

WRITTEN AND WARM OR TYPED AND SMART? THE EFFECTS OF FEEDBACK FORMAT ON STUDENT PERCEPTIONS OF FACULTY

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Abstract

We investigate the effects of feedback mode on student perceptions of faculty members. Specifically, do handwritten comments, versus typed comments using a tool such as “Track Changes” in Word, lead to differing perceptions of faculty warmth and/or competence? Further, we hypothesize a moderating effect of grade on this relationship. We are currently collecting data via a 2 (handwritten and typed feedback) X 3 (high, moderate and low grade) experiment to test our hypotheses.

Introduction

As faculty members, we are tasked with developing and disseminating knowledge. Part of our knowledge dissemination efforts comes in the form of providing feedback on our students’ written assignments. While the students might be largely interested only in their final grades (Smith 2008, Socher 2005), faculty provide feedback in order to communicate to students where they have done well, and where they can improve. Indeed, some suggest that the primary role of feedback is communication, and that that communication is critical to knowledge acquisition (Poulos and Mahoney 2008). Some go so far as to say that “Feedback is central to the development of student learning” (Carless, Salter, Yang and Lam 2011, p. 395).

Given its central role in learning, it is not surprising that feedback – its effects, its scope, its target, its source – has been extensively researched (Evans 2013). One aspect that has not received as much attention is the physical form the feedback takes. The purpose of this study is to examine how two opposing methods of providing written feedback can impact student perceptions of the faculty member and of the feedback itself. The results will help us better understand not only how feedback is received, but also how it might affect student-faculty relationships.

Literature

There has been much attention paid to the feedback process in the Higher Education literature (e.g., Black & Wiliam, 1998; Hattie & Timperley, 2007; Higgins, Hartley, & Skelton, 2001; Huxham, 2007). Evans (2013) conducted a thorough review of “Assessment Feedback” in Higher Education in which she identified the plethora of definitions and perspectives of the term “feedback.” While acknowledging the complexity of the term, for the purpose of this study we will adopt the straightforward definition presented by Poulos and Mahoney (2008, p. 143): “information presented that allows comparison between an actual outcome and a desired outcome” (see also Mory 2004; Ramaprasad 1983).

In her review of feedback research, Mory calls for further research on variables “that can reflect internal cognitive and affective processes of learners that might potentially affect how feedback is perceived and utilized.” (Mory 2004, p. 777). One aspect of feedback identified by Poulos and Mahoney (2008) was its usefulness: “The usefulness of feedback provided . . . was related to the students’ *perceptions of the lecturers themselves*” (p. 145, emphasis added). So, how students perceived the feedback is partially determined by how they perceive the faculty member. But, in some cases, the causal arrow may be reversed: how students perceive the faculty member might be partially determined by how they perceive the feedback.

It is important to note that we are specifically interested in “formative assessment” versus “summative assessment.” Formative assessment is “assessment that is specifically intended to generate feedback on performance to improve and accelerate learning” (Nicola and Macfarlane-Dick, 2006, p. 199; Sadler, 1989). Summative assessment, on the other hand, is meant to describe the level of learning attained at a certain point of time, and is used to report that level to the students and other interested parties (Harlen and James 1997). Thus, formative assessment is feedback meant to help improve performance on the *next* assignment (e.g., on the next paper written), while summative assessment is meant to report performance on the *last* assignment (e.g., on the exam just taken). The success of formative assessment in improving learning objectives depends on students being willing to read, understand and incorporate that feedback in their future work. Anything instructors can do to facilitate this will lead to enhanced learning.

There are significant barriers to providing feedback that will engage students and enhance learning outcomes. One, identified by Smith, is the generational gap that is likely to exist between faculty members and their students (Smith 2008). As our students become more “digitally native” we may have to change our feedback methods to better suit them. Smith rightly points out that while it is not our primary goal to accommodate our students’ age cohort, by using teaching behaviors that add to students’ learning and avoiding behaviors that detract from learning, faculty members could increase the probability of more positive interactions and better student learning (Smith 2008, p. 325). So, as technology provides more tools for our students, it might also provide new methods of delivering feedback. Whether these new methods are “better,” and whether they differ from traditional methods in motivating learning, remains to be seen.

New Feedback Forms

Traditionally, when grading case analyses, term papers and essay exams, faculty pull out their trusty red pen and begin marking – circling words, crossing out paragraphs and adding commentary and insights, all in their own idiosyncratic handwriting and style. A new method of providing feedback has become available, particularly with papers submitted electronically, through e-mail, course websites or services such as turnitin.com: electronic commenting. For example, faculty members can open a paper submitted in Word, turn on “track changes”, and begin their commentary, with resulting notes saved in the margin, or specific passages highlighted. Adobe’s Portable Document Format (pdf) provides similar functionality, even adding a “sticky note” function.

Such electronic grading provides many advantages. Students no longer must try to decipher often difficult to read handwriting. Some faculty members find this process more efficient, less time consuming and more amenable to extensive feedback. If the paper is returned electronically as well, students can incorporate suggested changes more easily using this method, which may help or hinder the learning process.

But how does the change from the red pen wielded by a professor to electronic comments typed into a paper affect student perceptions and use of the feedback and the faculty member? Might a student feel that handwritten comments convey more thoughtfulness? Or that typed comments indicate a more technologically savvy professor? If the method of conveying feedback changes the perception of the faculty member, it might also change the likelihood that student will learn from or even read the feedback.

Perceptions of the Faculty Member: Warmth vs. Competence

There are, of course, many dimensions along which a student may judge a professor. However, there are two dimensions of social judgment that seem to be fundamental: warmth and competence (Judd et al 2005). These two dimensions have been shown, in contexts as varied

as leadership qualifications (Chemers 2001) and romantic partner decisions (Sinclair and Fehr 2005), to underlie people's judgments of each other. Indeed, Aaker, Vohs and Mogilner (2010) showed that these dimensions are also applied by consumers when judging firms. There exist several slightly differing interpretations of warmth and competence, but warmth typically refers to "perceptions of generosity, kindness, honesty, sincerity, helpfulness, trustworthiness, and thoughtfulness" and competence refers to "confidence, effectiveness, intelligence, capability, skillfulness, and competitiveness" (Aaker, Vohs and Mogilner (2010, p. 225).

How might the evaluation mode – handwritten versus typed – affect the student's perceptions of the faculty member along these two fundamental dimensions?

In their study of on-line student perceptions of handwritten versus typed feedback, Morgan and Toledo (2006) found that students consistently felt a more personal connection to the instructor when feedback was handwritten using a Tablet PC. In that study, both quantitative measures and open-ended measures showed that students viewed the instructor providing handwritten comments as warmer, more caring, and more accessible than the instructor providing typed comments. We add to this research by specifically investigating perceptions of both warmth and competence engendered by the feedback, and by incorporating an investigation of the effect of the overall grade on these perceptions.

Exploratory Study

We first conducted an exploratory study to get some general ideas regarding students' perceptions of warmth and competence with different feedback delivery medium. Both graduate and undergraduate students were recruited as respondents. We presented students with pictures of papers with typed and handwritten feedback in order to demonstrate what we meant by each term. Students were asked to comment on the form of the feedback, not the actual feedback itself. In fact, the representations of the papers were too small to be read, so we eliminated the influence of the feedback itself. We then asked students to tell us "their impressions and thoughts about the professor, the feedback, the course or anything else." The responses regarding handwritten feedback are typified by the following:

- I prefer handwritten feedback just because I feel more familiar, friendly when seeing [it].
- I like handwritten comments the best. They seem more sincere and I feel that the comments are more meaningful.
- Handwritten seems personable and like the professor was jotting notes as they go.
- I prefer comments to be handwritten because it feels more personal.
- I do enjoy handwritten feedback. It makes it appear as though the professor cares more. However, I usually receive more detailed feedback when it's typed up.

On the other hand, when feedback is typed, it might indicate a professor that is more up to date, more efficient, and more professional. This may be especially true for younger, more "digitally native" students who are more accustomed to communicating via typed texts, tweets and status updates (Morgan and Toledo 2006). The following responses represent comments regarding typed comments in the pretest:

- I prefer when the comments are typed. The teacher seems to appear more organized.
- Typed is more professional; I guess it shows the professor is more tech-savvy and time-efficient.
- I think the typed feedback is probably more professional and suitable for our tech-based world. It looks more organized and legible.
- Typed: efficient, modern professor

Conceptual Framework

Both literature and our exploratory study showed that modality of feedback does produce different perceptions. Students see handwriting as an indicator of a more “personable” faculty member, while typed comments indicate increased professionalism.

H1: Handwritten comments lead to greater perception of faculty warmth than typed comments.

H2: Typed comments lead to greater perception of faculty competence than handwritten comments.

The Effects of Grades

The relationship between grades and faculty evaluations is well established (Feldman 1976), though not always “linear” (i.e., a positive grade does not always lead to positive evaluations, Marsh 1987). Further, it has been previously shown that students primarily, sometimes exclusively, focus on their overall grade rather than the feedback provided by the professor (Smith 2008, Socher 2005). Our exploratory research confirmed this. When students receive evaluations of their assignments, that evaluation consists of both the grade and the rationale for that grade (i.e., the feedback). Hence, the effect of different modalities in delivering evaluations may very well depend on the students’ opinions of the grade. The assessment might be positively affected when the obtained grade is higher than expected, or negatively affected when the grade is lower than expected.

Research shows that people tend to look for an explanation when an outcome deviates from their expectations, especially when the outcome is negative (Weiner 1985). According to Attribution Theory, when a negative outcome occurs, we tend to make external attributions and blame others. On the other hand, when an outcome is positive, people are less motivated to search for an explanation and if they do, they tend to give credit to themselves (Kelley and Michela 1980).

Feedback from professors represents the process that generates the final grade. Previous research has shown that overall satisfaction is influenced by both outcome and process. Typically, when an outcome is positive, the perception of the process does not have much of an impact. However, when outcome is a negative, satisfaction with the process will enhance the overall satisfaction (Hui, Zhao, Fan and Au 2004). When this theory is applied to a grade received on a paper, a student who receives a high grade will be more satisfied (relative to a grade that is lower than expected) and might attribute that grade to his or her own efforts. But because the student attributes the grade to his or her own ability, such an outcome is unlikely to affect judgments of the professor’s competence. On the other hand, a student receiving a lower than expected grade is less likely to question his or her own capability but more likely to question the professor’s competence (“That professor doesn’t know what she’s talking about”).

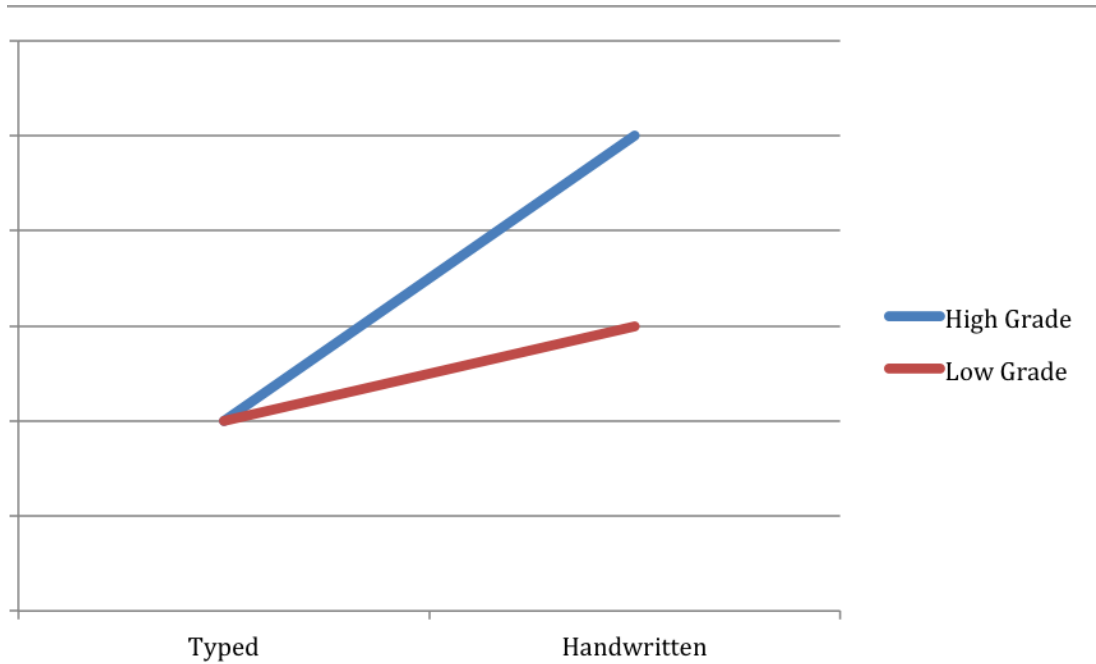
H3a: A higher than expected grade will lead to a greater perception of faculty warmth.

H3b: A lower than expected grade will lead to a lower perception of faculty competence.

But how does the grade affect perceptions of handwritten versus typed comments? We hypothesize that handwritten feedback enhances the perception of faculty warmth. We expect a higher than expected grade will intensify this effect. “This professor cares about me enough to write all these comments out. She must *really* get me since I scored so well.”

H4a: The positive effect of handwritten feedback on perceptions of faculty warmth will be higher when the grade is higher than expected.

Perceptions of Warmth



Perceptions of Competence

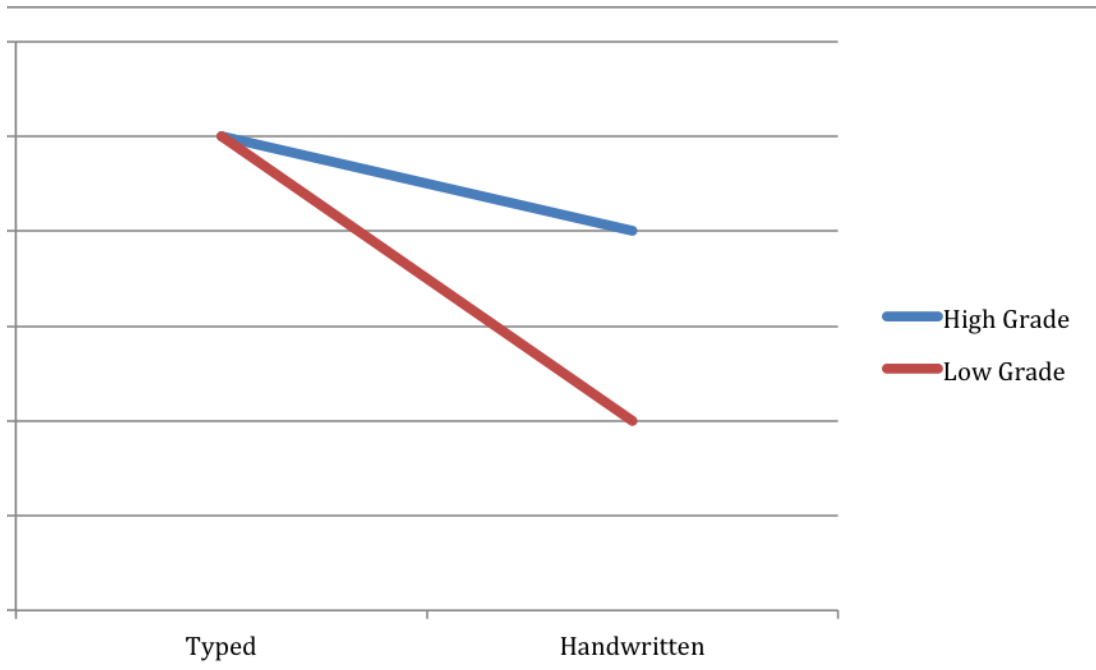


Figure 1

We also hypothesize that handwritten feedback will hurt perceptions of faculty competence. We expect that this effect will be exacerbated by a lower than expected grade. “This professor isn’t smart enough to use technological tools. He must *really* be an idiot: look at the grade I got.”

H4b: The negative effect of handwritten feedback on perceptions of faculty competence will be higher when the grade is lower than expected.

The hypothesized moderating influence of grades on feedback modality is represented

graphically in Figure 1.

Method

We are testing our hypotheses using a 2 (handwritten and typed feedback) X 3 (higher than expected grade, as expected grade, and lower than expected grade) experimental design. Subjects were recruited from an Introduction to Marketing course.

Stimulus and Procedure

We used a short paper written for an unrelated graduate class as a stimulus. The paper was three double-spaced pages long, consisting of approximately 900 words. Feedback on this paper was developed specifically for the study, and consisted of approximately equal positive and negative comments. For the handwritten version the comments were written between lines and in the margins to mimic typical feedback on papers. The handwriting was done very carefully to minimize the legibility concerns that were evident in our exploratory study. The same comments were inserted into the paper using the Track Changes and Comment functions of Word to construct the typed feedback stimulus paper.

The sample consisted of students in six sections of an Introductory Marketing class at a mid sized private University in the northeast. A total of 186 (52% male) participated. The students were asked to imagine that the paper was their work, and that they had put a fair amount of effort into it, but knew they could have done better, so they expected a grade of about 85%. Stimulus papers had a grade of 94%, 85% or 76% prominently displayed at the top of the paper.

Subjects were given the paper and given five minutes to read the content and the comments. A pilot test had shown that this was plenty of time for them to read and understand both. Delaying administration of the measures also ensured a degree of involvement with the paper itself. After five minutes elapsed, they were given the measures.

Measures

The measures used to assess perceptions of Warmth and Competence were adapted from those used by Aaker, Vohs and Mogilner (2010). To assess perceptions of faculty Warmth subjects were asked to respond to three 7-point Likert scales: "I believe this professor is _____" (warm, kind, generous). To assess perceptions of faculty Competence subjects were asked to respond to three 7-point Likert scales: "I believe this professor is _____" (competent, effective, efficient). Subjects in the handwritten condition were asked to rate the legibility of the feedback on 7-point Likert scales ("The handwritten feedback is legible" and "The professor's handwriting looks good"). This was done to ensure that the legibility concerns that many students expressed in the exploratory study did not overwhelm the effects of the manipulation on Perceptions of Warmth and Competence.

We also included a high/low grade manipulation check ("The grade I get on this assignment is [higher/lower] than I expected" and an involvement check ("I went through the questions as if this was my assignment and my grade with feedback" 9-point Agree/Disagree Likert Scale). Finally, subjects were asked to self-report the amount of time they typically spend studying, their GPAs and their genders.

References Available upon Request