Promptness: A Teaching and Evaluation Model

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Abstract

Promptness is a desirable behavior in students and an expected behavior in professionals. Promptness can also be viewed as a surrogate variable of the larger concept of engagement with the course. Here, a model to integrate the evaluation of promptness into the usual pattern of teaching a college-level course is presented. The life cycle of a specific assignment is presented and broken down into measurable intervals. Classroom management software provides the key tool to perform the analysis. Other forms of evaluation of promptness are presented. Conclusions are drawn, focusing on increasing learning by maximizing the time students have available between the opening of a posted assignment and its submission.

Keywords: Class engagement, Promptness, Classroom Management Software

1. INTRODUCTION

As instructors in the Information Systems discipline, we are expected to teach our classes in an interesting and informative matter, using technologies selected for their currency or for which there is demand in the labor market. We are also expected to keep ourselves reasonably well informed about developments in the field and to conduct research in ways that meld with the mission statement of our institution.

In a more diffuse manner, we are expected to serve as role models for our students and help them evolve to become working professionals. Some of the skills needed in this evolution can be taught explicitly: communications skills in Communications courses and team interaction skills in Organizational Behavior classes are examples. Still other skills can be taught by correction: for example, the student who uses coarse language in a class presentation can be counseled about the inappropriateness of that behavior. In addition, most IS instructors correct, or at least point out, errors in the written English.

Many other desirable skills and behaviors, however, are not taught explicitly. Students are expected to learn these prior to their college careers or, lacking that, to learn them by observation during their college career. Examples include the proper use of titles when addressing superiors and the proper handling of oneself at a business-related social function. Even something as simple as proper table manners is often lacking in college students. A prime source of such learning is observation of the desirable skill in others, particularly in their instructors. One thing is certain, however: if students graduate lacking these skills and behaviors they will be at a distinct disadvantage in their professional careers and will reflect poorly on their college or university.

2. ANALYSIS AND TRACKING OF PROMPTNESS

One such behavior is promptness, which will serve as an example in this paper. Here the term "promptness" is used in a specific manner: it expresses the alacrity with which students respond to assignments by accessing an assignment and submitting the com-

pleted assignment. It should not be mistaken for "punctuality", that is, the practice of arriving on class on time, or simply the submission of required assignments prior to a deadline. Although in the past it might be argued that computer anxiety might generate anxiety which in turn would inhibit promptness in student response (Marcoulides, 1988), it would be hard to see that as a factor in the early years of the twenty-first century. Instructors must be cautious, however, that short-term anxiety should be expected as students come down the learning curve on a new piece of software, specifically including class management software. Therefore, analysis of this type suggested here should be not be applied to assignments very early in the semester.

Promptness is one of several critical skill for success in college and, more importantly, for subsequent success in the student's career. An employee who submits required material promptly, or who quickly alerts his or her superiors to an undesirable situation, or who expeditiously executes a complex task is a valued employee indeed. Sociologists, among others, are well aware of this: for example, "The attributes…used to identify as the hallmarks of a professional, such as education, vocation, esoteric knowledge, self regulation and civility, have been replaced, or at least augmented, by an interpretation that stresses *punctuality*, style, dynamism, financial success and entrepreneurialism" (Cooper *et al.*, 1996, p. 631; emphasis mine). Nowhere is this more true than in the Information Systems profession, when a significant part of the work is done on one's own, mostly in one's mind, and in a manner not amenable to direct supervision. For an IS professional to attend to tasks and requirements promptly generates a positive perception of the employee, undoubtedly leads to career advancement, and reflects positively on the institution from which he or she graduated.

Promptness also aids the learning process itself. An IS course's many examinations, quizzes and other graded work exist for one fundamental purpose: for the student to learn by feedback and, where necessary, self-correction. This is an internal process driven by the student's motivation to learn. Instructors, at best, can only motivate this self-direction. The quicker the feedback and self-correction takes place, the more effec-

tive it is, both because the stimulus is at closer recall and because incorrect assumptions, knowledge or technique are not further ingrained in the student's mind. Recent studies of "high-stakes" testing reinforces this: "rapid feedback on progress gives students the feeling that they were successful and in control of their own learning, engaging students…" (Yeh, 2006, p. 621).

This discussion, however, begs the question: *how* do we teach and evaluate promptness? One can quickly agree that the seeds of this desirable behavior should be planted early in the student's life, by parents and by teachers at the elementary level. One can also quickly agree that teachers at lower levels of education, particularly in high school, should nurture this behavior and seek to correct it if deficient. Many college instructors feel that teaching promptness and other social skills are not part of their purview, and as a result neither teach nor demand the skill. This is in stark contrast with vocational schools, which place significant emphasis on teaching these skills (Deli-Amen, 2006). The fact remains, however, that a significant number of students arrive at college or university deficient in promptness, sometimes to a significant degree. The faculty at their college or university becomes their last chance to correct this deficiency. Nothing in this statement should imply, however, that the teaching of desirable behavior like promptness should be the prime, or even major, responsibility of a faculty member. To address this need, a way must be found to identify and correct their deficiency in promptness, and to reinforce self-correction, in a manner that is not burdensome to the faculty member but which is beneficial to the student. Indeed, a method should be found that conforms to the steps an instructor already takes in giving and grading an assignment, particular if the clerical and computation work can be done by others.

Until recently, promptness had as an operational definition "submission of an assignment by the stated deadline". This operating definition of promptness can be seen as late as 2002. Vincent *et al.* (2002) used promptness as one variable in measuring student behavior in initial computing course. They reported that a very large percentage of students were "obsessive about finishing computer assignments" (p. 334). Yet the definition of promptness is "Did you hand in

your work on time?". The present author argues two points: 1) the modern technology can help us move past the operating definition of promptness; and (2) that promptness is an assessable behavior *within* an assignment.

This operational definition of "submission before the deadline" was necessary in the past because there was no way for the instructor to assess student behavior between the time the assignment was announced and the time it was submitted. The only hard fact was binary: did or did not the student submit his or her work prior to the deadline? This binary question, we submit, does not define promptness but rather an ability to accomplish an objective by a stated point of time. In turn, this becomes a measure of the student's ability to work under extreme deadline pressure, not their ability to assimilate knowledge. The student who starts the task shortly after it is assigned, works on the intermediate stages of the task on a time line leading to submission by the deadline (with a generous allowance for unforeseen problems) and who submits the assignment comfortably before the deadline exhibits, we submit, far more desirable behavior than one who does not start the assignment until short before the deadline, who rushes his or her work, and who submits the work shortly before or just at the deadline. Under the operational definition above, both are "prompt", but there is no dispute that the behavior of the first student described is superior to the second student, independent of the quality of their work on the assignment proper. We submit that promptness is desirable in itself and, in a larger sense, serves as a surrogate for the concept "engagement with the course".

Vincent *et al.* (2002) provide confirmation of this assertion. Their study found that a students GPA and their promptness was correlated at 0.304 (p < 0.01), suggesting that promptness has an association with academic performance. Although their definition of promptness was binary ("Did you hand in your work on time?), it follows that facilitating promptness in the various stages of an assignment would also be associated with improved academic performance. Not surprisingly, they also found that promptness is associated with other desirable academic skills, such as listening to the instructor (r = 0.196, p < 0.05). Age was also correlated

positively and significantly: older students have undoubtedly learned from life experience the value of prompt submission of materials, as well as the skills in constructing time lines to permit the prompt submission of assignments. Vincent *et al.* (2002) then develop an implementation strategy that includes promptness as a key factor. In some ways, the strategy proposed here is an extension of their work by taking advantage of the capabilities of class management software.

3. ANALYSIS OF PROMPTNESS USING CLASSROOM MANAGEMENT SOFTWARE

Recent developments allow us to evolve a new operational definition of "promptness". Here, we propose the use of classroom management systems to open a new path to mold student behavior related to promptness. The key to this ability is the fact that every action in such a system is time stamped to the precise minute at which it occurs. There are six key points in the lifecycle of most assignments are:

1. the moment the assignment becomes available to students by posting it on the class management system (here called "Posting");

2. the moment the assignment is opened by the student ("Opening");

3. the moment the completed assignment is posted by the student ("Submission");

4. the moment the completed assignment is opened by the instructor ("Reception");

5. the moment the instructor posts the graded assignment ("Return"); and

6. the moment the student opens the graded assignment ("Review").

The exact time at which each of these six points occurs is known with precision and can be accessed easily. The duration of time between each of pair of these events can also be computed easily: as a result, there exist five distinct durations of time, here called "lags":

1. the period of time between the posting of the assignment and its opening by the student (here, "Posting-Opening lag"), the duration of which is controlled by the student;

2. the period of time between the opening of the assignment by the student and the submission of the completed assignment by the student (here, "Opening-Submission lag"), the duration which is controlled by the student;

3. the period of time between the submission of the assignment by the student and the receiving of the assignment by the instructor (here, "Submission-Reception lag"), the duration of which is controlled by the faculty member;

4. the period of time between the reception of the assignment by the instructor and the return of the grading assignment by posting it at a place in the system specified for this purpose (here, "Reception-Return lag"), the duration of which is controlled by the faculty member; and

5. the period of time between the return of the graded assignment by the instructor and the reviewing of the graded assignment of the student, signaled by their opening of the returned assignment (here, "Return-Review lag"), the duration of which is controlled by the student.

Classroom management software makes it straightforward to capture these time stamps and to bring them into a modeling tool such as a spreadsheet. There, if necessary, the data can be manipulated into date/time values. Once that is accomplished, straightforward date arithmetic can compute the five lags noted. Since the instructor must pass through the six steps illustrated above, she or he must necessarily pass through the five lags noted above. Therefore, no new work on the part of the instructor is proposed here. The tasks of downloading the timestamp data to a spreadsheet and using the spreadsheet's date arithmetic capabilities to compute the intervening lags can be done by others. In particular, this is an excellent use of "work-study" students, as it can be done with a small amount of training. Details of the specific manipulations required are available from the author on request.

Posting of Assignment	Fri 9 Sept 10:22 AM
Opening of Assignment by Student	Mon 12 Sept 04:12 PM
Posting-Opening lag	*77.8 hours*
Submission of Assignment by Student	Tues 13 Sept 03:17 PM
Opening-Submission lag	*23.9 hours*
Reception of submission by Instructor	Weds 14 Sept 8:07 AM
Submission – Reception lag	*16.8 hours*
Return of graded assignment by Instructor	Weds 14 Sept 9:21 AM
Reception – Return lag	*1.2 hours*
Opening for review of graded assignment by student	Thurs 15 Sept 11:04 PM
Return – Review lag	*37.7 hours*

By way of illustration, let us examine the time line for an individual student on a specific graded assignment. This student was chosen at random from the class presented later as a fuller example. This will be followed by analysis of the pattern of submissions by the entire class of which this individual was a part. The date and time of the assignment posting and its subsequent steps are noted, as are the intervening "lags". The assignment was posted and available to students starting Friday, 9 September at 10:22 AM. The deadline was the following Thursday, 15 September, at 11:59 PM for a total time of 157.6 hours. The lags are measured in hours:

For the student in this example, 6.0 days, or a total of 156.7 hours, have passed (note that the assignment was opened by the student approximately one hour before the

deadline). It will be instructive to examine the proportion of the total hours spent at each stage in the process. These are:

Time Period	Hours	Pro-portion
Posting-Opening lag	77.8	0.50
Opening-Submission lag	23.9	0.15
Submission – Reception lag	16.8	0.11
Reception – Return lag	1.2	0.01
Return – Review lag	37.7	0.24

For this student, a clear pattern is emerging. The student waited 3¾ days (77.8 hours) to open the posted assignment. This wait accounts for half of the time period accounted for in this example. Then, the student took a quite reasonable period of one day (23.9 hours) to submit the work. Both the opening of the assignment and its submission took place well in advance of the actual deadline for the assignment: the assignment was opened 3.3 days (79.8 hours) prior to its deadline and submitted 2.4 days (56.7 hours) prior to its deadline. The student's prompt submission permitted the instructor to receive the assignment 39.9 hours before its deadline and grade it quickly, so that it was returned to the student 18.0 hours after the student submitted it (essentially, this was overnight service), 38.6 hours prior to the deadline. In turn, this permitted the instructor to point out errors and, if necessary, request a resubmission (assuming, of course, that the student promptly opened the returned assignment promptly). Although the student waited 37.7 hours before opening the graded assignment, he or she received their feedback about one hour before the formal deadline. It happened that this particular student did well on the assignment and thus a resubmission was not necessary. The important point, however, is this: the student had the time available to resubmit if necessary, a prime benefit of promptness.

Overall, this entire assignment reflects well on the educational process, yet it also re-

veals some flaws. Presumably the instructor had good reason to post an assignment six days before its due date. These reasons range from the practical (the assignment was given on Friday the 9th and due the following Thursday the 15[th,]; thus a weekend intervened) to the pedagogical (the assignment was a particularly challenging one). Given this six-day window, it is clear that that most of the time the "ball was in the student's court". By using half the time of the assignment before even starting, the student could have found him or herself boxed in with a complex assignment and no time to seek help.

Two points must be made regarding the above illustration. First, the behavioral pattern of an individual student can useful and informative, and can also be very useful in counseling a student who is doing poorly in the course. Illustrating to the student that she or he is consistently late in their work, including all its intermediate stages, often proves to be an entirely new insight for the student. In particular, students are often surprised to learn that waiting until the last few hours before the deadline to post their submission deprived them of the ability to seek guidance from the instructor; they are equally surprised to learn that, had they started the assignment earlier, the instructor would have gladly assisted them with their difficulties.

However, the time line of an individual student is sometimes not nearly as significant as the behavioral pattern of the whole class. First, summary statistics for each of the "lags" noted above can be important, in particular regarding the dispersion and distribution of the "promptness" of students at particular points. This point is discussed below.

Second, although student promptness is the focus of this paper, it is important to note that the promptness of the teacher is also measurable here, most notably the "Submission-Reception lag" and the "Reception – Return lag". The "Reception – Return lab", for example, is the duration of time an instructor took to open a submitted assignment (which starts the period of time in which she or he can grade the assignment). It concludes with the posting of the graded assignment. This is a measure of the instructor's promptness and serves to model the exact behavior we want students to ex-

hibit: thus, instructors who do not open submissions or who fail to grade and return them to students promptly confound the very point of encouraging promptness. Consistent tardiness in this task should be an issue for academic administration. We must make a note of caution regarding the Submission-Reception lag: many instructors wait until the deadline has passed before downloading the submissions and grading them. In this case, the Submission-Reception lag is not meaningful. A more meaningful measure would be lag between the deadline and the downloading of the submitted assignments (the "Deadline-Reception lag"); however, as this is in essence a special case of the Submission-Reception lag, it is not further discussed here.

4. OTHER MEASURES OF PROMPTNESS USING CLASS MANAGEMENT SOFTWARE

Another method of assessing promptness is to post a handout or announcement (in electronic form) in the Handouts area of the class management system or to post a query in the Class Discussion area. In the case of a handout, where no reply is expected, a similar time stamp can be used to assess promptness in reading the posted handout. This technique is particularly useful if the handout or announcement is of particular moment, for example, an announcement detailing the coverage of an upcoming examination, and particularly so if the statement of coverage is made a relatively short time prior to the examination (for example, a day or two before the examination). One presumes great interest in this announcement on the part of students, and thus promptly opening the announcement promptly indicates engagement with the course or at least a degree of concern about the examination, as does the converse. In fact, measuring the time it takes for the student to open the announcement, after allowing a reasonable period of time to pass to accommodate student schedules, would quantify the degree of the student's promptness.

The Class Discussion module of classroom management software is also useful in assessing promptness as well as, more generally, engagement in the course. In Class Discussion, the identity of each participant is known, as is a time stamp for each posting. A particularly useful discussion, used often by the present author, is to invite discussion on the "fairness" of examination. This discussion is posted immediately after the examination has concluded and closes immediately prior to the return of the graded examination. It presumed that most students have an opinion on the fairness of the examination, or perhaps the lack thereof, and will readily participate in the discussion. Those that do not will likely agree with or take exception to opinions expressed by earlier students; typically a lively discussion ensues. Quick replies to the original query, and quick replies to other postings, are a fair indicator of promptness as a measure of engagement with the course. The Instructor can further develop this by rewarding participation, perhaps by giving course participation points for engaging in the discussion.

5. EVALUATION OF PROMPTNESS FOR A CLASS AS A WHOLE

The earlier examination of the behavior of an individual student was intended to be illustrative. From the Instructor's perspective, however, the behavior of the entire class on this matter is sometimes more useful than that of an individual student, and it is to this summary view that we turn next. For consistency, we will use the same assignment illustrated on an individual level above. Since each student has different opening, submission and return times, the only basis of comparison are the lags, as these share a common unit of measurement (here, hours). As noted above when the lags were defined, three lags are controlled by the student and two by the instructor. Here our focus is on the student's behavior regarding promptness, and thus the following three lags need to be examined:

1. The Posting-Opening lag: measuring the mean duration of time students waited before opening an assignment;

2. The Opening-Submission lag; measuring the mean duration of time students waited before submitted a completed assignment;

3. The Return-Review lag, measuring the mean duration of time students waited before opening a graded assignment.

We now turn to analysis of the class as a whole. The average values for each of the steps noted above were:

Time Period	Mean Hours	Std Dev	CV	Proportion
Posting-Opening lag	48.2	37.0	0.77	0.31
Opening-Submission lag	54.2	20.4	0.38	0.34
Submis-	18.9	7.2	0.3	0.12
Reception – Return lag	6.9	1.6	0.23	0.04
Return – Review lag	29.5	12.9	0.44	0.18

Analysis of the summary results indicates a different picture than that seen with an individual student. As a whole, the class took far less time to open the assignment, but a longer time to work on it than did the example student. The class as a whole submitted the assignment sooner than did the example student. In the first instance, this is useful as a counseling tool: the sample student should know that he or she is submitting closer to the deadline than is the class as a whole. The other values are comparable. The mean Submission – Reception lag of 18.9 hours is essentially overnight service, as students tend to submit their work in the evening and the professor is receiving it the next day. Likewise, the Reception – Return lag indicates that the professor usually grades and returns assignments to students within the same workday. Students as a whole showed more alacrity in seeing their graded work than did the example student. As student free time may not open until the late afternoon, the data indicate that students are reading their graded work sometime in the evening of the second day after submitting it. This reinforces the need for rapid turn-around suggested by Yeh (2006) and sets the rapidity of the turn-around in the hands of the student. Nonetheless steps could be taken by the professor to encourage more rapid opening of graded assign-

ments and thus quicker reception of feedback.

Even more challenging is addressing the degree of variability seen. To some degree, this is understandable: students often have full schedules. One of the benefits of classroom management software is to have material available to the student, when and where the student wants it. Similarly, a benefit of the system is that students can submit required and graded work when they are capable of doing so, and are not constrained by the need to do so in class. This very flexibility can be as dangerous as it is supportive. The student without a strong internal sense of time line and a strong internal drive to so well on an assignment might well fall behind. The analysis technique here can serve that student as a counseling tool, particularly when shown in comparison to the class as a whole.

Although not demonstrated here, longitudinal analysis could be performed. Note that the example assignment used here occurred in mid-September, toward the beginning of the semester; however this period was well after the familiarization period advocated by Yeh (2006). It would be instructive to perform a similar analyses at several points in the semester to determine if student behavior changed over the course of the semester, particularly so if the professor wished to alter student behavior toward more rapid response to the original posting of assignments and quicker reception of graded worked.

The key element the amount of variation in each lag, indicating a large amount of disparity in the students' approach to each task associated with the assignment. The reduction in sample size at each step is discussed below.

These findings suggest the pattern seen in our example student is not an unusual one: students take a long period of time to open assignments (and thus by definition they limit the amount of time available to complete the assignment). This is undesirable for a number of reasons. First, presuming the assignment was posted very shortly after material was covered in class, the delay seen above means that students start the assignment without fresh memory of the material on which they are being graded. Second, the late opening of the assignment

means that students have a less time in which to seek assistance and guidance from the instructor or other approved sources. This leads to poorer performance, but perhaps worse, adds a motivation for academic dishonesty: pressed against the wall, the student is more likely to seek help from a fellow student, likely one who has better skills and thus submitted the assignment earlier. The social pressure to "help out" the tardy student is great. If any collusion has taken place, the submission of the tardy student indicates a greater level of knowledge and understanding than is actually the case. We expect that the behavior described above agrees with the intuitive experience of many Instructors.

	Posting-Opening Lag	Opening-Submission lag	Return-Review lag
Correlation	+0.02	+0.34	-0.22
t-test of significance	0.090	1.953	-1.177

A very valid question can be asked: is promptness in these three stages of the assignment related to the grade received? The work of Vicent *et al.* (2002) partially addressed this, indicating a relatively low, but significant, correlation between the punctual submission of assignments and grades. However, to some extent, the question is not relevant, in that the educational objective proposed here is promptness itself, not an improvement in grades. Common wisdom, we suggest, would hold that those students who handle the stages of an assignment promptly are more likely to be better, more committed students and thus more likely to earn higher grades; in particular, those who maximize the time available to work on the assignment (primarily by opening the posted assignment promptly) would tend to earn higher grades. Below is the correlation of the time taken for each lag and the grade received on the assignment. Here, a positive correlation indicates that the less prompt students receive higher grades; a negative correlation indicates that prompt

students receive higher grades. Only data pairs are considered here. The data are:

Only one relationship approaches significance. There is clearly no relationship at all between the Posting-Opening lag and the grade on the assignment. Likewise there is no relationship between Return-Review lag and the grade on the assignment. The only relationship approaching significance is one between the Opening-Submission lag and the grade received on the assignment. It is positive and significant, if one relaxes the level of significance slightly. Although correlation does not imply causation, it is not unreasonable to suggest that having more time to do the assignment allows greater reflection, the opportunity to seek legitimate assistance, more time to recover from false starts and more time for trial-and-error approaches when that is necessary. This conforms to the intuition of many instructors: students who take longer to work on their assignment do better on the assignment. Further, recall that there is generally no mandate that a student submit their assignment at any particular point in the Opening – Submission lag. In turn, this suggests that if instructors want to maximize student learning, they would do well to consider maximizing the time available to work on the assignment. Since the deadline is fixed, there is only one way to increase the time available to work on an assignment: degree the Posting – Opening lag. This could be done by encouraging early opening of the assignment using several methods discussed elsewhere in this paper.

Note that the sample size decreases slightly over the three gaps. This is because students, to have any chance to succeed, must at least consider doing the assignment, and thus must open it after posting. Thus all thirty-four students in the course have an entry for the Posting-Opening lag. In a similar fashion, to have any chance to succeed, the student must submit their work for grading, although on most assignments a few will fail to do so (in itself, a strong negative indicator of promptness). Here, two students failed to submit the assignment, although by opening it we can clearly establish that they knew of its existence. However, there is no comparable motivation for students to open the graded assignment after it is returned to them. One might question why a student would go to the effort of creating and sub-

mitting an assignment, and then not want to see the grade; here, however, two students never opened the returned assignment by the end of the semester. Again, this in itself is an indicator of a lack of promptness and lack of engagement in the course.

6. CONCLUSION

The advent of class management software allows us to assess, evaluate and guide students on a very important characteristic which was heretofore beyond our ability to assess. We have shown that the timestamp data provided by the class management system allows the Instructor to have detailed knowledge of the promptness that students display in opening, submitting and reviewing assignments. Armed with this knowledge, and particularly if the behavior illustrated here was common among the students, the Instructor could take simple steps to ensure that students at least know about the assignment early and thus can allocate time to do the assignment. For example, the Instructor could simply require that the assignment be opened prior to some particular point in time (in the example above, say by Friday, September 9th at 5:00 PM). An academic reward could be offered to motivate this behavior, or perhaps an academic penalty could be imposed for failure to open the assignment by the stated time. This would have the advantage of maximizing the time available to do the assignment which, as suggested above, has the potential of a positive correlation with success on the assignment. The retrieval of data to verify this is very straightforward, and would not require more than a few minutes of the Instructor's time: in fact, this evaluation of promptness could take place well after the fact since the classroom management system retains this data indefinitely. Either way, the Instructor has motivated promptness in the behavior of students and has documentary evidence of their promptness

The tendency of students to open assignments well after they are posted serves them ill. This suggests a need for the instructor to post intermediate stages of the assignment to ensure an earlier opening and commencement of the assignment. Changes in course structure suggest by this analysis would have the effect of getting students away from the all-too-common habit of waiting until the last minute to do their work

(with its concurrent temptation to academic dishonesty) by ensuring that substantive parts of the assignment are done well before the deadline. In this, there is no need to increase substantially the clerical load on the instructor. These intermediate stages could be "graded" on a binary basis: if submitted, the student earns x points toward the assignment's grade; if not submitted, the maximum assignment grade possible drops by an equal number of points. When monitoring of intermediate stages this way, it is even possible that persons in clerical support roles, such as student workers, could be employed for the task.

Although no relationship exists between the Return-Review lag and grades earned on the assignment, all would agree that feedback is highly desirable, and the sooner received the better. Moreover, when viewing promptness as a surrogate variable for engagement with the course, the promptness with which students seek out their grades (and indeed the fact that they do seek out their grades) allows us an insight into the elusive concept of "engagement with the course". Recall that this style in the assignment's life cycle is voluntary on the part of the student. This suggests that Instructors motivate students to open graded assignments within a relatively short period of time, perhaps by using academic incentives or academic penalties or both.

The concept of using promptness as a surrogate variable for the larger concept of "course commitment" is supported by scholarly work in other fields, notably management. In a recent study, for example, of the commitment of members to an organization, the alacrity with which they paid their dues was used as one of three variables in capturing "commitment" (Chan, 2006).

This paper demonstrated a method to encourage and develop a desired student behavior, that is, promptness not directly related to course material. It is as unfortunate as it is realistic to state that students arrive start their higher education deficient in this quality. We suggest further the promptness can serve well as a surrogate measure of a more amorphous concept: the student's engagement with the course. It is the time-stamp capability of class management software that permits Instructors to enhance

their courses by assessing and motivating promptness.

7. REFERENCES

Chan, Sow Hup, (2006) "Organizational Identification and Commitment by Members of a Human Development Organization", *Journal of Management Development* 25:3: 249-268

Cooper, David J., Bob Hinings, Royston Greenwood, and John L. Brown. (1996) "Sedimentation and Transformation in Organizational Change: The Case of Canadian Law Firms" *Organization Studies* 17(4): 623-47.

Deli-Amen, Regina, (2006) "To Teach or Not to Teach "Social Skills": Comparing Community Colleges and Private Occupational Colleges", *Teachers College Record*, 108:3: 397-421

Vincent, Annette, Melanie A Meche and Dianne R. Ross, (2002) "Computer Learning Behavior: Strategies for Learning and Behavior Improvement", *Journal of Information Systems Education* 13:4: 331-340

Yeh, Stuart S. (2006) "High-Stakes Testing: Can Rapid Assessment Reduce the Pressure?", *Teachers College Record* 108:4: 621-661