OERPUB Editor Usability Report

Tested during the Connexions Conference

April 24-25, 2013

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http://www.oerpub.org

http://www.shuttleworthfoundation.org

The interface used for testing

| Saved | Preview | Normal text ▾ | **B** *I* U Aˢ Aₛ | 🔗 [1] | ≣ ≣ ▾ ← ← | ▦ ▾ ⊞ ▷ x^2_+1 | Add a new … ▾ |

Drag to add a new …

Example	1
Exercise	2
Note to Reader	
Definition	
Numbered Equation	3
Quotation	

+

↰ What are these?

Laws of Exponents

The following are generally referred to as the "laws" or "rules" of exponents.

$$x^a x^b = x^{a+b}$$ (1)

$$\frac{x^a}{x^b} = x^{a-b} = \frac{1}{x^{b-a}}$$ (2)

(x^a)^b=x^(ab) (3)

As with any formula, the most important thing is to be able to **use** them--that is, to understand what they mean. But it is also important to know **where these formulae come from**. And finally, in this case, the three should be memorized.

So…what do they mean? They are, of course, **algebraic generalizations**--statements that are true for any x, a, and b values.

Feel free to play with the interface here:
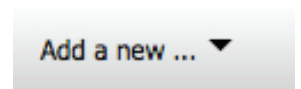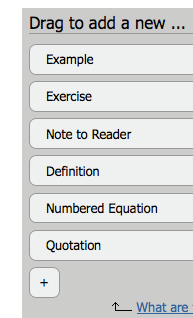http://tinyurl.com/oerpubmockup

Introduction

Usability testing was conducted because new elements have been added to the editor including:

• **Pedagogy in the toolbar**.
This was implemented for instances in which an organization embeds our editor but cannot support the toolbox pedagogy. In which case, our editor will display the pedagogy in the toolbar. Technically it is possible that, for some organizations, the editor will be displayed as having both toolbox and toolbar pedagogy menus. It is uncertain how including both menus will affect the user experience.
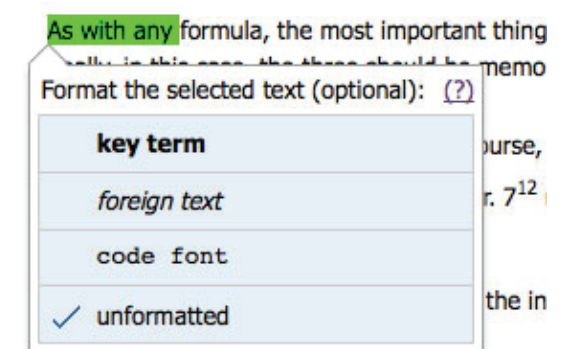
Pedagogy Toolbox

Drag to add a new ...

Example

Exercise

Note to Reader

Definition

Numbered Equation

Quotation

+

↰ What are th

Pedagogy in Toolbar

Add a new ... ▼

• **An inline menu.**
This will enable users to make key terms, convert text to programming code, foreign text, or to remove the formatting from previously formatted text. This inline menu will be prompted when users hover over highlighted text with their cursor, or hover over bold/italic/underline text. It is uncertain how discoverable this menu is, or if users will be annoyed by not having styling options available in this menu.

Inline Menu

As with any formula, the most important thing

Format the selected text (optional): (?)
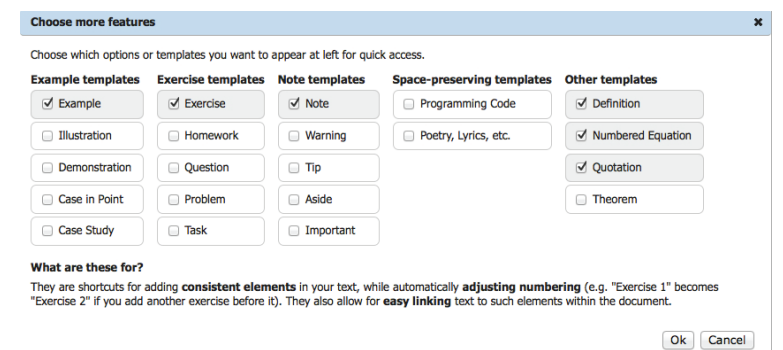
key term

foreign text

`code font`

✓ unformatted

• **Pedagogy options menu**.
This menu provides a list of all possible pedagogy templates and allows users to select which templates are visible in either menu. It is uncertain if users can discover these options.

Pedagogy Options Icon

+

Pedagogy Options Dialog

Choose more features   ×

Choose which options or templates you want to appear at left for quick access.

Example templates	Exercise templates	Note templates	Space-preserving templates	Other templates
☑ Example	☑ Exercise	☑ Note	☐ Programming Code	☑ Definition
☐ Illustration	☐ Homework	☐ Warning	☐ Poetry, Lyrics, etc.	☑ Numbered Equation
☐ Demonstration	☐ Question	☐ Tip		☑ Quotation
☐ Case in Point	☐ Problem	☐ Aside		☐ Theorem
☐ Case Study	☐ Task	☐ Important		

What are these for?
They are shortcuts for adding **consistent elements** in your text, while automatically **adjusting numbering** (e.g. "Exercise 1" becomes "Exercise 2" if you add another exercise before it). They also allow for **easy linking** text to such elements within the document.
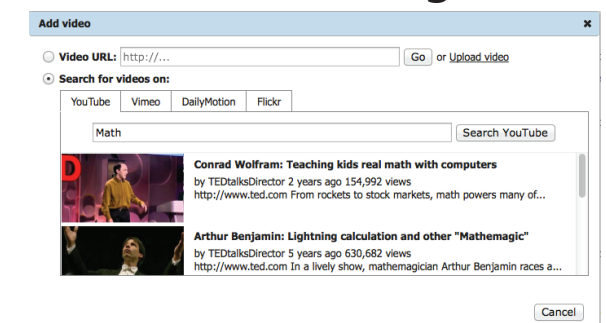
Ok   Cancel

• **An icon for inserting videos into documents**.
This will enable users to search for videos hosted on various sites and embed them in their document. It is uncertain if users can discover the video icon and easily embed a video.

Video Icon

▶

Video Dialog

Add video   ×

○ Video URL: http://...   Go   or Upload video
● Search for videos on:
YouTube   Vimeo   DailyMotion   Flickr

Math   Search YouTube

Conrad Wolfram: Teaching kids real math with computers
by TEDtalksDirector 2 years ago 154,992 views
http://www.ted.com From rockets to stock markets, math powers many of...

Arthur Benjamin: Lightning calculation and other "Mathemagic"
by TEDtalksDirector 5 years ago 630,682 views
http://www.ted.com In a lively show, mathemagician Arthur Benjamin races a...

Cancel

• **Quotation template to insert semantically rich quotations**.
These enable authors to create quotations that are properly encoded so that they can feed into customized applications, be systematically filtered, and be consistently formatted. It's uncertain how usable this feature is.

**Quotation Template in Toolbox**

Quotation
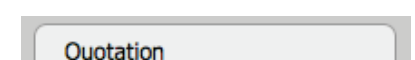
Testing Questions

This usability test was designed to answer these specific questions:

1) Can users discover important features of the editor on their own?

2) How discoverable is the inline context menu?

3) Will it be a surprise to users that the inline menu does not provide any styling options? Might the inline menu distract from styling?

4) Are participants able to use and understand the pedagogy? Can they successfully customize it?

5) Is it confusing to have two pedagogy menus in the editor?

6) Are participants able to properly insert videos?

7) Are participants able to properly insert quotations? Will they have issues with their appearance?

Question 1: Can users discover important features of the editor on their own?

Task 1: Freely explore the editor while thinking aloud without being prompted to complete a particular task.

Participants

8
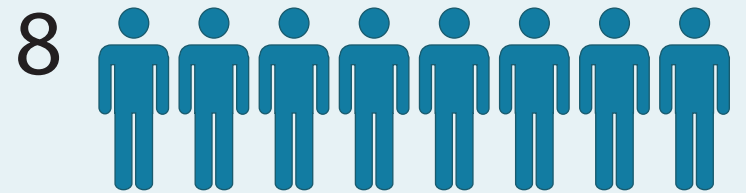
Important Features Include:
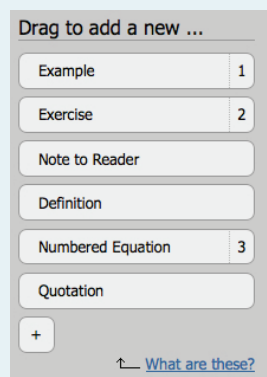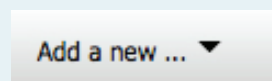
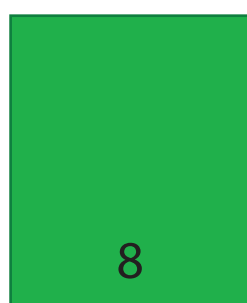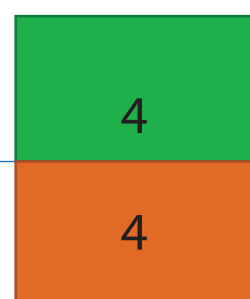| Toolbox Pedagogy	Toolbar Menu	Pedagogy Options	Inline Menu
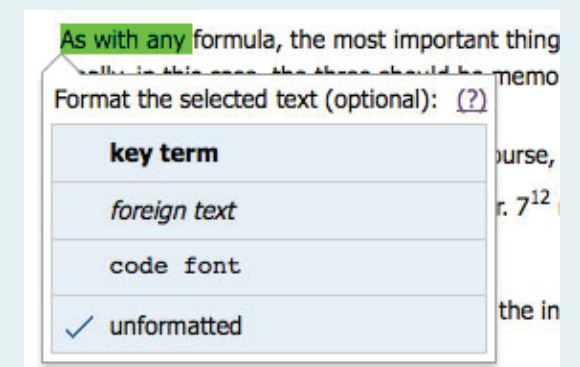
Number of people that discovered these features *during* this task ...

Toolbox Pedagogy	Toolbar Menu	Pedagogy Options	Inline Menu

8   4   3   1
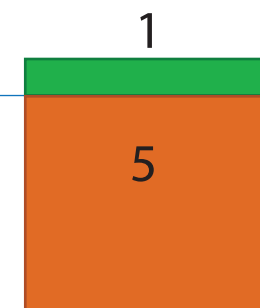
= Discovered during this task

= Discovered later

4   4   5

... vs. discovering them *later*

Task Conclusion

The toolbox pedagogy is the most immediately discover discoverable and may be best for new authors. The inline menu is least immediately discoverable.
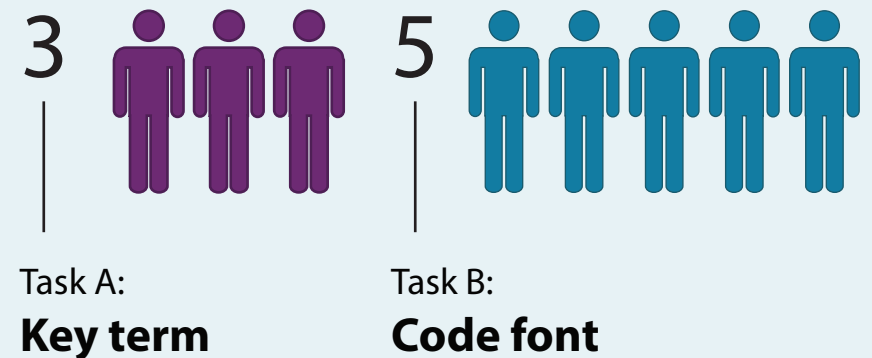
Question 2: How discoverable is the inline context menu?
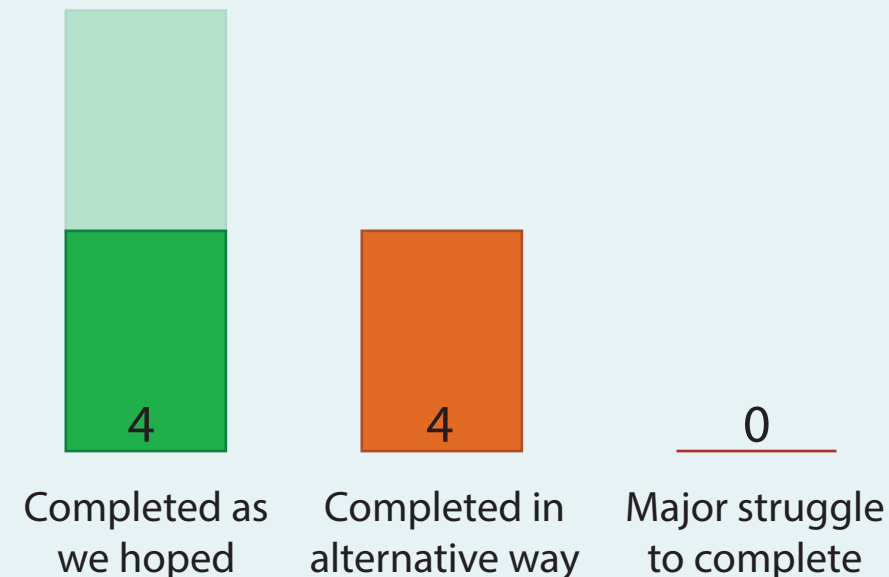(for this question participants were divided between tasks A & B)

Task 2: Use the inline menu to either:
A. Make the word "functionalists" a key term, or
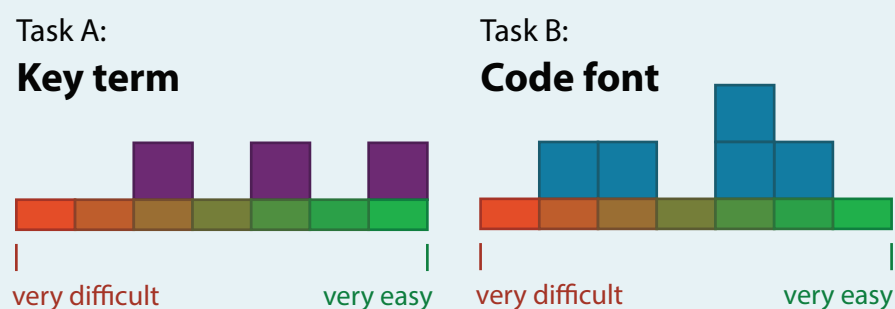B. Put a specific portion of text in code font.

Task Performance

4	4	0
Completed as we hoped	Completed in alternative way	Major struggle to complete

Bar charts showing different task performance variables

Subjective Rating of Task Difficulty

Task A:
Key term

very difficult   very easy

Task B:
Code font

very difficult   very easy

Participants

3   5

Task A:
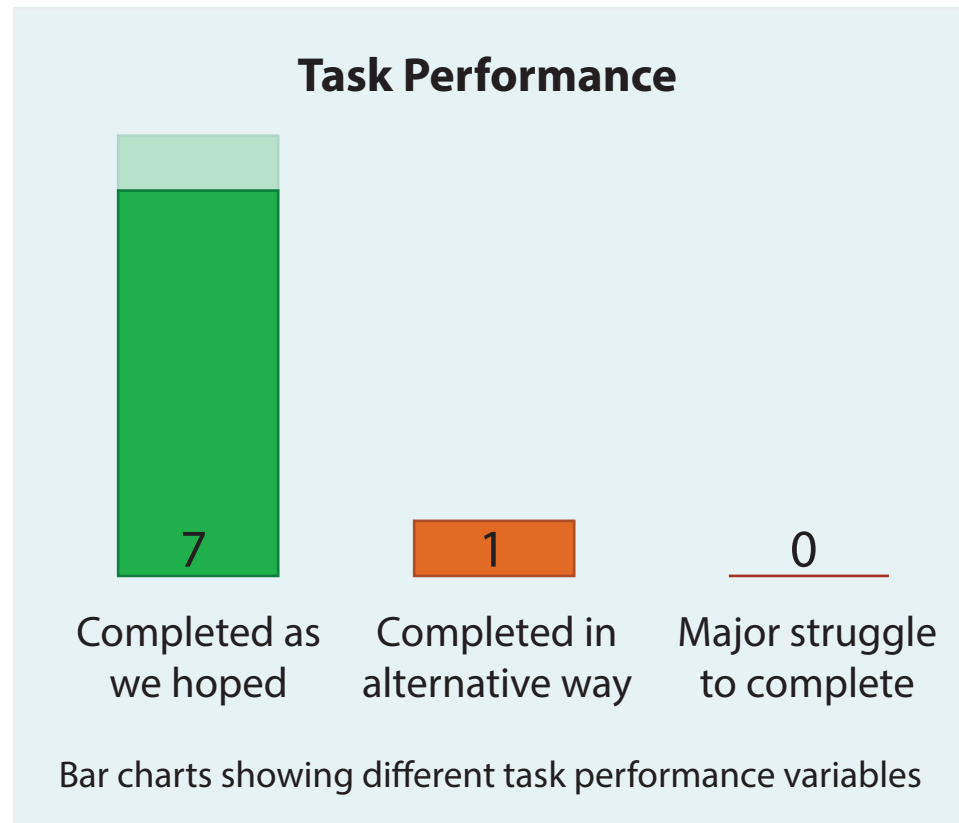**Key term**

Task B:
Code font

Interesting Notes

• 4 participants simply did not discover the inline menu during this task. 1 made a key term via the toolbox pedagogy and rated the task as "difficult". 1 typed the definition into the document and rated the task as "easy". 2 of the Task B participants didn't discover the inline menu and couldn't complete the task as hoped.

• 1 person discovered the inline menu during this task and properly made "functionalists" a key term

• 3 persons alternatively used "programming code" in the toolbar menu. 1, when prompted to keep the text inline, successfully used the inline menu.
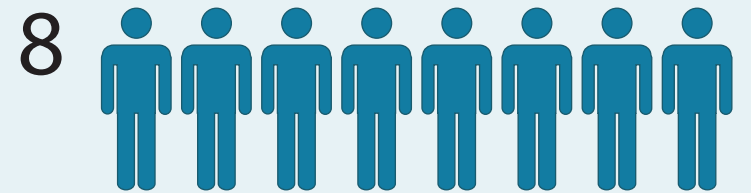
Task Conclusion

This task was somewhat flawed, since we under tested Task A, and didn't sufficiently make it clear to most participants of Task B that the intention was to keep the marked-up text inline. Because half of the participants were unable to discover the inline menu during this task, it is uncertain whether they would ever use the feature as desired, or whether they would always use an alternative route that was perhaps less optimal. For example, it may be that participants who initially used "programming code" (block) instead of "code font" (inline) might never discover "code font" in the inline menu. It could also mean that distinction between the two is not clear enough. The inline menu is not terribly discoverable.

Question 3: Will it be a surprise to users that the inline menu does not provide any styling options? Might the inline menu distract from styling?

Task 3: Bold a specific word.

Task Performance

7 — Completed as we hoped

1 — Completed in alternative way

0 — Major struggle to complete

Bar charts showing different task performance variables

Subjective Rating of Task Difficulty

very difficult — very easy

Participants

8

Interesting Notes

- 1 person made the word a key term via inline menu but understood that they were doing something more than just bolding the word.
- 7 persons bolded the word via the toolbar, though half initially used Ctrl-B (which didn't work in the mock-up).
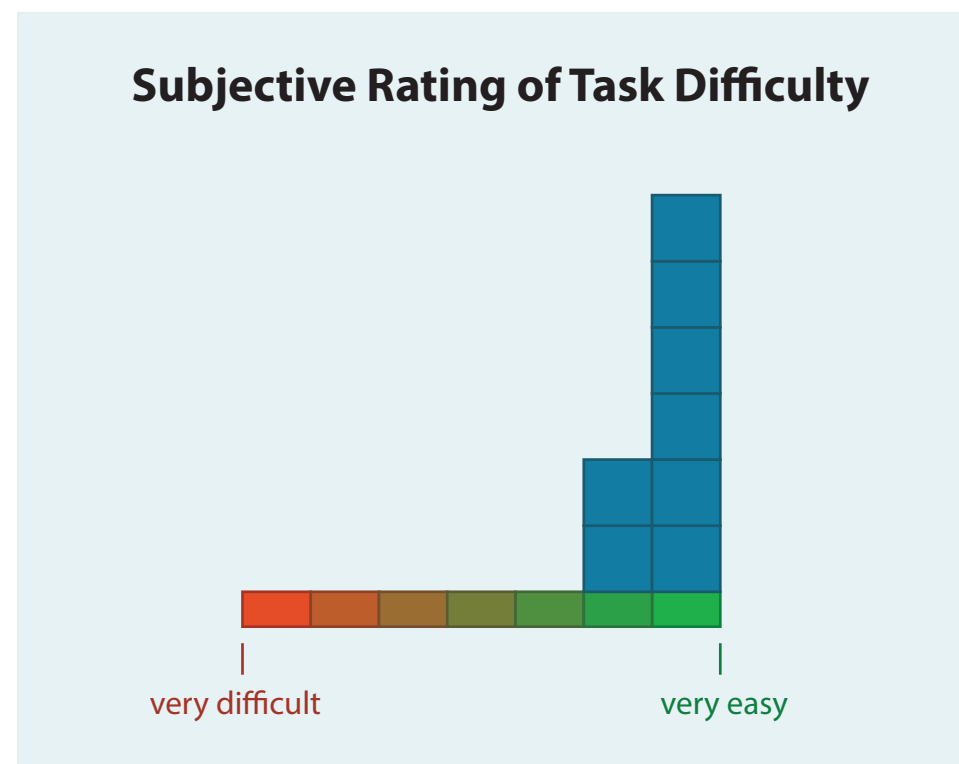
Task Conclusion

It does not appear that styling options need to be provided in the inline menu. It appears that using it as tool for making semantic markup easy is a possibility. However, it is uncertain how much of the results are impacted by that fact that half the participants were not aware of the inline menu when given this task (half were given this task before Task 2).

Question 4: Are participants able to use and understand the pedagogy? Can they successfully customize it?

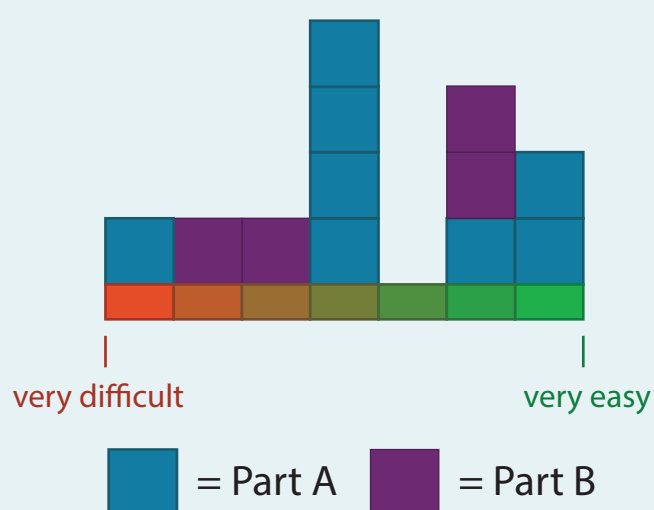## Task 4: Insert a question and answer that tests the reader's comprehension of the content.

A. Insert an "exercise" or "question"
B. If an exercise was inserted but the participant didn't change try to make it a "question", have them change the label
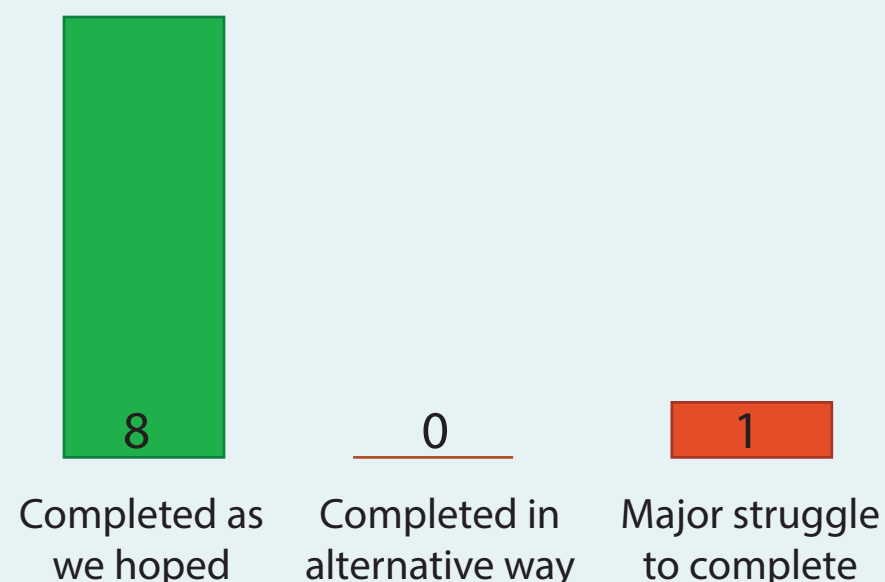
Participants

8 👤👤👤👤👤👤👤👤

Part B: If not done on their own, change "Exercise/Solution" to "Question/Answer"

4 👤👤👤👤👤👤👤👤

Task Performance

8	0	1
Completed as we hoped	Completed in alternative way	Major struggle to complete

Bar charts showing different task performance variables

Subjective Rating of Task Difficulty

| very difficult | very easy |

■ = Part A   ■ = Part B

Interesting Notes

• Everyone was able to ask readers a question using an "exercise".
• 3 persons had some trouble switching the pedagogy label from "exercise" to "question".
• Most users would have achieved the desired label by inserting a question in the first place (this was not yet implemented in the mock-up), but 4 did use the label changer.
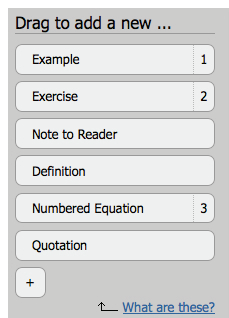
Task Conclusion

It seems that participants can adequately perform this task. However, some participants did struggle to change the label from exercise to question, or didn't know that this ability existed. Making this feature easier to discover seems important.

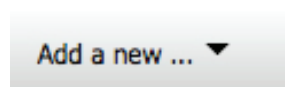# Question 5: Is it confusing to have two pedagogy menus in the editor?

Task 5: Describe your impressions of the pedagogy menu in the toolbar
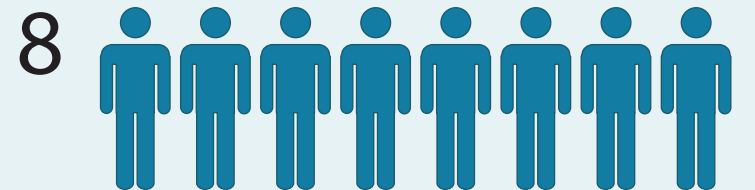
The Two Pedagogy Menus

Toolbox Pedagogy

Drag to add a new ...

Example	1
Exercise	2
Note to Reader	
Definition	
Numbered Equation	3
Quotation	
+	

↰ What are these?

Toolbar Pedagogy

Add a new ... ▼

Participants

8 👤👤👤👤👤👤👤👤

Sources of confusion

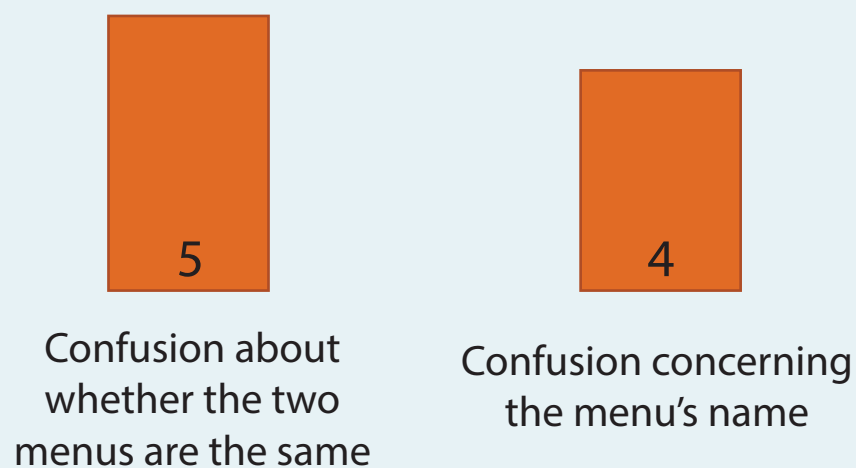| 5	4
Confusion about whether the two menus are the same	Confusion concerning the menu's name

Bar charts showing points of confusion

Interesting Notes

- Five persons were not sure if the two menus were the same and had to experiment with both to find out
- Four persons expressed confusion about the name of the menu
- Two persons had not seen the menu until the test monitor pointed it out
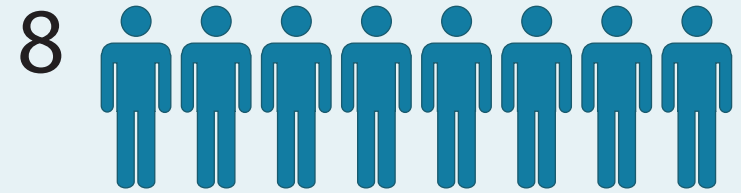
Task Conclusion

While most participants were initially confused about their coexistence, all seemed to conclude that the two menus probably performed the same actions, although it is uncertain if these users are confident in this conclusion. It's possible that these users, to some extent, believe that their may still be some unknown difference. Furthermore, the new pedagogy menu may benefit from being renamed. Some thought "add a new.." referred to adding new tools to the toolbar.
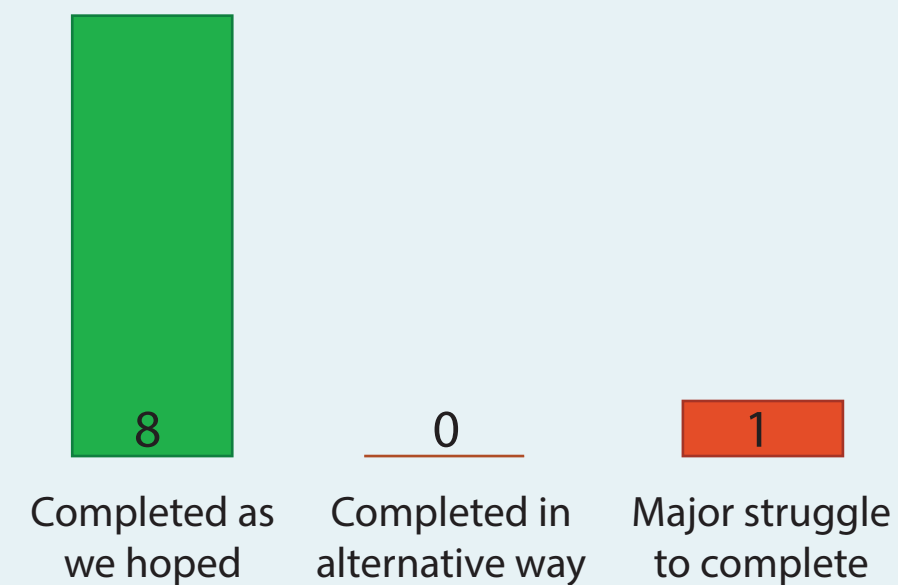
Question 6: Are participants able to properly insert videos?

Task 6: Insert a video of a specific TED talk

Participants

8 👤👤👤👤👤👤👤👤

Task Performance

Completed as we hoped	Completed in alternative way	Major struggle to complete
8	0	1

Bar charts showing different task performance variables

Subjective Rating of Task Difficulty

very difficult — very easy

Interesting Notes

- Everyone was able to successfully complete the task.
- Three had to carefully scan the toolbar to find the video icon.
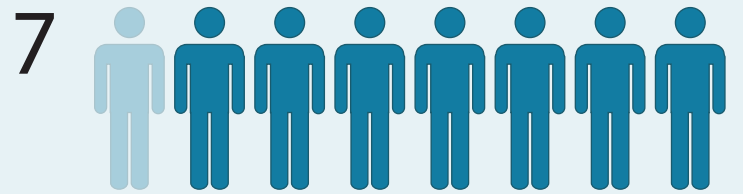- A number had issues with not noticing that the caption was editable.
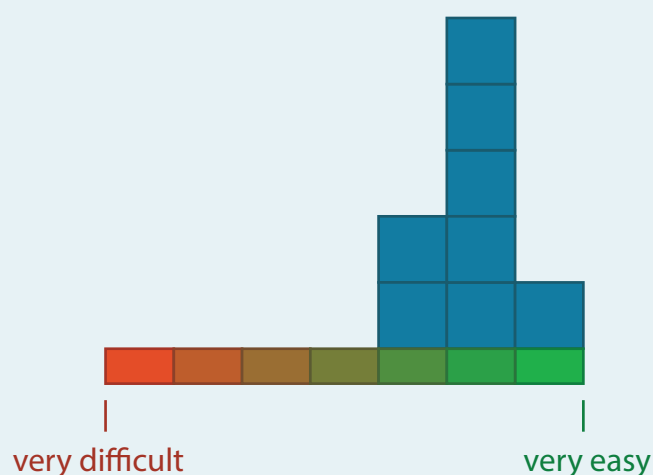
Task Conclusion

All participants were able to insert a video without despite it being a struggle for one participant. Some had to carefully scan the toolbar to find the video icon. This may be a sign that the video icon is not intuitive enough and could benefit from being redesigned. Furthermore it was noted that in the video dialog box, the caption input field is too small to see the video's caption, and that it may need to be bigger to provide more context to users.
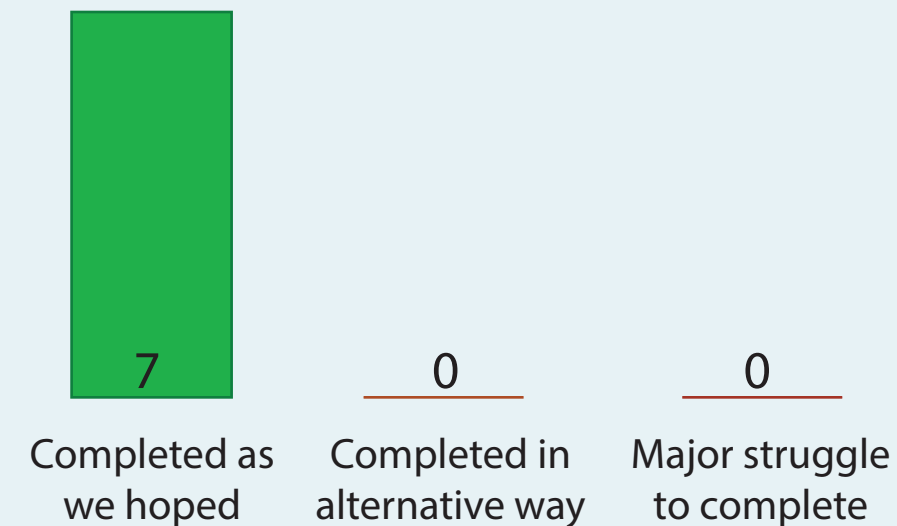
Question 7: Are participants able to properly insert quotations? Will they have issues with their appearance?

## Task 7: Pull part of a paragraph out into its own block quotation

Task Performance

| Completed as we hoped | Completed in alternative way | Major struggle to complete |
| 7 | 0 | 0 |

Bar charts showing different task performance variables

Participants

7

Interesting Notes

- Some requested that quotations be styled differently--made to stand out more
- Two persons expected that there be a more efficient way to add quotations
- 1 person requested there be a way to add attribution

Subjective Rating of Task Difficulty

very difficult   very easy
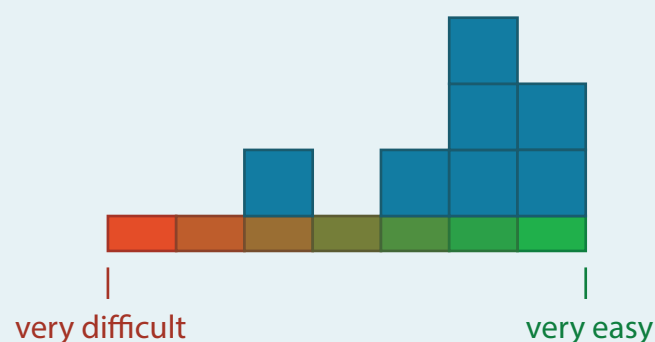
Task Conclusion

While everyone was able to insert a quotation without major problems the need to make this task more efficient seems necessary. One person rated this task as difficult because of the number of steps it requires. Allowing participants to highlight text in the document and then click a pedagogy template to convert the highlighted text may resolve this issue. It also seems that quotations should have attributions and be styled differently--made to look more visually appealing and semantically rich.

Conclusions

Q1) Can users discover the new and important features of the editor on their own?
It appears they can with the exception of the inline menu. Perhaps changing the color of the menu's icon so that it's brighter will increase the menu's discoverability. It may also help if the button appears more quickly after selecting and hovering over selected text.

It also appears that users are aware of the pedagogy options menu icon, but are reluctant to click it. The pedagogy menu icon may benefit from being redesigned so it's more inviting and friendly.

Q2) Can users discover the inline menu?
This menu does not appear to be discoverable enough. Changing the menu button color to a brighter foreground color and prompting the button to appear more quickly may increase its discoverability.

Q3) Will it be a surprise to users that the inline menu does not provide any styling options? Might the inline menu distract from styling?
This does not appear to be the case. For the most part, users seem okay with accessing the styling options via the toolbar exclusively. However, keyboard shortcuts for bold and italics should be supported.

Q4) Are users able to understand and use the pedagogy? Can they successfully customize it?
This does not appear to have gotten worse, or better, since the previous usability testing. Users seem to be able to understand and use them well enough. However, it does seem important to make changing pedagogy labels easier.

Q5) Will users be confused if they see two pedagogy menus in the editor?
Initially yes, but the confusion seems to abate from experimenting with both. However, it's uncertain if users are confident in their belief that the two menus are the same. Furthermore, renaming the "add a new.." menu may be necessary as this seems to add to the confusion.

Q6) Can users properly insert videos?
Yes, the workflow seems to work well. However it seems that it took some participants too long to find the video icon. This may not be a high priority issue since confusion is not likely to persist after inserting the first video. But if possible, re-designing the icon may be beneficial. Furthermore, it may help if the video caption box in the upload dialog is more noticeable and larger. Many users could not see the video's entire caption and may have chosen not to read or edit it as a result.

Q7) Can participants properly add quotations? Will they have issues with their appearance?
Participants were able to properly add quotations, but a number of participants requested that they be styled differently in the document. This seems important if authors are to be enticed into semantically marking their quotations. If quotations are not visually appealing, authors may choose not to use them and instead treat them as simple paragraphs.