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The Power of Multimodal Feedback

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Abstract: Feedback to students is most effective when it is timely, relevant and meaningful. English teachers spend many hours providing feedback on student writing and are disheartened as students disregard it. An English teacher and a technology specialist, while using available technology, set out to find a way to make the feedback process more streamlined, efficient, and something students would actually employ in the writing process. We discovered that utilizing technology tools available to provide on demand and archivable audio and visual feedback transforms the writing process and student responses are favorable.

How often do teachers spend hour after hour providing written feedback to students only to watch them barely glance at the feedback or even worse: toss it in the trash on the way out the door? Cohen (1987) and Ferris (1997) confirm what we already know about feedback—that students only make use of a small number of corrections they receive. With this in mind, and with our increasing access to technology, we wondered: is it possible to improve how students receive and utilize feedback using technology tools available to us? We set out to find a way, while using the technology available to us, to make the feedback process more streamlined and something that students would find useful and employ in the writing process. We discovered that combining auditory and visual modes was a powerful way to reach students.

What We Know About Feedback

Research and experience tell us that feedback is most effective when it is timely, relevant, and meaningful. When providing feedback the goal is to help students move forward with the writing process. In "The Power of Feedback," Hattie and Timperley (2007) assert that, "Feedback is effective when it consists of information about progress, and/or about how to proceed" (p. 89) meaning that feedback is most important during the writing process, rather than at the time of evaluation. Thus, we argue that providing feedback through a combination of audio, video, and visual media—what we define as *multimodal feedback*—is a far more informative means for increasing student learning than assigning a simple grade or circling criteria on a rubric. From our research and experience within the classroom, we assert that writing instruction is transformed when teachers, using technology, move beyond written feedback and utilize multimodal feedback.

What Feedback Can Look Like
With a myriad of tools available, and more emerging, teachers now have opportunities to leverage technology to provide feedback in ways that were never before possible. Multimodal feedback can take many forms; and, we argue, should use more than one mode of communication. This leaves teachers with many options as to how to operationalize feedback in the classroom. A teacher may record his or her voice as he or she is going through the student's writing and provide feedback that otherwise would have been scribbled in the margins. This can be audio comments recorded and sent to the student digitally, or it could be more of a recorded conversation with the student present-- an augmentation of the individual writing conference. Another option is a teacher created screencast recorded while he or she goes through the student's paper adding comments and asking clarifying questions, demonstrating where the student could improve within the context of the paper. The student not only hears the teacher's voice, but also sees the teacher assess the work. The multimodal feedback which technology affords has a powerful impact on how a student perceives his or her work and the writing process. Providing multimodal feedback

allows the student to pause and revise and play again, or revisit the feedback at a later time as well. In addition, the video and audio files are archivable and readily available.

In this example, a high school English teacher was working with a student who was deficient in his writing and employed multimodal feedback for the first time. The teacher opened the paper in the *Explain Everything* application, where she used the highlighting and annotation tools to provide written feedback while at the same time recording her voice comments. She emailed the video file to the student, whereupon he revised his paper using the pause-rewind-revise cycle. Since the teacher recorded herself as she provided the feedback, she could be there in the student's ears, guiding his writing, as he engaged in the revision process. Over the weekend, the student accessed the on-demand feedback, internalized the suggestions, and revised the paper at his own pace. He submitted his revised paper the following day. His teacher was amazed at the transformation in his writing and how he incorporated the feedback in his piece. She now employs multimodal feedback regularly and has seen significant gains in student writing as a result of feedback that is timely, personalized, multimodal, and available on demand.

How Can a Teacher Operationalize This in His or Her Classroom?

Changing what feedback looks like and establishing a new classroom environment can be a challenge. The easiest solution for reducing the time spent assessing students' writing and providing meaningful feedback would be to, well, assign less writing. Every teacher's dream, but never the reality. However, there are a few strategies that make this process more efficient and effective. These strategies are divided into two categories: substance and workflow.

Substance

If teachers genuinely want students to internalize the feedback they give and use it propel their learning further, we suggest teachers focus their multimodal feedback on one of two major areas of the task. This means teachers can pre-annotate the product addressing more specific, mechanical issues, such as grammar and convention issues, which allows the teacher to use his or her voice or video recording to address what we call "big picture" issue—the topics that can be more nuanced, complex, and lengthy to write out.

How this looks in an English classroom, for example, is the teacher will leave comments on the digital copy of an essay, paying particular attention to any smaller, specific issues such as a misspelling or repeated use of first person, when third person is required. The teacher would then reserve feedback about ideas, supporting details, or even organization for when they directly speak to the students through audio/video recordings. Focusing on one or two major areas in the audio/video feedback will give students a manageable amount of revision to accomplish. In addition to focusing on one or two major areas, teachers should limit the length of their feedback (the audio/video component) to five minutes. In our experience, students tend to lose focus after this amount of time, and teachers have a tendency to go over this time limit.

Time is a key factor in the revision process. Not only is it important for the teacher to provide feedback to the students in a timely fashion, but teachers must provide ample time for student revisions. In *Blended Learning in Action*, Tucker, Wycoff and Green (2017) assert that "Formative assessment can empower ownership of learning when students are engaged in the process of planning for and reflecting on learning" (p. 90). The multimodal feedback will take students from where they are in their writing piece to a new level in their writing as they incorporate the teacher feedback in the revision process. Students grow as writers as they review the feedback, pause the recording, re-read the paper, and make revisions. The feedback is personal, timely, meaningful, and accessible both in school and at home via their device (tablet, laptop, or other personal learning device).

Workflow

To use multimodal feedback successfully, teachers must create a digital workflow for sharing both the writing piece and distributing the feedback. Providing a seamless digital path for the teacher and student makes the file sharing efficient and transparent. Teachers create the audio/video feedback and then share the file digitally with the students. There are a number of workflow options to choose from including learning management systems such as *Schoology* and *Canvas*; a collaboration tool such as *Google Classroom*; email; or file sharing solutions such as *Dropbox, OneDrive* or *Google Drive*. In addition, students need consistent access to a device that allows them the ability to write, record audio/video, play audio/video, and submit their work. Headphones are also a must so students can listen to the feedback privately in the classroom without disturbing other students.

Classroom Application

We thought it would be helpful to describe two particular instances in which Mrs. Ann Feldmann and Dr. Breanne Campbell utilized this unique way of communicating with their students in both online and brick and mortar settings.

Mrs. Ann Feldmann, District Instructional Technology Specialist and adjunct professor, employs multimodal feedback in her online graduate courses. In an online course, leveraging audio and video personalizes the feedback and develops a sense of community within the course. One way she provided feedback was through individual video conferences. During the conference, she shared her screen with the student, providing the student the ability to watch her annotate and listen to her comments in real-time as she provided feedback on the paper. She recorded the screencast and after the conference, emailed a link to the file to the student. The recording was available on demand to students as they worked on revisions. Another method she employed was asynchronous conferences where she provided multimodal feedback without the student present. She recorded the feedback as she annotated their papers using the comment feature in the word processor and captured the screencast using *QuickTime Player*. She shared this recording to students via email. Students used the multimodal feedback video as they revised their papers, which gave them the power to pause, revise, rewind, and play the feedback again. Instead of just having traditional written feedback, students had multimodal feedback complete with audio and annotations. Students used the feedback in the writing process and submitted their revisions. They made significant gains in their writing.

Dr. Breanne Campbell, high school English teacher, frequently employs multimodal feedback in her classroom. During the research unit, Dr. Campbell used *Notability* to record one-to-one conferences with students on their research paper outlines. The research paper is typically the most challenging piece of writing freshman students are required to complete; therefore, she wanted to spend considerable time with students during the process of writing and revision. She held individual conferences with students in the hallway, and while annotating the outline and discussing the direction of their research, she recorded the conversation and emailed the file back to the student using the same application. The recording was available for students to go back and listen to again as they made their revisions. Instead of the conversation ending at her desk, and the student potentially forgetting the conversation, he or she could go back and listen to the recording as often as needed, pausing the recording and revising the paper. For iPads, *Notability* is the preferred tool because of its versatility and ease of use. However, there are a variety of other tools that we would recommend as well.

Technology Tools

There are several technology tools a teacher can use to create audio/video feedback. Each tool has its affordances and constraints, and the teacher must decide which tool will work best for providing feedback for the specific assessment or task.

1. The *Notability* application by Gingerlabs is an application for the iPad and Mac that allows the student to take notes, sketch, add images, and record audio feedback. Use *Notability* with individual student conferences to record the conversation. Students have the audio recording to review at their own pace as they make revisions. The individual conference is available on demand as they revise their work.
2. The screen recording feature in iOS 11. This is free screen recording tool available on the iPad. Start the recording, open the paper, and record audio comments. Share the file via email, cloud-based storage, or to the students via a learning management system.
3. *Screencastify* is a free Chrome extension that works on both Windows and Mac platforms. The screen recording shares straight to Google Drive or can be saved locally and emailed to students.
4. *QuickTime Player* is a free screen-recording computer application that comes standard with a Mac and is exclusive to the Mac. Screen recordings are simple to create and are saved locally on the computer. The teacher can then share the file in a learning management system, cloud based storage, or email.
5. *Explain Everything* is an interactive whiteboard and presentation app that works on iOS or Android. Teachers provide feedback by adding audio and annotations. Videos are easy to share back to students via a learning management system, cloud based storage, or email directly from the app.
6. *Zoom* is a fee based video conferencing tool. Using the screen share feature, teachers in an online class can annotate and record feedback while the students are present. Recordings can be shared with students via email for them to review on demand as they make revisions to their papers.
7. *Schoology* and *Canvas* are both learning management systems with built in tools for audio and video feedback. In the grading pane, teachers leave audio feedback that students receive immediately and privately. Both platforms also use *Big Blue Button* for video conferencing. Teachers can conference with

individual students, record the feedback, and share a link to the conference recording to students. There is a fee for both *Canvas* and *Schoology* based on a per student cost.

Advantages to Providing Multimodal Feedback

We see two significant advantages to providing multimodal feedback that benefits both teachers and students, which we have labeled Enhancing Decoding and Building Relationships.

Enhancing Decoding

We cannot assume that just because students discard our feedback or chooses not to use it, that they do not care. Perhaps they cannot decode it. According to Nicol (2009), for feedback to be successful, "students must be able to decode it, internalize it and use it to make judgments about their work" (p. 9). The clarity and specificity of the feedback (or rather the lack thereof) may explain why a student chooses to either toss the feedback in the trash, or never use it to revise the writing piece. In a 2008 study in which undergraduate Biological Sciences students were provided audio feedback, one student, who responded favorably, stated, "...with written feedback it's just a circle with a question mark and you're thinking 'what's wrong with that,' but audio feedback they (tutors) tell you exactly what it was, if it was spelt wrong or if the wrong word had been used, or just it didn't make sense" (Merry & Orsmond, p. 4). Multimodal feedback, then, increases a student's understanding of how he or she can improve.

In a review of studies conducted on feedback, Brookhart (2008) contends that feedback varies in how clear and precise the feedback actually is and suggests that the teacher should use vocabulary and concepts that the student will understand. Furthermore, they assert that the amount and content need to be tailored to the student's developmental level. This means for students who struggle with reading comprehension, either because of a specific learning disability or because English is not their first language, reading their teacher's feedback may prove difficult, if not impossible. According to Brick and Holmes (2008), "in the field of second and foreign language writing development, students often do not understand the advice because it is too vague, poorly expressed, and even, sometimes, illegible" (p. 340). Oftentimes, students whose first language is not English are more skilled at comprehending what they hear than what they read. Giving feedback that is both visual and auditory can help make students feel connected to the teacher and the content; also, they are in control of the pacing and can pause to process and rewind to listen and view again. Additionally, students can control the video speed and slow the rate of speech to aid in comprehension.

Building Relationships

A large component of effective teaching is building and fostering meaningful relationships with students. One way these relationships are built and maintained is through interaction centered on a literacy skill, writing in this case. What we say about a student's writing and how we say it significantly matters and shapes what happens next. Teachers have the power to inspire greatness, but also have the ability to mute that greatness. According to King, McGuggan, and Bunyan (2008), a staff member said, "I felt this was a more personalised form of feedback. Because of this, I was less likely to use words like 'poor' or 'weak.' I was thinking this person will be listening to this...so I will say 'this is quite good' or 'this needs some work.' Not just the tone of voice, but the actual words I was using" (p.10).

Using multimodal feedback redefines and enhances the relationship between teacher and student. It also redefines and extends the role of the teacher in the feedback process. Teachers can become more writing coaches to students instead of evaluators, which has the potential to disarm students' defenses when it comes to writing with just the tone of their voices. Their role is also extended because the audio/video feedback teachers provide is available for students to digest in their own time, making the teacher and his or her own thinking more transparent and accessible to students.

From the preliminary findings of a 2008 small-scale pilot study, Brick and Holmes (2008) found that students reacted favorably to receiving feedback through multiple modes. Two groups of learners were provided with a short video file of comments regarding their coursework in addition to traditional written comments. "I prefer it to the traditional one, as I feel more comfortable and gives you more confidence while at the same time the lecturer shows you what you should (have) done in a different way to improve the essay. Sometimes in the traditional-written feedback you can mistake some comments and some of the corrections might not be clear. Otherwise in this system everything is explained and showed while the professor is speaking. Overall, I think it is a very useful way of improving the way we write, through explanations" (341). This type of feedback also places the student into a more agentive role, allowing them to control how they view the feedback. They can pause, rewind, and even fast forward the feedback as they revise.

We have already established that the content and focus of feedback is key for students to understand, internalize, and employ it in order to improve their writing. However, we also need to include the students

themselves in the feedback process. According to Brookhart (2008), "What we now realize is that the message sent is then filtered through the student's perception (influenced by prior knowledge, experiences, and motivation) as it becomes the message received" (p. 3). This means that the messages teachers send may not always be received exactly as intended. This is significant because a teacher's message can be locked up, tangled, and misrepresented inside a student's own interpretation. Multimodal feedback allows a teacher to convey care and interest in student progress and growth through the tone of his or her voice. This can aid in disarming a student who may traditionally become defensive when receiving feedback in writing. Furthermore, the words spoken matter just as much as the tone of voice. According to a review of research, Brookhart (2008), concluded that teachers should choose words that position the student as an agent and cause him or her to think or wonder. This feedback, shared directly with the student, is both personal and private, eliminating feelings of embarrassment that might be present in a classroom setting if peers were allowed to listen to teacher feedback.

Conclusion

Multimodal feedback is causing a grading revolution for students and teachers breaking the mold of traditional written feedback. With individualized audio/video feedback on papers along with time for revision, students are changing how they utilize teacher feedback in the revision process. From our experience, students are engaged with the multimodal feedback longer than traditional written comments and use this multimodal feedback in a self-paced, meaningful way to produce a revised piece.

When they use this type of medium and mode to respond to their learners at work, not only are teachers helping students improve their decoding skills and making stronger connections to individual students, but they are also improving the quality of the feedback to students. Stannard (2007) found that multimodal feedback tended to be more extensive and denser because it contains both verbal and nonverbal information. Brick and Holmes (2008) build upon this by offering that "The use of speech, graphics, and the written word seems to cater to the widest variety of learning styles, reaching those with a preference for auditory and visual learning who are less likely to benefit from standard single mode written feedback" (p. 340). Expanding how teachers reach and interact with students has the potential to improve their practice, build stronger relationships with their students, and help improve the literacy of their students.

There is no question that multimodal feedback is transforming the revision process. Teachers are leveraging technology to provide more dynamic and useful feedback which allows them to be more efficient and effective. Even more significantly, teachers are redesigning the feedback process and thus transforming the writing process for students and creating a grading revolution where feedback is no longer discarded, but rather regarded with high esteem and careful consideration.

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