Online Gradebooks: Facilitating Student Self-Monitoring Tendencies and Academic Performance

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Lifelong or self-regulated learning suggests active participation in one's ongoing education and growth. It reflects individuals' ability, desire, and efforts to continuously learn and improve as they progress academically and/or professionally. A key component of self regulation includes self monitoring—ongoing pursuit of the question "How am I doing?" This tendency can promote changes in behavior that improve both learning and performance.

In a recent study, I examined student feedback seeking techniques as a form of self-monitoring (Geddes, 2009). Feedback seeking is behavior in which individuals actively pursue and acquire relevant information about their performance. It involves both *inquiry*, where students directly ask available sources about their performance (i.e., peers, teachers) and *monitoring*, where students observe environmental cues to obtain information about their performance (e.g., marked papers, posted grades, witnessed conversations, etc.). Of particular interest to me was the potential impact of information technologies for promoting or enhancing self-monitoring and feedback seeking practices.

As a regular Blackboard user—including its online gradebook option—I wondered if regular, unimpeded, and private performance monitoring by students accessing online gradebooks was an effective self-regulated learning activity for enhancing classroom performance. As simple *outcome* feedback, information provided through online gradebooks does not tell students how they should improve their performance as does process feedback. Nevertheless, it does indicate how well they have already performed—prompting students to understand that improvement may be necessary. This research examined online gradebook monitoring tendency and impact in relation to other forms of classroom performance feedback seeking, including student use of instructor and peer inquiry and monitoring.

Online Monitoring Stands Out

My research showed that online gradebook monitoring was students' most utilized and preferred form of feedback-seeking. Most notably, however, online gradebook monitoring proved to be a robust predictor of their academic achievement. No other feedback-seeking practice examined in the study predicted student final course grade. The significant findings overwhelmingly indicate a pedagogical benefit of students monitoring their classroom performance by accessing online gradebooks. Results point to the value and importance of faculty providing timely assignment performance information online to students.

Another finding that was initially surprising indicated a negative relationship between instructor inquiry and student final grade. However, it is reasonable to assume that students often approached faculty *because* they were doing poorly in class. Many educational institutions now require faculty to inform first- and second-year students of unsatisfactory performance by the fifth week of class—based on attendance, assignments, exams, or any combination of the three. This allows students the opportunity to drop the course or, preferably, to change their approach or effort. Online gradebook monitoring serves a similar function. Faculty who are prompt

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in posting assignment grades online help students become aware of performance problems earlier in the semester, which may prompt them to approach instructors or peers sooner for assistance.

Online monitoring also may interact or combine with other feedback-seeking techniques over the course of the semester. In the work environment, impression concerns are especially salient for newcomers; consequently, they were likely to initially use monitoring more than inquiry when feedback seeking. Monitoring tends to remain constant overtime, while peer inquiry, in particular, declines. The primary form of feedback seeking tends to be monitoring, with inquiry used only if monitoring proves insufficient, such as when students seek information unavailable except through inquiry (e.g., process feedback). Thus, limitations of one strategy of feedback seeking may be overcome by adding another approach. In other words, *combining* monitoring and inquiry can increase clarity with regard to performance. Still to be determined, however, is if the absence of online monitoring—either by choice or through a lack of availability—leads to significant use of other feedback-seeking strategies or simply less self-monitoring overall. In other words, could failure to post grades online throughout the semester have a detrimental effect on student academic performance? This question will hopefully prompt some additional research.

Goal Orientation and Online Monitoring

I also examined goal orientation in relation to student feedback seeking strategies. Goal orientation is considered primarily a dispositional goal preference that manifests in achievement environments (Dweck, 1986). Students with a learning or mastery goal orientation want to increase their competence and master new skills. For them, performance feedback (positive or negative) gives useful diagnostic information (VandeWalle, Ganesan, Challagalla, & Brown, 2000). In contrast, performance goal orientation reflects a desire to demonstrate and validate the adequacy of one's ability. Performance feedback to these individuals is a judgment of their competency and intellectual worth. Consequently, students with this orientation are motivated to seek positive (performance-prove) and avoid negative feedback (performance-avoid) about their performance.

My study findings indicated that both learning and performance-prove goal orientations increased online gradebook monitoring. Learning goal oriented individuals tend to use self referents (e.g., examining their current performance with their previous performance) while performance goal oriented individuals often use external referents (e.g., examining their performance in relation to others' performance). Importantly, online gradebooks allows for comparison with both self (previous assignment scores) and other referents (class averages). Both learning orientations also used instructor inquiry as a form of feedback seeking. Importantly, this result shows that one tendency does not negate the other. These two self-monitoring/feedback-seeking practices can work concurrently, perhaps with online monitoring triggering subsequent instructor inquiry for clarification or assistance.

Benefits of Social Comparison Information

Two explanations for monitoring (versus inquiry) preferences exist in the literature, typically associated with performance-goal oriented individuals: (1) external referents providing social comparison information and (2) reduced impression management/ego risks to one's perceived competence or intelligence (Dweck, 1986; Nicholls, 1975). Most scholars focus on the second motive and argue that one's known or perceived performance moderates individual tendencies to seek feedback through inquiry—prompting many to use monitoring (Payne, Youngcourt, & Beaubien, 2007). However, it is possible that social comparison information may be less associated with an ego-enhancing or image-protecting function than many assert. It may instead help students gain perspective by developing a more realistic interpretation and understanding of their current class performance.

Evidence for this assertion is found in the literature on self-assessment and rater accuracy. Business students, like the organizational members they will become and manage, tend toward inflated views of their own performance. Research shows that 80 percent of individuals in achievement situations evaluate themselves as above average or better—a statistical impossibility (Pearce & Porter, 1986). This becomes problematic for individuals both as students and as future employees. Believing one's performance or relative standing is better than it really is may lead to reduced effort, increased defensiveness with regard to negative feedback, and less motivation to change one's behavior over time. Once graduated, individuals who inflate self-ratings are more likely to be evaluated as poor employees by their respective managers.

To combat inflated views of one's performance and enhance the accuracy of self-perception and self-assessment, individuals can benefit from the opportunity for social comparisons. Self-assessments can become more realistic with specific information on how others in comparable tasks are performing. Feedback seeking through monitoring online gradebooks regularly exposes students to social comparison information, including class averages, assignment score ranges, points possible, and points attained. In addition, instructors may post sample top papers or best essay responses to class websites for students to peruse and compare. Having social comparison information available online throughout the semester can help students develop and maintain more realistic perceptions of their individual performance. This practice likely activates various self-regulated development practices as they learn if and when changes in their performance are necessary. Relatedly, however, individual traits (e.g., self-esteem, self-confidence, etc.) may also impact student interpretation of social comparison information. For instance, people with low self-esteem may interpret any particular comparison experience (upward or downward) in a negative light which might not prove beneficial or motivating for improving performance.

More Implications for Practice

Understanding self-regulated learners' motivation and tendencies can help management faculty establish learning environments that trigger or take advantage of self-monitoring practices. Further, it is important to recognize student perspectives on and experience with new technologies available in their learning environment (Hwang & Arbaugh, 2006). My research indicates online performance monitoring is both prevalent and preferred among management students. Approximately 95 percent of survey respondents agreed or strongly agreed with the survey item, "I wish all faculty would post grades online." An internal study conducted the same year these data were collected reported that while 90 percent of business faculty used the course management system, less than one third utilized its online gradebook component. Management faculty should consider the potential benefits afforded students from maintaining online gradebooks and helping develop *enhanced* self-monitoring skills needed to adapt to rapidly changing work environments.

With the ever-increasing prevalence of online gradebook use across K-12 and postsecondary educational institutions nationally, management faculty are teaching business students previously immersed in this technology, who may have already come to rely on accessing online gradebooks as a performance monitoring strategy. If this technology is underutilized by faculty, entering freshmen in particular could be disadvantaged at a vulnerable time in their educational experience. This is especially true in courses adopting a large lecture format, where it is more difficult to directly approach the instructor to elicit performance feedback.

Faculty, however, may need to do more than post grades online to promote self-monitoring among business students. Lessons learned from technology-mediated training (e-learning) show instructors often make assumptions of high levels of self-direction by students. However, my study found some students do not use any online monitoring or effectively engage in self-monitoring. Individuals induced to follow self-regulated, e-learning strategies did better on outcomes than those who were not required to do so. Thus, faculty may not only need to post grades for their students' benefit, but also convince (or reward) them to use the resource. Students convinced of the advantages of self-monitoring will be more likely to adopt one or several strategies, depending on disposition and information availability.

Another practical implication of online gradebook use includes the possibility of management faculty separating outcome from process feedback on student assignments. In the classroom, the common practice is to return essays, memos, reports, and so forth, with both (1) comments on ways to improve the paper (process feedback), and (2) the actual grade earned (outcome feedback). However, there are logical problems with managers (or faculty) acting as judge and coach simultaneously when providing performance feedback. It is no surprise that employees are less defensive and more receptive to feedback—especially negative feedback—when they see the source acting as coach or mentor, rather than judge.

Personal experience shows that when papers are returned, students immediately look for the grade, and then view written comments in light of that outcome. In other words, grades act as a perceptual anchor from which students evaluate commentary from the instructor. If the grade is low or simply lower than expected, students are likely to view the comments more defensively than if no grade is present when papers are returned. Thus, performance coaching without an immediate, corresponding ranking or rating may increase the likelihood process or developmental feedback will be accepted and utilized by students. The practice of separating process from outcome feedback is likely more common in work environments than educational settings. Nevertheless, availability of online gradebooks would allow management faculty to experiment with this delivery technique for performance information and potentially enhance the benefits of both feedback forms.

Conclusion

Over the past few decades, scholarly interest in student self-regulated learning strategies reflects recognition of its critical role in continued academic and professional success. The positive relationship between continuous learning and improved performance is at the heart of management education as well as the management function. Our students are encouraged to set high, but achievable goals, monitor their progress, and regulate their effort as they accomplish various assignments. Faculty assist in this learning process not only with a valued curriculum but also by providing timely, ongoing feedback on tasks and assessment of individual progress toward course objectives. It is important that students develop an ability to sense how well their academic efforts yield favorable results if they want success both in and out of the classroom. Online monitoring and other self-monitoring and feedback-seeking strategies can serve as vehicles to promote critical reflection that will help establish logical connections between student actions and subsequent outcomes. By promoting students' abilities and tendencies to self-monitor/self-regulate using available technologies and other accessible, reliable information sources, management faculty may improve their future growth and success in all achievement contexts—academic as well as professional.

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be equal to or greater than broadcast television.

There is much pressure for governments to invest in infrastructure. More attention has been placed on access, but relatively little on bandwidth. Recently it was announced that the United States has awarded $7.2 billion dollars in grants and loans to increase the broadband access to rural and low-income families (Reuters, 2010), and Finland has become the first nation to make broadband access a legal right of all of its citizens (QMI Agency, 2010).

Traditional broadcast media understands the growing bandwidth dilemma and is afraid for good reason. Let's look at the traditional evening newscast (airing at 6:00 PM here in Tyler, Texas, for example) on your local ABC affiliate. It takes about 12 rather well-paid folks to make it work. Three anchor persons, three camerapersons, one director, one producer, one news director, and at least three field reporters, at very least.

And even with that staff, the news when aired is typically at least two hours old. With a steady wireless connection and decent bandwidth, a smart fellow with a laptop equipped with free Skype can broadcast from the "scene" for about the price of a laptop and a monthly cell phone bill. He is now a one-man TV station communicating from anywhere, back to his website, which can in turn be seen by the entire world that accesses the Web. Get it?

Radio broadcast belongs to the satellite industry now and there is no life left for paper publications. Traditional paper publications of any note at all reproduce themselves happily on the Web every day. Happily, I say? By publishing only on the Web they will have 85% fewer employees, no paper costs, a decent stream of advertising revenue, and *The New York Times* and others like it conceivably can be profitable entities once again.

Will the Future Ever Come?

For as long as I can remember, year after year, some technology reporter on television would state emphatically that this was the year for the video telephone. I never saw one that worked. Until Skype. I always heard there was going to be a way to get a letter on your letterhead across the country in seconds. I never saw it until email came around. For years, I was certain that someday soon we would be able to do lightening-fast calculations on some of the fastest computers in the world from our own desktop. It didn't happened until the broadband Web came to life. The future you ask? It's here; it's now and always will be.

In the Words of John M. Richardson, Jr., "When it comes to the future, there are three kinds of people: those who let it happen, those who make it happen, and those who wonder what happened."

I like to think that those of us who started in the earliest days of the Web-based Internet made it happen to the delight and productivity of those of you who let it happen and the chagrin of those who wonder what happened. If we ever reach the future it will be a sad day for technology because technology is the sole vehicle that brought us this far.

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