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The Academy of Fellows for Teaching and Learning

Effective Strategies for Giving Feedback to Students

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The Academy of Fellows for Teaching & Learning at the University of Cincinnati is a group of scholars dedicated to innovative, engaging, and effective teaching. We support the Scholarship of Teaching and Learning, and we support each other in our teaching efforts through peer review, collaboration with university teaching and learning center, as well as showcasing best practices at our annual Teaching Showcase. Part of effective teaching and learning is timely, focused, and personal feedback for students.

Effective feedback has three components. It must be extensive such that the student has details about what she needs to do to improve. It must be timely such that it is as close to the student's performance of the task as possible. It must also be personal so that the student's individual needs for improvement are addressed. This support of learning is key to helping student progress in their knowledge and their application of this knowledge. Among the best practices that we promote in the area of effective feedback are video or audio feedback on student work, reflection in student electronic portfolios, group feedback in problem based learning, and prompt and varied feedback even in advanced courses.

Video or Audio Feedback

Video or audio feedback has been demonstrated in the scholarship of teaching and learning as a more effective way to give feedback on student products that written commentary (e.g. Sipple, 2007; Rose, 2009; Bauer, 2011) . Written commentary on student papers has a long tradition, but in practice it takes a long time, and students do not always read the feedback with as much care as the instructor took to write it. In addition, much written feedback focuses on the errors or areas of improvement in the piece of work such that what is working or what has been done correctly is never explicitly addressed. In video or audio commentary, in the same amount of time it takes to

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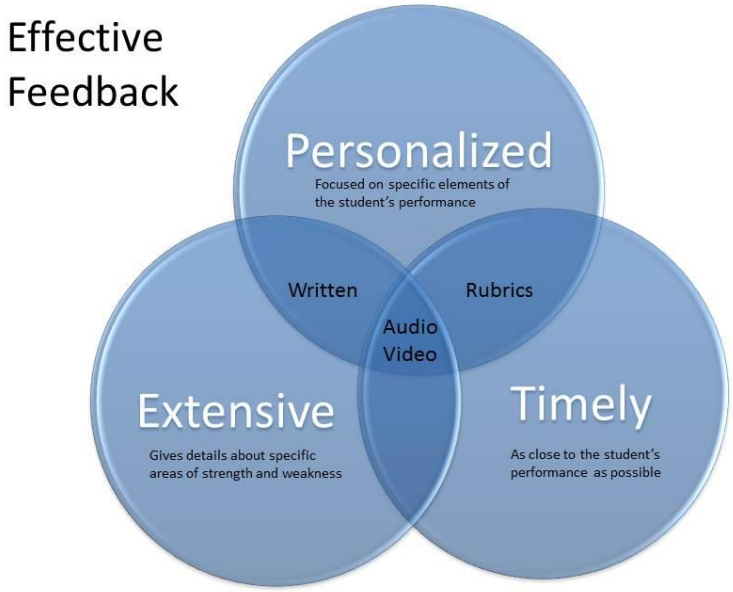
write commentary, an instructor can address both what is good about the piece as well as what needs more work. Instructors who use video or audio commentary find that students make more global, extensive changes than with written commentary that often results in brief, localized changes. Particularly in fully online courses, feedback in the instructor's voice makes the interaction more personal and engaging for the student. Additionally, the students work remains unique to the student rather than being appropriated by the instructor writing all over it. In the world of increasingly digital assignments, it is also more appropriate to take a screencast of the work, whether it be an essay, a PowerPoint, or a graphic, and discuss the work in a screencast that can then be easily delivered to the student electronically. The Venn diagram below shows the key components to effective feedback and where audio or video feedback fit into this schema.



The Technical Details

Giving audio feedback can be done using a voice recorder. For example, one can do audio memos on a Smart Phone or using a free online program such a Audacity, located at http://audacity.sourceforge.net/ as a free download. When using audio commentary, it is important to make reference to what page you are commenting on and what paragraph you are commenting on so that the student might follow along with your commentary. Be sure to praise what works as well as give suggestions for revision.

Giving video feedback can be done using screencast software. For example, one brings up an electronic version of the document on the screen, opens a screencast window around the document, and then comments on the document while scrolling through it. One can highlight and

draw on the document while commenting if desired. Free screencasting software is available at http://screencast-o-matic.com to record right away on screen or http://techsmith.com/jing for a free download of software.

Feedback through Reflective Writing in Portfolios

Portfolios help students track their progress over time (e.g. Cambridge, Cambridge, and Yancey, 2009: O'Keeffe and Donnelly, 2013). The benefit of digital or electronic portfolios is that they are more broadly available. A digital portfolio could be created to document students' learning in a course, program, or institution. A digital portfolio can be available to multiple readers including students, faculty, and staff. Each audience could use the digital portfolio to help give the student feedback on her educational journey.

A key component of electronic portfolios is reflective assignments that ask students to connect what they are learning in the course to their expanding understanding of the course outcomes and to explain how they would apply course materials to new situations. These reflective assignments help instructors see how students understand and apply course material. Students provide evidence of their learning on the eportfolio to illustrate how well they have learned particular outcomes. As an instructor of first-year and intermediate-year university writing courses, I find students reflective writing helps me see how they are thinking about applying information from the course to their own writing activities. I am able to use this information to provide students with timely and helpful advice on their writing projects so they are able to use that information to improve their writing. The portfolio approach allows me to coach students throughout the semester so students are aware of how their final products will be evaluated. The portfolio also provides a vehicle for using rubrics to help students assess their own work while it is in progress. They can also receive feedback from their peers to improve their work. Students also find reflective writing helpful in realizing what they have learned. In this way, electronic portfolios serve as a way for students to get feedback from instructors and peers. However, electronic portfolios also offer feedback to the instructor from the students to help the instructor know what processes are effective, how the students are learning in the course, and what areas might need more emphasis.

Student comment extensively in their reflections on what they will do with the feedback they received in the production of their electronic portfolios. These samples of student reflections in their electronic portfolios demonstrate not only how they use the feedback they received in the course, but also how they plan to move forward this new knowledge. For example, one student writes, "This class has helped me prepare for writing in my next English class, as well as writing things such as lab reports (of which I will have an abundance). I can now sit back and think about who I am writing to, and tweak whatever block of text is on the page to increase my grade. In the future, I will be reading many medical research papers. The academic journals we read in class have taught me to read them and then analyze the content. I definitely feel more prepared for these readings."

Another student observes how she might transfer the knowledge in one course to what she will need to do in the future. This is a good example of how students, in completing reflections on their bodies of work, can give themselves effective feedback: "I will use what I learned in this course for other activities that I will have to do in college by now knowing and understanding the basics of what college writing is and how to understand the purpose behind others' writings. I need these two concepts for all classes because we read and write in everything, well besides math. I will use these in my career of working in the healthcare field because communication is key and the way everyone communicates is by reading and writing."

The Technical Details

Electronic portfolios are often web based programs that serve as electronic archives for students to display their work. There are many free platforms available that are easy to use. Some common ones include http://sites.google.com, http://blogger.com, http://wordpress.com, or http://weebly.com. Steve Benjamins has created a site called "Site Builder Report" where he provides reviews of different electronic website builders: http://www.sitebuilderreport.com/

Whatever platform you choose, here are some important tips for providing three kinds of important feedback: student and self, student and peer, student and instructor. For the student to be able to give herself good feedback on her own work, the instructor must provide rubrics for assignments that are posted in the portfolio and reflective assignments for students to look back on their work and write about what they learned. For students to give each other productive feedback, periodic peer reviews of each other's sites provides easy opportunities to provide feedback, not as destructive criticism but as help in a common endeavor. For students and instructors in electronic portfolios, the feedback works in both directions. The students can get audio/video/written feedback from the instructor on how to improve the assignments in the portfolio, and the instructor can get feedback from the students about what is clear or unclear in the performance of the assignments.

Feedback in Problem Based Learning

Feedback is important at all stages of learning especially early in the process of learning in new ways such as Problem Based Learning (PBL). Feedback in PBL is slightly different in the PBL environment in that the instructor does not give direct feedback, but instead gives feedback that guides students in self-regulation and peer interaction. In a PBL classroom, students typically work in groups to gather information, process it and apply it to solve real world problems. Students may work individually initially to research but share their information with the group as they navigate a problem scenario. Though in a PBL environment guided instruction is not provided, the instructor assumes the role of a tutor/facilitator and provides ongoing feedback as students engage in the PBL process (e.g. Tai and Yuen, 2007). The tutor/facilitator does not provide answers to the problem but through timely group feedback ensures that students may access appropriate resources and identify necessary processes (Dannefer and Prayson, 2013).

The tutor/facilitator can provide feedback by sitting in on group meetings where members may be sharing the information they have collected and contemplating future steps. Feedback may be provided electronically via discussion boards and blog entries. If the students are working on a sequence of problems, feedback both verbal and written on solutions to problems early in the sequence can provide guidance to students. However, in PBL designed learning students are equal participants in giving and receiving feedback as part of the process of solving problems in groups.

The Technical Details

PBL involves a specific design that includes creating an authentic problem for students to solve in groups that results in specific products appropriate for the problem context. The University of Delaware has created an excellent clearinghouse of resources that support the construction of PBL experiences: https://pblc.nss.udel.edu/Pbl/ . You do need to register to belong to the site, but registration is free and access to the sample problems is excellent. Feedback specifics and rubrics are included in the problems offered by the clearinghouse. In many programs that use PBL, they also use reflection as an important source of feedback as well as collecting the work of the PBL products in portfolios.

Feedback Best Practice: Frequent and Varied

In the College of Allied Health Sciences, feedback to students in the Doctor of Physical Therapy program takes many forms with key principles being that feedback should be frequent and varied no matter how high the level of student is. For example, in the Neuromuscular sequence, the instructor provides an immediate opportunity for student self-reflection following lab practicals that include patient simulation with asking students to orally provide an assessment of what went well and what they would change. She then adds her own comments, agreeing with the student assessment or drawing out other aspects that the student perhaps did not recognize (both the positive and the need for improvement). Often, students are requested to return to a place in the scenario where a mistake was made and are lead through Socratic-style questioning, an indirect form of feedback, to discover their errors. Students in these courses consistently comment that this opportunity not only for self-reflection, but for immediate validation from the instructor is very helpful to them in their development as care providers (e.g. Archer, 2013).

Students are also provided extensive feedback on their documentation of patient evaluations. Students in this sequence are in the second year of the graduate program and have experience in primarily musculoskeletal involvement. They are unaccustomed to utilizing the professional vocabulary in the neuromuscular realm to articulate a patient's status or to develop functional goals for these types of patients. The instructor provides examples of functional goals, has students describe orally what they are observing with the volunteer patients, and reinforces the appropriate language and phrasing needed to accurately describe the assessment findings. This type of immediate feedback, tailored to student performance helps students make immediate

adjustments so they can practice what is correct rather than finding out only later what went wrong.

Students also have the opportunity to share their documentation with the instructor prior to the due date for suggestions for improvement as they read the student work together. Upon completion of the documentation, the instructor provides an overview to the class of problematic documentation she noted generally in the assignment and will share examples of student work, with permission, that was done well. The assignment is returned with extensive specific feedback given in written form. The use of audio recorded comments of the student work further enhances the feedback. Students are encouraged to return to the feedback provided from the first assignment when completing subsequent patient evaluation assignments.

The Technical Details

When designing feedback opportunities, it is good to map them according to student activities so that frequency and variety are not left to chance. Planning different kinds of feedback, such as oral feedback, written feedback, audio feedback, peer feedback, and personal reflection can be planned for before, during, and after an activity. A general map could like this:

Feedback planning	Before the activity	During the activity	After the activity
Student product	Planning	Production	Reflection
Form	Audio/video	Socratic coaching	Written
Frequency	Before student production	Often enough to guide the practice	As soon after the activity as possible

Final Observations

Students need quality feedback to learn most effectively. Balancing form and frequency, as well as personalization, detail, and timeliness is a constant challenge for any instructor. It is also important to provide feedback that will actually be attended to by the student. If an instructor is spending entire weekends providing in-depth written comments on the final drafts of essays that will not be revised, it is important for that instructor to assess how the extraordinary effort she has gone to is actually being used in student learning. Sometimes less is more, but it needs to be delivered at a time and in a way that the student will use it to learn.

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