

## Reuse and Remix OER for Rapid Program Development: Use Case

**Summary:** Community college program manager uses SkillsCommons.org library to find and reuse instructional and program support materials to design and deliver a foundational math course within a construction certificate program in 4 weeks.

**The Challenge:** The Virginia Community College System (VCCS) is asked by a local major construction company to develop a new construction certificate program to prepare their workforce with new employees and advance the skills of their current workforce. The construction company wants the training to be mostly online so the participants can start getting training while they are still doing most of their current jobs if need be. One of the requirements for this program is that students need to complete a foundational math course and the VCCS program manager is asked to deliver the course in 4 weeks to meet the company's schedule for the workforce. Quickly finding high quality curriculum that is targeted to the construction companies required skills is critical for the success of the partnership.

The program manager has heard about the Department of Labor's SkillsCommons.org free and open library of workforce development curriculum and she visits the website to see what she can find.

**First Steps:** Getting online and going to <u>www.SkillsCommons.org</u>, she sees the easy to use website where she is able to browse the collection by the topics areas and occupation codes. She decides to use the search tool, like she does with Google, and types "foundational math" in the search field on the home page of the website.





SKILLS COMM	
(bet	M)
Mana > colorest	
	foundational math search
Author	Results 1-10 of 52 sort by: relevance   newest first   oldest first
Clark, Dr. Susan J. (16)	
Kochis, Clair (16)	Prealgebra Module 1: Whole Numbers
Jardel, Diane (5)	Online Course Module
Education Development Center (3)	Pre-Algebra Module 1: Whole Numbers includes: Pre-Assessment Module 1 Preassessment
<ul> <li>Faculty and instructors from</li> </ul>	Introduction to Whole Numbers Section 1: Order Relations of Whole Numbers Section 2: Addition and
Community Colleges across MA (3) Bieniek, Val (1)	Subtraction of Whole Numbers Section 3: Multiplication and Division of Whole Numbers Section 4:
Char, Deborah (1)	Order of Opera
Condon, Joel (1)	
Education Development Center and.	Prealgebra Module 8: Percent
Add Community Continue From the US	Online Course Module
MA Community College Faculty (1)	
Halgler, K. (1)     User More	Learning Objective: Student will convert fractions to percent and percent to fractions and decimal

She gets 52 items on the hit list and now she has to decide if any of these materials might be useful for her project.

The first result in the list is Prealgebra Module 1: Whole Numbers: <u>https://www.skillscommons.org/handle/taaccct/552.</u> <u>Prealgebra would be part of the foundational math skills for the construction certificate.</u> The descriptions of the materials are important for her to decide which materials she should spend her time evaluating and downloading.

She would also like to get a "preview" on what the instructional materials look like from a faculty and/or student's perspective. Seeing how others are teaching the curriculum would be very helpful in her plans for designing her course – no need to reinvent the wheel if the wheel is really good already. She decides to get more details about the materials. There are a number of requirements for instructional materials at VCCS and being able to see if the materials in SkillsCommons.org meet these requirements from the get-go would save her lots of time. In order to know if they are meeting the requirements she must answer the following questions:

- 1. <u>Are there instructional materials about the accessibility (508 compliance) so she can prepare for accommodations and alternative media if necessary?</u>
- 2. Are the learning objectives in the course aligned with the learning objectives the contractor requires?
- 3. <u>Is the design of the instructional process right for students' successfully learning online?</u> Does the course have a <u>Quality Matters score and certification?</u>
- 4. Are all of the copyrights cleared so they can legally reuse the content?

It would be good to know who authored the materials and if there was good quality control of the content as well.

She clicks on the title of the resource and is provided some of the information she is looking for.



Prealgebra Module 1: Whole Numbers	Browse
Clark, Dr. Susan J. ; Kochis, Clair	Grant Projects
Pre-Algebra Module 1: Whole Numbers includes: Pre-Assessment Module 1 Preassessment Introduction to Whole Numbers Section 1: Order Relations of Whole Numbers Section 2: Addition and Subtraction of Whole Numbers Section 3: Multiplication and Division of Whole Numbers Section 4: Order of Operations Section 5: Solve Equations with Whole Numbers Post-Assessment	<ul> <li>Authors</li> <li>Subjects</li> <li>Industry</li> <li>Material Type</li> </ul>
Zipped SoftChalk lesson files (html) (306 MB)	This Collection
Date: 2014-08 Primary Material Type:	<ul> <li>Authors</li> <li>Subjects</li> <li>Industry</li> <li>Material Type</li> </ul>
Online Course Module	
Other Material Types: Drill and Practice, Presentation, Quiz/Test, Tutorial	
Institution: Kenai Peninsula College/ University of Alaska	
Project Name: Beyond Anchorage: Expanding Developmental and Workforce Education	
Subjects: Prealgebra, developmental math, whole numbers, order relations, addition, subtraction	
Industry / Occupation	
Industry Partner: The required employer partners: Architectural Design firms USKH; Harvey H. Hightower, Architect; DOWL HKM; and UMIAQ	
Industry Sector: Developmental Education	
Occupation: 00-0000: All Occupations	
Education / Instructional Information	
Educational Use: The module allows students to improve their mastery of pre-college foundational math without the tuition cost normally associated with remedial mathematics courses.	
Time Required: Approximately 6 hours (self-paced)	
Interactivity Type: active	
Is Based On: https://www.softchalkcioud.com/course/serve/FWIGXJ9pTRCV1Z/html http://mathrev.redwoods.edu/PreAigText/chapter1.pdf	

From the information provided, she quickly sees:

- The module contains videos (with transcripts) practice exercises, handouts, and review exercises and an open textbook. The transcripts are important for improved accessibility
- the topic areas which are aligned with she course requirements
- it's an online module which is what she needs
- The subsequent SkillsCommons pages show that the materials have a CC BY Creative Commons license which lets her know that she can use the materials with attribution to the original author.
- it takes about 6 hrs. (self-paced) which is a reasonable amount of time



• it was created in partnership with an architecture firm – so it might have relevant examples of practice problems for construction

The SkillsCommons catalog record also has a "preview" of the module (click on link below), as well as the link to the open textbook. She sees that the module was built with SoftChalk and SoftChalk has a Voluntary Product Accessibility Template (VPAT) which provides her some good information about the accessibility of the resource. https://www.softchalkcloud.com/course/serve/FWIGXJ9pTRCV1Z/html

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Pro-Assessment Weikk 1. Presenterent Introduction to Whele Numbers Section 1. Order Nutefors of Whole Numbers	Kenai Peninsula College Unador phase locates	ant phane formed	
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The program manager can add this SkillsCommons resource to "My SkillsCommons Collection" which enables her to save and organize her discoveries for easy access later (the program manager would need to have an account on SkillsCommons.org in order to do this).

The program manager next reviews the open textbooks that can be used to connect the different online modules she has found. <u>http://mathrev.redwoods.edu/PreAlgText/chapter1.pdf</u>

Prealgebra Textbook	Copyright
	All parts of this prealgebra textbook are copyrighted © 2009 in the
Second Edition	name of the Department of Mathematics, College of the Redwoods. They are not in the public domain. However, they are being made available
Second Edition	free for use in educational institutions. This offer does not extend to any
Chapter 1	application that is made for profit. Users who have such applications in mind should contact David Arnold at david-arnold@redwoods.edu or
Chapter 1	Bruce Wagner at bruce-wagner@redwoods.edu.
	This work is licensed under a Creative Commons Attribution- NonCommercial-ShareAlike 3.0 Unported License, and is copyrighted
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Department of Mathematics	a copy of this license, visit
College of the Redwoods	http://creativecommons.org/licenses/by-nc-sa/3.0/
	or send a letter to Creative Commons, 543 Howard Street, 5th Floor,
2012-2013	San Francisco, California, 94105, USA.



**Quality Assurance:** After reviewing a number of other instructional resources in SkillsCommons and saving them to "My SkillsCommons Collection", the program manager explores the "program support materials" collection in SkillsCommons.org. There she finds evaluations of the instructional materials by subject matter experts and information about how the learning outcomes for the courses align with the skills and knowledge needed for the jobs currently in demand. The evaluations and industry alignment information provides the quality assurance the program manager needs to have confidence that the reuse of these instructional resources will help their institution achieve their goals.

	HOME BROWSE - C	ONTRIBUTE LOGIN
SKILLS COMM Sopen for learning	Search	Go!
Home > University of Alaska Anchorage) > Program Support Materials Collection > View Item		
Course Review AET 231	Browse	
Jardel, Diane	Grant Projects	
Quality Review of course using the rubric developed by the University of Alaska Southeast, Sitka Campus dated May 2012 for the design, review and evaluation of online classes and teaching.	<ul> <li>Authors</li> <li>Subjects</li> <li>Industry</li> <li>Material Type</li> </ul>	
Durse Review - AETA231.pdf (47 KB)	This Collection	
Date: 2014-09	<ul> <li>Authors</li> <li>Subjects</li> <li>Industry</li> <li>Material Type</li> </ul>	
Primary Material Type: Program Assessment and Evaluation		
Institution: University of Alaska Anchorage		

**Resources for Outreach and Marketing:** Once she creates the mostly online course, she will need some marketing information that the major construction company can distribute to their existing and potential employees. She will also have to plan on providing guidelines for admission into the program, the level of student support services (e.g. tutoring, coaching, mentoring) that will help prevent the students from dropping out of the program. Once again, she explores the Program Support Materials collection in SkillsCommons.org (which requires her to go back to the college home page – University of Alaska Anchorage in this example). She will then click on the Program Support Materials from other community colleges, which she saves with her "My Skills Commons Collection".

Three days later, the program manager presents the resources she has found to her boss, the Dean of Extended Education, her 2 instructional designers, and a representative of the major construction company. She reviews the materials and gets feedback from the Company on the topics and branding of the materials. With this feedback for customizing the resources to fit the needs of their project, they download the resources from SkillsCommons.org, and begin to edit the resources.

Two weeks later, VCCS has the foundational math course customized and ready for final review before delivery. All the stakeholders reconvene and provide the final review of the curriculum. The next day, the instructional designers start uploading the customized curriculum into their campus' Learning Management System and prepare to enroll students in the certificate program.



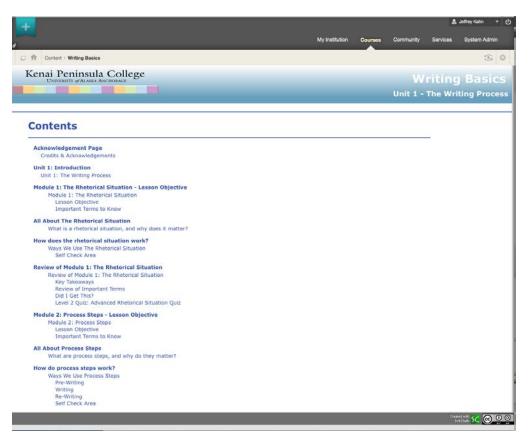
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University of Alaska Anchorage > Le	earning Hesources Collection
	Learning Resources Collection
rowse	Learning nesources conection
Grant Projects Authors	search
Subjects	
Material Type	Recent Submissions
is Collection	1 AET A121 - Architectural Drafting, Bennett, Brian
Authors	TAET A181 - Intermediate CADD for Building Construction, Bennett, Brian
Subjects     Industry	AET A231 - Structural Technology, McKay, J. Ellen
<ul> <li>Industry</li> <li>Material Type</li> </ul>	AET A101 - Fundamentals of CADD for Building Construction, Condon, Joel
	Writing Basics Unit 8 - Reading Comprehension, Siemers, Dr. Cheryl K.
	Writing Basics Unit 7: Revising Basics, Siemers, Dr. Cheryl K.
	Writing Basics Unit 6 - The Multi-Paragraph Essay, Siemers, Dr. Cheryl K.
	Writing Basics Unit 5 - The Paragraph, Siemers, Dr. Cheryl K.
	Writing Basics Unit 4 - Punctuation, Siemers, Dr. Cheryl K.
	Writing Basics Unit 3 - Sentence Structure, Siemers, Dr. Cheryl K.
	Writing Basics Unit 2 - The Writing Process, Siemers, Dr. Cheryl K.
	1 Start Here Module, Henrikson, Lee
	Beginning Algebra Module 8: Graphing Polynomial Equations, Kochis, Clair
	Writing Basics Unit 1 - The Writing Process, Siemers, Dr. Cheryl K.
	introduction to Distance Education How to Navigate Your Course, Bieniek, Dr. Vahi
	Introduction to Distance Education Module 5 - What's Next?, Bienlek, Dr. Valri
	Introduction to Distance Education Module 4 - Distance Education - Community and Communication, Bieniek, Dr. Valri
	Introduction to Distance Education Module 3 - Using Online Technology Tools, Bieniek, Dr. Valri

Access and Customizing Delivery: This same content can be found in SoftChalkCloud. We could do this for all Skills Commons content that is converted to SoftChalk Lesson format. Further, we could use either a private SoftChalkCloud or a public one.

	count About Getting Started Support	SoftChall
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Kenai Peninsula College		
UNIVERSITY of ALASKA ANCHORAGE		IS.
	Unit 1 - The Writing Proce	ess
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Contents		
Acknowledgement Page Credits & Acknowledgements		
Unit 1: Introduction Unit 1: The Writing Process		
Module 1: The Rhetorical Situation - Lesson Objective Module 1: The Rhetorical Situation Lesson Objective Important Terms to Know		
All About The Rhetorical Situation What is a rhetorical situation, and why does it matter?		
How does the rhetorical situation work? Ways We Use The Rhetorical Situation Self Check Area		
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The content can be placed as a link in Blackboard by copying the link from SoftChalkCloud into a web link in Blackboard. Note that it is also possible to have lesson content that is scored, with grades flowing to the Blackboard grade book.



SoftChalk lessons can also be saved as EPubs, here shown in iBooks on a Mac.





forms. It can be considered an art, or skill, or even the study of writing and speaking. Using rhetoric effectively can be a difficult skill to master because knowing what one wants to say is only a small component of clear communication. To master the skill of rhetoric, one must understand not only what he or she wants to say, but also the motivations, interests, and predispositions of his or her audience. Rhetoric, like music or painting, is also a kind of art because, in order to be done successfully, rhetoric requires an awareness of human strengths and weaknesses. Often, the successful use of language re-sults from an understanding of what an audience needs and wants to hear or read.

Rhetoric occurs in a rhetorical situation. When we examine the rhetorical situation in order to understand its effect on the rhetoric being used, we ex-amine not only the speaker and audience but also, as the video in this module suggests, the context and medium involved in the act of communication Context describes all the factors that make a situation unique. Context can be considered through a variety of lenses: you might consider context on a global, national, or local scale; you might consider the political context; or, you might consider the cultural context. We most often think of rhetoric in a persuasive context when we want to clearly convey a point of view to others Medium tends to be a simpler concept than context. The medium of a rhetorical situation simply describes the means by which a message is com-municated, e.g. via email, essay, text, video, or speech. As technology further infiltrates our lives, we discover many more mediums for communication and these mediums, whether they are tweets or blogs or research papers, af fect the way we choose to communicate our messages.



Generally, there is a speaker or writer, an intended audience or reader, and topic or subject on which he or she is communicating. These make up the basic components of the situation, yet the context is broader than that. Savvy writers consider their purpose, how the audience will react to the topic, how the message will be delivered, and what the environment is like

Click here to begin the lesson on The Rhetorical Situation.

## Ways We Use The Rhetorical Situation

Careful analysis of the situation is a beginning step in writing and speaking effectively. In any given situation, it is helpful to think of your writing as a conversation. You are entering a conversation that has most likely been going on prior to your entrance.

- Let others' prior perspectives inform what you have to say.
  Research what has been said before on the topic.
  Consider what nuances affect your particular situation/time/context in this ongoing conversation.
- · Consider the implication of what you will say on your listeners and future audiences

Assessing the rhetorical situation carefully will allow you to begin the writing task with increased success

The graphic below shows four components of a rhetorical situation.

It provides you with questions to consider as you examine each of these components.



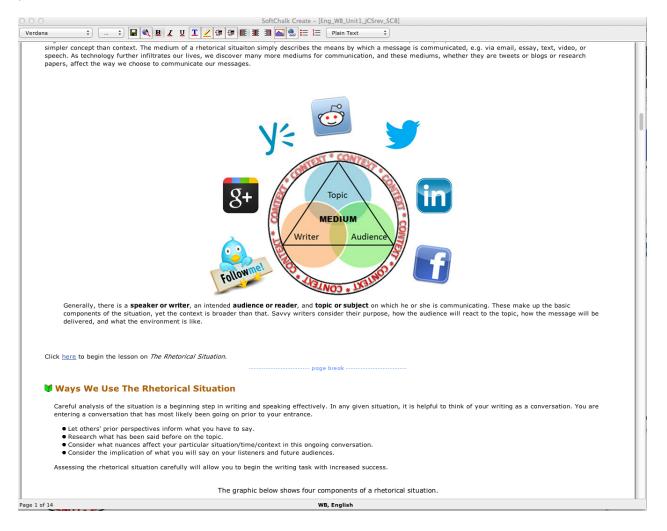
An analysis of a rhetorical situation will reveal that conve than just a two-way street.

The same ePub can be viewed on the iPad.





The lesson can be downloaded to the SoftChalk editor to all for modification. Note that derivative works can be published back to the cloud with a click.



## In Conclusion:

As a result of using SkillsCommons.org to locate, view, download, and customize material for a foundational math course for the new construction certificate program, the program developer at the Virginia Community College would spend a fraction of the time it would have normally taken to develop and deliver a quality, strategically aligned course.



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This workforce solution was created through a cooperative agreement between the U.S. Department of Labor's Employment and Training Administration and the California State University-Multimedia Educational Resource for Learning and Online Teaching (MERLOT).