The Effects of Language Style in Written Student Assessments on Student Motivation and Affective Learning

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Abstract
When providing assessment feedback in person, teachers can use non-verbal cues to reinforce their message of encouragement. When providing written assessments, however, only explicit, verbal cues are available. The current study examines how subtle differences in writing style may influence the effectiveness of written assessments in positively influencing student motivation and affective learning. The data suggest that relatively subtle variations in the written assessments produce reliable differences in student motivation and affective learning.
Overtly, teachers provide assessment information to students for the purpose of letting students know what they are doing well, what they need to improve, and what their grades are. But most teachers also hope their assessments instill a sense of efficacy in their students, contributing to their motivation to continue the good work and or strive to do better. When providing assessment feedback in person, teachers can use non-verbal cues to reinforce their message of encouragement. Gorham (1998) notes that instructor “behaviors which reduce physical or psychological distance and/or increase perceptual stimulation” (p. 40) are rewarded by students through increased motivation and perceived learning. When providing written feedback, however, only explicit, verbal cues are available. This is particularly salient in the context of the now pervasive online courses, where non-verbal channels are severely limited and the onus of communicating encouraging assessments often falls solely on verbal, written messages. This study examines how instructors can modify their written assessment in order to influence student motivation and affective learning.

Literature Review

A robust body of research suggests student motivation and perceptions of learning are influenced by teacher behavior. In particular, teacher immediacy has consistently been shown to increase self-reported learning as well as students’ motivation to learn (e.g., Chesebro & McCroskey, 2001; Christophel, 1990; Christophel & Gorham, 1995; Frymier, 1994; Frymier & Shulman, 1995; Jaasma & Koper, 1999). Other instructor behaviors have also been shown to enhance student motivation and/or perceived learning. Such behaviors include affinity-seeking, (Houser, 2006), establishing credibility (Pogue & AhYun, 2006), confirmation behaviors (Ellis, 2004), argumentativeness/aggressiveness (Myers, 2002), distributive and procedural justice (Chory-Assad, 2002), face-relevant activities (Kerssen-Griep, 2001), communicator style (Noels, Clement, & Pelletier, 1999), and the use of power (Richmond, 1990).

Although some of the studies cited above identify verbal and non-verbal variables, these studies primarily involve non-verbal behaviors. Researchers have expressed uncertainty about the efficacy of attempting to separate the effects of simultaneously occurring verbal and non-verbal behaviors. Both Gorham (1988) and Plax, Kearney, McCroskey, and Richmond (1986) raised concern that teachers’ non-verbal immediacy behaviors might confound the effects of their verbal immediacy behaviors. Concerns have also been raised about how well scales used to measure verbal immediacy relate to Wiener and Mehrabian’s (1968) original construct of verbal immediacy (Robinson & Richmond, 1995).

Although the case for non-verbal teacher behavior affecting student motivation and perceptions of learning is well documented, existing research provides little guidance as to what constitutes effective verbal teacher behavior, exclusive of a non-verbal component. The present study explores written, teacher-to-student communication in the context of teacher assessment of student work. The advantages of studying verbal-only behaviors in this manner are twofold: 1. It is an approach used by nearly all teachers at some time, thus adding to the study’s external validity, and 2. It is a context where there are no non-verbal cues to confound the effects.
Rationale

A scenario methodology is utilized in the current study so that only those variables in the written message come into play. Properly employed, this method has yielded results similar to those of experiential treatments (e.g. Weiner, 1980), and it allows for better control of spurious variables. Katt and Collins (2007) used such a technique in a preliminary investigation of the effects of written, verbal immediacy. In an effort to make the scenario seem realistic to students, actual assessments of student presentations were examined to find realistic comments that both typical and “could be phrased in ways that were more or less ‘immediate’ and provisional” (p. 92). Their review of instructor feedback “yielded a number of typical feedback items and also revealed linguistic differences that drew on two strands of theory” (p. 92), verbal immediacy and provisionalism.

Among the categories of verbal immediacy included in Witt and Wheless’s (2001) study were “Communicator Participation,” “Self Disclosure,” and “Object Participation.” It was observed in the assessment samples that teachers sometimes chose to indicate communicator participation by using the first person pronoun, often followed by self-disclosing phrases such as “I thought…” or “I feel…,” and sometimes expressed similar content using impersonal, often passive language that indicated neither communicator participation nor disclosure. Comments also varied in their indication of object participation. Some comments implied object participation by the inclusion of either the student’s name or the personal pronoun “you” or “your.” This contrasted with similar comments worded passively and impersonally.

Gibb (1961) suggests that the statements cast with an air of certainty are more likely to produce defensiveness than statements worded provisionally, that is worded in a way that implies the sender is “investigating issues rather than taking sides… problem solving rather than debating” (p. 148). Examination of written teacher feedback statements found examples of both provisionalism and certainty, particularly when expressing a negative comment about the student’s work. Thus a presentation or project that didn’t end as well as it could have might elicit a comment such as “conclusion could have been stronger” (provisional) or “conclusion was weak” (certain). A student receiving the former comment would be less likely to become defensive, according to Gibb.

The present study explores the effects casting written, verbal assessments in terms that are participatory, disclosing, and provisional. Taken together, these linguistic elements constitute a form of verbal immediacy, or at least something that has similar effects to those observed in the immediacy literature.

For purposes of this study, immediate language will be represented in the same manner as Katt and Collins (2007), utilizing wording that implies communicator participation, communicator self-disclosure, and object participation. Additionally treatments were worded ways that reflected a provisional, as opposed to certain, tone. Finally, we were interested is exploring a possible interaction between grade expectation and assessment language. Obviously, students will not be happy when they receive grades that are lower than they expected. Do such unmet expectations have a negative effect on motivation and perceptions of learning? If so, can the language of the written assessment mitigate any of negativity spawned by unmet grade expectations? Using these basic variables (immediate/provisional or non-immediate/certain language, and met or
unmet grade expectation) the current study examines the following hypotheses and research questions:

Hypothesis 1: Written student assessments worded to reflect verbal immediacy and provisionalism will result in reports of higher levels of student state motivation than feedback worded in ways that reflect non-immediacy and certainty.

Hypothesis 2: Written student assessments worded to reflect verbal immediacy and provisionalism will result in reports of higher reports of student affective learning than feedback worded in ways that reflect non-immediacy and certainty.

Katt and Collins (2007) suggested that student grade expectations might be a mediating factor in determining the effect of immediate/provisional feedback messages on student motivation and affective learning. One would expect students to report higher state motivation and more affective learning in classes where they received the grades they expected than in classes where they received lower grades than they expected. Perhaps the effect of immediate/provisional language would be influenced by student grade expectations. To further investigate these possibilities, the follows hypotheses and questions are also explored:

Hypothesis 3: Students who receive the grades they expected will report higher state motivation than students who receive grades lower then their expectation.

Hypothesis 4: Students who receive the grades they expected will report higher student affective learning than students who receive grades lower than their expectations.

Research Question 1: Does the interaction of written assessments style and student grade expectation affect reported student state motivation?

Research Question 2: Does the interaction of written assessments style and student grade expectation affect reported student affective learning?

Method

Measurement

State Motivation

The Student Motivation Scale (SMS), previously used by Richmond (1990), was employed to measure state motivation. This version included five sets of bi-polar items anchoring seven-point scales. The anchors were as follows: motivated/unmotivated, interested/uninterested, involved/uninvolved, excited/bored, inspired/uninspired. Two of the five scales were reversed in an effort to curb response effects.

Affective Learning

One of the factors influenced by immediacy behaviors is affective learning, the process of internalizing positive attitudes toward the content of a course and its instructor (Rubin, Palmgreen, & Sypher, 1994). Gorham (1988) and Richmond (1990) included six sets of four items each, that inquired about students attitudes towards the course material, recommended behaviors, instructor, and behavioral likelihood of engaging in recommended behaviors, enrolling in a course of similar content, and enrolling in a course taught by the same instructor. Participants in the current study were given no basis for forming attitudes about the subject matter of the course or the behaviors advocated in the course. They could, however, with even the limited communication provided in the scenario, have begun to form attitudes about the instructor. For this reason, only the final set of scales, likelihood of enrolling in another course taught by the same instructor, was used. The four scales were anchored by the following bi-polar sets: unlikely/likely,
impossible/possible, improbable/probable, would not/would. Two of the four items were reversed.

Participants and Procedures
Participants included 300 undergraduate students from a large, southeastern university. The experiment was conducted during normal class time. Each participant was randomly assigned to one of four treatment groups (immediate/provisional - expectations met; immediate/provisional - expectations unmet; non-immediate/certain - expectations met; non-immediate/certain - expectations unmet), which were administered simultaneously. Survey booklets were distributed to all participants. The first page of the booklet included the following explanation:

Imagine the following scenario. You are getting back the evaluations of an oral presentation you made in class last week. You felt pretty good about your presentation, but knew it wasn’t your best work. You are hoping your professor thought it was good enough to earn a B+.

The written evaluation your professor gives you is on the following page. Please read it carefully and respond to the survey questions that follow.

The next page included one of four “evaluations.” In the “immediate/provisional - expectations met” treatment, the participants responded to the following version:

Evaluation of Presentation
Your introduction could have been developed more thoroughly.
Your presentation was well organized.
The explanation of your first point was not as clear as it could have been.
I thought your conclusion seemed abrupt.
Your presentation was pretty good, but I feel you are capable of doing even better.

Overall grade: B+

The “immediate/provisional - expectations unmet” treatment was the same except that the overall grade was a “C.” In the “non-immediate/certain - expectations met” treatment, the participants responded to an evaluation worded in the following manner:

Evaluation of Presentation
The introduction was not well developed.
The presentation was well organized.
The explanation of the first point was unclear.
The conclusion was abrupt.
The presentation was not bad, but could have been better.

Overall grade: B+

The “non-immediate/certain - expectations unmet” treatment was the same except that the overall grade was a “C.” In all versions, the following instruction appeared below the text of the evaluation:
Now imagine that you are starting to work on the next assignment for the same class. For each line below, place an “X” is the space that most accurately reflect your feelings.

The five-item Student Motivation Scale (SMS) followed, then a final instruction:

Now we are going to ask you to stretch your imagination a little farther. Imagine that giving this one presentation and receiving the evaluation was all of the experience that you had with this professor. Based on that experience, estimate the likelihood that, given the opportunity, you would enroll in a future course with the same professor. For each line below, place an “X” is the space that most accurately reflect your feelings.

The four-item, modified affective learning scale followed.

Data Analysis
Cases where the scales were incomplete were also removed, reducing the number of usable cases to 292. A scale reliability analysis was performed on each of the scales. The four-item affective learning scale yielded an alpha of .95 and the five-item student motivation scale yielded an alpha of .87. The data were analyzed using a two-by-two factorial ANOVA.

Results

H1 predicted written student feedback worded to reflect verbal immediacy and provisionalism would result in reports of higher levels of student state motivation than feedback worded in ways that reflected non-immediacy and certainty. Factorial ANOVA revealed that the state motivation of students receiving the immediate/provisional treatments (\(M = 23.94, \text{s.d.} = 5.42\)) was higher than the state motivation of students receiving the non-immediate/certain treatments (\(M = 22.30, \text{s.d.} = 4.64\)) to a statistically significant degree (\(F(1, 291) = 7.978, p = 0.005\)).

H2 predicted written student feedback worded to reflect verbal immediacy and provisionalism would result in reports of higher reports of student affective learning than feedback worded in ways that reflected non-immediacy and certainty. Factorial ANOVA revealed that students receiving the immediate/provisional treatments reported higher affective learning (\(M = 16.84, \text{s.d.} = 6.05\)) than students receiving the non-immediate/certain treatments (\(M = 15.37, \text{s.d.} = 5.61\)) to a statistically significant degree (\(F(1, 291) = 6.455, p = 0.012\)).

H3 predicted students who received the grades they expected will report higher state motivation than students who receive grades lower then their expectation. Factorial ANOVA revealed that the state motivation of students in the “grade expectation met” treatments (\(M = 24.22, \text{s.d.} = 4.59\)) was higher than the state motivation of students receiving the “grade expectation unmet” treatments (\(M = 22.30, \text{s.d.} = 5.39\)) to a statistically significant degree (\(F(1, 291) = 12.466, p < 0.001\)).

H4 predicted students who received the grades they expected would report higher student affective learning than students who received grades lower then their expectation. Factorial ANOVA revealed that student reports of affective learning in the “grade
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“grade expectation met” treatments ($M = 19.226, \text{s.d.} = 5.43$) were higher than the affective learning reports of students in the “grade expectation unmet” treatments ($M = 13.21, \text{s.d.} = 4.68$) to a statistically significant degree ($F(1, 291) = 105.05, p < 0.001$).

RQ1 asked how the interaction of written feedback style and student grade expectation effects reported student state motivation. Factorial ANOVA revealed no reliable interaction effects on student state motivation ($F(1, 291) = 0.292, p = 0.589$).

RQ2 asked how the interaction of written feedback style and student grade expectation effects reported student affective learning. Factorial ANOVA revealed no reliable interaction effects on student reports of affective learning ($F(1, 291) = 0.924, p = 0.337$).

Finally, one way ANOVA were conducted to compare the effects of the four treatments without regard to interaction. The results are shown in Table 1.

Table 1
Group means for Student Motivation and Affective Learning

<table>
<thead>
<tr>
<th>Verbal Style</th>
<th>Grade Expectation</th>
<th>Motivation</th>
<th>Affective Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-immediate/certain</td>
<td>unmet</td>
<td>21.47\textsubscript{a}</td>
<td>12.88\textsubscript{c}</td>
</tr>
<tr>
<td>immediate/provisional</td>
<td>unmet</td>
<td>22.79\textsubscript{a}</td>
<td>13.67\textsubscript{c}</td>
</tr>
<tr>
<td>non-immediate/certain</td>
<td>met</td>
<td>23.21\textsubscript{a}</td>
<td>18.40\textsubscript{d}</td>
</tr>
<tr>
<td>immediate provisional</td>
<td>met</td>
<td>25.16\textsubscript{b}</td>
<td>20.20\textsubscript{c}</td>
</tr>
</tbody>
</table>

*Note: Means that do not share a common subscript are significantly different ($p < .05$).

Discussion

Not surprisingly, students’ displeasure in receiving grades that are lower than they expected is reflected in their reports of state motivation and affect toward the instructor. The results of this study indicate that, although the negative effects of unmet grade expectations cannot we reversed by employing immediate/provisional language in written assessments, they can be, at least partially, mitigated.

The data suggest that relatively subtle variations in the written assessments produce reliable differences in student motivation and affective learning. The immediate/provisional messages produced effects similar to those attributed to the much-studied non-verbal immediacy behaviors. The differences in a word or two, here and there, can affect student motivation and affect. In as much as student motivation and affect may in turn influence both student learning (Christophel, 1990) and teaching evaluations (Myers, 2002), teachers would do well to provide feedback in a style that is immediate and provisional.

Future research ought to consider individual differences, such as personality, learning styles and locus of control. It is possible that how an assessment is worded may have a greater influence on some students rather than others. It would also be worthwhile to explore what happens when a student’s grade expectations are exceeded. Finally, it would be worth examining if the effects remain the same for different types of assignments. For example, does the wording of an assessment matter any more or less
depending on what percentage of the overall course grade is affected by the assignment. Or the amount of time and effort that went into the assignment? Or how directly related the assignment seems to be to the student’s overall career goals? For example, might a journalism student react differently to an assessment of an article written in an advanced reporting class than he would to an assessment of a speech in his public speaking class?

The use of online, distance courses is expanding rapidly, with no signs of abatement. When it comes to assessing students in a computer-mediated environment, teachers need to learn how to be psychologically present when they are not physically present. Teachers need to be able to deliver honest assessments without sabotaging students’ motivation and learning. Assessment should inform students, not hurt them, but students sometimes perceive the truth as something harsh, something that cuts them to the quick. The results of this study suggest we can take the edge off of our assessments simply by choosing our words carefully.
References


