. Engage

Take a look at the **CEP 820 Showcase**. We suggest that you pick two exemplars that are most similar to the course you will be designing this semester and provide a hyperlink to them in your developer notebook. As you review these exemplars, ask yourself (and answer) the following questions:

Link to course #1:

5th Grade: Fractions

Created By: Mrs. Schwartz

Who is the audience?

5th Grade Math Students in a hybrid course (both face-to-face & online learning)

How has this course been designed to meet the specific needs of this audience?

The course was designed using Weebly. Based on my CMS explorations this week and my personal experience using Weebly, I believe that the instructor chose the best platform choice for her 5th grade audience. Weebly is easy to navigate; making is child-friendly, and upon first glance, the site is aesthetically appealing. The appeal factor is important, especially for young learners, because online learning can be intimidating for learners in general. Moreover, while Weebly does allow for student login and classroom setup, the instructor has designed the site so it doesn't require logins or passwords. I think this was an informed choice as young learners may be less apt to remember their login information or convey that to their parents.

What were the learning goals that drove this design?

Learning Objective: students will be able to add fractions with the same denominator and different denominators.

In the expectations document on the home page, Mrs. Schwartz explained the purpose of the online sessions is to learn about fractions and practice those skills. She goes on to explain that students are required to complete four lessons. Each lesson has some sort of instruction, practice sets, an assessment, and a required discussion board post. Within each lesson, Mrs. Schwartz broke down the overarching learning goal into more specific goals relating to the lesson. She also provided a checklist in relation to the goals that leads to the assessment regarding those skills. The design aligns with the instructional goals: learn, practice, assess nicely. While learning, there are several different visual mediums being used. From notes, to pictures and videos, the design appeals to all learners. The design also takes into account the collaborative goals. There is a tab dedicated to collaboration, with stimulating questions to guide responses

and posts.

How has the author addressed these learning goals?

Like I mentioned above, the author addressed the learning goals by creating a design that aligns with the instructional framework. She also addresses the goals by listing them within each lesson, on the home page, and within the expectations document. She also breaks each learning goal down into a series of tasks that are listed on the top of each lesson page. I believe her design scaffolds learning and through a series of checkpoints embedded in each lesson, she can make informed instructional decisions. Whether examining the online practice, the printed homework, the paper notebook, the discussion board posts, or the online assessments, the instructor has designed scaffolded formative assessments throughout each lesson to inform learners of their progress and inform her instructional decisions, making face-to-face learning much more meaningful and direct.

What tools has she/he chosen to use that seem to support these learning goals?

She implemented videos, documents containing guided notes, printable homework assignments, and discussion threads. The course design not only scaffolds learning, but the formative assessments along the way inform both the teacher and learner, making face-to-face time more effective.

Is the course easy to navigate? Why? How would I describe the navigational architecture of this course?

Yes, the course is easy to navigate and logically designed with the learning objectives and learners in mind. Each lesson is structured to guide learning, application, and understanding before the assessment. The only navigation suggestion I have, I discussed below in the question that asks about improvements.

How does this course (and the teacher) invite students to engage?

Students are required to complete a series of tasks for each lesson. Within that realm, the learners have to complete practice problems, printed homework, an online assessment, and complete a discussion board post. They also will have a notebook that they will use for both online learning and face-to-face learning.

What collaborative elements are included in this course?

The learner is required to post on a discussion thread under the “share your thoughts” tab each time they access the site. The instructor has given prompts to encourage collaboration and has also suggested the learners respond to each other on the discussion threads. Mrs. Schwartz also has a space designated for questions directed at her.

What do I wish this course module included that isn't currently there?

I think fractions are tricky for kids, even at the high school level! I think embedding a java applet that allows kids to manipulate and change visuals would be a cool tech tool to utilize in a digital classroom that would also serve a very important purpose. GeoGebra has a bunch of applets that instructors can use and embed, or you can make your own. I embedded a quadrilaterals applet I made on GeoGebra into my Weebly, so I know it works with the platform.

What is one thing I feel the author could have improved?

I feel like the instructor could have improved the format of the tabs. The drop down is touchy and the actual button (with the lesson title) may be ignored because the learner clicks the first drop down option instead. That is what I did, anyways. The instructor could make each lesson have its own page with buttons that link to the different components of the lesson, to avoid the drop down. In addition to clearing up potential

navigation issues, this change would also improve the aesthetic appeal.

What ideas have I gained from this exemplar that I can use for my own online course module design?

I like how she set up each lesson, with a "checklist" of sorts listed at the start of each lesson. I also like how she has the lesson broken down logically: learn, try it, practice, assess, & reflect. I also like how she used several different mediums for each lesson. From visuals, to guided notes and videos, I can tell she tried to appeal to all learning styles. Lastly, I liked how she put the course expectations right on the homepage. I thought they were clear and didn't leave room for gray area.

Link to course #2:

Third Grade Internet Safety

Created by: Rebecca Thompson Baron

Who is the audience?

3rd grade elementary school students learning about Internet safety…there are some contradictory statements throughout that leave me wondering if the course is fully online as it states, however.

I listed these in the area for improvement as well:

- The course says it is fully online, but in the reflection, the course creator states that the lesson was created for: "*3rd Grade students at a small rural school where most students have limited connectivity anywhere other than school."* To me, this means that the course is online, but is taking place in school or in a building that houses virtual students since a majority of the learners don't have Internet connect or access at home.
- On the site under the Course Communication heading the site creator expresses she will mostly communicate *verbally.* I wonder if she means through video messaging or video chat? The course overview and reflection really have me wondering about the course setup…it doesn't appear to be a fully online. I guess I'm not really sure about the type of course this is.

How has this course been designed to meet the specific needs of this audience?

The course developer states that although the learners have little exposure to the Internet or computers, they do have access to networked devices, so she designed the course to inform about Internet safety in general, regardless of the device. Since the students do not have much experience with devices or Internet presence, the author suggests the course is designed to *keep it simple.* While that *simple* design would meet the requirements of her 3rd grade audience, I don't really agree that the site is *simple.*

The author does a great job within each lesson of providing age appropriate videos, games, and polls. The lessons are direct, although some of the words and acronyms could be confusing, and the polls are not too challenging and are mostly true or false questions. They provide feedback and guide the learner toward the desired goal. The lesson also provides practice and kid friendly games related to the goals. The designer also utilized mp3 files so the text could be read to struggling learners.

What were the learning goals that drove this design?

This course was designed to teach 3rd Grade students about Internet Safety. The specific goals that the lessons are structured around are as follows: (1) appropriate and inappropriate uses of technology, (2) the Michigan Cyber Safety Initiative's three rules: Keep safe, keep away, keep telling, (3) the different types of personal information that should not be shared on the internet, (4) informing a trusted adult if you receive or view an online communication which makes you feel uncomfortable, (5) informing a trusted adult if someone

you don't know is trying to communicate with you or asking you personal information while on the internet, and (6) precautions surrounding personal safety that should be taken when online.

Moreover, while addressing the learning goals, the course designer also wanted to focus on collaboration and communication through discussion board threads and emails. The collaboration allows for formative assessment and scaffolding, but also serves an important purpose in terms of modeling what safe, appropriate discussion looks like.

How has the author addressed these learning goals?

The course was designed to include lessons that follow a prescribed pattern. That is, the lessons were designed to scaffold understand and assess learning following a natural, logical flow. I think each lesson design follows a nice logical progression, but I think that the course home design isn't logical and doesn't reveal that nice progression that can be viewed within each lesson.

The course designer utilized discussion threads, polls, and projects to assess whether the learners were reaching the desired learning outcomes established. At the end of the module, there was a *final quiz* that the author used to measure desired outcomes for each learner.

The course designer provided a course overview on the homepage that very clearly described each aspect of the course including but not limited to: goals, outcomes, design, communication, procedures, rubrics, collaboration, evaluation, and scales.

What tools has she/he chosen to use that seem to support these learning goals?

The author embedded polls, rubrics, audio files, videos, screencasts, games…you name it; she has it. However, the applications and tools that are supposed to inform learning and expand achievement seem to do more harm than good, at least for me. At least on the homepage and from a navigation aspect, the tools and lessons/instructions aren't seamless. There is so much going on I'm not sure where to look!

However, within the lessons, the kid friendly videos were great! She did a nice job selecting materials that reflect the audience. The polls were also short and to the point. The responses from the embedded polls also seem to provide real time feedback to the instructor and students regarding proficiency and understanding in terms of each specific learning goal.

Is the course easy to navigate? Why? How would I describe the navigational architecture of this course?

At first glance, the site is confusing. I feel over stimulated but words and directions! However, if you click a lesson, they are nicely designed. They follow a logical progression that supports learning and there are multiple different representations implemented to stimulate and encourage learning with the 3rd grade audience in mind. The assessments also seem more seamless within the lesson, too. However, at the end of the lesson it would be nice if there were a button or link or even verbiage that directs the learner to the next lesson. It may appear obvious, but with so much going on in this online course design, I think it may be necessary.

How does this course (and the teacher) invite students to engage?

The course is designed include and encourage engagement through discussion forums, email activities, and Wiki projects, all with respect to the overarching goal of teaching 3rd graders about online safety. As a naturally occurring added benefit, the 3rd graders are also learning how to use discussion forums, email systems, Wikis, and navigate a digital course, while also improving their keyboarding skills. Thus, learners engage with the content through polls, quizzes, lesson videos, projects, and reflections, and they engage

with each other and the instructor through discussion board posts, discussion board responses, and emails.

What collaborative elements are included in this course?

Collaborative elements include: polls, discussion board forums, group projects and use of email. While email may seem like a silly choice for 3rd graders or when you have the option of real time collaboration, I think it was a well thought out and important choice the author chose to utilize in terms of the course content and goals. Email is a huge red flag when it comes to Internet safety so I think the author did a nice job including it into her design and plans.

What do I wish this course module included that isn't currently there?

In short: more pictures, less words. I elaborate on this more in the suggested improvements section.

Additionally, I would like to see some more age appropriate learning goals… or maybe even if she changed the audience of the course to an older age group. When I think of Internet safety for my 3rd grader, I worry about the things that aren't under my control, like games and apps that are networked and allow any person to reach out to or target children. So many games and apps have "chat" components. Also, YouTube is something so many kids my daughter's age utilize, but there aren't strict restrictions when you aren't logged in, making virtually anything viewable. The age sensor that requires users to log in doesn't always block out all nudity. Things like email are not relevant for 3rd graders. If a 3rd grader has email, it is something the parent has created, and even then, it isn't like they are emailing their friends.

What is one thing I feel the author could have improved?

The course design is extremely "wordy" for its 3rd grade audience. I appreciate detail and I think the creator does a nice job covering all bases, but if I were to sit my daughter, who is in 3rd grade, down in front of this online course. I'm not sure that she would understand where to begin. The home page is what shows up first, but naturally, you want to click the first lesson tab, but there is no connect from lesson one to lesson two. Perhaps a button or some verbiage at the end of each lesson guiding the learner to the next desired location would serve as an easy fix. However, even if you do the home page activity and reading, it doesn't direct you to lesson one, so it is apparent that there needs to be some sort of progression on the main page… similar to the progression shown within each lesson.

****The course says it is fully online, but in the reflection, the course creator states that the lesson was created for: "*3rd Grade students at a small rural school where most students have limited connectivity anywhere other than school."* To me, this means that the course is online, but is taking place in school or in a building that houses virtual students since a majority of the learners don't have Internet connect or access at home…. Also, on her site under the Course Communication heading she expresses she will mostly communicate *verbally.* I wonder if she means through video messaging or video chat? The course overview and reflection really have me wondering about the course setup…it doesn't appear to be a fully online. I guess I'm not really sure about the type of course this is. ****

What ideas have I gained from this exemplar that I can use for my own online course module design?

While it was a troubling factor for me with regards to her 3rd grade audience, the course designer's attention to detail really helped me consider more of the *specifics* for my online course. For example, the various resources and supports, like audio files and rubrics, were not things I had initially considered but both seem important, especially having rubrics for my 8th grade audience. I also appreciate her completeness and detailed explanations. For her age group I think less would have been more, but it at least helped me consider more as an online course designer. Lastly, I like how she implemented a sort of mini lesson on how to navigate and use the Haiku Site. I wish she would have clarified the purpose or separated it from her

course overview, though.

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2. Design

Which CMS are you going to use for this course? Why?

I opted to go with CoureSites by Blackboard. Aside from coming out on top in my CMS comparison, there were several components that I made note of during my *Play* session that put CoureSites in the lead, providing aesthetic design, tools/resources, functionality and flexibility that other CMS platforms couldn't offer in relation to an online math course. Specifically, the real-time collaboration and feedback caught my attention. Also, the gradebook component and statistics regarding engagement/activity were selling points that could not be beat. Basically, if there was anything I wasn't sure would be available, the Quick Start Guide revealed that I could easily embed or link to gain access to whatever tool or resource it was that I wanted to use. CourseSites also is user-friendly allowing pretty much an device access without losing features or aesthetic appeal.

Why is this CMS a good match for your course and curriculum?

The infrastructure supports the learning and managing necessary for a fully online course. The ability to embed multimedia, java, documents, assessments, etc. in addition to being able to provide real-time feedback, track engagement/activity, and report progress/scores are all features I noted to look for during my *Play* time. Since learning math can be a struggle, it is so important that I have access to each learner's progression/proficiency as they advance in the learning continuum so I can provide feedback and make informed instructional decisions to better scaffold instruction according to each learner's needs.

Moreover, I feel like the tools available, such as Whiteboard, that encourage learning, collaboration, and reflection really make the learning transparent to both the student and teacher, which is so important in math class. It helps diagnose misconceptions and close learning gaps. Being able to set up groups, discussions, and projects really sets the tone and establishes an online learning climate conducive to learning. As an added bonus, the site makes it fairly easy to provide real time feedback and track student engagement and activity.

The overall design framework, allowing for all file types and extreme organization were huge factors for me. The features and capabilities of CoureSites allow for a cohesive, well organized unit design, with several ways to assess, teach, evaluate, and apply in a seamless, user-friendly, manner. Math is visual in very different ways, I needed to be sure I could embed videos, images, notes, applets, etc to provide my learners with an optimal learning experience that not only maximizes understanding and achievement, but also removes barriers and extends learning beyond the confines of classroom walls. Just as multiple visual representations are necessary in learning math, so are multiple ways of teaching and assessing. As explained above, tracking engagement, activity, and contribution in addition to reflective responses, quizzes, and polls are all features of the flexible course design I hope to achieve using CourseSites.

What additional tools/functionality, if any, might you need beyond the features available in the CMS you have chosen?

I can't think of any additional tools as of right now. Anything that wasn't available on the site could be easily embedded. I was initially concerned about providing a calculator, but I can link Desmos and a tutorial within the lesson where it is needed.

One component that wasn't available was parent log in. While parents can view as a guest, they cannot review student feedback. This is something I might have to go to outside sources for. I did research a few

online, free gradebooks that provide access to parents and students. There are options out there, it just seems like an unnecessary hurdle….I hope that CourseSites make parent access an option in the future.

Moreover, a resource that I struggled to find across the board during my *Play* time this week language conversions or choices on CMS platforms. Maybe I wasnt reading carefully, but even a google search for a Widget didn't provide any potential leads. This has me thinking about what other types of supports I would need for students with unique learning needs. I had considered special education learners, but I didn't really extend my thoughts. I need to spend more time exploring resources like text-to-speech and how to differentiated instruction for special education learners in online courses. Actually, in general, I probably need to research special education learners in online courses and online course design with special education learners in mind.

I will note, however, that CoureSites wasn't as user-friendly as I was hoping after playing around. Figuring out how to link modules to course pages took me forever. Turns out I was trying to link modules to an information page, not a content page; thus, I figured out the difference between the types of pages available.

Link to online course module shell

8th Grade Math

*Note: I emailed the course invitation to both instructors.

Nice work in Chapter 2. Please keep in touch with questions.

Engage: 6/6

Design: 4/4

Chapter 3

Building a Virtual Classroom

3. Play

Link to two-minute screencast

Screencast

I am going to use my second grace period. I am switching my CMS choice from CourseSites to Weebly, so I didn't want to create a screencast of the CourseSites course I created since it is changing. The reason I am switching is because I couldn't embed resources as I had hoped to. I didn't realize this sooner because I waited to embed my GeoGebra applet until the end of my lesson & based on my previous playtime activity last week, I thought I would be able to embed the applet with no issues. Without the applet, I couldn't really show users around effectively in the screencast of CourseSites, so I'm waiting until everything is transferred to Weebly, then I will upload the Screencast. Sorry!

FYI: There is only one grace period in CEP 820. But given your personal circumstances from the beginning of the year, this is fine, and you won't lose points. I'm glad you didn't stick with a CMS that wasn't working for you and did the extra work to make the change. Great! Your audio quality on the screencast isn't great, but Jing doesn't have great audio quality. If you decide to make a screencast for students, you might choose a different program or mike.

Nice choice to use video from a teacher associated with Khan Academy.

Your screencast is over 4 minutes long; the assignment was for a 2-minute long screencast in order to practice brevity and conciseness. The tone you maintain throughout is helpful and positive; there are moments where you can lose some seconds with removing pauses, etc. I also like the decision to highlight pedagogical choices than design choices in the screencast.

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3. Design

Link to lesson with original multimedia material

*****Using Second grace period. Trying to restructure lesson to new CMS: Weebly. I could embed my multimedia activity into CourseSites as I had hoped. I also was struggling with the overall design of CourseSites. It wasn't as user friendly as I thought… I know I can embed/assess how I would like using Weebly, so I am transferring my files over...it is just taking longer than I anticipated due to formatting changes.**

Pythagorean Theorem Lesson 1

Original multimedia material: Prezi

GeoGebra applet in next lesson.

Notes on lesson: You have minor typos throughout--just a proofread through will be helpful.

Super Pythagoras video--great! A great example of something on the Web that you'd likely not make yourself but is pedagogically sound. I'd love for you to ask your students what they thought about that video--do they think it's helpful for learning? Interesting? A short survey on it would be very informative. You

may find that some students prefer the slower, less manic pace of the virtual nerd videos in which case they could choose which video to watch..

I'm not hearing any audio on your Prezi...it looks like a great piece of instructional content.

Do you want students to in any show their work for their practice problems? Do you need to remind students to log in to ixl? Do you have access to the ixl accounts for individual students--how will you know they are doing on those practice problems?

Can you link to the class discussion board when you mention the class discussion board in write your own problems?

Is this 5 C's a rubric you've used in class before? If not and even if so, perhaps, I'd suggest providing a model of a filled out rubric so students get a clear idea of what you're looking for.

That water proof video is really cool!! Love that!

You say after Challenge: "Reflect on your blog." Do students have their own individual blogs? I'd like to see more direction regarding what is a discussion forum, what is a blog, when to use each and where to find each.

You're off to a great start here!

Design: 4/4

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3. Engage

We offer you a lot of material in the Learn section. In Engage for these two weeks, we'd like to offer you a chance to engage with of those articles more in depth. Choose one of the articles and have this "conversation" with the author(s).

Authors and Title of the reading you chose:

Title: Flip Your Students' Learning

Authors: Aaron Sams and Jonathan Bergmann

Reference: Sams, A., & Bergmann, J. (2013). Flip your students' learning. *Educational Leadership,70(*6), 16-20. [PDF]

1. I think your main idea is this: I believe that your main idea is to inform educators of how an effective *flipped classroom* is designed, due to common misconceptions about what *flipped learning* is. Within the realm of effective *flipped learning*, the article focuses on how to design a *flipped classroom* so that the teacher can best utilize face-to-face class time.

2. Here are my thoughts on that: I agree with the focus. I think a lot of instructors typically believe that flipped learning is video out of class & practice problems in class. They forget to account for the differentiated learning activities that they now have time to implement.

3. This is a passage from your article I found interesting: "After deciding where students would most benefit from face-to-face instruction, teachers then turn to a second question: Using technology, what can I remove from class to increase the value of face-to-face time? (p. 17).

4. This is why I found it interesting: I found this passage interesting for many reasons. The first reason I

found this passage interesting is because identifying what can be removed from face-to-face instruction requires reflective, careful planning that focuses in on the learning goal and what the learning process looks like from start to end. I think this process will improve instruction in general. The second reason I found this passage interesting is because you (the authors) go on to discuss different instructional approaches that teachers can *time-shift* out of the class. This not only required me to reflect on the type of learning that can be done without immediate teacher support, but also what types of technologies are available to present information to learners. Today, with technological advancements, there are so many digital tools that allow educators to create effective, creative presentations. Lastly, I found this passage interesting because it made me reflect on what type of instruction may serve learners better when it isn't face-to-face. For me, I like watching math content on video because I can pause and rewind when there is something I don't understand. This is a unique affordance that learners don't have the option of during face-to-face instruction. This not only has the potential to improve face-to-face learning, but also learning that occurs outside of the classroom.

5. This is a passage from your article I had questions about: "We immediately realized that not all students learn best from video, just as not all students learn best by reading a textbook, listening to a lecture, or completing practice problems. To accommodate all learners, our videos, textbooks, problem sets, and other activities became optional resources for learning. rather than required activities. Students used the resources that best suited them to master learning objectives" (p. 18-19).

6. Here are my questions:

- Do you control or limit the resources?
- If not, how do you ensure learners are choosing valid resources? A lot of information on the web is misinformed.
- If so, isn't it exhausting to create endless resources for each lesson? How do you do this efficiently?
- How do you create scales/rubrics for learners when they could all potentially be utilizing different resources?
- Does the assessment style match the resources they use?

7. This is a passage from your article I want to share with others: "Education is for everyone, but the way we deliver education—and the way students receive it—is not the same for everyone" (p. 20)

8. Here is my rationale for sharing this with colleagues or others. I like this passage because it really captures the heart and soul of teaching: ALL LEARNERS CAN LEARN. It also addresses a universal struggle that most educators have faced at one time or another: how to provide unique learning experiences that meet the needs of ALL learners, especially when given 45 minute class periods. I think this passage is encouraging because it shows educators there are options and approaches that allow for more effective use of class time.

and BONUS-

9. This is a passage from your article that makes me think of another reading from this week:

Here are my thoughts on your ideas alongside <another author(s) from this week>

Engage: 6/6

Mid-Semester Check in

Self-Evaluation: External Rubric

We would like you to use the external rubric you pick and to submit (in your developer notebook) a self-evaluation of your work to date. Choose **TWO** criteria and their sub points for your self-evaluation. So for example, if you're using the Quality Matters rubric, you might choose General Standards 1 and 3. For each of the criteria and sub points outlined in your rubric, give yourself a score out of 4. The point here is not to have completed everything -- you've still got lots of time to create and revise! Rather, this is a chance for you to check in with your progress and identify areas for continued development.

1 = I'm just getting started
2 = I'm approaching this expectation, but need to do some more work here
3 = I've met this expectation
4 = I've exceeded this expectation

Link to chosen rubric

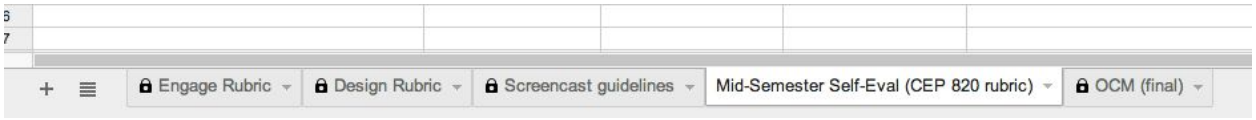
Quality Matters: Rubrics for Online Learning: Grades 6-12 [PDF]

Criteria and Subpoints	**Score**	**Plan(s) to meet expectation**
General Standard 2: Learning objectives are clearly stated and explained. They assist students in focusing their effort in the course. 2.1 The course learning objectives describe outcomes that are measurable. 2.2 The module/unit learning objectives describe outcomes that are measurable and consistent with the course-level objectives. 2.3 The course is designed to meet state standards and prepare students for relevant assessments. 2.4 All learning objectives are stated clearly and written from the students' perspective. 2.5 Instructions to students on how to meet the learning objectives are complete and stated clearly.	Overall: 2 2 3 2 2 1	While my learning objectives are clearly stated and aligned with common core state standards, I still have a lot of work to do in the area of content and design. I have the structure or framework for each of the lessons in my module laid out in a way that supports and scaffolds learning towards the desired learning outcomes, but the content isn't there yet so I cannot effectively say I have met this standard. Moving forward I need to finish upload my content and assessments. Then my goal is to really fine-tune the instructions within each lesson and at the start of the module so learners have a clear understanding on what they need to accomplish and how to accomplish it. I am thinking of implementing something similar to a checklist for each lesson/learning goal. I also need to upload rubrics showing how I am measuring student achievement for each learning goal.
General Standard 5: Meaningful interaction between the teacher and students, among students, and between students and course materials is employed to motivate students and foster intellectual commitment and personal	Overall: 1	This past week I just started getting into the communication portion of my online course. After the readings I've decided to change things up. I had a lot of discussion board posts in my lessons, but due to the

development. 5.1 The learning activities promote the achievement of the stated learning objectives. 5.2 Learning activities foster teacher-student; content-student; and, if appropriate to the course, student-student interaction. 5.3 Clear standards for teacher responsiveness and availability (turn-around time for email, grade posting, etc.) are communicated to the student 5.4 The requirements for student interaction are clearly articulated.	 1.5 1.5 1 2	asynchronous activities, I have decided to change several to more reflective journal-like posts, which is why I gave myself a 1.5. I am trying to recreate the collaborative aspects of my lessons so that they better reflect the learning activities and objectives. I REALLY need to work on my communication policy so that it covers specific types of interactions as well as expectations for teacher and student responsiveness. I'm not entirely sure how long I want to give myself to respond to students journals/portfolios or how long the turnaround should be for posting grades… This is something I need to consider within the next week. Since this is something I am just starting, my plan moving forward is to create a page for my communication policy, laying out expectations. Since I have a general communication policy, I gave myself a 2; however, I have a lot of specifics I still need to address and articulate. I also want to take time this next week to really reflect on my learning activities and whether or not they foster the desired interactions.

Self-Evaluation: CEP 820 Rubric

Go to the "Mid-Semester Self-Eval (CEP 820 rubric)" sheet in your personal CEP 820 rubrics Google spreadsheet and complete a self-evaluation of your work and progress to date. You don't have to have achieved every criterion, this will just give you an idea of what we expect you to have completed by the end of this course. Check off those requirements you've completed and/or take notes on what you have in mind.



Chapter 4

Communication and Collaboration

4. Engage

(If you'd prefer to make a video or audio recording addressing the prompts instead, please feel free to do so and include a link.)

- **Reflect on your response to the lab scenarios. Based on your review of at least one colleague's responses in the discussion forum, would you do anything differently than you initially thought? What aspects of your own communication style will you need to be extra aware of in order to establish good communications for your online class? (e.g., I'm tone deaf...or I'm too quick to reply sometimes...or I know that I sometimes try to solve problems myself without including all stakeholders...or...or...or...)**

After reading some colleague's responses I was intrigued by the different ways my classmates responded to each scenario. Case 1 was by far the most interesting to me and was also the case I would respond differently to if I had the opportunity. The first thing I noticed was I overdid the email response. The most effective responses were short, direct and to the point, regardless of whether they gave grace or stuck by the "no late work" rule. I really appreciated Renee Jorae's response because she didn't directly answer the question. She handled it indirectly: she realized that the parent was clearly frustrated and suggested a meeting in person to discuss the concerns. While I wouldn't take the blame like she did when she suggested she wasn't clear in the requirements, I would follow her lead next time and set up a meeting rather than elaborate on the expectations and course design in such detail. There were a handful of others that also took the time to explain the course and the benefits of online learning, but looking back it doesn't really seem like a practical or effective response. This parent would most likely skip past all the words and look specifically for the response to whether his child would be receiving credit or not, and if his daughter wouldn't be getting credit, he would most likely just continue on his rant until eventually a meeting is scheduled or he gets his way. It just seems more practical to set up a face-to-face meeting right off the bat. I was surprised by how many of my colleagues did not address the daughter by either hold her accountable or requesting she be present at the meeting. Lastly, I found that almost all of my colleagues were more up front about sticking to the expectations set at the beginning of the course whereas I focused on addressing the problem in such a way that the student could continue on successfully

With case 2, where the student was unable to see anything in the course, the responses were surprisingly similar across the board. Almost all of my colleagues referred the student to some sort of instructional video or document first and then offered to schedule a meeting if that didn't help. I was surprised that more of my classmates didn't consider the problem could actually be technical. I had so many technical issues with our new gradebook this year, so based on personal experience I couldn't neglect to consider technological issues or even instructor setup as the source of the problem. It's funny, though; that almost all of us suggested a video or document for support because that is exactly what we did in our district. Our principal made a screencast showing parents how to navigate the parent grade viewer. All of the teachers could view grades, so everyone sort of assumed the problem was

that parents weren't used to the new system. Needless to say, it ended up being a reporting error in the program's coding. I am actually very happy with my response for case 2. I feel like I addressed the problem effectively, considering all possibilities, so I wouldn't change anything.

With case 3, I was surprised how many of my colleagues chose to address this issue by emailing Carl. I feel like the hurt feelings and conflict stemmed from not knowing how to appropriately collaborate online, especially when it can be hard to identify the tone. Basically, I wouldn't address a problem created by misunderstood written words with more written words. Nor would I place all the blame on Carl. I think the other group members neglected to consider his post, even if it was because they didn't know how to respond to him or because they thought his post was rude. They could've asked for clarification or redirected his post to focus on all of the possible jobs giving everyone a fair change. Either way, Carl felt ignored and it clearly hurt his feelings because he brought up that they thought Amy was better at HTML. Words can be so easily misinterpreted or misunderstood, as depicted in the scenario, so I was happy to see that a handful of my colleagues also suggested a group meeting to sort things out as well as using the conflict as a teachable moment to go over norms and acceptable behaviors as an entire class. If I were to change one thing about my response, I would include going over other methods and/or resources (like video chat using Skype) for communicating online with group members.

- **Based on our readings (please be sure to make reference to at least two from this chapter) and discussions of pedagogies that have received some empirical support, what philosophical, theoretical and/or practical ideas are you drawing from to shape your online teaching decisions?** See below.

1. **The bottom of page 112 states that creating a community of practice requires a shift from focusing on content to focusing on group behaviors involved in being in the class and participating with others. You've done a lot of thinking about content so far. What are some group behaviors you currently provide instruction in in your F2F class? What are some group behaviors you anticipate students will need instruction or modeling or interactive play or other pedagogical interventions with to be successful in your online class?** In terms of group behavior, I plan to have the same expectation in my online course as I do in my face-to-face classroom. My students are expected to be respectful, follow directions, be responsible, etc. For online learning, it is especially important for students (whether in discussion forums or in collaborative groups) having a dialogue to be respectful, display proper etiquette, and actively participate. These expectations would need to be laid out and modeled, perhaps via a screencast, at the start of the course. Heintz (2014) also discusses the need for an immediate response system in a networked online course. In the classroom she talks uses clapping as an example of immediate feedback showing appreciation. She suggests a rating system online, like giving stars (Heintz, 2014, p. 20). I don't necessarily like the idea of showing appreciation by rating each other using stars due to students' sensitivity. I wouldn't want a student to feel poorly if they received less stars or a lower ranking, especially if that ranking is publically visible to their classmates. Similar to the appreciation we feel when we get "likes" on a Facebook status, I would like to find a tool that allows learners to feel appreciated automatically, while not necessarily putting that information on display.

2. **You, the teacher, are characterized as getting the snowball rolling down the hill, in terms of a community of learners. What are ways you are hoping to build momentum in participation so that your students take over some of the social work of the online class?** I would start by having my learners create an online profile on a Google Document, like we did for this course, where they tell about themselves and post a picture. Then I would try to create fun activities or prompts to reconnect the learners throughout the course. For example, with my face-to-face students, I have them fill out things about themselves (likes, interests, etc.) on a paper organized by a bunch of geometric shapes. In the top left corner, the rectangle is a place where they draw themselves. Throughout the year, I will cut out the self-portraits and project them so everyone can guess whom the portrait belongs to. This is a fun activity and could be reimagined to fit an online learning environment. I could create a survey using Google Forms where students respond to questions regarding their likes and interests. This could easily be converted to a graphical representation of the data revealing similarities. Additionally, I could have students use Paint or similar applications to draw their self-portraits and then have them upload their portrait as part of the survey. Since I began by having students create an online profile including a picture, I could create a discussion forum where I post the self-portraits and allow the online learning community to post their best guess about who the drawing is actually of. It would be a fun way to stimulate engagement, form communal bonds, and hopefully create a memorable shared experience, as discussed in the *E-learning Theory and Practice* article (Haythornthwaite & Andrews, 2011, p. 121). Moreover, in my online learning experiences, I have found that group projects are the most effective ways to form relationships and establish community. I don't typically enjoy group projects in online learning because they require synchronous learning to some extent, which doesn't always work well for me as a single mom; however, I will say, that after working with my assigned partners via Google docs, video chat, email, or texting I was more apt to reconnect with those individuals later in the course or even in other shared courses later on. It's ironic that we watched Alison's lesson this week because Alison was one of my assigned partners that I kept in touch with as we progressed in our coursework. Even if we weren't in the same courses we would still text each other and ask questions. The connection we established as assigned partners proved to be worthwhile because we continued to reach out to each other for support long after the assigned project was over. This aligns nicely with what Haythornthwaite & Andrews wrote in their article, "Learners are always in the vulnerable state of needing to acquire knowledge from others. To ask and give knowledge requires a trusting relationships and a supporting community" (p. 119). I think I could I could get the snowball rolling in my online course by assigning a group project early on, so my learners can make connections with each other, establish trusting relationships and form supporting communities where they feel safe to contact each other in the future with questions. Similar to my experiences working with Alison, our professor got the ball rolling by requiring us to work together at first, but after that our collaboration became a personal choice.
3. **The reading talks about how online communities differ from more organic, real-life communities, but are communities nonetheless. What sorts of values do you hope your online learning space embodies?** I hope that the same expectations that are in place in my physical classroom will also hold true for the online learning course I am creating. Students must know they are respected and they must also respect one another, they must use appropriate language, and they must participate. In additional to those core values, I hope my online learning space feels safe and creates an *atmosphere* where perhaps shy students or struggling students will feel comfortable sharing and contributing. Heintz (2014) does a nice job explaining how online discussion forums can empower struggling learners with her story of the struggling student, Alligator. In the first week discussion forum, Alligator only hoped someone would connect with him about fishing, but by the second week he was excited to find that a classmate had interacted with him about his actual writing

work. The network platform gives everyone a chance to share, collaborate, and have an audience. "While a teacher might hold back Alligator's work from sharing with the larger group due to his poor spelling and lack of punctuation (I myself would be guilty of this), a networked platform creates an audience of peers that is not subject to flow control by a teacher. A networked platform can ensure that even struggling writers' ideas are brought to the classroom 'marketplace'"(Heintz, 2014, p. 12-13). I hope that my online learning space empowers ALL learners and allows students to genuinely feel appreciated and part of the community.

References:

Heintz, A.(2014). *Curtains Up!* (draft manuscript)
Haythornthwaite, C., & Andrews, R. (2011). *E-learning theory and practice.* Sage Publications. (pp.112, 118-121).

- **Please craft a Course Communication Policy for inclusion into your online course. You may revisit your CEP 820 Exemplar Showcase for many examples of appropriate communication policies for different grade levels, subject areas, and non-school-based courses.**

Teacher-to-Student communication will be done through email, direct messaging, or video conferencing via Google. There will be no required synchronous communication due to the nature of the online course. My policy for email/phone responses is 24 hours, while feedback for assignments generally depends on the type of assignment, but typically falls within a 3 day time frame.

Student-to-Student communication will utilize various synchronous and asynchronous tools to support communication in this online course. For example, in collaborative group work, students may choose to set up a video chat session using Skype. This would be dependent upon a time they set up with each other. Students will also communicate and interact via discussion board forums set up by the instructor. Students will create screencasts to communicate their thinking as well as Twitter (using assigned hashtags) to create their social presence. Students may also use Google Docs and Gmail to collaborate with one another.

Teacher-to-Parent communication regarding grades will be done via the online gradeviewer. Parents will have access to their child's grades and information regarding their assignments. Parents may also email, call or make appoints to communicate with the instructor.

Hi Kristen, Yes I can see how you would want a fuller Communication Policy. Check out the example in D2L. Especially given your fully online class, direction on how to communicate, not just the logistics will be very important. What a great story you shared about you and Allison. You can encourage this type of collegiality in your own students and their work as well, and your strategies for developing this type of environment are great.

Engage: 6/6

Design: 4/4

Chapter 5

Assessing Student Learning

5. Play

1. Share the link to your Alignment Table Google Doc.

Dyksterhouse Alignment Table

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5. Design

2. Share the link to the Google Doc you and your partner used to give and receive feedback.

Partner Evaluation

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5. Engage

3. Make your thinking about assessment visible. We are interested in your thoughts on assessment and evaluation broadly (as influenced by your readings in the lecture) and how you plan to provide feedback in your online course module. In addition to any general thoughts you may have, please tell us about the factors you considered as you create assessment tools.

Assessments should be used as a way to gauge where students are in their learning and the feedback from the assessments should inform both instruction and learning. However, I think that more often than not educators are forced to give assessments that generally don't align with their instructional style and fail to provide insightful feedback. Sometimes I feel like assessments are used just to provide some sort of data to parents…to communicate a grade in a way that parents understand, even if it doesn't serve a purpose for improving teaching and learning. For me, I didn't understand math until I was in college and was taught to reflect on my learning rather than erase mistakes. Based on my personal experiences, for my online math class, I included both traditional assessment measures and nontraditional assessment measures such as, reflective think-aloud, investigations that require problem solving, reasoning, and proof, and collaborative workspaces.

Furthermore, the differentiated assessments embedded within each lesson occur on a daily basis and consequently create a highly adaptive learning environment. That is, the data collected from the formative assessments should not only inform my learners but should also inform what and how I am teaching. I can look for trends in data collected through various assessment approaches and use my findings to address gaps and misconceptions "on the fly."

Moreover, after reflecting on this weeks reading assignments, I feel as though the assessments I have designed align with my instructional design, which I hope stimulates learners' curiosity, engages them in differentiated tasks, and intrinsically motivates them. By creating a collaborative workspace, students are able to ask questions and participate in interactions between one another. In addition to traditional assessments, which students may try to cheat on but I feel are still necessary, the performance tasks allow

students to demonstrate what they know and evaluate their own learning through reflection.

In my online course, I plan to participate in online forum discussions to provide feedback to my students. I've also included traditional quizzes and non-traditional performance tasks. I tried to balance the types of assessments so that they scaffold learning but also inform teaching and learning in different capacities. For example, the results from a multiple-choice test provide much different information on learners' understanding than the evidence revealed through reflective posts or performance tasks. I don't think that one form of assessment provides an accurate measure of students understanding, so I included various forms that allow me to gauge where my students are at and how they are progressing using different approaches. Through this process, students will receive feedback regularly from their peers and me.

However, despite the differentiated assessments within each lesson, I have decided to stick with a more traditional summative assessment at the end of each unit. I did also include a reflective post at the end of the unit, though, which could also be used as an assessment. The unit summative assessments are something I am still working on… I often feel like projects aren't as concrete as tests…

- **What went into your choices as you focused on certain aspects of your course?** While designing my online math course I decided I would take what I have learned thus far in the MAET program about online learning, how we learn and instructional design and combine those factors with the format and design of many of my MAET classes, which are also fully online. I decided to model my course like my online master's courses because I really like the structure, consistency, and breakdown. In addition to the design, I tried to focus on efficient, yet differentiated presentations of lesson content and assessments that aligned accordingly. This task has proved to be harder than I initially thought it would be. While focusing on assessments in my online course, I tried to focus on including both traditional and nontraditional assessment methods that allow learners to demonstrate what they know. So, in addition to multiple-choice-like assessments, I made it a priority to implement performance based assessments, reflective assessments, and collaborative assessments. Regardless of the assessment type, I also focused on providing feedback within and throughout the lessons and assessments. For example, responding to reflective posts or setting up quizzes so learners receive automatic feedback based on their correct/incorrect answers.
- **Where did you find your assessments needed to be more in line with other aspects of the course or your pedagogical priorities and what steps did you take to address that?** I realized that some of my assessments require students to demonstrate their learning, but aside from the examples I modeled in the lessons lecture and notes, I hadn't really shown my students what a quality reflective post looks like or what a quality response to a classmate looks like. To address this, I have started making screencasts and Think-Alouds showing my process and hopefully providing a quality example for my learners. I would hope that as the online course develops, I would be able to create a library of quality work samples and make those available for learners to reference, too.
- **How will your assessment of your students be a tool to grow your students' learning?** The assessments in my online learning course are designed to inform teaching and learning. Through immediate feedback on lesson quizzes students are able to identify their strengths and weaknesses. Similarly, that data provides insight to me as their instructor on which areas I need to go back and re-teach. Moreover, the assessments I implemented in each lesson are designed to stimulate

collaboration and reflection. This allows me to assess learners understanding on an individual level and within a community. For example, in Lesson 1, students are recreating a proof using Cheez-It snacks and posting their findings to the class discussion. They are also writing their own real world problems and providing insightful feedback to their classmates. Through differentiated assessments learners are receiving feedback from multiple sources and are making adjustments in their learning as they progress, which ultimately leads to personal growth. In fact, learners will not only grow by completing the assessment tasks, they will also grow by reading and providing feedback to their classmates and reflecting on the process. Through this process, by providing multiple different methods of assessment in each lesson, I hope that learners are appropriately challenged and stimulated and if they aren't that the data collected from the various assessments informs my instruction and allows me to make changes.

- **How will students be involved in the assessment and evaluation process?** The way students are involved in the assessment and evaluation process differs based on the assessment design. For example, in reflective assessments, students will receive personal one-on-one feedback from me, sort of like the feedback we receive in our Developer Notebook. Based on my feedback and questions, learners are able to modify and edit their posts and assignments. Moreover, in collaborative assessments, students are involved not only by providing feedback to their peers, but also by responding to the feedback they receive from their peers and me. In additional to reflective and written assessments, students are involved in their lesson assessment quizzes based on how they respond to their immediate feedback and score. They should accommodate their study habits based on their performance scores so they can make improvements by the time they reach the unit summative assessment.
- **In what ways will your standards be communicated to the students?** Standards will be communicated through the learning objectives, essential questions, and learning goals listed at the beginning of each lesson. Standards are also listed in accordance with the standards at the beginning of each unit, broken down by lesson. In addition to the text communicating the standards, the standards are also communicated and modeled within each lesson. The standards are modeled so that learners are able to apply them accurately while they practice but also so they have a point of reference while they work. Lastly, standards are communicated within the online gradebook for parents and students to monitor mastery of the learning objectives.

All teachers are asked to explain to their stakeholders (parents, students, administrators) the instructional choices they make. Think of this as a way to prepare your conversational talking points.

Nice thinking on assessment.
Engage: 6/6
Design: 2/4

Chapter 6

Online Literacies and Universal Design for Learning

6. Engage

We'd like you to consider today's learners and think about how you could make your online course module more aligned with their needs as learners in the digital age.

As such, we want you to identify three things you could do to make your course more consistent with one of the set of UDL principles outlined in the lecture.

Write about these three things in your developer notebook and tell us:

Which three principles of UDL your changes would address? Since my module focuses on a geometry lesson, I decided to focus my changes this week on ensuring my module provides multiple representations for core content, making the information easily accessible and comprehensible for all learners. THe reason I chose to focus on different ways of representing and engaging with my course content is because geometry literally means the measurement of the earth: geo- earth & metry: measure. Typically, math is represented through boring lectures and printed notes, which I did include in my site, but because the world around us was discovered and analyzed using various methods and approaches, I tried branch out and think of more tactile and tangible ways for learning math concepts and skills online. From this point, I selected guidelines/checkpoints, one from each UDL Principle, that I felt worked well together, naturally, in such a way that could help me achieve my overall goal of providing diverse, yet structured and aligned, alternatives and approaches towards implementing various types of media that students can learn from and interact with.

Principle 1: Provide Multiple Means of Representation

- The first change I would make aligns with Guideline 2: Provide options for language, mathematical expressions, and symbols; specifically, Checkpoint 2.5: Illustrate through multiple media.

Principle 2: Provide Multiple Means of Action and Expression

- The second change I would make aligns with Guideline 5: Provide options for expression and communication; specifically, Checkpoint 5.1: Use multiple media for communication.

Principle 3: Provide Multiple Means of Engagement

- The third change I would make with my online course aligns with Guideline 8:Provide options for sustaining effort and persistence; specifically, Checkpoint 8.1 Heighten salience of goals and objectives.

What changes would you make to your course to reflect those principles?

1. To address the first change I went back to each lesson and implemented different representations of the content, providing alternatives to traditional text representations. This included adding video lectures (embedding them right into the site rather than just having the links) in addition to adding graphics to the guided notes and virtual manipulatives that reveal what an equation represents. Since some learners have difficulty processing and understanding mathematical symbols and equations, incorporating manipulatives into my lessons will allow them to bring those equations to life and process the information in a way that makes sense to them. However, considering learners who have the opposite struggle and require text for visual media, I did find that it was difficult to find resources and videos that provide closed captioning options.

2. To address the second change I not only added multiple differentiated representations for learning in each lesson, I also added and extended the forms of assessment I included, allowing learners to communicate and demonstrate their understanding using diverse methods. I branched out to included traditional and nontraditional assessments, such as formative polls, lesson quizzes- multiple choice and fill in the blank, discussion forums, and self reflections that require learners to engage with the material on a more in-depth level, encouraging higher-order, thought out demonstrations of learning. I feel that such changes promote mastery learning and stimulate learning transfer naturally since the students are engaging in content in multiple forms and scenarios. For example, by implementing GeoGebra applets, learners were able to make connections between the algebraic equations, the real world examples, and the mathematical skills they were learning and as a result they were able to successfully connect that together in a reflective response, which I believe would be nearly impossible had I only given lecture notes or showed a video clip. These types of changes stimulate metacognitive thinking and learning, a design focal point using the UDL framework.
3. To address the third change I went back to each lesson and added a structured checklist at the beginning of each lesson in the overview section. In this overview/checklist I also linked the learning progression to the corresponding part in the lesson. I made similar changes in each *Learn* sub-lesson by adding a more structured checklist of the activities with bullets, links, and explanations for each part of the *Learn* activities. This way I was able to ensure learners could take charge of their learning, document their progress, and avoid missing important information. I also went back through each of my three lessons and provided rationale throughout that linked each sub-lesson (*Explore, Learn, Apply, & Assess*) and the smaller activities within those sub-lessons back to the learning goals and objectives. Specifically, I included summaries of the learn activities and also tasks and assessments that are linked to the learning objectives, which I also clearly stated and listed. I was worried that stating the learning objectives not only in the beginning of the lesson but also throughout each corresponding part in the sub-lessons might seem repetitive, but after reviewing the final product, I do not feel this was an issue. It was informative rather than repetitive. And, aside from organizing learning tasks and connecting key concepts and ideas, this change clarified the purpose of each task and why I had learners engage with the material in those specific ways.

   Moreover, in a research course I completed as part of this MAET program, I wrote a 52 page research paper focusing on multimedia in education where I learned a lot about cognitive load, information processing, and the most effective combinations for presenting material using multimedia. For example, video representations (picture and audio combo) are more effective than picture-text combos (whether shown as a mute video or still photo with caption). This is due to the way our brain processes information. Visual and auditory stimulants are processed in different parts of the brain, reducing the cognitive load and allowing learners to process information more efficiently and effectively. The paper I wrote is grounded in research and studies dating back to the turn of the century. While reading about the UDL principles and thinking about my online course design, I couldn't help but make connections with the ideas I learned and wrote about in my paper. The first and second changes I made, as discussed above, resulted in implementing various resources and representation. What I have learned, from our reading this week and from previous coursework, is that if those changes are not done carefully and intentionally, learners will get lost in the information and/or become overstimulated. To avoid such outcomes, it was a natural choice to select checkpoint 8.1 as the third change to focus on. By organizing each lesson and refocusing each step around the specific learning goals, I can ensure my learners understand the purpose of each task and the direction they are headed in relation to their overarching learning goals and objectives.

Through these changes, no assessment will come as a surprise and mastery learning will become inevitable- largely due to the scaffolds and supports that are clearly aligned with each objective and that are embedded throughout.

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6. Design

Now, we'd like you to make ONE change of the three you've targeted in Engage and implement something in your online course. After you've made this change, please take a screenshot of what you implemented and upload it to your developer notebook.

The principle I chose is… Principle 1; Guideline 2: Provide options for language, mathematical expressions, and symbols; specifically, Checkpoint 2.5: Illustrate through multiple media. Changes aligning with this specific UDL principle and checkpoint would helps students who have difficulty processing information & in one format, such as the ability to decontextualize text or mathematical symbols. By providing multiple means of representations, including options for the linguistic, auditory, and visual learner, my students will have access to high quality material- illustrations, text, manipulatives, videos- making information typically displayed only in text more comprehensible.

Screenshot of change made. In addition, we want you to walk us through **why** what you've shown us in the screenshot is in accordance with UDL considerations. Below you will see a few screenshots that represent just a few of the many changes I made to my website after delving deeper into the UDL framework. These changes are compared with the initial design and are further explained beneath the images.

- **IMAGE 1:** Lecture and notes organized into a checklist format, linking skills and concepts with resources and materials. Instead of just providing links, the material is now linked and embedded. The details listed at the start of each lesson were also changed to match the detailed checklist format, too.
- **IMAGE 2:** Lecture video (for auditory and visual learners) added and embedded into each *Learn* activity. Previously there was typically either notes or a video, sometimes only links.
- **IMAGE 3:** Guided lecture notes with visuals, text, & worked through examples are added to each *Learn* activity for visual/textual learners. Notes were not available in each *Learn* activity previously, and when they were available they were linked not embedded and sometimes did not include visuals. Now, in addition to being linked, they are also embedded on the page.
- **IMAGE 4 & 5:** GeoGebra Applets added to each lesson. These are virtual manipulatives allowing learners to engage and interact with the content. I also added GeoGebra in an *Explore* activity to refresh prior knowledge and skills that are necessary to successfully complete that lesson/

For each of my three lessons I ensured that each lesson lecture had at least two different representations of the course content (embedded and linked). This not only benefits learners who may have processing disorders but has proved to improve the learning experience for ALL learners.

1. LECTURE & NOTES:

First, you are required to go over the lecture notes and work through the example problems in the notes. Be sure to keep your notes organized in your Developer Notebook so you can utilize them while you practice skills in the Application Activities. You will be assigned practice problems in the Apply Activity and will also be assessed on these skills.

- Lecture Notes Link: Lesson 2 The Converse of the Pythagorean Theorem (Embedded Below)
- Lecture Video Link: Converse of the Pythagorean Theorem YouTube Lecture Video (Embedded Below)

2. VISUAL PROOF GEOGEBRA APPLET:

Second, you will explore the Converse of the Pythagorean Theorem using a GeoGebra applet. Adjust the angle or length of sides *a* and *b* in the applet to check if the Converse of the Pythagorean Theorem is always true.

- GeoGebra Applet: Exploring the Converse of the Pythagorean Theorem (Embedded Below)
- GeoGebra Applet: Exploring the Proof of the Converse of the Pythagorean Theorem (Embedded Below)

3. ADDITIONAL LESSON VIDEO (IF NECESSARY)

After you complete the learn activities:

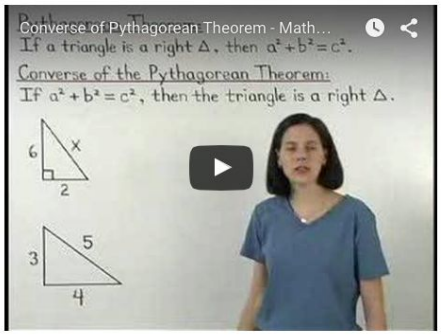
4. YOU MUST COMPLETE THE LESSON CHECKPOINT POLL AT THE BOTTOM OF THIS PAGE

This is just a quick check to inform you and me about your current levels of understanding regarding the Converse of the Pythagorean Theorem. Do your best and remember this is not a graded assessment. It is a formative check. After this you still have to complete the practice problems & lesson assessments that are graded.

- Quick Check Poll Embedded at the Bottom of this Page

Converse of the Pythagorean Theorem Lecture Video

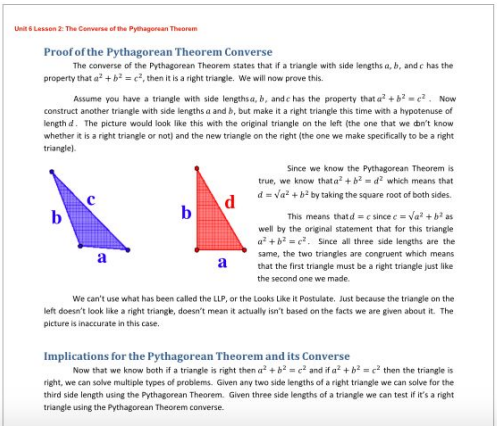
Video from www.mathhelp.com



View in popup

L

Converse of the Pythagorean Theorem Lecture Notes & Examples



Unit 6 Lesson 2: The Converse of the Pythagorean Theorem

Proof of the Pythagorean Theorem Converse

The converse of the Pythagorean Theorem states that if a triangle with side lengths a, b, and c has the property that $a^2 + b^2 = c^2$, then it is a right triangle. We will now prove this.

Assume you have a triangle with side lengths a, b, and c has the property that $a^2 + b^2 = c^2$. Now construct another triangle with side lengths a and b, but make it a right triangle this time with a hypotenuse of length d. The picture would look like this with the original triangle on the left (the one that we don't know whether it is a right triangle or not) and the new triangle on the right (the one we make specifically to be a right triangle).

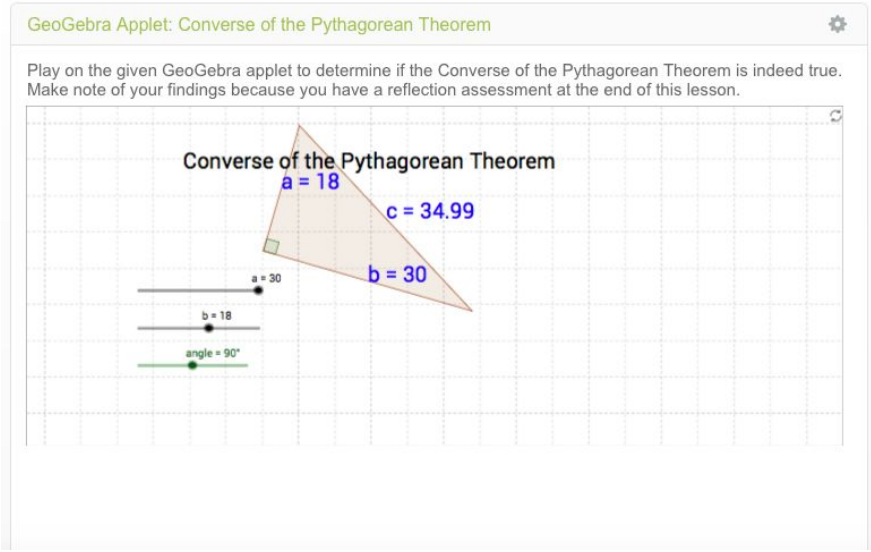
Since we know the Pythagorean Theorem is true, we know that $a^2 + b^2 = d^2$ which means that $d = \sqrt{a^2 + b^2}$ by taking the square root of both sides.

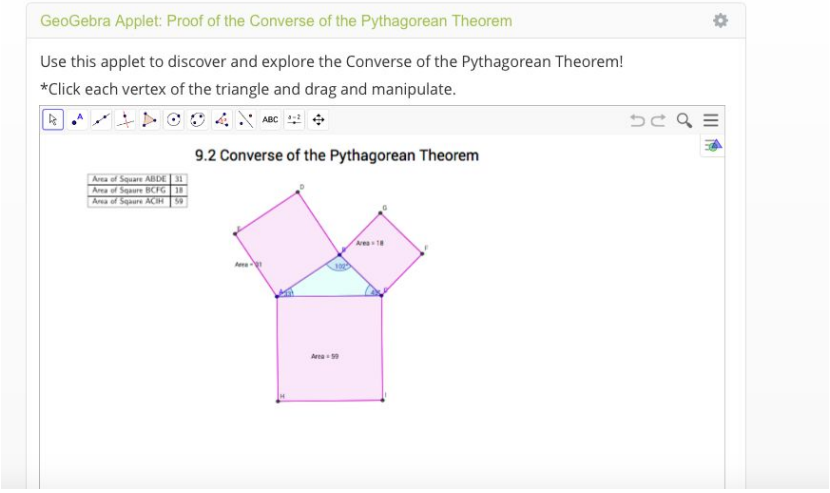
This means that $d = c$ since $c = \sqrt{a^2 + b^2}$ as well by the original statement that for this triangle $a^2 + b^2 = c^2$. Since all three side lengths are the same, the two triangles are congruent which means that the first triangle must be a right triangle just like the second one we made.

We can't use what has been called the LLP, or the Looks Like It Postulate. Just because the triangle on the left doesn't look like a right triangle, doesn't mean it actually isn't based on the facts we are given about it. The picture is inaccurate in this case.

Implications for the Pythagorean Theorem and its Converse

Now that we know both if a triangle is right then $a^2 + b^2 = c^2$ and if $a^2 + b^2 = c^2$ then the triangle is right, we can solve multiple types of problems. Given any two side lengths of a right triangle we can solve for the third side length using the Pythagorean Theorem. Given three side lengths of a triangle we can test if it's a right triangle using the Pythagorean Theorem converse.





Why is this change in accordance with the principle you chose?

To avoid being repetitive, please refer to the *Engage* activity. I more thoroughly explained how each of the changes I made reflect the principles I chose to focus on. I say principles, plural, because I feel that the principles I focused on go hand in hand and correspond with one another. I feel that this is a result of intentional design. I have summarized these changes more cohesively below:

These changes are in accordance with the principle(s) I chose because they provide multiple and alternative approaches towards learning the same content. Where one learner may not be able to contextualize the guided notes, they can use either a manipulative or lesson video to support their unique learning needs. Additionally, to prevent cognitive overload, I made sure that I reorganized each lesson and sub-step providing checklists and links throughout. Adding multiple representations and manipulatives can be overwhelming at times; so, to prevent over stimulation, I organized the lessons and made sure the learning goals and content aligned in such a way that the learning experience would be enhanced rather than destroyed. Taken together, these changes represent characteristics of the three principles I designed to focus on, which are listed above. Prior to making these changes, for most lessons I provided only one

representation, sometimes two, which were limited to text and video. As I have shown and explained in both the Engage and Design activities this week, I made it a point to add virtual manipulatives to the *Explore and Learn* sub-lessons in my online learning module, allowing learners to interact with the content and construct learning in a personalized way. The virtual manipulatives not only differentiate the instruction and speak to different learning styles and preferences, they also allow the learners to visually and tangibly understand algebraic concepts and equations. Through this process learners are able to make connections to new and old learning as they progress, resulting in learning transfer and conceptual understanding. Also, the other change I focused on related to the salience and prominence of learning goals and objectives. Prior to the changes I made this week, I had very basic details listed at the start of each lesson with no links or details. Now, the details at the start of the lesson provide the learners with links and a checklist of activities for each part of the sub-lessons, relating the content and learning progression to the goals and standards. Moreover, I also added a similar detailed checklist to the *Learn* & *Assess* activities sub-lessons, again, linking the content and assessments with the goals and objectives.

Looks like you went above and beyond on this UDL chapter--your learners will appreciate all your work.

Engage: 6/6

Design: 4/4

Notes on your final OCM:

I like the pop-up question that appears when you enter the site--very interactive right off the bat.

The Math 8 description that appears on this page https://www.myhaikuclass.com/do/share/eclass/5249916?k=951b9993501e7a1b53ad2b6437c80e8b5024ba83

...and in the Course Overview..

has language that is very dense for an 8th grade reader. I know much of it is mathematical terms, but I wonder if you can throw in some real-world examples or more conversational language to break it up.

COURSE OVERVIEW>

You have a few minor typos on the page: “collaboration” is misspelled and there’s a couple words missing the apostrophe before an “s”. I would suggest having a friend go over it for you as a proofreader.

About the Course Design> I like breaking down your rationale for parents and students--I think this is a savvy educating move on your part, but “Why is this online course so effective?” Is this jumping the gun a little? Can you say it’s effective until learners have used it and you’ve evaluated them? Perhaps rephrase to something like “Why this design” or “Why online learning?”

Grading Policy> “leson” for “lesson”

Bucket List> I think it is imperative that students see I have dreams and goals (that I plan on achieving!) You are switching back and forth in the site from 2nd person to 3rd

person-sometimes you talk about the learners or students in the 3rd person and sometimes you say “you” as if you’re talking directly to them in 2nd person. I would choose one and then make it consistent throughout the site.

Since it’s a fully online course, it makes sense you’re doing a lot of getting to know the teacher stuff in the online space. Smart!

Course Communication Policy: fowl for “foul”

UNIT 6>

I really like your Pacing guide. I want to use this course as an exemplar for a fully online course for our CEP 820 showcase. Please please email me with the info to access it when I email out that request!

Lesson 1> Explore> You ask students to define the terms, but in your practice set you link to I only see 5? Where are students to get the definitions for the other terms?

You talk about a notebook..is this something you will ever see? Do you have any means of knowing if students are doing this work?

You might include a link to the Learn page at the bottom of the Explore page.

Learn> I love the embedded check point multiple choice. Looks great.

Assess> Problem Writing task: Do you want to give a little more direction about what you’re expecting here? Perhaps provide an example?

I’m just curious--if students are able to skip straight to the Assess page and complete everything satisfactorily without having done the other three pages, that’s up to them? No wrong or right answer, just curious what your thoughts are on that?

LESSON TWO>

I like restating the Learning Objectives as Essential Questions too.

I would put the answer key farther down or behind a click of some sort--it’s too easy to see the answer for the warm-up.

That embedded GeoGebra applet is great!

Nice differentiation on the Apply page.

You might want to give a little more direction on the Discussion board. I.e. how many differences must students cite? Are there required to include some kind of visual?

LESSON THREE>

“han” for “than”

Great final performance task assessment.

Fantastic work, Kristen!! Clean design, aligned lessons and assessments, nice consistency. A really great job. Congratulations.

26/26

Chapter 7

Classroom Management

7. Engage

In a couple of paragraphs, reflect on the critical design decisions and the critical pedagogical decisions you've made in the creation of your online course. Explain the theoretical foundations that have grounded your online course design process. Also, tell your audience (i.e., would-be online course designers) about the pitfalls you encountered and how to avoid making the same mistakes. Essentially, this entry would allow a colleague to benefit from your experience.

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