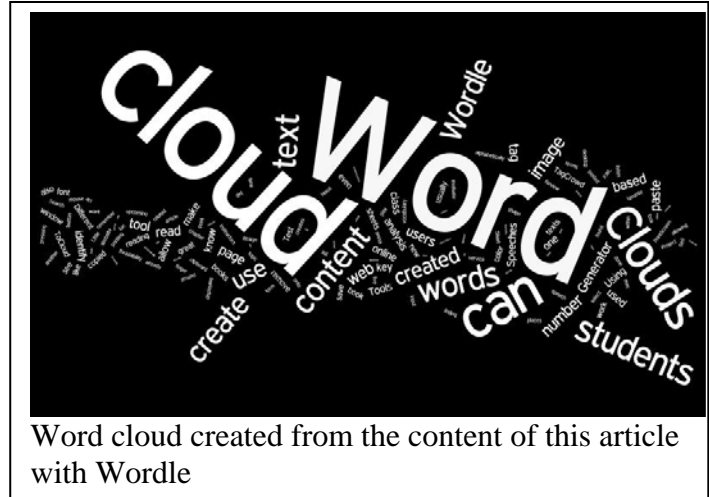


# Word Clouds - Educational Tools

by  
Terence Cavanaugh

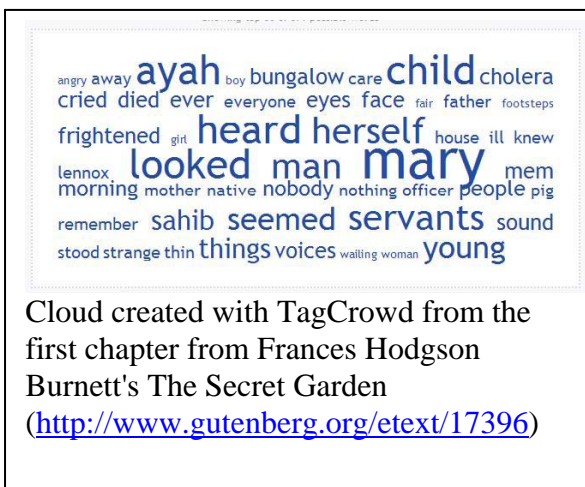
While browsing the web you might see some “tag clouds” or “word clouds,” often they are over to the side of the page and look like bunches of words random words put near each other. These word clouds are a form of content map, with the content being the words that are found on a web page or other work. This is a visual depiction may be used describe the content of web sites usually displaying between 30 and 150 terms in the word cloud. These clouds are usually composed of single words and are typically listed alphabetically, and the importance or number of occurrences



Word cloud created from the content of this article with Wordle









of a word is shown with a change in font size and/or color. Amazon.com does a similar thing with a number of their books with their Concordance, theirs is composed of the 100 most frequently used words in the book in alphabetical order with larger fonts indicating that the word was used more often (to find out how many times, just leave your mouse over the word). Thus by looking at a word cloud a person can quickly identify the most used words within a book, a chapter, or other work. But what one person calls a word cloud another may call a word wall.

Creating your own word clouds is actually pretty easy and can make wonderful displays related to your reading content: fiction and nonfiction.

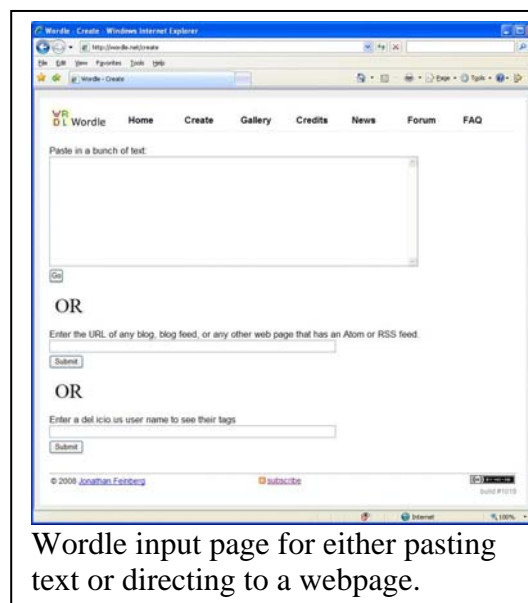


Cloud created with TagCrowd from the first chapter from Frances Hodgson Burnett's *The Secret Garden* (<http://www.gutenberg.org/etext/17396>)

Using an online service that creates word clouds teachers, librarians, and students can create an instructional tool for their reading content. The word cloud allows instructors or students to identify key words within a written passage and use the cloud to analyze content or create a form of promotion about an upcoming book or chapter. There are a number of online free tools that will create word clouds including Wordle, TagCrowd, ToCloud, and Tag Cloud Generator. Different tools work with different formats of input, some allowing users to paste in copied text, uploading text files, or directing to an online web page (see the table that follows).

Tool	Website	Cloud Max Words	Input		
			Paste text	Upload file	Link to webpage
TagCrowd	http://tagcrowd.com/	Varies with input text			
Wordle	http://wordle.net/	User set			
ToCloud	http://www.tocloud.com/	User set			
Tag Cloud Generator	http://www.tagcloud-generator.com/	30			
Amazon Concordance	Amazon.com's feature Inside This Book	100			

My favorite cloud tool is Wordle, created by Jonathan Feinberg, and is a great online service for generating “word clouds” from text that can be either pasted in or linked from a web page. One of the really nice things about Wordle is that it not only creates the word cloud, but it also puts an artistic slant to it create word cloud art, allowing choices for font structure and word placement design or shape of the completed word cloud. Wordle even has a randomize button to allow users to press and see different design views of their word cloud. With your word cloud created, users can edit the shape, word orientation, select from over thirty font type, choose the color pallet, and arrange the words alphabetically or not. Wordle, like a number of the other cloud creators, uses a remove list which automatically eliminates common words from the word cloud. With Wordle though, users can remove even more by selecting word in the cloud by right-clicking and then choosing the Remove option or use the “~” symbol to connect two or more words together as a phrase.



Wordle input page for either pasting text or directing to a webpage.

## Some ideas for using Word Clouds with students

**Text analysis** - You can paste in short texts such as sample chapters or news articles that the class has been reading. Show the class the word cloud and see if they can remember what the text was about and how the words were used within the text. You can build up a bank of word clouds and use them to get students to recall the books they have studied and their vocabulary. This is especially useful for whole books that can be obtained online.

**Text comparison** - Create word clouds from a number text genres (news article, poem, story, speech, etc.) and use the cloud to if students can identify the genre and state the clues for their decision. Another comparison would be to have two different text segments that have some kind of relationship (such as articles or poems written on the same topic) and then compare the clouds created by each.

**Assessment analysis** – create word clouds related to the criteria associated with an assessment, such as the content in a FCAT rubric, objective descriptions.

**Course content** – create a word cloud based on the syllabus contents, the course description, or the standards met in an activity.

**Prediction** - You can create word clouds of texts to use as a pre-reading activity. Ask students to make predictions based on the word cloud content developed from the text.

**Vocabulary KWL** - Create a word cloud based on upcoming content and have the students evaluate what they already know about the topic by reviewing the word cloud. They could also check or discuss new words from the word cloud that they are unsure of before they read or listen. Another way to use the vocabulary concept would be to copy definitions form several sources and then create a cloud from the compiled definitions.

**Website Evaluation** - Create a word cloud based around a topic being researched on the internet. They could also use this as a component of a KWL, as they evaluate what they already know about the topic by skimming the word cloud and the relevance placed on each word.



Wordle cloud created from Shakespeare's *Love Sonnet #20* from the Literature Network collection (<http://www.online-literature.com/shakespeare/325/>)

Benjamin Boxer Boxer's England Foxwood Frederick Jones Jones's Major Mollie Napoleon Napoleon's Pilkington Snowball's Squealer Sunday Whympers animal animal farm animals announced appeared barn battle beasts began beings buildings called clover commandments comrade comrade napoleon comrades cows cried day days death dogs eyes farm farmhouse food good great gun happened hard harvest hay heard hens hoof horses human human beings immediately labour lay legs life live long looked man men moment morning night pig pigs place put read rebellion set sheep side snowball stone stood straw suddenly summer tail terrible thought time van week white windmill words work worked yard year years young

Word cloud developed with ToCloud from Orwell's *Animal Farm*.



sheets for large display using a projector or even to place them up as window art. Print out the word cloud onto special shrink-plastic sheets (remember Shrinky-Dinks) and then make word cloud key chains or zipper pulls (don't forget to punch holes before baking or you will need a drill). Another fun activity would be to use iron-on transfer sheets and then make your own t-shirt based on one of your favorite books or the book that is being read in class. Most of the word cloud resources allow for direct printing of the cloud, but do not allow users to save the cloud as an image on their computer. To save the created cloud the image usually needs to be copied using a screen capture process.

## Using Wordle

1. Write or find some text, like a book, chapter, article, or essay.
2. Select all of the text and then copy it to the clipboard.
3. Go to Wordle (<http://wordle.net>).
4. Click on Create your own.
5. Paste the text.
6. **Either** use a screen capture program (see below) to obtain the Wordle word cloud as a graphic **Or** save the Wordle in the public gallery and use the code provided in your blog or web page.

### Steps for copying Word Cloud to print out for poster or handout:

**Windows:** With the window displaying your word cloud being active (the bar at the top is on or the window is in front), pressing both the **Alt** key and the **PrintScreen** key (**Alt-PrtScrn**) places an image of into the clipboard memory. Pressing **PrintScreen** by itself places an image of the entire desktop on the clipboard. Then you can paste the word cloud image into image editing software, such as Paint or Photoshop Express, or you can paste it into a document, like Word.

**Mac:** Press three keys together the **Apple and Shift-4** and then use the mouse to drag a box around the cloud you want to save or use **Apple and Shift-4** and then the **Spacebar** to capture the whole window. Once you release the mouse button you should get a screenshot image in PNG format on your desktop. Add pressing the **Control** key to the two shortcuts above to place the screen shot on the clipboard instead of saving it to the desktop

Take some time to play with a word cloud generator and see what you can create for yourself and your students. These clouds add a new way to look at a text's content and can be a great tool for learning.

---

fragments formed Helens lava active surface Hot Mount crater flows rocks magma large deep cone rock water  
Eruptions gases vent feet Volcanoes above Earths Volcanic miles ash Volcano eruption scientists

---

Short word cloud made with a Tag Cloud Generator from the nonfiction text Volcanoes from the USGS (<http://pubs.usgs.gov/gip/volc/text.html>)



So, how might Wordle be used in an educational context? I would suggest the following 5 ways:

- As a means of summarizing the content of an essay or other piece of work. This provides a very useful means of telling you what the article is about.

"What about a summary at the beginning?", you say? Well, fair enough, but not all of us think in terms of bullet points, and nor do we always need to. Wordle provides an alternative possible approach.

- Wordle is handy for self-reflection. One of the hazards of essay writing is that students can get carried away, and go off the point completely, or contradict themselves.
- In the same way, Wordle can be used by the teacher as a means of assessment. Ask a pupil to create a Wordle of her presentation, and use **that** as the basis for a discussion, rather than the presentation itself. The beauty of this approach is that you don't get bogged down in the minutiae, and end up losing sight of the forest through concentrating on the trees.
- Wordle is also good for summarizing survey results where the survey uses free text fields.
- illustrate one's work with a picture of some kind, and a Wordle is just as good a way as any to break up the text a bit! – multiple intelligence

More ideas and images at:

[http://docs.google.com/TeamPresent?id=dhn2vcv5\\_157dpbsg9c5&ncl=true&skipauth=true](http://docs.google.com/TeamPresent?id=dhn2vcv5_157dpbsg9c5&ncl=true&skipauth=true)