Two Minute Training in Class Significantly Increases the Use of Professional Formatting in Student to Faculty Email Correspondence

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Abstract

Many university faculty value email as an important tool for communicating with colleagues, but express frustration with a high incidence of unprofessional email correspondence from students. The goals of this study were to document the frequency of specific formatting mistakes that contribute to faculty's unfavorable perception of student emails and to determine if training could reduce these errors. We analyzed emails from students to three instructors of different rank and gender co-teaching two sections of a large introductory biology class: one section received two minutes of basic email etiquette training, the second section served as the control. We report a significant increase in overall professional quality of student emails in the trained class due to more frequent use of proper salutations, appropriate capitalization, and a class-specific subject line. These data suggest that most students do not send intentionally disrespectful messages and respond to guidance in constructing professionally formatted emails.

Keywords: email etiquette, training, undergraduate, student-faculty communication

Introduction

Faculty appreciate the ease and speed of email, especially for maintaining communication with collaborators around the world, but they often grimace when asked about email from their students. According to a front-page article in *The New York Times* (Glater, 2006), students are bombarding their faculty with emails that are unprofessional in terms of etiquette, grammar, and content. In informal conversations at the University of California, Irvine, and other research universities across the USA, many faculty expressed frustration with the high percentage of unprofessional, often described as "disrespectful," emails from students. There were a number of factors cited by faculty as contributing to their unfavorable impression of emails including origin from accounts with personalized addresses such as "sportychick@email.com" and liberal use of text messaging abbreviations. However, the most prevalent complaint was lack of appropriate salutation, including use of "Hi" or "Hey" rather than "Dear," failure to use the professional title of the recipient, or complete absence of an opening salutation. A high percentage of the young female faculty commented on receiving emails addressed, inappropriately, to Ms./Mrs. instead of Dr./Professor suggesting that this salutation *faux pas* may be influenced by the gender and/or seniority of the recipient.

These anecdotes suggest that student emails often fail to adhere to basic etiquette standards used for professional correspondence and that this can lead to miscommunication, as predicted in the early days of email (Kiesler, Siegel & McGuire, 1984). However, there is very little data on what fraction of emails from students are truly problematic. In a survey conducted at two universities (one small private and one mid-size public), approximately 30% of the faculty respondents had negative comments (Duran, Kelly & Keaten, 2005). Their primary complaints were that email was impersonal, time-consuming, too informal, and was used to ask things that the student might not ask in a face-to-face meeting (*e.g.* an unjustified grade change). The authors concluded that email problems should be viewed as an educational opportunity for "faculty to teach students about email self-presentation and the potential consequences of inappropriate email" (Duran et al., 2005).

Several studies have advocated training students in email etiquette during class (Duran et al., 2005; Hassini, 2006; Weiss & Hanson-Baldauf 2008). However, many faculty teaching large lecture classes are reluctant to relinquish time that could be used for content on yet another administrative issue. In addition, faculty may believe that email training is unnecessary because students are at least as comfortable and often more adept with the technical aspects of electronic communication than they themselves are (Weiss & Hanson-Baldauf 2008). Many faculty do not realize that most students learn email formatting primarily from interactions with their peers (Biesenbach-Lucas, 2007) and therefore may not understand there is a different etiquette that applies to personal versus professional email communication. Resources discussing email etiquette are abundant (a Google search for the words *e-mail* and *etiquette* will return over 1.3 million hits), but there is no data about student use of online email etiquette guidelines. While universities generally have their own electronic communication guidelines posted, these often focus on security and legal issues rather than proper formatting of student-faculty communication (*e.g.* University of California: http://www.ucop.edu/ucophome/policies/ec/keypoints.html).

Facilitating email as an effective conduit for exchange of information between faculty and individual students is important, particularly at research universities, where faculty often teach sections with 300-500 students, limiting the opportunity for one-on-one interactions. Improved communication should enhance the experience of students and faculty, and thus

positively impact student learning (Marbach-Ad & Sokolove, 2002). Understanding the rules of professional email etiquette also has implications for students beyond the classroom, increasing the probability their online communications will be more effective in a broader professional context.

The first goal of this study was to quantitatively assess use of specific formatting elements in student emails and to test the hypothesis that a single brief in-class training session could increase the use of professional formatting in student email correspondence. The second goal was to test the hypothesis that students frequently address faculty inappropriately as Mr./Mrs./Ms. and that this misuse is correlated with the gender or seniority of the recipient. The study was conducted in two sections of a large introductory biology class taught by a single instructional team composed of a senior female and male faculty, and a junior female course coordinator, at UCI in Fall 2007. Both sections were given the email addresses of each member of the instructional team in the first lecture, but only one section received 2 minutes of email etiquette training. All emails to the instructors were collected and analyzed. Our results show that email etiquette could be significantly improved with one short training session suggesting that students are willing to modify their correspondence to be more professional. Routine implementation of this two-minute training in introductory classes is a simple and effective method for improving student-faculty email communication.

Method

Participants
The subjects for this study were students in Sections A and B of Bio 93 ("DNA to Organisms") at the University of California, Irvine in Fall 2007. Students enrolled in Section A (1-2 pm, Mon, Wed, Fri) or B (12-1 pm, Mon, Wed, Fri) based on individual scheduling preferences and there were no significant differences in the two sections based on the demographic parameters available: total numbers of students, male/female ratio (Fisher's Exact Test, $p>0.05$), percentage biology majors (Fisher's Exact Test, $p>0.05$), percentage freshman (Fisher's Exact Test, $p>0.05$), and ethnicity ($\chi^2(4, N=875)=3.27, p>0.05$)(Table 1). Emails were not sorted by ethnicity or gender of the sender as this demographic information was available for each class only in aggregate.

Table 1. Demographic information for students enrolled in Bio93 in Fall 2007

Demographic data	Section A (trained)	Section B (untrained)
No. Students	438	437
Male/Female Ratio	.39	.34
% Biology majors	77	74
% Freshmen	83	83
% Asian/Asian-American	66	63
% White/Caucasian	16	18
% Mexican-American/Latino	10	13
% Black/African-American	2	1
% Other	6	5

Procedure
Before the quarter began, Section A was arbitrarily designated as the class to receive training and Section B served as the control class. There were two tenure-track faculty, one

male and one female, who team-taught the course and one female Ph.D. employed by the university as the course coordinator. The course coordinator was responsible for handling administrative aspects of the course such as add/drop questions, iClicker issues, and exam seating charts.

Students in both lectures were informed by an instructor independent of the course that data from online or in-class surveys, answers to questions on quizzes and exams that are part of the normal course material, and written/email correspondence would be collected for the study. The specific goals were not described since student knowledge of the hypotheses could influence their behavior. The independent instructor explained how to opt out of the study and that doing so would not impact their grade in the class. The IRB approved study information sheet was available to students at all times on the course webpage.

Training Protocol

On the first day of lecture, the female faculty member told all students that email was one way to contact course instructors. Both sections saw the same PowerPoint slide with contact information and this was included in downloadable lecture notes (Figure 1A). Students in Lecture B (untrained class) did not receive any further instructions. Students in Lecture A (trained class) received further instructions on email formatting, based on rules of etiquette that are commonly found in email etiquette handbooks (Mackiewicz, 2003; Shipley & Schwalbe, 2007). They were shown a humorous extreme example of an unprofessional email (Figure 1B). While viewing the slide, students heard the following verbal description:

> While in general we try to respond to emails as quickly as we can, we are much less likely to respond to messages like this. From a non-UCI email account. No subject so I can't tell what it is by just looking at my inbox, lack of proper salutations, text message abbreviations that I have to work hard to decipher, ending with a shout and no name.

The first slide was shown again with additional text (Figure 1C) and verbal instructions:

> We would like you to use your UCI email address and this format. Include on the subject line Bio 93A. Open with Dear Dr. or Professor *female faculty surname* or *male faculty surname*. In the body of your email use full sentences with punctuation and reasonable grammar. Do not use text messaging abbreviations. Finally always sign your name to your emails. We want to encourage you to use this email format in all of your professional interactions, which in the future will not only include writing to your professors but inquiring about jobs, medical school, etc. Emails that adhere to this conventional format are considered respectful. When emailing friends it is perfectly fine to be completely casual.

This training approach was chosen because previous studies have shown that this type of humor can significantly improve retention (Berk, 1996; Kaplan & Pascoe, 1977). We, however, do not think it essential in the context of email training since a pilot run study in Fall 2006 also resulted in an improvement in student email when the humorous training slide was omitted.
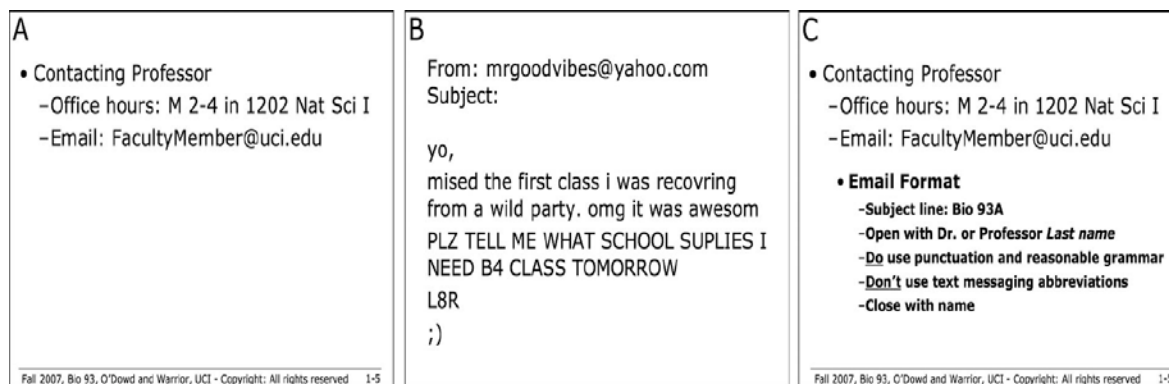
Figure 1. PowerPoint slides used in email etiquette training

Data Collection and Analysis

The 3 instructors archived all student email correspondence in folders on their personal computers. After grades were submitted at the end of the quarter, the course coordinator compiled all student emails into a database for analysis (FileMaker Pro, FileMaker Inc., Santa Clara, CA). Students younger than 18 or with a FERPA hold on their information were automatically removed from the study, along with students who chose to opt out. Each student was randomly assigned a 5-digit ID number to replace identifying information in his or her e-mails. All emails received from August 15, 2007 to January 5, 2008 were included in the analysis. Table 2 details the data scored and recorded for each student email.

All emails were also screened for two aspects of content. Course content emails were defined as those containing questions or comments about biology. "Grade begging emails" were defined as requests for a higher grade than received without reasonable justification. An example of "grade begging" is "I really am dedicated to my major, the courses for the class and the material that I have been taught. For this, can you please reconsider bumping me to an A-?"

Table 2. Data recorded for each student email

Category	Specific parameter	Possible entries
General Information	Lecture Section	A or B
	Random ID#	5-digit #
	Student's class level	FR, SO, JR, SR
	Grade student received in class	A, B, C, D, F
	Part of a thread?	Yes or No
Email origin	UCI Email address	+1
	Non-UCI Email address	+0

Subject Line	"Bio93A or B" + course related subject	+3
	"Bio 93A" (or "Bio 93B") only	+2
	Have a course related subject	+1
	No-relevant subject or no subject	+0
Salutation	Dear Dr./Professor *Last name*	+4
	Dr./Professor *Last name*	+3
	Hi/Hello Dr./Professor *Last name*	+2
	Hi/Hello	+1
	Hey, Mr./Mrs./Ms., no salutation	+0
Message Body	Punctuation, Capitalization, Grammar	+3
	2 of the above	+2
	1 of the above	+1
	None of the above	+0
Signature	Name at end of email	+2
	Name elsewhere in text	+1
	No signature or self-identification	+0

Results

The three instructors received a total of 551 emails between August 15, 2007 and January 5, 2008 (Table 3). There were 417 non-thread (*i.e.* student initiated) and 134 thread (reply) emails. The total number of emails sent by the trained class (259) was less than the untrained (292) class (Table 3). However, the distribution of emails to the three instructors was not significantly different between the two classes (χ^2(2, N=551)=5.621, p>0.05).

The course coordinator, who handled all administrative issues, received the largest number of emails in both classes (Table 3). She had a steady stream of emails throughout the quarter, with peaks just before the midterm given early in week 5 (from students requesting left-handed seats), just after the midterm (from students requesting midterm regrades), and after finals (from students requesting final exam regrades and class grade changes) (Figure 2).

Table 3. Number of emails received by each recipient from each section

Recipient	Untrained			Trained		
	Non-thread	Thread	Total	Non-thread	Thread	Total
Fem. Fac.	82	17	99	67	10	77
Male Fac.	50	4	54	33	1	34
Course Coord.	99	40	139	86	62	148
Total	231	61	292	186	73	259

The number of emails to the male and female faculty also varied over the course of the quarter (Figure 2). The female faculty member received the majority of her emails during the first half of the quarter when she was the primary instructor. The male faculty member received the majority of his emails during the second half of the quarter when he was the

primary instructor. Although the two faculty gave the same number of lectures, the female faculty received almost twice as many emails than the male faculty in both the untrained and trained class (Table 3). Unless otherwise indicated, all analyses of email format were based on emails that were not part of a thread (*i.e.* student initiated) and were received after the first day of class.
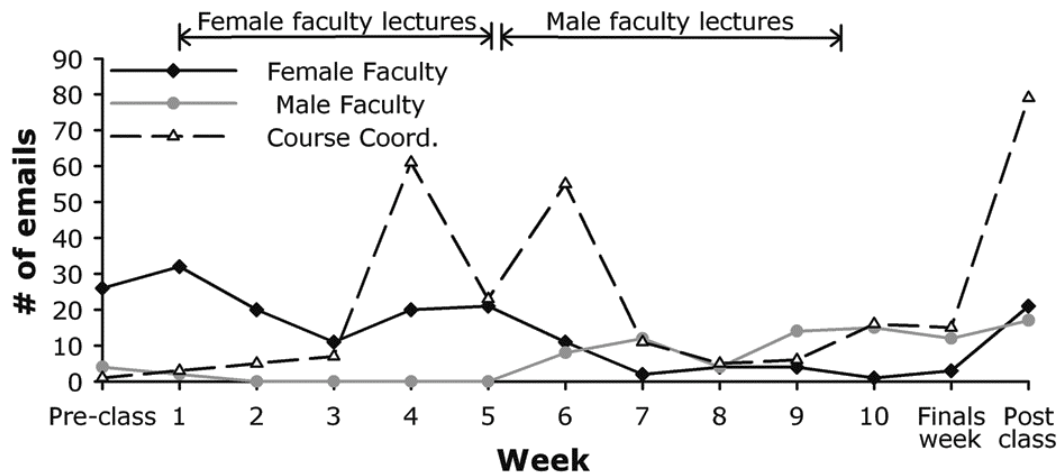

Figure 2. Number of emails received by each instructor over time.

Effect of Training on Overall Email Format

Total overall format scores on non-thread emails ranged from a minimum of 1 to a maximum of 13. Representative emails with low, average, and high point totals are shown in Table 3. The "average" example is generally polite but contains a formatting problem in one or more categories, in this case the frequent use of lowercase instead of capital letters, an informal salutation, and no subject (Table 4).

Table 4. Examples of emails covering the range of technical scores from low to high

	Low Score		Average Score		High Score	
Subject:			practice midterm answers		Bio 93A	
Message Text:	is dr. *last name* going to test on anything outside of lecture notes and anything covered in class?		Dear Dr. *Last name*, on the answers that dr. *last name* posted to the midterm, one of the questions implied that glycoproteins have the carbohydrate part attached to the protein at the golgi complex. don't the carbs get attached in the smooth ER?		Dear Professor *Last name*, I forgot to take Quiz 8. Is there any way I can view the questions and the results? I would like to study the questions and answers. Please let me know if this is possible. 46036	
Scores:	UCI Email Address	1	UCI Email Address	1	UCI Email Address	1
	Subject Line	0	Subject Line	1	Subject Line	2
	Salutation	0	Salutation	4	Salutation	4
	Punctuation	1	Punctuation	1	Punctuation	1
	Capitalization	0	Capitalization	0	Capitalization	1
	Grammar	1	Grammar	1	Grammar	1
	Signature or Self ID	0	Signature or Self ID	0	Signature or Self ID	2
	Overall Score	**3**	**Overall Score**	**8**	**Overall Score**	**12**

The mean overall format score of emails was significantly higher in the trained compared to untrained students (Figure 3, Mann-Whitney $U=13489$, $n=394$, $p<0.0001$). Cohen's d was 0.52, indicating a medium effect size. There were 5 out of 394 emails with a total score of 3 or less, and 4 of those 5 were from untrained students. To determine how training affected specific formatting elements contributing to the overall score, each element was evaluated separately in the following sections.
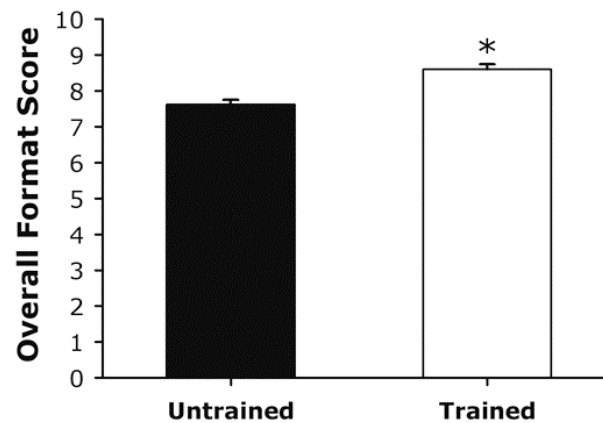
Figure 3. Mean formatting score (+ SE) increased in emails from trained students relative to untrained students.
* = significantly different from untrained (p <0.0001)

Effect of Training on Salutation

Each salutation was scored on a scale of 0 to 4, with 4 being the most formal (Table 1). The mean salutation score for the trained group was significantly higher than for the untrained group (Figure 4A, Mann-Whitney U=10614, n=394, p<0.0001). Cohen's d was 0.44, indicating a medium effect size. Analysis of emails to individual faculty indicates the difference in the salutation scores between the trained and untrained class is independent of gender and seniority (Figure 4B, Kruskal-Wallis KW=23.78, n=394, p<0.0005; Dunn's Multiple Comparisons post-hoc test).
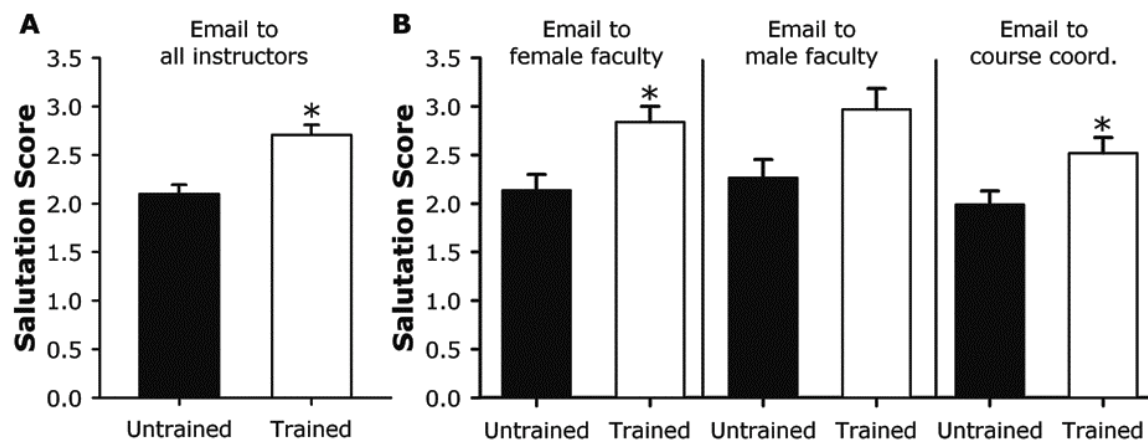

Figure 4. The mean salutation score (+ SE) increased in email to all instructors.
* = significantly different from untrained (p <0.0005).

To determine what contributed to differences in salutation scores between the trained and untrained class, and to explore salutation usage before class started, all thread emails were binned into one of three categories, those that included Dr./Professor, Mr./Mrs./Ms., or Other (e.g. Hi, Hey, or no salutation). There was a significant difference in the distribution in these three categories between Pre-class emails (received prior to the first day of class from students in both classes) and emails during the quarter from the untrained and trained class (Figure 5, 02(4, n=551)=43.6, p<0.0001). This was primarily due to a shift in the

percentage of emails using Dr./Professor in the salutation with the lowest percentage in the pre-class group, intermediate in the untrained class, and the highest percentage in the trained class. A higher percentage of emails opened with Mr./Ms./Mrs. in the pre-class group (17%) compared to emails received after the first day of instruction where they compromised only a small percentage in both the untrained (4%) and trained (2%) classes. There was no correlation between use of Mr./Ms./Mrs. in the salutation and gender or seniority of the recipient.
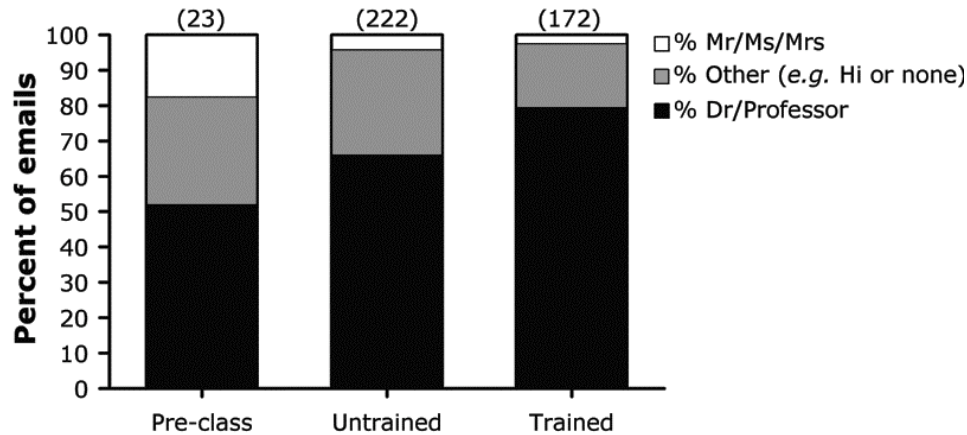

Figure 5. Salutation usage differences in pre-class (received prior to the first day of class), trained and untrained groups. number in parentheses is the total number of emails received

Effect of Training on Email Origin, Message Text and Signature

The percentage of emails lacking capitalization was significantly lower in the trained compared to the untrained group. (Table 5, Fisher's Exact Test, $p<0.05$). Approximately 13% of the emails from the untrained group lacked a signature compared to 9.3% in the trained group but this difference was not significant. Only a small number of the emails had errors in the three other formatting elements assessed and the percentage was not different between the two groups (Table 5).

Table 5. Percentage of emails with errors in the formatting elements listed

Formatting element	Untrained	Trained	Significance
Lack of capitalization	12.6% (28)	5.2% (9)	$p < 0.05$
No signature or self ID	13.1% (29)	9.3% (16)	ns
non-UCI Email address	4.5% (10)	9.3% (16)	ns
Poor punctuation	3.6% (8)	0.6% (1)	ns
Poor grammar	4.1% (9)	1.7% (3)	ns

Note: Numbers in parentheses are the absolute number of emails.
ns = no significant difference
p-values from Fisher's Exact Test.

Effect of Training on a Course Specific Formatting Element

One feature of email that is not commonly used in other forms of written communication is the subject line. In the university environment, many faculty, especially those teaching multiple sections, request that students include the course ID in the subject line. Students

were instructed to specify "Bio 93A" in their subject line to test whether or not they would follow class specific formatting instructions. The subject score was significantly higher in emails from the trained (1.19 $\pm$ 0.04, mean $\pm$ 1SE, n=172) compared to the untrained group (0.96 $\pm$ 0.03, mean $\pm$ 1SE, n = 222) (Mann-Whitney U=15342, n=394, p<0.005). Cohen's *d* was 0.44, indicating a medium effect size. In the untrained group, although 90% of the emails included a relevant subject, less than 5% included course and section information in the subject line. As expected, inclusion of "Bio 93A" in the trained group increased dramatically from less than 10% prior to the first class, to between 50 and 80% during the first 3 weeks of the quarter. However, use of "Bio93A" declined by the 4th week, even though the volume of emails was still high. In contrast, there was no time dependent change in the other formatting parameter common to all professional emails.

Effect of Training on Email Content

Even though content guidelines were not discussed in the training protocol, we hypothesized that trained students using a more formal format would be less likely to include unprofessional content. To test this, the fraction of emails with a one form of inappropriate content, "grade begging", was compared in the trained versus untrained classes. "Grade begging" was defined as a request for a higher grade without evidence of grading mistakes. Out of 394 emails, 11.3% focused on "grade begging" in the untrained class, compared to 7.6% in the trained class, but this difference is not significant (Figure 6, χ^2(2, *n*=394)=1.528, *p*>0.05). Approximately 14% in both groups contained biology-related questions and over 80% of the biology-related questions (50 out of 60 emails) were from students who received an "A" or "B" in the class. The content of the remaining emails was varied, ranging from administrative issues to grade change requests accompanied by evidence of grading mistakes.
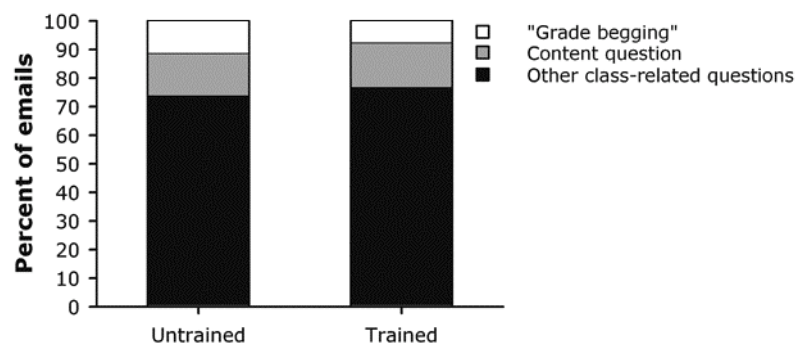

Figure 6. Percentage of emails with grade begging, content questions or other class-related questions. There were no significant differences between trained and untrained

Discussion

In this study we found that a two minute presentation on email etiquette in the first lecture resulted in a significant increase in the use of professional formatting in student to faculty emails in a large primarily freshman class. The specific formatting elements that contributed to this improvement were an increase in use of a salutation including the proper title of the recipient, consistent capitalization, and a class specific identifier in the subject line. These data indicate that the majority of students are willing to be polite and respectful, and adopt a more professional email format when provided with guidelines. This is especially important at a large research university where high student to faculty ratios in introductory classes

(often > 300:1) limit the opportunity for one-on-one interactions. Basic etiquette training in large classes should not only improve student-faculty communication for that class, but also has the potential to positively impact student communication in a wider arena, including professional interactions outside of academia or subsequent classes.

Previous studies have shown that salutations are key indicators of politeness, status, and social distance (Shipley & Schwalbe, 2007; Waldvogel, 2007). Our data suggest that in the absence of specific instructions many students use the same informal style with faculty that they use with their peers, including greetings without a name, *e.g.* "Hi" or "Hey", or omission of a greeting entirely. Therefore, as suggested by our anecdotal evidence, inappropriate salutations are a major contribution to faculty perception of student emails as too informal or disrespectful. Published email etiquette guidelines for greetings are highly variable and depend on the context and the relationship between the sender and the receiver (*e.g.*, professional or personal) (Mackiewicz, 2003; Shipley & Schwalbe, 2007). Trained students tended to use more formal salutation variations including "Dear Dr./Professor *Last name*" and "Hi Dr./Professor *Last name*". The adoption of more formal salutations by the trained students indicates that they are receptive to guidance on how to address faculty. This is critical for effective communication using email because even with appropriate content, an inappropriate salutation can negatively influence the willingness of the recipient to work with the sender (Jessmer & Anderson, 2001). A lack of politeness indicators can foster feelings of resentment by the recipient (Waldvogel, 2007) and potentially result in a delay or even lack of attention to a reasonable request. For example, the following email text shown in its complete state was a reasonable request to correct a grading error, but could have been interpreted as rude because it lacked a salutation and signature (and even a please or thank you): "On midterm A-B I missed problem 11 (multiple choice worth 2 points) and question 25 (worth 3 points) so I missed 5 total points total out of 60 but I received 54/60 instead."

In contrast, contrary to faculty anecdotes, the data in this study suggest that inappropriate use of Mr./Ms./Mrs. as a salutation by students is very low (<5%), even in a class in which over 80% of the enrollees were first quarter freshmen. The fact that use of Mr./Ms./Mrs. decreased significantly after the start of class even in the untrained group suggests that use of this salutation reflects naiveté rather than disrespectful behavior. The perception that use of Mr./Ms./Mrs. is common may be because this particular *faux pas* is highly memorable and easily recalled (Tversky & Kahneman, 1973).

In addition, our data did not support the hypothesis, suggested by faculty comments, that students use more formal salutations with male than female faculty or junior instructors. Although the junior female instructor received the largest number of emails addressed to Ms./Mrs., these emails accounted for less than 5% of her correspondence and the frequency was not significantly different from that for the male or the other female instructor. However, consistent with other reports indicating that females receive more email than their male colleagues (Duran et al., 2005; Jones & Johnson-Yale, 2005), the female faculty received almost twice as many emails as the male faculty in this study. Although it is possible that some of this difference is due to the female faculty lecturing first, she still received more emails during her last two weeks of teaching (21-22 emails/week) than her male colleague during his first 2 weeks of teaching (8-12 emails/week), consistent with the probability of a student sending an email to faculty being influenced by gender of the recipient.

Even though signatures are also considered principal politeness indicators (Shipley & Schwalbe, 2007; Waldvogel, 2007), guidelines for their use in email are inconsistent

(Mackiewicz, 2003). Most students seemed to recognize that signatures are important, because even among the untrained students, most of their emails had a signature or identified themselves in the text of their message. In addition to their name, many students in both classes included their student ID number. This was not specifically addressed in our training protocol, but our data suggest that students will routinely include this in their emails if requested.

Problems with capitalization may reflect the widespread use of instant messaging (IM) and cell phone text-messaging among undergraduates. Standards for capitalization are lax in both modes of electronic communication. We did not ask our students about their IM or text-messaging habits, but a Winter 2008 survey by the UCI department of Network and Academic Computing Services found that 93% of the student respondents regularly used IM and 58% used cell phone text-messaging (http://eee.uci.edu/news/#usagesurvey). This suggests that students make formatting errors out of habit from IM or text-messaging. Our training protocol was effective in reducing the percentage of emails that resembled IMs or text-messages in terms of capitalization.

Writing a short, descriptive subject heading has emerged as one of few rules that consistently appear in email etiquette handbooks (Mackiewicz, 2003). However, inclusion of a class identifier in the subject is confined to education related emails. The majority of students in both classes included a relevant subject heading on their emails. Trained students had significantly higher subject line scores than untrained students because many included the class identifier "Bio 93A" in their subject line. For this course specific formatting element students generally did not apply their training to the other instructors, and the use of "Bio 93A" rapidly declined after the 3rd week of class even in emails addressed to the faculty who trained the students. In contrast, the other formatting elements that showed improvement in the trained class, salutation and capitalization, were applied consistently to all instructors and did not show a decline over time. This suggests that learning associated with a formatting element common to professional emails, as opposed to a class specific element, is more robust. Longitudinal studies will be necessary to determine if the increase in use of professional email format persists in later classes.

There is evidence that students will ask for things in email that they might not ask for in a face-to-face interaction, such as "grade begging" (Duran et al., 2005; Jones & Johnson-Yale, 2005), a practice considered unprofessional by many faculty. However, there is almost no quantitative data on how prevalent this is in student to faculty email. Our data indicate that less than 10% of the emails were focused on "grade begging" and there was no difference between the trained and untrained class. Thus, we found no evidence to support the hypothesis that increased use of proper formatting decreases the probability of unprofessional content. Minimizing this type of behavior appears to require additional training and guidelines (Duran et al., 2005; Weiss & Hanson-Baldauf 2008).

Hypothetically, students should get the maximal educational value out of email by using it to ask questions relevant to course content (Hassini, 2006; Weiss & Hanson-Baldauf 2008). Over 80% of the email questions about biology came from students who earned an "A" or "B" in the class. Interestingly, a similar pattern was observed in a study of student-faculty interactions at the University of Maryland, Baltimore County (Marbach-Ad & Sokolove, 2002). It's unclear if this is because asking questions by email can help students improve their grade or because "A" and "B" students are naturally more inclined to ask content questions. Although basic format training did not significantly alter email content, there is some evidence that the percentage of thoughtful emails about class content increases in an

active learning environment that encourages student-instructor interaction (Marbach-Ad & Sokolove, 2002; Weiss & Hanson-Baldauf 2008).

Conclusion

In summary, email communication has many benefits. It can help shy students initiate contact with faculty (Sheeks & Birchmeier, 2007), and represents an important avenue for interaction between faculty and individual students in large lecture classes (Marbach-Ad & Sokolove, 2002). The use of appropriate etiquette is important in facilitating effective email communication (Duran et al., 2005; Weiss & Hanson-Baldauf 2008). We have shown that a two-minute training session with one additional slide can increase the use of professional formatting in student to faculty emails. Our data argue that a minimal time investment in etiquette training can reduce potential misunderstandings and enhance effective use of email in the classroom setting, particularly important in large classes where there is limited opportunity for individual faculty-student interaction.

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