

## **Crossing Wires with Google Apps: Jumpstarting Collaborative Composing**

*Daniel L. Hocutt, Old Dominion University*

*Maury Elizabeth Brown, Old Dominion University*

This paper presents results from a multi-year, two-school combined study of student attitudes toward the use of Google Apps for Education (since renamed G Suite for Education) for collaborative composing in first year composition classes. Preliminary results suggest that remediating the composing process as collaborative, convenient, and cloud-based in Google Docs via Google Drive resulted in a remediation through reform of traditional composition pedagogy.

First-year writing classes allow composition teachers to introduce or re-introduce students to genre as social activity (Miller, 1984, 1994) and composition as part of the rhetorical situation. Teachers combine pedagogical techniques with available technologies to teach composition as a social function. Composition texts and theory focus on writing as a social practice (Bazerman, 1994, 2004; Bruffee, 1984; Gaillet, 2009; Miller, 1984, 1994), but students often see themselves as writing independently for their teachers (Sommers, 1980; Yagelski, 1995). Identifying and critically examining and testing technologies that can be used with constructivist pedagogies to demonstrate the benefits of composing in social environments can be difficult and time consuming for composition teachers and researchers alike.

One such technology is Google Apps for Education (renamed G Suite for Education since conducting this study). Two applications in particular, Google Docs and Google Drive, enable cloud-based, granular file sharing along with synchronous and asynchronous collaborative composing. Among the collaborative features embedded in these applications are synchronous group composing and commenting, capabilities that are not offered by other word processors or file sharing services. Composing practices made possible by these Google applications enable and encourage a writing experience that reinforces students' social composing experiences.

This paper summarizes results of a multi-year study conducted by Maury Elizabeth Brown (Germanna Community College) and myself of students' attitudes toward using Google Docs and Google Drive for composing in two first year composition environments: rural campuses of Germanna Community College around Fredericksburg, Virginia, and the campus of the University of Richmond School of Professional and Continuing Studies in Richmond, Virginia. We used a mixed-methods survey that collected quantitative and qualitative data. This paper reports out a subset of data collected between 2013 and 2015 to demonstrate ways that critically incorporating Google Apps for Education into the first-year composition classroom resulted in remediated pedagogy, student, and instructor roles and activities. Following reflexive, iterative coding practice (Sullivan & Porter, 1997; Cresswell, 2016), we found the following themes generated the largest number of total comments: privacy (positive value), accessibility (positive value), feature comment, and collaboration (positive value).

The survey was designed to capture students' end-of-term reflections on the effectiveness of Google Docs for composing and their attitudes toward using Google Docs and Google Drive as the exclusive tools for composing, including invention, drafting, revising, finalizing, submitting, and reviewing. Both of us required that work on major compositions be completed in Google Docs and shared, with the instructor and with classmates or a group of classmates, from start to finish. That is, we asked students to brainstorm in Google Docs shared with the instructor and/or fellow students; to take notes and compose drafts in shared documents; to conduct peer reviews in Google Docs using Comment and Suggesting features; to submit drafts for grading to the instructor as shared Google Docs; and to review instructor feedback in the shared document as well. Our decision was based in part on our own personal and professional experiences using Google Docs for collaborative composing, in part on our pedagogical interest in engaging early college writers in explicitly social composing practices, and in part on our research interest in understanding the way digital affordances influence student composing practices. Although we collected data about peer editing, the focus of our study was on the effectiveness of Google Docs and Google Drive for composing, not specifically on peer review or collaboration processes or methods.

Narrative responses to questions related to the effectiveness of Google Drive were collected in the survey. Questions included a quantitative question followed by a qualitative prompt inviting a narrative elaboration on the quantitative response. Only the narrative responses to the qualitative prompts were coded for the purposes of this study. The survey addressed the *effectiveness* of Google Drive.

- Will you continue using Google Drive after leaving this class? Why/why not? What factor or factors affected your decision?
- Has using Google Drive in the class affected your attitude toward “cloud computing” (saving, accessing, and sharing files and folders online, not on/from your own hard drive)? Why/why not? What factor or factors informed your response?
- What would you consider the most important benefit of using Google Drive in a composition class? Why? What factor or factors contributed to this selection?
- How would you rate your experience using Google Docs this semester? Why? What factor or factors contributed to this rating?

The survey also collected information on participants’ attitudes toward Google Drive by asking the following questions.

- What did you LIKE about using Google Drive in the classroom this semester?
- What did you DISLIKE about using Google Drive this semester?
- How did you feel knowing that others in the class could read your papers?
- What was the EASIEST part of using Google Drive?
- What was the most DIFFICULT or most CONFUSING part of using Google Drive?
- How did using Google Drive change your composing/writing process?

The narrative responses collected from these questions, upon iterative analysis seeking recurrent themes, resulted in the following codes and categories.

- Transferability
- Usability (which included neutral, positive, and negative positions)
- Privacy (which included neutral, positive, and negative positions)
- Relation to Other Tools
- Accessibility (which included positive and negative positions)
- Collaboration (which included positive and negative positions)
- Cost
- Writing Process
- Feature Comment

One theme that did not emerge from coding was the term or concept “social” or “social composing.” We chose not to address directly the concept of social composing in the survey to test if the concept emerged in other ways. We saw evidence that social “flow” between participants was valued through respondents’ positive values in the Collaboration code, in positive values in the Privacy code, and in the Transferability code, as it relates to using the technology as inherently shareable in (presumably) group- or team-based settings within and beyond the class.

A total of 107 participants voluntarily responded to the survey in the timeframe of this study, coming from seven different Germanna Community College sections and two different University of Richmond sections. Response rates were calculated by question since all questions were not required, ranging from the lowest response rate of 59% to the highest response rate of 85%. Based on the number of responses related to coded categories, the following themes generated the largest number of total comments: privacy (positive value), accessibility (positive value), feature comment, and collaboration (positive value).

**Privacy.** We used the Privacy code to represent some level of concern about the privacy of data. Privacy was often closely related to accessibility; frequently accessibility was considered positive while privacy was considered a concern, sometimes within the same respondent’s answers. The code addresses transparency inherent in the shared composing space. The positive value of Privacy was coded in 49 responses (45% of total Privacy-coded responses) to a single question, “How did you feel knowing that others in the class could read your papers?” For comparison, the negative value of Privacy was coded in

22 responses (20% of Privacy-coded responses) to the same single question, while the neutral (neither positive nor negative) value of Privacy was coded in 38 responses (35% of Privacy-coded responses) across several different questions.

**Accessibility.** We used the Accessibility code to represent the ability to access files from multiple locations and platforms, and to reliance on an internet connection for access. This code was generally, although not always, related to Google Drive being a cloud-based platform. The positive value of Accessibility was coded in 57 responses (80% of total Accessibility-coded responses) to several different questions. For comparison, the negative value of Accessibility was coded in 12 responses (17% of Accessibility-coded responses) to several questions, while the neutral value was coded in 2 responses (just 3% of Accessibility-coded responses). Accessibility was valued as overwhelmingly positive among responses coded for Accessibility.

**Feature Comment.** We used the Feature Comment code to represent a broad variety of comments on Google Docs and Google Drive features, including security and reliability. Responses coded for Feature Comment generally identified and commented on a specific feature that was not coded as Collaboration or Privacy. Comments were about the experience of using the tool itself. The Feature Comment theme was coded in 74 total responses, 34 (46% of Feature Comment codes) in response to the question “What was the EASIEST part of using Google Drive?” Another 10 responses (14% of responses coded for the Feature Comment theme) were in response to the question “What did you DISLIKE about using Google Drive this semester?”

**Collaboration.** We used the Collaboration code to represent the ability to share resources, give and receive feedback, participate in peer review, and participate in a discourse community that often included the instructor. While the themes of Privacy and Accessibility contribute to responses related to social flow in use of the tool, we take the Collaboration code to most directly represent the functional aspects of social composing. The Collaboration theme with a positive value was coded in an overwhelming 137 total responses (86% of all Collaboration-coded responses). For comparison, no responses were coded neutral for Collaboration, while only 23 responses (14% of all Collaboration-coded responses) were coded negative for Collaboration.

Data coded for analysis came from qualitative responses to the mixed-method survey. We used iterative coding passes to arrive at the four themes listed above. The first pass yielded 14 codes. Not all responses were coded; those that contained aberrations, such as random text, inane responses (like “blah”) or less meaningful responses (“no,” “yes,” “idk”), were removed. A second coding pass revealed the opportunity to collapse codes into nine related, or partially related, categories. From these categories, based on larger numbers of comments, we settled on the four themes noted above: Privacy, Accessibility, Feature Comment, and Collaboration.

A recurring concept among participant responses related to Collaboration was an appreciation for peer review and its results. Among those responses, the following stood out as particularly significant.

- “I could get feedback from teacher and peers about my paper.”
- “The ability to read other people’s stuff and get feedback from other people.”
- “The ability to collaborate with my instructor and classmates on one document.”
- “Being able to peer review others work without the pressure of time in the classroom and distractions.”

Given the overwhelming number of responses related to Collaboration with a positive value, these and other results suggest participants found useful, even likable, the activities of peer review: receiving feedback from their peers, giving feedback to their peers, and involving the instructor in peer review. It’s worth noting the three areas of focus that emerged in comments related to Collaboration. Participants commented on their *own participation* as writer and as reviewer, on their *peers’ participation* as reviewers and commentators, and on the *instructor’s participation* as collaborator when they provided responses coded to the Collaboration theme. We interpret this recognition of three areas of focus in peer review—self, peers, instructor—to be integral to students’ growing understanding of composing as a

social process. A selected list of comments coded Collaborative, categorized by areas of focus (self, peer, or instructor), provides a broader picture of participants' recognition of composing as a social activity.

Our expectation, given so many comments about collaboration, was that having students use these tools for all composing activities—including peer review—would reinforce the social nature of composing and help students recognize, perhaps appreciate, the collaborative affordances of the technology. We did not achieve this universally. On the contrary, we received a number of negative comments about the technology and its use for collaboration. Participants reported frustration and difficulty with: Setting up and starting to use Google Drive; Managing files and folders in Google Drive; Learning what the buttons and icons represent; Opening files in the right folder; and the lack of advanced features often available in computer-based applications. And one student said what several students clearly felt: “I did not enjoy some of the collab work we did in class. In fact some of it was actually annoying to have others on the same document you were working on.”

However, several of the comments demonstrate that something more than appreciation for collaboration and peer review was at work in their experiences. Specifically, Google Docs as tool and medium appeared to be the root of their appreciation, and their appreciation for the process of peer review appeared to reside in the collaborative technological affordances themselves. For example, the response “I liked that I was able to peer review at home and receive comments on my paper online, so that I could go back and revise my paper” indicated that making a paper available online “in the cloud” for review at the reviewer’s chronological and spatial convenience was valued by reviewers. And the same reviewer, who also wrote and posted a paper for peer review, valued the ability to post the paper for review and to receive feedback in the same document where revision would occur. While this process could be done asynchronously in a Microsoft Word or other word processing document posted to a Learning Management System (LMS) or Dropbox-like cloud storage space, achieving the level of convenience and seamlessness for writing and reviewing in the same document is unique to Google Docs in Google Drive.

Similar responses reiterate the value of drafting, reviewing, and revising in the same document. For example, another participant shared that “I like that I can peer review with classmates online instead of commenting [sic] on their real paper.” The term “real paper” refers to print on paper, while the concept “peer review with classmates online” represents the specific affordance provided by Google Docs of commenting on the paper itself within the word processing interface, either by adding suggestions or commenting on specific words or phrases. Another explicitly commented on the single interface in valuing “the ability to collaborate with my instructor and classmates on one document.”

More complexly, another participant valued “Being able to peer review others [sic] work without the pressure of time in the classroom and distractions.” This comment articulated several aspects of the peer review process: that completing it in a traditional face-to-face classroom must be done within a particular time-frame in a specific place that can be distracting; that the ability to complete peer review outside that environment removed constraints of time and space in completing the review; and that the presence of the document to be reviewed in the always-available interface made the process somehow more convenient. Shifting the processes involved in composing, including peer review, to Google Drive effectively expanded the boundaries of the composing experience beyond the walls figurative and literal, chronological and spatial—of the face-to-face classroom. Peer review involved multiple students, all of whom could access the Google Docs draft in Google Drive beyond the time and place of class, could add comments to others’ drafts, and could receive others’ feedback in their own drafts that could then be directly incorporated and resolved in the same interface and document. Such activity represents what Bolter and Grusin (1995) referred to as *remediation for reform*, in this case reform of both the time-space structure of the classroom to make “a good thing even better” (Bolter and Grusin, 1995, p. 351) and reform of the reality of peer review, from a paper- and writer-centered classroom-based experience to a virtual process of collaboration.

Additional responses about the value of collaboration point to an even deeper remediation of self and identity as described by Bolter and Grusin that happened as a result of shifting composing practices into Google Docs via Google Drive. Self, peer, and instructor—the three areas of focus mentioned earlier—were engaged as equally valued collaborators in the collaborative process of composing. Consider the

following comments as they articulate the relationship of self (as writer), peers (as reviewers), and instructors (as reviewers) to one another. “I could get feed back from *teacher* and *peers* about my paper”; “Sharing documents, ease in commenting *to* and *from peers* and *professor*”; “Sharing with *my teacher* to revise *my essays*”; “the *collaboration* with *my professor*”; “the *peer* review and comments from *our professor* were extremely helpful and much appreciated”; “Commenting with *my teacher* and fellow *classmates*. Seeing *other people's* opinion on *my work*” (all emphasis added). Each of these comments represents value found in collaboration among self, peers, and instructor using Google Docs via Google Drive. Since sharing permissions were set so instructors and peers alike were able to review drafts as works-in-progress throughout composing activities, composing was not simply collaborative: it was inherently collaborative and inherently involved all three areas of focus as collaborators in producing compositions.

If peer review was conceived by participants as happening beyond the boundaries of the classroom through remediation as reform, we argue that instructor and student identities were also extended beyond standard boundaries and roles through the remediated experience of composing in Google Docs and sharing via Google Drive. Instructors and peers alike collaborated with students on their drafts; participant responses indicated little qualitative difference between the feedback offered by peers and that offered by instructors. We suggest that the remediation of the composing process as collaborative, convenient, and cloud-based in Google Docs via Google Drive resulted in a remediation through reform of traditional pedagogy. While we can’t discount the role of power dynamics at work in our classrooms, and the likelihood that some of the responses to the survey instrument represented a desire to please the instructor, we also can’t deny ways respondents treated instructor and peer as equally active collaborators in composition. We believe that perception of equality—the remediated roles of writer, reviewer, and instructor—emerges as a result of using Google Drive for collaboration and composing.

## References

- Bazerman, Charles. (1994). Systems of genre and the enactment of social intentions. In Aviva Freedman & Peter Medway (Eds.), *Genre and the new rhetoric* (pp. 79–104). London, UK: Taylor & Francis, Ltd.
- Bazerman, Charles. (2004). Speech acts, genres, and activity systems: How texts organize activities and people. In Charles Bazerman & Paul Prior (Eds.), *What writing does and how it does it: An introduction to analyzing texts and textual practices* (pp. 309–340). New York, NY: Routledge.
- Bolter, Jay David, & Grusin, Richard A. (1996). Remediation. *Configurations*, 4(3), 311–358.
- Bruffee, Kenneth A. (1984). Collaborative learning and the conversation of mankind. *College English*, 46(7), 635–652.
- Creswell, John W. (2016). *Planning, conducting, and evaluating quantitative and qualitative research* (5<sup>th</sup> ed.). Boston, MA: Pearson.
- Gaillet, Lynée L. (2009). A socially constructed view of reading and writing: Historical alternatives to bridging the gap. In Lori Ostergaard, Jeff Ludwig, & Jim Nugent (Eds.), *Transforming English studies: New voices in an emerging genre* (pp. 163–178). West Lafayette, IN: Parlor Press. Lauer Series in Rhetoric and Composition.
- Miller, Carolyn R. (1984). Genre as social action. *Quarterly Journal of Speech*, 70(2), 151–67.
- Miller, Carolyn R. (1994). Rhetorical community: The cultural basis of genre. In Aviva Freedman & Peter Medway (Eds.), *Genre and the new rhetoric* (pp. 67–78). London, UK: Taylor & Francis.
- Sommers, Nancy. (1980). Revision strategies of student writers and experienced adult writers. *College Composition and Communication*, 31, 378–388.
- Sullivan, Patricia A., & Porter, James E. (1997). *Opening spaces: Writing technologies and critical research practices*. Greenwich, CT: Ablex.

Yagelski, Robert P. (1995). The role of classroom context in the revision strategies of student writers. *Research in the Teaching of English, 29*(2), 216–238.