

SkillsCommons Makeover: Improving the Design, Interactivity, and Integrity of Assessments

Contributor: Air Washington
Collection: Aerospace College Readiness, Pre-employment, and Assembly
Material: Applied Math / Algebra Laws Overview
Item: Check Your Understanding Introduction to Algebra.pdf

MAKEOVER: Conversion of a quiz from static to dynamic format with improved capabilities for assessing student learning.

Original material was uploaded to Skills Commons as a PDF. While the PDF was a separate file, it was contained in a ZIP package of 900MB; the PDF contributing only 617KB.

In the absence of a PDF editor such as Adobe Acrobat Pro (commercial product), all one can do is print this file or reference it as is. If printed, the material can be changed through literal cut and paste.

The screenshot shows a web browser window displaying a quiz titled "Check Your Understanding: Introduction to Algebra". The page is labeled "Page 1 of 6". The quiz instructions are visible, and two questions are shown:

Question 1 (1 pts)
 Using the distributive property, expand and simplify $x(y^2 + 5)$
 A. $xy^2 + 5$
 B. $xy^2 + x$
 C. $x + y^2 + 5x$
 D. $xy^2 + 5x$

Question 2 (1 pts)
 Using the distributive property, expand and simplify $A = 2h(r^2 + rh)$
 A. $A = 2h + r^2 + rh$
 B. $A = 2hr^2 + 2h rh$
 C. $A = 2h + r^2 + 2h rh$
 D. $A = 2hr^2 + rh$

The PDF packaging does NOT allow the following:

- Edit question text
- Add text to speech
- Omit or add questions
- Reorder questions, including randomly
- Easily add institutional branding
- Machine grade questions; change the point values
- Send grades to a Learning Management System (LMS) grade book
- Use the quiz in a native LMS assessment system
- Allow for self-testing or for multiple attempts with feedback

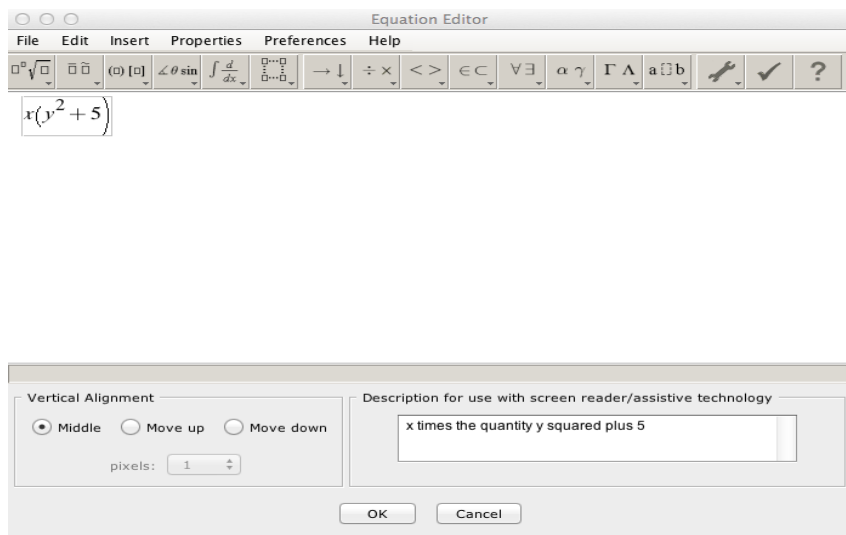
Over time, Skills Commons will address the following:

- Easily discover material in the repository
- Easily share a question or the whole quiz group via a repository search
- Associate the quiz with curriculum standards metadata

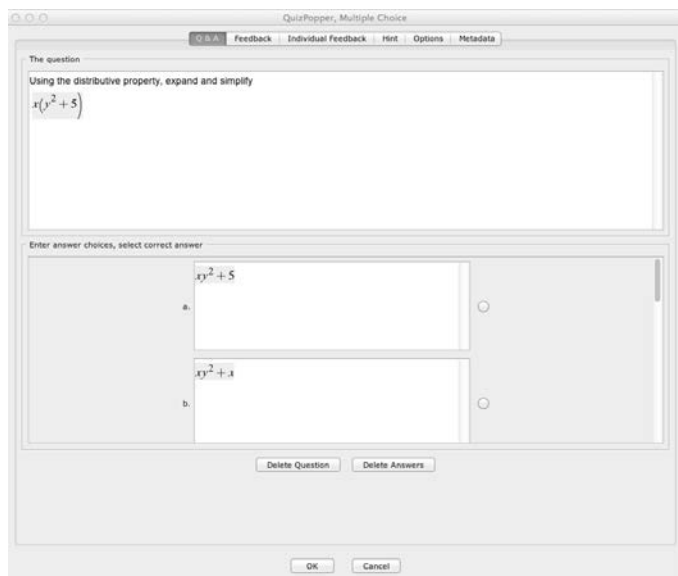
If the quiz was available as, say, a Microsoft Word® document, it would be easy to:

- Edit question text
- Add text to speech
- Omit or add questions
- Easily add institutional branding

Rewriting the assessment as a SoftChalk Lesson offers the complete flexibility outlined above. For example, here we see the equation editor. Note the edit control where a textual description can be provided for greater accessibility.



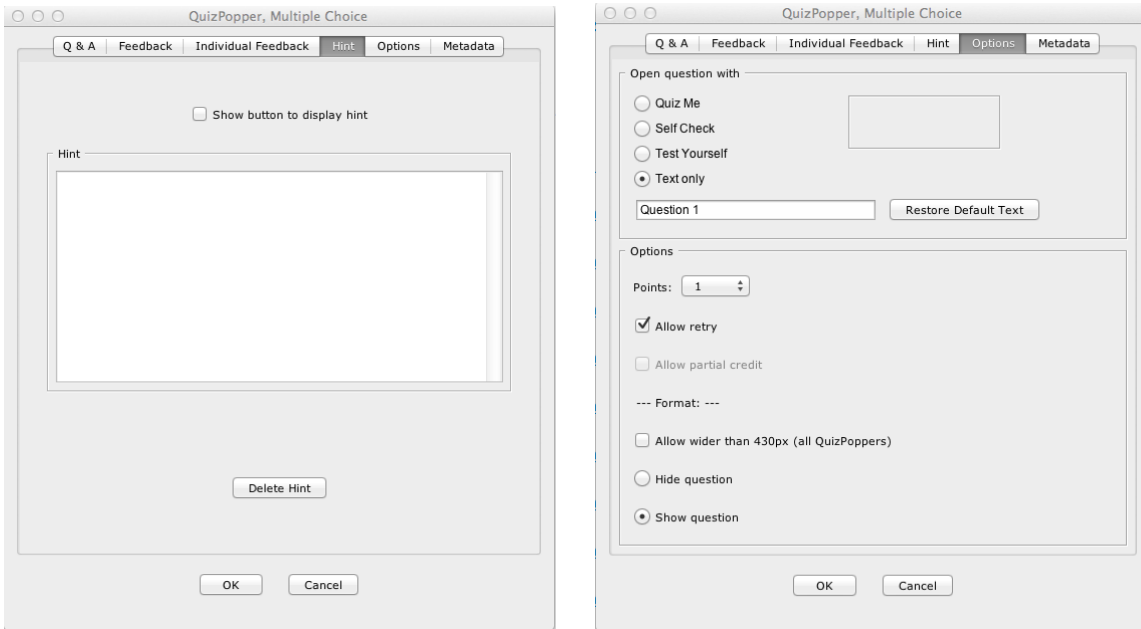
A variety of question types are possible, in the following case, a multiple-choice type lists different solution candidates. Note that specifying which is the correct answer allows the test to be machine-graded.



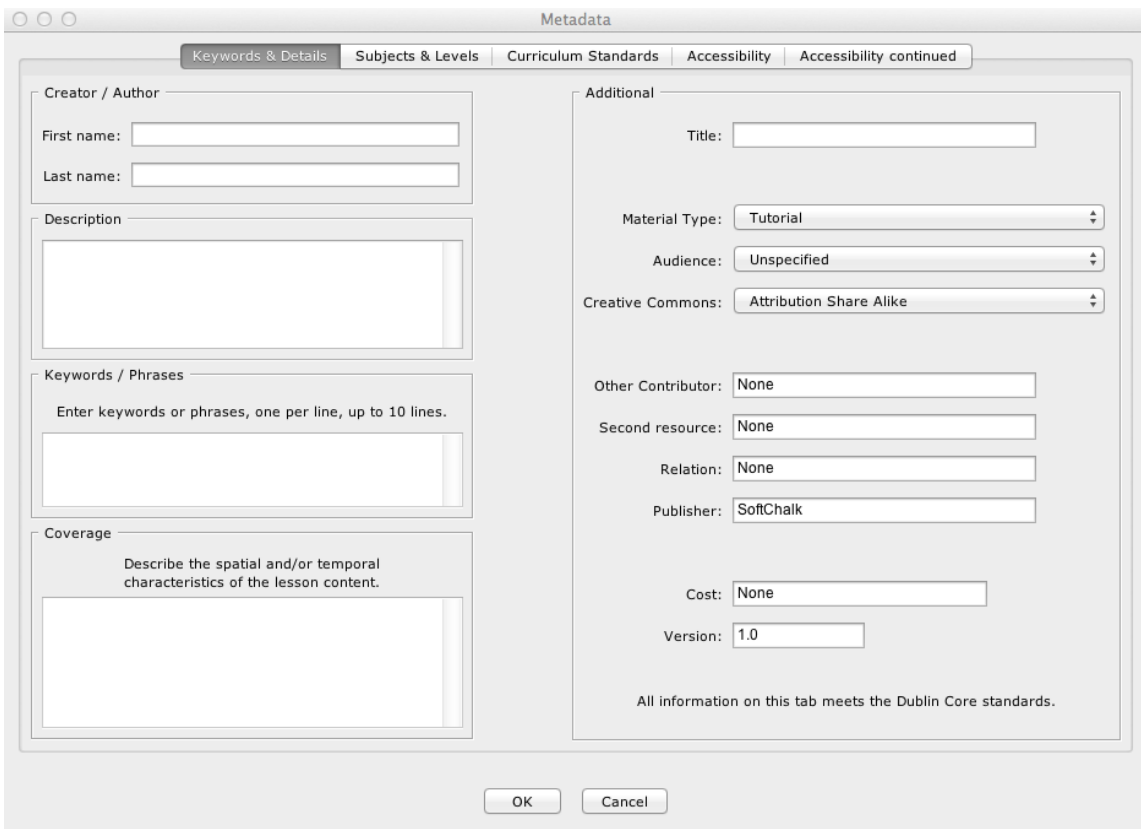
Note you can add overall feedback or per-question feedback. This kind of interactivity is, of course, more immediate than awaiting for a test to be graded and returned.

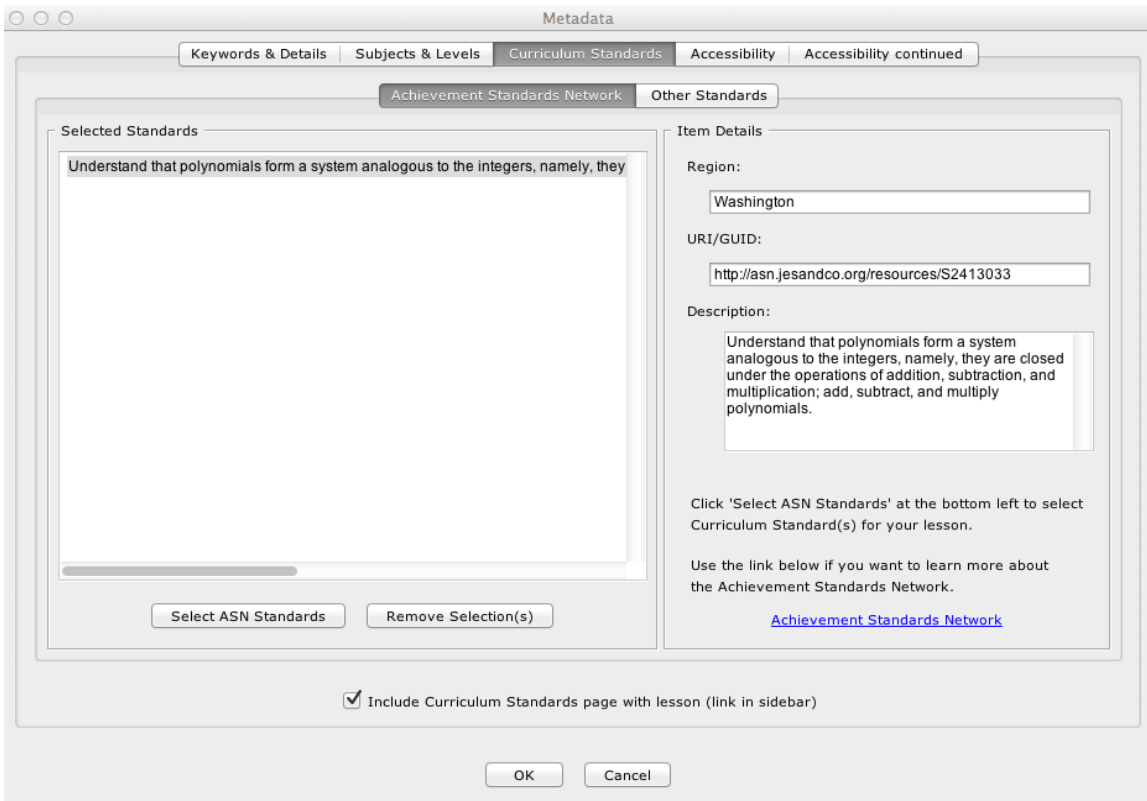


Questions can include an optional hint. Questions can be assigned different point values and multiple-attempts can be allowed.

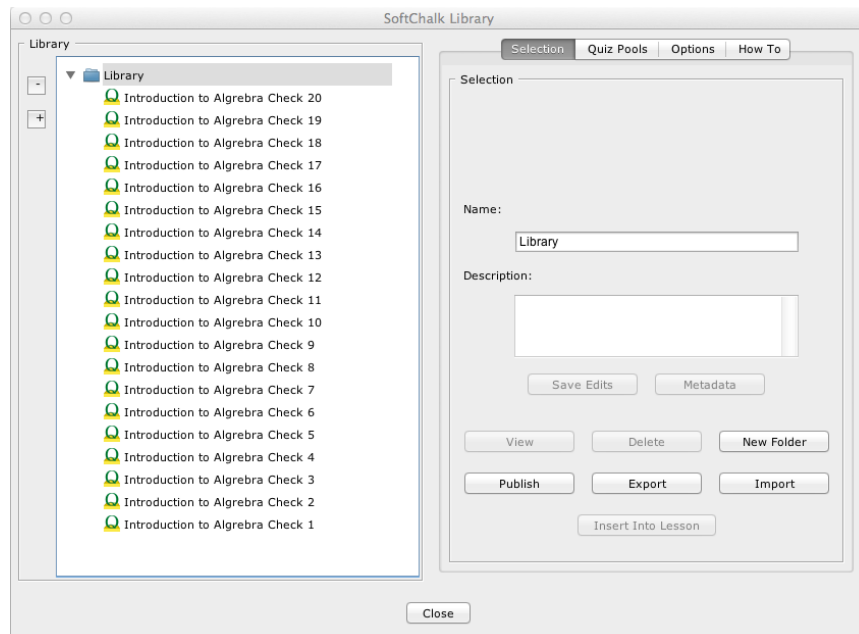


Additionally, the question can be described with a variety of metadata, including curriculum standards.





Questions can be stored in a library for easy reuse, publishing to a hosted sharing website, or arranged into a group of questions to be taken together. One virtue of the group is that questions can be presented in random order, allowing each student to take the quiz, but in a different sequence. As with the individual questions, the group can be described with metadata and also shared widely.



Quiz Group

Quiz Group Group Options Quiz Pools How To

Group Options

Display Questions: All at once One at a time

Random order

Display Group: Hide Show

Feedback: Detailed Summary

Options: Allow retry Show border

Open Quiz Group with

Quiz Group image Text only

Show/hide quiz group...

Restore Default Text

Questions in Group

	Question	Points
voice	Solve for y given c=5 and d=20...	1
voice	Solve for c. [inserted object]...	1
voice	Given the equation: [inserted object]...	1
voice	Solve for the current, I, give...	1
voice	What is the volume of a sphere...	1
voice	What is the volume of a sphere...	1
/er	Evaluate the expression when x...	1
/er	Evaluate the expression when x...	1
/er	Evaluate the expression when c...	1
voice	If possible, simplify the follo...	1
/er	Simplify the following expressi...	1
/er	Simplify the following expressi...	1
voice	Using the order of operations,...	1
voice	Using the order of operations,...	1
voice	Using the oder of operations, ...	1
voice	Rewrite [inserted object]...	1
/er	Evalue the expression. ...	1
/er	Evaluate the expression....	1
voice	Using the distributive propert...	1
voice	Using the distributive propert...	1

Modify Delete

OK Cancel

What follows is an example of the questions as they are rendered in a browser for the student, including the feedback.



Question 1

Value: 1

Using the distributive property, expand and simplify

$$x(y^2 + 5)$$

- a. $xy^2 + 5$
- b. $xy^2 + x$
- c. $x + y^2 + 5x$
- d. $xy^2 + 5x$

Check Answer

Right! Good job!

Points scored this item: 1



Question 2

Value: 1

Using the distributive property, expand and simplify

$$A = 2\pi(r^2 + rh)$$

- a. $A = 2\pi + r^2 + rh$
- b. $A = 2\pi r^2 + 2\pi rh$
- c. $A = 2\pi + r^2 + 2\pi rh$
- d. $A = 2\pi r^2 + rh$

Check Answer

Sorry, incorrect answer.

The correct response: b

Points scored this item: 0

The quiz can be presented as a navigable web site, including institutional branding, a license statement, and a separate listing of curriculum standards.

Page 2

file:///Users/jeffreykahn/Clients/CSU/TAACCCT/Air%20Washington/Introduction%20to%20Algebra/Check_Your_U

Verbeno Moodle Bb Open Ed Bb Partner Cloud QA Bb Partner Cloud Tomcat Kanbanchi SSL-Related Blackboard Learn CoolForEd CalState Bb

SoftChalk CLOUD Page 2

Air Washington Introduction to Algebra
Check Your Understanding

Page: 1 | 2 score print all

Curriculum Standards

Question 1
Value: 1
Using the distributive property, expand and simplify
 $x(y^2 + 5)$
 a. $xy^2 + 5$
 b. $xy^2 + 5x$
 c. $x + y^2 + 5x$
 d. $xy^2 + 5x$
 Check Answer
 Right! Good job!
 Points scored this item: 1

Question 2
Value: 1
Using the distributive property, expand and simplify
 $A = 2II(r^2 + rh)$
 a. $A = 2II + r^2 + rh$
 b. $A = 2IIr^2 + 2IIrh$
 c. $A = 2II + r^2 + 2IIrh$
 d. $A = 2IIr^2 + rh$
 Check Answer
 Sorry, incorrect answer.
 The correct response is: b
 Points scored this item: 0

Score: 1 / 40

return to top | previous page

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curriculum_standards.html

file:///Users/jeffreykahn/Clients/CSU/TAACCCT/Air%20Washington/Introduction%20to%20Algebra/Check_Your_U

Verbeno Moodle Bb Open Ed Bb Partner Cloud QA Bb Partner Cloud Tomcat Kanbanchi SSL-Related Blackboard Learn CoolForEd CalState Bb

SoftChalk CLOUD Page 2 curriculum_standards.html

Curriculum Standards Applied to This Lesson

1. Washington

Washington Common Core State Standards for Mathematics

The Mathematics Common Core State Standards focus on preparation for careers and college and include STEM (Science, Technology, Engineering, and Mathematics) standards for students planning careers in science, technology, engineering, and/or mathematics. In addition, students at all levels should develop expertise in eight Standards for Mathematical Practice.

High School – Algebra

Arithmetic with Polynomials and Rational Expressions

Perform arithmetic operations on polynomials

Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

<http://asn.iesandco.org/resources/S2413033>



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