Better Writing through AI:
Online writing tools

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https://rogergraves.podomatic.com/
How we roll

Ask questions as they occur to you

Supply answers if you have one

If talk in this room gets too busy, post comments/answers/questions to Twitter at #bwritectl
OK, maybe I shouldn’t have said AI

Some definitions:

“Writing” = process; iterative; social; genre-driven

“AI” = all inclusive. No?

= software using data tools to facilitate revision/composition

“Students” = everyone here, including me
Focus questions

How can we, as writers, use software tools to write better documents?

What is the range of options?

Who has had success with what?

Others?

My first computer, 1987, IBM PS2
Glorified typewriter

Ways to think about writing: the canons of rhetoric

- Invention (of ideas to write about)
- Arrangement (organization/genre)
- Style (grammar and usage)
- Memory (record of the text)
- Delivery (performance of the text)
Writing Competency

Diagram adapted from A. Beaufort (2007), *College Writing and Beyond*. Logan: Utah State UP.
Where tools help

*Writing process knowledge*
*Rhetorical Knowledge*
*Genre Knowledge*
*Subject Matter Knowledge*
*Text*

Through sharing (Twitter, Google Docs, Dropbox)

Through learning (surface correction/grammar)

Co-writing, review

Diagram adapted from A. Beaufort (2007), *College Writing and Beyond*. Logan: Utah State UP.
Where they don’t help: Limitations of software

The most important kinds of knowledge about writing (genre, rhetorical) cannot, at present, be developed through AI.

Writing process knowledge (invention, arrangement, style, memory, delivery) only helped somewhat by software applications: style/grammar.

Sharing of knowledge can, however, lead to better performances in invention and arrangement: Google docs, Dropbox
10 slides on tools

**Surface-level, editing**
- Grammarly
- ProWritingAid
- GradeProof

**Sharing**
- Google docs
- Dropbox

**Research**
- ResearchGate
- ScienceDirect

**Social media**
- Twitter: #phdlife, #phdchat

**Formalized sharing**
- Game of Writing
- Writing groups
To give is better than to receive: The benefits of peer review to the reviewer's own writing

DOI: 10.1016/j.jslw.2008.06.002  Cite this publication
... 11). These studies confirmed prior findings that peer feedback triggers higher percentages of content changes (Lundstrom & Baker, 2009; Yang et al., 2006), which are considered to be signs of better writing (Liu & Sadler, 2003). Finally, and perhaps most significantly given the scope of his work, Topping (1998) reported on a review of 109 articles about peer feedback in higher education that included both L1 and L2 learners, concluding that peer review "appears capable of yielding outcomes at least as good as teacher assessment and sometimes better" (p. ... 

... This finding is consistent with those of prior studies highlighting the benefits of peer feedback on L2 writing, for both those who generate reviews and those who receive them (Diab, 2011; M.C. Ho, 2015; Lundstrom & Baker, 2009; Ruegg, 2015; Yang et al., 2006; Zhao, 2014). Moreover, the finding that peer review helps reviewers become better writers was also evident in the results for the research question 2, where the quality of participants’ feedback was a stable predictor of their writing performance on the posttest measure. ...

... Moreover, the finding that peer review helps reviewers become better writers was also evident in the results for the research question 2, where the quality of participants’ feedback was a stable predictor of their writing performance on the posttest measure. Even after controlling for students’ initial writing ability in model 2, and the quality of author responses in model 3, the feedback measure remained a statistically significant predictor, which is consistent with the findings of other studies (Demiraslan Çevik, 2015; Li et al., 2010; Lundstrom & Baker, 2009) showing that feedback can engage students in an active learning mode that helps sharpen both reviewing and other learning abilities. ...

What Is the Influence of Peer Feedback and Author Response on Chinese University Students’ English Writing Performance?

Xin Zhang · John E. McEneaney
Academic emotions in written corrective feedback situations

Ye Han, Fiona Hyland

Abstract

Although written corrective feedback (WCF) is often believed to evoke negative emotions, empirical studies on L2 students’ affective reactions to this teaching and learning device are still lacking. Informed by research on academic emotions (Pekrun, 2006; Pekrun & Linnenbrink-Garcia, 2012), the paper reports on two case studies investigating Chinese university EFL students’ experiences and emotions in doing WCF. Results indicate that students’ perceptions of WCF vary across writing genres and individual difference. Students felt more positive in the narrative genre, while the descriptive genre evoked negative emotions. Some students even considered feedback as a burden, which could harm their motivation and self-esteem. The findings contribute to the understanding of affective processes in WCF, and may suggest that individualized feedback is necessary to address students’ unique emotional needs.
Neil Haave

to me

Thanks Roger! I have pencilled you into our program. I am assuming it will deal with something helping instructors develop their ability to develop our students' writing? Anyways, I have pencilled in for "Something on Writing." I'll let you know when we need something more concrete.

Neil Haave (ualberta.ca)

Neil,
I guess I better get more specific that "some thing on

Correct your spelling

something
Neil,
I guess I better get more specific that "some thing on

Possibly confused word

Possibly miswritten word: some ...

some-thing → something

The word some thing seems to be miswritten. Consider replacing it.

x  IGNORE
Your Weekly Writing Update

Holy smokes. You were quite the busy bee with your writing this past week. You were more productive than 91% of Grammarly users.

VOCABULARY
You used more unique words than 89% of Grammarly users.
GradeProof (Google docs)

Price: free
ProWriting Aid

https://prowritingaid.com/

Key is ability to teach/learn rather than simply mark errors

A subordinate clause adds context to a sentence. It is not a proper sentence on its own.

A subordinate clause starts with a subordinate conjunction. Common subordinate conjunctions are after, although, as, because, before, even if, even though, if, in order that, once, provided that, rather than, since, so that, than, that, though, unless, until, when, whenever, where, whereas, wherever, whether, while, and why.

In the following sentences, we have highlighted the subordinate clauses using bold italics.

Julia chose to visit the museum since she's an art major.
Since Julia is an art major, she chose to visit the museum.
If you go to the museum, you will learn something about history.
You will learn something about history if you go to the museum.

From these examples, you can see that subordinate clauses can either come at the beginning or end of a sentence. When subordinate clauses come at the end of the sentence, you don't use a comma. However, when a subordinate clause comes at the beginning of the sentence, you set it off with a comma.

Be careful, though, as some subordinate conjunctions can also act in other roles. For instance, the word "that" can also be a determiner, e.g. That car is red.

roots → roots.
Sharing: Twitter

Talk to others

Get ideas (invention)

Find resources

Informal; unfocused
It is through sharing of comments that we can improve the thinking and ideas in our writing (high-order, invention aspects).

About HPCS: [https://canheir-hpcs.ualberta.ca/](https://canheir-hpcs.ualberta.ca/)

The following is an outline for a summative paper on GWrit.

1. Introduction

   How can we test gamification and social learning in online writing environments? This paper will present an online writing environment, GWrit (Game of Writing), where students can comment on each other’s writing and where they get rewards for on task activity (gamification). GWrit has been developed by the Arts Resource Centre team at the University of Alberta over the past three years and has been used with over 750 students. Gamification analytics and feedback and social-media inspired commenting are the key pedagogical innovations behind GWrit. Traditional schooling is part of the problem: many students perceive it as ineffective and boring (Dicheva, Dichev, Agre & Angelova, 2015). To combat this, we designed GWrit to provide an environment with many gamification components: task completion structures, award triezer systems, competitive environments, badees and ranks. Deterdins(2011) defines
A note on sharing


Phillips concluded that students were reliable assessors of their peers; that students value peer assessment; and that peer assessment contributed to higher academic performance.


In blended or hybrid courses, technology-enabled peer feedback produced more lexically complex responses with more interactive competence.

Implications for your teaching

- Much of what we talked about here can be applied to your teaching
- Students need to “tool up” in order to write well
- Students improve their writing by sharing their writing and by commenting on the writing of other students
Sharing: Peer comments by WRS 102 students

Quoted Text
Another probable hypothesis

Comment
This is a good example of the hedging that we talked about in class yesterday.

- Graves
Nov 27, 2014
You should spell out the abbreviation

- Graves
Sep 09, 2014
An interesting way to start.

- Dupe
Sep 11, 2014
I could use this kind of way to end my introduction.

- Graves
Sep 09, 2014
These are impressive, but I don't know if they speak to what students might want to know about you. Maybe you could talk about the other c...

- Graves
Sep 09, 2014
It looks like you have two introductions here. I think you'll need to work to integrate them into one paragraph.
Blending courses and flipping them requires learners to participate more and take charge of their learning—it empowers them while at the same time changes the context of their learning. We built a gamified online writing application, The Game of Writing (GWRITE), and used it and in-class writing activities to deliver a first-year academic writing course in a blended and flipped format. To this point, first-year writing instruction in Canadian/North American universities and colleges has largely taken place in face-to-face meetings. However, the Game of Writing technology-enhanced learning system enhances student learning and creates innovative ways of making writing instruction more effective, more cost-effective, and sustainable in the long term.

We really did mean to "change the game" students play when taking courses by creating an online environment that demanded their active participation and forced them to make choices about what they would learn. While some maintain that gamification borrows the surface features of games inappropriately (Bogost 2011), others maintain that these features can be...
Social commenting

Uses social media techniques to frame comments by students on each others’ drafts
## Commenting activity

<table>
<thead>
<tr>
<th></th>
<th>F2014</th>
<th>F2015</th>
<th>WI 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>total assignments</td>
<td>3360</td>
<td>1428</td>
<td>1225</td>
</tr>
<tr>
<td>submitted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>total comments</td>
<td>4781</td>
<td>6131 (+28%)</td>
<td>9173 (+50%)</td>
</tr>
<tr>
<td>star comments</td>
<td>268 (5.5% of total)</td>
<td>593 (9.7% of total)</td>
<td>1204 (13% of total)</td>
</tr>
<tr>
<td>likes by students</td>
<td>55 (1% of total)</td>
<td>395 (6.4% of total)</td>
<td>502 (5.5% of total)</td>
</tr>
<tr>
<td>dislikes/thumbs down</td>
<td>4</td>
<td>12</td>
<td>114</td>
</tr>
</tbody>
</table>
Comments useful?

Comments on my writing have helped me improve my documents:

68% Agree or Strongly agree (18%)

25% Disagree or Strongly disagree (4.5%)
One-way ANOVA analyses showed that the difference in scores of the three items, “The GwRIT system helped me obtain comments on my writing before the assignment was due” ($p = 0.001$); together with “Comments on my writing helped me improve my documents” ($p = 0.001$); and “The breakdown of writing assignments into Tasks helped me stay on track and complete assignments” ($p = 0.001$), was statistically significant among all the different terms (see Table 7).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Fall 2014</th>
<th>Fall 2015</th>
<th>Fall 2016</th>
<th>Fall 2017</th>
<th>df</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>The GwRIT system helped me obtain comments on my writing before the assignment was due</td>
<td>3.71</td>
<td>1.02</td>
<td>3.63</td>
<td>1.05</td>
<td>4.30</td>
<td>0.91</td>
<td>2.27</td>
</tr>
<tr>
<td>Comments on my writing helped me improve my documents</td>
<td>3.54</td>
<td>1.20</td>
<td>3.56</td>
<td>1.14</td>
<td>4.16</td>
<td>0.94</td>
<td>4.15</td>
</tr>
<tr>
<td>The breakdown of writing assignments into Tasks helped me stay on track and complete assignments</td>
<td>3.93</td>
<td>0.89</td>
<td>2.70</td>
<td>1.11</td>
<td>3.38</td>
<td>1.20</td>
<td>3.66</td>
</tr>
</tbody>
</table>

Table 7. One-Way ANOVA Between Uses of the GwRIT system by term
What kinds of writing do you do?

My assumption throughout this presentation has been that you’re working on articles and considering how to use online tools to improve those documents.

What else do you write? Me:

- Podcast scripts
- Technical reports
- Textbooks
- Presentation slides
- LinkedIn articles
When don’t you use these tools?
Tooled up: What digital tools do you use?