Communication Education
Vol. 58, No. 2, April 2009, pp. 213–234

A Preliminary Study of Classroom Motivators and De-motivators from a Motivation-hygiene Perspective

James A. Katt & Steven J. Condly

This study seeks to begin answering two simple questions: "What motivates our students?" and its corollary, "What prevents our students from being motivated?" The motivation-hygiene theory (F. Herzberg, Work and the nature of man, *World Publishing, Cleveland, OH, 1966), a well-tested theory from organizational psychology, holds that people's motivation stems from two sources: the desire to grow psychologically and the desire to avoid pain or unpleasantness. Previous research shows psychological growth factors serve as motivators, while pain avoidance factors serve as hygiene factors, neutral when present, but de-motivating when absent. Using this theory as a lens, the current study examines student motivation and finds that similar patterns are present in the classroom.*

Keywords: Student Motivation; Motivation-hygiene Theory; Instructional Communication

Most university professors have observed students who are motivated, who choose to apply themselves and to persist at tasks that further their learning. Regrettably, they have also observed students who lack motivation, make poor academic choices, and fail to persist at learning tasks. While some of the perceived differences in learner motivation can be attributed to differences in the individual learners, certainly some of the difference must be attributed to their reactions to circumstances in the learning process. Often, teachers can exercise some control over these circumstances. This study seeks to begin answering two simple questions: "What motivates our students?" and, its corollary, "What prevents our students from being motivated?" by examining

James A. Katt (Ph.D., University of Central Florida, 2003) is an Assistant Professor in the Nicholson School of Communication, University of Central Florida. Steven J. Condly (Ph.D., University of Southern California, 1999) is a Senior Associate with HSA Learning & Performance Solutions. The authors wish to thank Melanie Booth-Butterfield, Editor, and two anonymous reviewers for their helpful and insightful suggestions on previous drafts of this article. James A. Katt can be contacted at jkatt@mail.ucf.edu

ISSN 0363-4523 (print)/ISSN 1479-5795 (online)
DOI: 10.1080/03634520802511472

classroom events that affect learner motivation through the lens of Herzberg's (1966) motivation-hygiene theory.

Theoretical Framework

Organizational psychologist Herzberg (1966) offered the notion that people are motivated by certain factors, but de-motivated by different factors. The results of over 200 studies by Herzberg (1974), his colleagues, and others have for the most part borne out his original position, that people's motivation stems from two sources: the desire to grow psychologically and the desire to avoid pain or unpleasantness. Herzberg takes exception to the assumption that motivators and de-motivators exist on the same continuum and argues that motivation is not the result of removing de-motivators, nor is de-motivation the result of lack of motivators. Herzberg's work demonstrates that in the workplace, "psychological growth" factors, such as achievement, recognition, responsibility, or the intrinsic value of the work itself serve as motivators, and that "hygiene" factors (things that allow one to avoid pain or unpleasantness), such as working conditions, supervision, administration, and even salary, do not motivate, but instead serve as de-motivators when they are perceived negatively. The motivation-hygiene theory holds that motivation and hygiene factors operate independently.

For example, workers who have meaningful work (which normally serves as a motivator) may have their motivation blocked by the presence of poor working conditions (a hygiene factor). However, workers who enjoy excellent working conditions may lack motivation because their jobs do not offer any psychological growth factors (such as meaningful work). So the employer who wishes to have a truly motivated workforce must provide the psychological growth factors and also attend to the hygiene factors.

The bulk of the motivation-hygiene research has utilized the "critical incident" method for eliciting data from participants. Forms of the critical incident method are widely used in educational outcomes assessments (Bycio & Allen, 2004). In the motivation-hygiene version of this methodology, participants are asked questions to which they respond freely. Their responses are recorded and later categorized for quantitative analysis. Herzberg, Mausner and Snyderman (1959) argue against providing participants a list of potential motivating or de-motivating factors to rate by some type of scale, noting this approach carries the assumption that the participants *have* an attitude about each item. In cases in which respondents either have no attitude or are unaware of their attitude with regard to a given item, they are compelled to "make up" attitudes in order to complete the instrument. By comparison, Herzberg's (1966) critical incident approach asks each participant to recall an incident when "you felt exceptionally good or exceptionally bad about your present job" (p. 93) and continues with a series of follow-up questions about that incident. Inherent in the technique is that the incident reported represents a specific time when the respondent felt different than he or she usually felt. This, argues Herzberg, increases "the likelihood that a feeling is being tapped" (p. 95), as opposed

to an opinion or an interest. Responses are then categorized and tabulated according to frequency. In Herzberg's studies, the categories were formed a posteriori, with similar responses grouped together and the resultant groups logically named.

As there have been numerous administrations of motivation-hygiene analysis in organizational settings, a fairly stable taxonomy of factors (Herzberg, 1974) has emerged (see Table 1). Many of the items are applicable to the classroom setting.

For example, incidents of achievement and recognition for achievement occur in the classroom as well as the workplace. Students express concern about the type of work they are required to do, whether the work is meaningful and/or interesting. Some teachers have instituted learning contracts or other methods to increase students' sense of responsibility for their own learning, and one would hope the classroom would be a place where incidents of personal growth frequently occur. Whereas college students may not deal with company policy *per se* in the classroom,

Table 1 Established Workplace Motivation-hygiene Factors (Herzberg, 1966, 1974)

Motivators	Hygiene Factors
Achievement	Company policy and administration
Completion of a job, solution to a problem, seeing the results of one's efforts. This category also allowed for incidents involving failure (the absence of achievement).	Events involving the "adequacy or inadequacy" (Herzberg, 1966, p. 197) or "harmfulness or beneficial effects" (p. 197) of the company's organization and management.
Recognition for achievement	Supervision
An act of notice, positive or negative, from anyone (supervisor, peer, or general public).	Events that center on the behavior of one's supervisor.
Work itself	Interpersonal relations
Events centered on the variety/routineness, difficulty/ease, or creativity/lack of creativity of respondent's work.	Reports of events in which there is specific reference to the characteristics of interaction between respondent and superiors, subordinates, or peers.
Responsibility	Working conditions
Events involving the status of respondent's authority or responsibility.	Events involving the physical adequacy or inadequacy of the work environment, (including lighting, ventilation, tools, space, etc.)
Advancement	Salary
An actual change in a "person's status or position in the company" (Herzberg, 1966, p. 195).	"Sequences of events in which compensation plays a role" (Herzberg, 1966, p. 195).
Growth	Job security
Situations that resulted in respondents learning new skills, acquiring a new outlook, or the opening of a "previously closed door" (Herzberg, 1966, p. 194).	Responses involving a specific reference to the presence or absence of job security.

professors prescribe class policy that students may perceive as either harmful or beneficial to their learning experience. While professors are not technically "supervisors" of students, they do perform supervisory functions in the ways they manage the classroom. Students have interpersonal relationships with fellow students in a manner equivalent to the way that employees of an organization have relationships with their co-workers. College students may seem more concerned with the conditions of their living quarters than their learning quarters, but they conceivably might be affected by the working conditions of the physical classroom environment, just as workers report being affected by the working conditions of their offices or plants. Some of Herzberg's categories are less applicable to the classroom context. While students expect to advance in the form of matriculating, in any given class they have one status, student, with no chance for advancement during the course. Likewise salary and job security are unlikely to have parallels in the college classroom.

Although Herzberg's (1966, 1974) work comes out of the realm of industrial/organizational psychology, it is cited in many organizational communication texts (e.g., Eisenberg, Goodall, & Trethewey, 2007; Miller, 2006; Papa, Daniels, & Spiker, 2008; Shockley-Zalabak, 2006). Motivation-hygiene theory has been widely used in organizational contexts, but less so in educational settings. For example, Dvorak and Phillips (2001) examined job satisfaction among journalism teachers using Herzberg's (1966) theory as a model. Pietro (1996) applied the motivation-hygiene theory as a framework to study the motivational aspects of school administrator conferences. While these studies took place in academic organizations, they did not involve students as respondents. Danielson (1998) examined motivation and hygiene factors among college students with regard to their overall college experience. The scope of this study allowed respondents to include events involving all aspects of their college experience, so in addition to classroom experiences, events involving university administration, financial aid, parking, campus pride, etc., were reported. The most frequently reported category of motivator responses was what Danielson (1998) labeled "helpful/accommodating/connecting" (p. 10), which involved faculty or other university staff demonstrating care and concern for students. The most frequently reported category of hygiene responses was labeled "unfair/unreasonable" (p. 10), again having to do with behavior of faculty or staff towards the respondents. Danielson's study, however, focuses on students' experiences with the university as a whole, as opposed to their classroom experience. Absent from existing research is the examination of motivation and hygiene factors specifically in the college classroom, where teaching and learning occur. In the course of participating in college classes, are learners influenced by separate motivators and hygiene factors? And if so, what aspects of the classroom experience motivate learners, and what aspects of the classroom experience serve as de-motivators?

The Conceptualization of "Motivation"

Motivation is defined as "the process whereby goal-directed activity is instigated and sustained" (Schunk, Pintrich, & Meece, 2008, p. 4) and is indicated by choice,

persistence, and effort. Much of the instructional communication literature that addresses student motivation relies on self-report responses by students using one of several forms of the Student Motivation Scale (Beatty, 1994), in which students reporting to be motivated, interested, involved, stimulated, challenged, and excited are considered to be more motivated than students reporting to be unmotivated, uninterested, uninvolved, not stimulated, unchallenged, or not excited. Generally, this measure is used to estimate *state* motivation, described by Brophy (1987) as existing when students engage in a particular activity for the purpose of "acquiring the knowledge or mastering the skill the activity was designed to teach" (p. 40). *State* motivation is differentiated from *trait* motivation, which describes a student's "enduring disposition" (p. 40) to learn, and *intrinsic* motivation, which refers to a student's "liking for or enjoyment of an activity" (p. 41), without necessarily being motivated to learn anything from it. A number of studies provide evidence that this state motivation can be influenced by student perceptions of the behaviors of classroom instructors (Christophel, 1990; Frymier, 1994; Goodboy & Myers, 2008; McCroskey, Richmond, & Bennett, 2006; Myers, 2002; Myers & Rocca, 2001; Richmond, 1990). Studies by Christophel (1990) and Frymier (1994) find state motivation to be an important factor influencing both cognitive and affective learning.

Gorham and Christophel's (1992) study examined motivating and de-motivating factors relating to students' perceptions of teacher behavior. While the motivating/de-motivating language is the same as the current study, Gorham and Christophel's conceptualization is different in two significant ways.

First, Gorham and Christophel (1992) asked students to respond relative to a specific class—the class they had attended immediately before the class in which they were surveyed. This is an often used methodology (e.g. Christophel, 1990; Frymier, 1994; Houser, 2006: Plax, Kearney, McCroskey, & Richmond, 1986; Richmond, 1990) that allows researchers to gather data based on a wide spectrum of classes and instructors. In this case, it carries the arguable assumption that there are things in every class that contribute to students' motivation and de-motivation. This differs from Herzberg's (1966) critical incident methodology, which asks each respondent to think of a time when he or she experienced a strong feeling, allowing respondents to choose from all of their experiences an event that was memorable for its emotional evocativeness. In the case of student respondents, the events could have occurred in any class they had ever taken. The only qualifiers are the strength of feelings they experienced and their recall of them. Second, Gorham and Christophel's (1992) respondents were asked to indicate things that "motivate you to try hard to do your best" or things that "decrease your motivation to try hard" (p. 242). This method, also employed by subsequent communication researchers (Christophel & Gorham, 1995; Gorham & Millette, 1997; Zhang, 2007), leaves it to the respondent to decide what constitutes a motivator or de-motivator. The Gorham and Christophel (1992) method offers the advantage of directly addressing motivation by asking for a self-report of things that motivate or de-motivate, but limits the experiential frame

to the previous class and relies on the students' perception of what is and is not motivational.

Herzberg's (1966) critical incident method asks respondents to think of a time when they experienced positive or negative feelings about their situation (work in Herzberg's studies, any college class in the current study), and asks the respondent merely to report the source of affect. Thus Herzberg's method approaches motivation indirectly, by cataloging situations that cause positive or negative feelings that, in turn, affect state motivation. The advantage in Herzberg's method is that it allows the respondents to report the most evocative incidents they can recall and requires them to report only their feelings (and the incidents that evoked them), without having to assess the effects of those feelings. We do not argue that one method is superior to the other, but suggest that each represents a different lens through which to examine student motivation.

Because Herzberg (1966) examines the affect behind motivation, rather than motivation *per se*, some industrial/organizational psychologists have suggested the construct Herzberg's factors influence is more accurately described as job satisfaction (e.g. Garske, 2000; House & Wigdor, 1967; Whitsett & Winslow, 1967) than motivation. While it has been argued that Herzberg (1966) never adequately addressed this concern (Miner, 1980), one must consider that behaviorism was still the dominant frame at the time Herzberg (1966) formulated the motivation-hygiene theory. Subsequent research (e.g., Edwards, 1999; Ekman, & Davidson, 1994; Ford, 1992; Lazarus, 1991; Payne & Cooper, 2001; Schunk et al., 2008; Weiner, 1985, 1992), however, has provided support for the connection between affect and motivation.

Behaviorism explained motivation in mechanistic terms of behavioral association, specifically "stimulus and response" (Watson, 1930) and later in terms of "operant conditioning and reinforcers" (Skinner, 1974). Though scientific and accurate, behaviorism fell short of fully explaining human thinking and action. For example, one of the fundamental tenets of behaviorism is that one learns through experiencing actions and consequences. Yet, children are able to pick up phrases in language without either trying to utter the phrase or without receiving a reward for trying to do so (Bandura, 1986). Thus, cognitivism began to emerge and it now serves as the zeitgeist of psychology.

A cognitive perspective on human motivation in general, and achievement or student motivation in particular, focuses on mental constructs which both comprise and guide thinking, and ultimately which influence human action (Schunk et al., 2008). This cognitive perspective is not uniform however; several different theories have arisen which purport to explain human motivation in non-behavioral, or mental, terms. Weiner's (1985) attribution theory, for example, asserts that humans are rational decision-makers who seek to understand and successfully negotiate their environments. Their assessments of the perceived causes of outcomes ("attributions") are linked strongly to particular emotions that serve to guide future thinking and action. Emotion theory in general (Ekman & Davidson, 1994) states that positive emotions are strongly associated with a variety of approach behaviors and negative emotions with avoidance behaviors.

As Murphy and Alexander (2000) make clear, the study of motivation, from a cognitive perspective, is muddled with confusion over terms. Often similar terms refer to different phenomena and different terms refer to the same phenomena. Ford (1992), in his motivational systems theory (MST), created the first synthetic model of motivation; that is, he scoured the literature to identify those variables that had a demonstrable effect on human motivation and he linked them in his model. His definition and explanation of motivation was that the concept is "the organized patterning of an individual's personal goals, emotions, and personal agency beliefs. Symbolically, this can be represented as a formula of three interacting components: Motivation = Goals × Emotions × Personal Agency Beliefs" (p. 78). Clark (1998, 1999), in his Commitment And Necessary Effort (CANE) model, modified MST (Ford, 1992). Clark (1998, 1999) kept emotions and personal agency beliefs, but substituted task value (consisting of importance, interest, and utility) for goals. He theorized that since goals are objects (physical or otherwise) to obtain or attain, they do not function as inputs; rather, they serve as desired end states that can be reached by appropriate levels of choice, persistence, and/or effort expenditures, which are the indexes of motivation (Schunk et al., 2008). High or low levels of personal agency beliefs (self-efficacy and perceptions about the relative supportiveness of the environment), affect (emotions and moods), and task value (importance, interest, and utility) all serve collectively to strengthen/increase, or weaken/decrease, respectively, state motivation (evidenced by the choices, persistence, and effort people make or expend). According to the synthetic models of both Ford (1992) and Clark (1998, 1999), deficits in one of the other components (personal agency beliefs or goals/task value) might negate the effects of a change in emotion/affect. However, when personal agency beliefs and goals/task value are present and constant, changes in emotion/affect influence state motivation.

What these perspectives and models have in common is a belief that emotions serve not just as outcomes in the human motivation system, but as inputs. Thus, while Herzberg's (1966) assertions about the relationship of affect to motivation may have been largely intuitive at the time, subsequent motivation research affirms his position. Affect does not equal motivation, but it does influence motivation. Events that produce positive affect (motivators) have the potential to exert a positive influence on one's motivational state and events that produce negative affect (hygiene factors, or "de-motivators") have the potential to exert a negative influence on one's motivational state. The current study, therefore, seeks to identify classroom incidents that evoke positive or negative emotions that affect state motivation.

Although the examination of such events shares some territory with "affective learning," traditional measures of affective learning (Anderson, 1979; Scott & Wheeless, 1975) ask respondents to estimate the valance of their feelings about instructors or course material and thus focus on emotional outputs (the object of their feelings). The current study asks respondents to specify events that resulted in their experiencing positive or negative emotions, focusing on emotional inputs (the origin of their feelings).

Rationale

The present study examines learner motivation according to the motivation-hygiene model, with the intent of gaining a better understanding of what factors serve as motivators and de-motivators, and what faculty might do to provide maximum motivation *and* minimum de-motivation. Previous motivation-hygiene research suggests that overall lack of motivation can be the result of either lack of motivators (psychological growth factors) or the presence of de-motivators (negative hygiene factors).

This research is consistent with Clark's (1998, 1999) CANE model which posits a multiplicative relationship between efficacy/agency, affect, and task value. From the perspective of the CANE model, de-motivators are those factors that serve to produce negative affect, lower perceptions of agency, and/or reduce task value. Motivators are factors that produce positive affect and/or task value, in the form of utility, interest, or importance.[1] The multiplicative aspect of the CANE model holds that lack of any one factor (efficacy/agency, affect, or task value) will result in a lack of overall motivation, in spite of an abundance of the other factors. Thus for people to be motivated in the sense that they are willing to devote the necessary commitment and effort to a task, they must experience *both* the presence of motivators and the absence of de-motivators. In the college classroom context, learners must experience the presence of factors that motivate them to commit effort to their studies *and* be isolated from factors that block motivation by producing negative affect or lack of efficacy/agency. Previous studies show that effective workers in organizations require both motivation and hygiene factors (e.g., DiPietro & Condly, 2007; Stolovitch, Clark, & Condly, 2001).

This study looks at students in college classes and seeks to answer the following research questions.

> Research Question One (RQ1)—Do motivators and hygiene factors function independently in the college classroom?
> Research Question Two (RQ2)—What type of incidents serve as motivators and hygiene factors in the college classroom?

Method

Participants

For this study, volunteer participants were 125 students from a large, metropolitan university located in the southeastern region of the US. To ensure that each individual had sufficient college experience to provide valid responses, only students who had completed two or more years of college were asked to participate; there were 49 Juniors, 61 Seniors, and 15 Masters-level graduate students.[2] Of the 125 participants, 32 identified themselves as male, 86 female, and seven declined to indicate their sex.

Participants were asked to relate, in writing, one specific incident from their college classroom experience that produced extremely positive feelings and one that

produced extremely negative feelings. Participants were asked not to include incidents such as extracurricular activities, social life, or university actions that were not connected to some specific class. Participants were asked to relate incidents from any college class they had taken (or were taking), and were not required to specify the class or professor. They were also asked how long the feeling persisted, how much the incident affected their work in that class, and how strong the feelings were. Although the latter questions were included in an effort to keep participants focused on a particular incident, as opposed to their general college experience, data from the question regarding the effect of the evoked feelings on class work were analyzed *post hoc*. All responses were recorded anonymously.

Unitizing and Coding the Responses

After responses were gathered from participants, all of the hand-written responses were transcribed and entered into a database. Since participants were asked to respond based on a single incident, each response was considered a single unit. Participants were asked to recall a time they felt particularly good about a class, and also recall a time they felt particularly bad about a class, so there were potentially two units of data from each participant, although some participants chose not to respond to both prompts. Responses that were not based on a specific incident were not analyzed. There were 117 potentially useable responses of positive incidents and 114 potentially usable responses of negative incidents. Separate printouts of the positive and negative incident responses were produced for initial examination and coding. An initial examination of responses used Herzberg's (1966) taxonomy of categories as a starting point. It was also essential, however, to allow for a posteriori emergence of new categories that reflected factors cited by respondents in an educational setting that were not found in the organizational contexts of previous motivation-hygiene theory research. As groups of responses emerged that did not fit any the Herzberg categories, new factors were established. For example, a number of responses attributed professorial caring as the cause of a positive-affect incident. Similarly, a number of respondents cited their own behavior as the cause of a negative-affect incident. In all, this process resulted in the creation of four new categories: professor care, self, language, and efficacy. The initial examination of the data suggested that none of the student responses would fall into Herzberg's advancement, salary, or job security categories; however, to avoid preempting the use of any of Herzberg's original factors, these categories were included in the options provided to the coders. In addition to the original Herzberg categories and the four a posteriori categories, coders were given the option to write in additional categories if they felt that none of the provided choices accurately reflected a reported incident. Two coders were trained to categorize the responses. Working independently, each coded all of the responses. For the 117 positive-affect responses, the coders agreed on 93 of the cases (79.49%), yielding an acceptable Cohen's Kappa (κ) of 0.753 (Cohen, 1960). For the 114 negative-affect responses, the coders agreed on 99 of the cases (86.84%; $K = 0.824$). A third coder was asked to code the unresolved cases. For cases in which two of the

three coders agreed, the twice chosen category was assigned. Cases in which the third coder indicated a category not chosen by either of the original coders were deemed too ambiguous to code and were dropped (five positive-affect responses and two negative-affect responses), resulting in 112 positive-affect responses and 112 negative-affect responses.

As expected, several of Herzberg's (1966) categories were unused, specifically advancement, salary, working conditions, and job security. A total of four responses were categorized as "other" by the coders. These cases were each unique, and so additional a posteriori categories were not created. Data were analyzed according to frequency. Factors that occur primarily in the negative context are considered hygiene factors; those that occur primarily in a positive context are considered motivators.

Results

Table 2 lists the factor names, examples of the types of incidents reported, and the percentage of responses, in positive or negative contexts, for each factor.

Figure 1 provides a graphic representation of the frequency and valence of the factors.

An analysis of responses according to sex of respondent was also performed. For motivators, the four most frequently cited categories (achievement, recognition for achievement, professor care, relevant work) are the same for men and women. Although more men (42.86%) cited incidents involving personal achievement than did women (23.38%), the difference was not statistically significant (Fisher's exact test, two-tailed, $p = 0.086$). For the hygiene factors, the three most frequently cited categories (class management, problems attributed to self, class policy) were the same for men and women. Although fewer men (16.67%) attributed negative incidents to their own shortcomings than did women (24.69%), the differences were not statistically significant (Fisher's exact test, two-tailed, $p = 0.450$). Chi-square statistics for the differences in frequency of response for male and female students for each of the other factors had p-values that ranged from a low of 0.121 to a high of 1.000, suggesting sex of respondent is not a reliable determinant of frequency of responses in any given category.

In an effort to confirm that the incidents reported did indeed affect students' classroom performance, we conducted a *post hoc* analysis of data from the question that asked, "Did the way you felt [as a result of the reported incident] affect your work in that class?" The possible response categories included "did not affect my work in that class at all," "affected it a little," "affected it moderately," and "affected it a lot." Of those reporting positive incidents, 80.36% reported the feeling affecting their class work "moderately" (25.89%) or "a lot" (54.47%). Of those reporting negative incidents, 75.89% reported the feeling affecting their class work "moderately" (25.00%) or "a lot" (50.89%). These data suggest that reported feelings did have a direct effect on students' subsequent class work, and that the majority of students perceived that effect to have been substantial. As performance is an outcome of motivation, these data support the relationship between affect and motivation.

Table 2 Factor Names, Examples of the Types of Incidents, Percentage of Responses

Factor	Examples	Positive "Motivator"	Negative "Hygiene Factor"
Achievement	Completing a difficult assignment Doing well on test or assignment after expending effort Succeeding where previously failed	29.46%	1.79%
Recognition for achievement	Recognition by professor - grade - praise-private - praise- public Recognition by peers	16.96%	
Professor care[a]	Professor demonstrated genuine concern for student	16.07%	1.79%
Relevant work (Work itself)	"Real life" assignments Material perceived to be useful/ practical	14.29%	3.57%
Personal growth	Overcoming fears Having learning epiphany Developing passion for subject	6.25%	
Efficacy[a]	Professor's behavior made learner feel capable/not feel capable of doing well in class	3.57%	3.57%
Other[b]	Inspirational guest speaker Class cancelled on day when participant was unprepared	3.57%	
Responsibility	Given additional responsibility	2.68%	
Class management (supervision)	Control of class Favoritism by professor Professor ridicules/embarrasses students Professor angry with student Course organization Unclear expectations Professor unprepared Professor lost student work Non-constructive criticism	5.36%	41.96%
Problems attributed to self[a]	Procrastination Lack of preparation Misinterpreted instructions/schedule Absences		22.32%
Class policy (administration)	Attendance/tardy policy Late work policy Fairness of assessment Clarity of course requirements Openness to different views	1.79%	15.18%
Interpersonal relationships	Relationships with classmates - non-inclusive - non-supportive - annoying/disruptive		5.36%
Language[a]	Problems understanding ESL professor		4.46%

[a]These are categories that emerged in this study.
[b]"Other" includes unique responses that did not fit into any existing or emergent category.

RQ1 asks if the motivators and hygiene factors function independently in the college classroom; the data from the current study suggest that they do. With the exception of the emergent category "efficacy," for which negative and positive responses were equal, the categories of incidents that were reported to be the source of positive affect were different from categories predominantly reported to be the source of negative affect.

RQ2 asks what types of incidents serve as motivators and hygiene factors in the college classroom. When asked to report an incident that resulted in students feeling particularly good about one of their classes, respondents consistently cited incidents involving achievement, recognition for achievement, professorial care, relevant work, or personal growth, and rarely cited incidents of superior class management, their own good work habits, fair and consistent class policies, positive relationships with classmates, or ease of understanding the professor's language. Conversely, when asked to report an incident that resulted in them feeling particularly bad about one of their classes, respondents consistently cited poor class management, their own mistakes, unfair class policies, negative encounters with classmates, or the inability to understand a professor who did not speak English clearly. They rarely cited lack of achievement, lack of recognition, professorial ambivalence, irrelevant work, or lack of opportunities to grow as sources of negative affect.

Discussion

These results identify factors that motivate and de-motivate college learners. The data confirm the independent functioning of motivating and de-motivating factors that was previously observed in organizational settings. Identifying specific factors that act as motivators or de-motivators can lead to a better understanding of what students need in order to commit to and persist at academic tasks. Although some factors may be beyond the control of the college teacher, most of the factors fall within the range of things a teacher *can* influence.

Of the motivators, the most frequently reported incidents involved achievement (29.46%) on the part of the learner. Almost without exception, these incidents indicated satisfaction after having accomplished a task that was difficult and/or required more than normal effort on the part of the learner. This sense of achievement was rarely mentioned in the context of an accomplishment that was easy or routine. Two respondents reported lack of achievement (1.79%), in the context of frustration over effort that did not achieve the desired result, as negative incidents.

The second most reported motivator was recognition for achievement (16.96%). Whether it was from professor or peers, given privately or publicly, learners were gratified to receive recognition for a job well done. While achievement itself may lie outside the providence of the professor, recognition for achievement is often within the professor's purview. Responses like "the professor took the time to acknowledge that I had made steady improvement"; "told us we had one of the best [projects] in

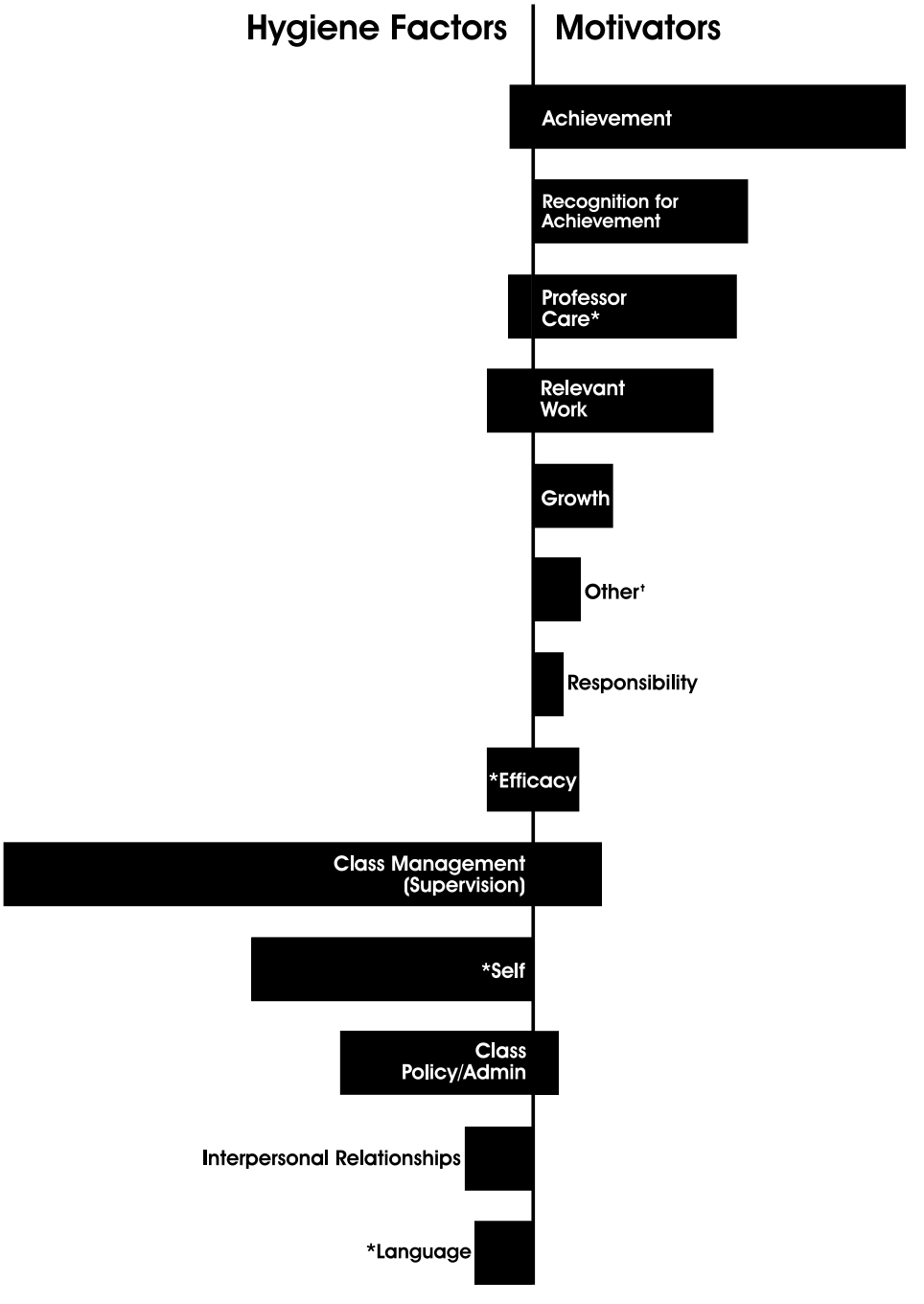

Figure 1. Factors marked with an asterisk (*) are categories that emerged in this study. †"Other" includes unique responses that did not fit into any existing or emergent category.

the class"; "she was impressed by [my work] . . . asked to keep it as a future example" suggest teachers' comments can have a lasting effect on students.

The third most reported type of positive incident, professorial care (16.07%), created a new factor, not found in the workplace. These were reports of professors demonstrating a sense of genuine, individual concern for the learner. Comments about the professors included "took the time to get to know me"; "took time to help me inside and outside of class"; "helps me when I get lost [in the material] and makes me feel like she really cares"; "stayed after class to help me"; "gave me constructive feedback, whether it was positive or negative . . . to better my performance." This finding is consistent with previous research, affirming that teacher behavior influences students' perceptions of teacher goodwill/caring (Teven, 2001; Teven & Gorham, 1998; Teven & Hanson, 2004), and that perceived teacher goodwill/caring affects educational outcomes (Teven, 2007; Teven & McCroskey, 1997) and positive affect toward teachers (Chory, 2007; McCroskey & Teven, 1999; Teven, 2007). Only two respondents reported the lack of professorial caring (1.79%) as a source of negative affect. It is interesting to note that this category did not have a parallel in the organizational contexts studied previously (Herzberg, 1974). It may be that the expression of supervisor caring in the workplace is manifested (at least in the perceptions of the workers) in other categories such as advancement, salary, or job security, which are not applicable in the classroom context. This also underscores the significance of professorial care and goodwill; the perception of teacher care is important enough to evoke feelings strong enough to be reported in the classroom context that are not reported in an organizational context.

Another factor reported in positive incidents was relevant work (14.29%); Herzberg (1966) labeled this factor "the work itself." Most of the reported incidents in this category had to do with the course material or assignments being perceived as "real world" and practical. "I loved the experience because it allowed me to connect the concepts I was learning in class to a real life situation" was a typical comment.

Incidents categorized as "personal growth" (6.25%) included reports of learners overcoming fears such as public speaking, having an epiphanic, "something finally clicked and I understood the material," experience, or developing a passion for a particular area of learning.

Among the respondents surveyed, efficacy, another emergent factor, served equally as a motivator (3.57%) and as a hygiene factor (3.57%). Reported incidents placed in this category generally reflected teacher behaviors that affected student efficacy. Participants reported positive affect and an adoption of an "I can do it" attitude after incidents in which professors provided encouragement (particularly in the wake of failure), or conversely, a sense of hopelessness (for successfully completing the course) as a result of incidents involving a negative assessment early in the semester or negative comments by a professor. That this category has not emerged in organizational studies (Herzberg, 1974) suggests that efficacy may be a more important factor in an educational setting, where learning new information and skills is the primary focus, than in a workplace setting, where one may be expected to master tasks and perform them repeatedly.

The hygiene incidents most frequently reported involve what organizations term "supervision" (41.96%), which translates to "class management" in an educational setting. Incidents in which professors fail to have control of the class discussions or activities, embarrass or intimidate students, show favoritism or lose student work were joined by incidents involving poor course organization, or unclear expectations. In general, responses in this category described incidents that could be classified as teacher misbehaviors, which have been studied previously by communication scholars. Kearney, Plax, Hays, and Ivey (1991) grouped teacher misbehaviors into 28 categories, which were then reduced to three factors: incompetence, offensiveness, and indolence. Responses categorized as class management in the current study represented all three factors, with a predominance of "offensiveness" incidents. Other studies have revealed that teacher misbehavior has a negative effect on reported student motivation (Gorham & Millette, 1997; Zhang, 2007) and teacher credibility (Banfield, Richmond, & McCroskey, 2006; Semlak & Pearson, 2008). In the current study, as in the workplace studies (Herzberg, 1966, 1974; Herzberg et al., 1959), these incidents served as hygiene factors, showing up frequently as negative experiences (41.96%) and seldom as positive ones (5.36%). In other words, learners rarely reported feeling good about a class because the professor was polite, well organized, and handled classroom situations skillfully, but they frequently cited disorganization and various forms of professorial rudeness as reasons for having a negative experience in a class.

The second most reported hygiene factor was problems attributed to self (22.32%), another factor that did not correspond to previous workplace research and was surprising in its frequency. In these cases, learners reported negative incidents as a result of their own lack of effort, preparation, attendance, or their misunderstanding of assignments or schedules. This was an unexpected finding given the tendency of people to demonstrate a hedonic bias when making attributions, tending to attribute success internally and failure externally (Weiner, 1992). Gorham and Christophel (1992) also found that, from a student perspective, "motivation is a student-owned state, while lack of motivation is perceived as a teacher-owned problem" (p. 239). On closer examination, however, one must consider that all of the other categories that emerged as hygiene factors (class management, class policy, interpersonal relationships, and language) involve external attributions. Thus, in the current study, two-thirds (66.96%) of the reports of negative affect were related to external attributions. Also, because the current study asks respondents to pick one incident during which they felt unusually bad about a college class, it is possible that students who suffered a particularly regrettable incident caused by their own shortcoming, may have chosen that incident to report because it was emotionally memorable, even though they might attribute more common de-motivating events to external sources. As to why this factor emerged in the current classroom context, but did not emerge in previous, organizational studies (Herzberg, 1974), perhaps the workplace is less accepting of personal failure and organizational respondents were no longer working at jobs in which they had experienced memorable failures for which they were personally responsible. Additionally, because students tend to be

assessed more often than employees, they may have more incidents from which to choose.

The third most reported hygiene factor was class policy/administration (15.18%). These incidents were similar to those reported under class management, but involved policy rather than professorial behavior. Inflexible policies regarding absences, tardies, or late work were frequent examples. Reports of assessments perceived to be incongruent with what had been taught in the class also fell into this category. Only two respondents reported a positive-affect incident related to class policy (1.79%).

The fourth most frequent report on the hygiene side was interpersonal relationships (5.36%), generally involving other students. While one would assume students appreciate having classes in which they enjoy positive relationships with their classmates, there were no reports of good relationships being the root of a positive incident, but there were several instances of unsupportive, non-inclusive, or disruptive classmates being the genesis of a negative report. This is consistent with Herzberg's (1966, 1974) workplace findings, where interpersonal relations consistently emerged as hygiene factors.

The final emergent hygiene factor of consequence was language. In each of these reports, representing 4.46% of the total negative incidents, the learners attributed a negative class experience to professors who were difficult to understand as a result of English not being the professor's first language. That language did not emerge as a workplace factor, but did emerge in the classroom, may be to do with the dominant role of oral communication in the classroom. Since so much of the classroom experience is centered what the professor says, it is not surprising that students of professors who are not proficient in oral English report their experience negatively.

It is interesting to compare the results of the current study with those of Gorham and Christophel (1992), who also examined motivating and de-motivating factors, but used a different approach. A number of the categories that emerged in the current study were also noted by Gorham and Christophel. For example, among Gorham and Christophel's frequently reported motivating factors were relevance of material, opportunity for accomplishment, and interest in students, all of which have parallels in the current study. Among Gorham and Christophel's frequently reported de-motivating factors were dissatisfaction with grading/instructions and teacher misbehaviors including rigidity, favoritism, insulting students, all of which fell into the class management/supervision category in the current study. There were also notable differences. For example, two of the three motivators most frequently reported by Gorham and Christophel's participants were teacher effectiveness/enthusiasm in lecturing, and grades; two of the three most frequently reported de-motivators were boring teachers and poorly organized course material. The current study asked respondents to report one positive and one negative incident from their entire college experience, while Gorham and Christophel asked their participants to reference a particular teacher and class and solicited multiple responses. The difference in results suggests that on a day-to-day basis students were concerned

with grades, teacher delivery, course organization, and avoiding boredom, but when asked about the enduring events in their college experience, they were likely to recall other factors. More importantly, however, comparison of the two studies speaks to the significance of factors like relevance, achievement, teacher care, and classroom management that emerge regardless of the research approach.

Applying organization concepts to the classroom can provide a fresh and informing perspective, and the results of this study suggest that there are many commonalities between the workplace and the classroom. With the move toward a more information-based society, one would expect the role of learning in the workplace to increase in importance, thus increasing these commonalities. There will also continue to be substantial differences. The college learning experience remains a sequence of individual courses, each a temporary assignment with a fixed end date. Even in a society in which people change jobs frequently, employees generally spend far more than a semester on each job. So while the commonalities allow migration of research approaches from one context to the other, some of the issues that emerge in the classroom (e.g., teacher care, efficacy, self-attributed problems, and language difficulties), may not prove to be as important in an organizational context.

Conclusions and Implications for Future Research

The data support the notion that students report experiencing positive affect in the presence of motivators, factors that provide psychological growth. In addition, students require that their maintenance (hygiene) needs are met, thus avoiding pain and unpleasantness that are sources of de-motivation. Further, since the motivation and hygiene factors are, for the most part, independent of one another, the presence of one does not mitigate the necessity of the other. To the extent they are able, teachers should provide motivators *and* meet the hygiene needs of the students in their classes.

Most college teachers are not strangers to the behaviors that are required to create a positive learning environment. These data, however, can help us focus on things to do and not to do, and raise the importance of attending to both.

On the motivator side, teachers can try to design assignments that are both challenging and achievable for our students. When students are successful, recognition of their success can be a powerful, positive factor. We cannot underestimate the impact of students' perceptions that their professors care about their learning and care about them; that caring must be effectively communicated to the student. Learning epiphanies are not something that teachers can conjure, but teachers can create a learning environment that facilitates those moments of personal growth. For example, having students work at a problem they are not equipped to solve, then providing relevant instruction followed by an opportunity to apply what they have learned, can help students experience the realization that they have, in fact, learned something useful. The data also make the case for relevant work that reflects real life application of what students have learned.

To ensure that hygiene needs are met, the data provide clear guidance. Teachers who are perceived as being unclear or unfair may find their students are less motivated. This is consistent with previous studies that have shown perceived clarity to be predictive of reported motivation and affective learning (e.g., Chesebro & McCroskey, 2001; Comadena, Hunt, & Simonds, 2007), and Chory-Assad's (2002) research that found the perception of procedural classroom justice, the "fairness of the procedures used" (p. 60) by classroom professors, to be predictive of both reported motivation and affective learning. The current study also affirms that behaving unprofessionally, or embarrassing or demeaning students, can also serve as powerful de-motivators. There is nothing in these data that suggests a "Paper Chase" classroom style, in which professors attempt to motivate by intimidation or ridicule, will be effective with today's students. Assessments must be consistent with what is taught, and some thought should be given to building flexibility into course rules and regulations. It is also helpful to be reminded that students' worst critics are sometimes themselves, as evidenced by the 22.32% who attributed their most negative experiences to their own failings. Learners in this category do not need teachers to point out their shortcomings; rather, these students need encouragement and guidance.

In summary, the extent to which teachers can influence these events is substantial. Of the top five motivators, teachers can be directly involved in the recognition for achievement, professorial care, and relevant work, and indirectly involved in achievement, by providing learning environments in which students can be successful; and personal growth, by helping students conquer their fears or facilitating their learning epiphanies. Together these categories account for 83.03% of the responses. Of the four most frequently reported hygiene factors, teachers control class management (supervision) and policy (administration), which comprise well over half (57.14%) the responses.

All research examining student motivation suffers the limitation of being indirect. One can examine students' perceptions and self-reports of their own motivation; study performance, as the outcome of motivation; or identify predictors of motivation, as we have done in this study. In all cases, motivation remains a latent variable, observed only indirectly. Future research should begin with replication of the current study, to solidify the taxonomy of categories. The sample size for the current study ($n = 125$), while adequate for our preliminary exploration, is another limiting factor. Future research should examine larger samples. Additional research could also confirm the motivational effects by measuring students' choices, commitment, and expenditure of effort after experiencing a critical incident. The relationships between experiencing positive and negative incidents and subsequent instructional outcomes such as cognitive learning, affective learning, and/or self reports of motivation could also be examined.

Examining student motivation from a different perspective affirms previous findings that teacher behaviors, both positive and negative, can have substantial influence on student motivation, and student perceptions of teachers' caring,

clarity, and fairness are also factors that influence student motivation. The data also suggest that greater attention should be paid to students' sense of achievement, to seeing that students are recognized for achievement, and to providing class work that is perceived by students to be meaningful and relevant. At a time when complaints of declining student motivation are ubiquitous in the academy, borrowing a time-tested lens from organizational psychology provides a different view of this current (and recurrent) problem, and provides some guidance for our teaching practice.

Notes

[1] Although it is possible that hygiene factors and motivators might effect perceptions of efficacy/agency or task value, the present study assesses only the affect dimension of the CANE model.

[2] The data were collected in the Fall (2005) semester, suggesting the graduate students had just begun graduate school and that their overall past college experience was not substantially different from that of the undergraduate participants.

References

Andersen, J. F. (1979). Teacher immediacy as a predictor of teaching effectiveness. In D. Nimmo (Ed.), *Communication yearbook 3* (pp. 543–559). New Brunswick, NJ: Transaction Books.

Bandura, A. (1986). *Social foundations of thought and action.* Englewood Cliffs, NJ: Prentice Hall.

Banfield, S. R., Richmond, V. P., & McCroskey, J. C. (2006). The effect of teacher misbehaviors on teacher credibility and affect for the teacher. *Communication Education*, *55*, 6–72.

Beatty, M. J. (1994). Student motivation scale. In R. B. Rubin, P. Palmgreen, & H. E. Sypher (Eds.), *Communication research measures: A sourcebook* (pp. 343–346). New York: Guilford.

Brophy, J. (1987). Synthesis of research on strategies for motivating students to learn. *Educational Leadership*, *45*, 40–48.

Bycio, P., & Allen, J. (2004). A critical incidents approach to outcomes assessment. *Journal of Education for Business*, *50*, 86–92.

Chesebro, J. L., & McCroskey, J. C. (2001). The relationship of teacher clarity and teacher immediacy with students' experiences of state receiver apprehension. *Communication Quarterly*, *46*, 446–456.

Christophel, D. M. (1990). The relationship among teacher immediacy behaviors, student motivation, and learning. *Communication Education*, *39*, 323–340.

Christophel, D. M., & Gorham, J. (1995). A test–retest analysis of student motivation, teacher immediacy, and perceived sources of motivation and demotivation in college classes. *Communication Education*, *44*, 292–306.

Chory, R. M. (2007). Enhancing student perceptions of fairness: The relationship between instructor credibility and classroom justice. *Communication Education*, *56*, 89–105.

Chory-Assad, R. M. (2002). Classroom justice: Perceptions of fairness as a predictor of student motivation, learning, and aggression. *Communication Quarterly*, *50*, 58–77.

Clark, R. E. (1998). Motivating performance: Part 1—Diagnosing and solving motivation problems. *Performance Improvement*, *37*(8), 39–47.

Clark, R. E. (1999). The CANE model of work motivation: A two-stage model of commitment and necessary mental effort. In J. Lowyck (Ed.), *Trends in corporate training.* Leuven: University of Belgium Press.

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, *20*, 37–46.

Comadena, M. E., Hunt, S. K., & Simonds, C. J. (2007). The effects of teacher clarity, nonverbal immediacy, and caring on student motivation, affective and cognitive learning. *Communication Research Reports*, *2*, 241–248.

Danielson, C. (1998). *Is satisfying college students the same as decreasing their dissatisfaction?* (ERIC Document Reproduction Service no. ED 422 812). East Lansing, MI: National Center for Research in Teaching.

DiPietro, R. B., & Condly, S. J. (2007). Employee turnover in the hospitality industry: An analysis based on the CANE model of motivation. *Journal of Human Resources in Hospitality and Tourism*, *6*(1), 1–22.

Dvorak, J., & Phillips, K. (2001). *Job satisfaction of high school journalism educators* (ERIC Document Reproduction Service no. ED 456 466). East Lansing, MI: National Center for Research in Teaching.

Edwards, D. C. (1999). *Motivation & emotion: Evolutionary, physiological, cognitive, and social influences*. Thousand Oaks, CA: Sage.

Eisenberg, E. M., Goodall, H. L., & Trethewey, A. (2007). *Organizational communication: Balancing creativity and constraint* (5th ed). Boston, MA: Bedford/St Martin's.

Ekman, P., & Davidson, R. J. (Eds.). (1994). *The nature of emotion: Fundamental questions*. New York: Oxford University Press.

Ford, M. E. (1992). *Motivating humans: Goals, emotions, and personal agency beliefs*. Thousand Oaks, CA: Sage.

Frymier, A. B. (1994). A model of immediacy in the classroom. *Communication Quarterly*, *42*, 133–144.

Garske, G. G. (2000). The significance of rehabilitation counselor job satisfaction. *Journal of Applied Rehabilitation Counseling*, *31*(3), 10–13.

Goodboy, A. K., & Myers, S. A. (2008). The effect of teacher confirmation on student communication and learning outcomes. *Communication Education*, *57*, 153–179.

Gorham, J., & Christophel, D. M. (1992). Students' perceptions of teacher behaviors as motivating and demotivating factors in college classes. *Communication Quarterly*, *40*, 239–252.

Gorham, J., & Millette, D. M. (1997). A comparative analysis of teacher and student perceptions of sources of motivation and demotivation in college classes. *Communication Education*, *46*, 245–261.

Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: World Publishing.

Herzberg, F. (1974). Motivation-hygiene profiles: Pinpointing what ails the organization. *Organizational Dynamics*, *3*(2), 18–29.

Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work* (2nd ed). New York: John Wiley & Sons.

House, R. J., & Wigdor, L. A. (1967). Herzberg's dual-factor theory of job satisfaction and motivation: A review of the evidence and a criticism. *Personnel Psychology*, *20*, 369–389.

Houser, M. (2006). Expectancy violations of instructor communication as predictors of motivation and learning: A comparison of traditional and non-traditional students. *Communication Quarterly*, *54*, 331–349.

Kearney, P., Plax, T. G., Hays, E. R., & Ivey, M. J. (1991). College teacher misbehaviors: What students don't like about what teachers say and do. *Communication Quarterly*, *39*, 309–324.

Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist*, *46*, 352–367.

McCroskey, J. C., & Teven, J. J. (1999). Goodwill: A reexamination of the construct and its measurement. *Communication Monographs*, *66*, 90–103.

McCroskey, J. C., Richmond, V. P., & Bennett, V. E. (2006). The relationships of student end-of-class motivation with teacher communication behaviors and instructional outcomes. *Communication Education*, *55*, 403–414.

Miller, K. (2006). *Organizational communication: Approaches and processes* (4th ed). Belmont, CA: Thomson.

Miner, J. B. (1980). *Theories of organizational behavior*. Hinsdale, IL: Dryden Press.

Murphy, P. K., & Alexander, P. A. (2000). A motivated exploration of motivation terminology. *Contemporary Educational Psychology*, *25*, 3–53.

Myers, S. A. (2002). Perceived aggressive instructor communication and student state motivation, learning, and satisfaction. *Communication Reports*, *15*, 113–121.

Myers, S. A., & Rocca, K. A. (2001). Perceived instructor argumentativeness and verbal aggressiveness in the college classroom: Effects on student perceptions of climate, apprehension, and state motivation. *Western Journal of Communication*, *65*, 113–137.

Papa, M. J., Daniels, T. D., & Spiker, B. K. (2008). *Organizational communication: Perspectives and trends*. Thousand Oaks, CA: Sage.

Payne, R. L., & Cooper, C. L. (Eds.). (2001). *Emotions at work: Theory, research and applications for management*. Chichester: John Wiley & Sons.

Pietro, D. (1996). What good are conferences, anyway? *Principal*, *75*(4), 21–22.

Plax, T. G., Kearney, P., McCroskey, J. C., & Richmond, V. P. (1986). Power in the classroom VI: Verbal control strategies, nonverbal immediacy and affective learning. *Communication Education*, *35*, 43–55.

Richmond, V. P. (1990). Communication and power in the classroom. *Communication Education*, *39*, 181–195.

Scott, M. D., & Wheeless, L. R. (1975). Communication apprehension, student attitudes, and levels of satisfaction. *Western Journal of Speech Communication*, *39*, 188–198.

Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education* (3rd ed). Upper Saddle River, NJ: Pearson.

Semlak, J. L., & Pearson, J. C. (2008). Through the years: An examination of instructor age and misbehavior on perceived teacher credibility. *Communication Research Reports*, *25*, 76–85.

Shockley-Zalabak, P. (2006). *Fundamentals of organizational communication: Knowledge, sensitivity, skills, values* (6th ed). Boston, MA: Allyn & Bacon.

Skinner, B. F. (1974). *About behaviorism*. New York: Knopf.

Stolovitch, H. D., Clark, R. E., & Condly, S. J. (2001). *Incentives, motivation, and workplace performance: Research and best practices*. Silver Spring, MD: International Society for Performance Improvement.

Teven, J. J. (2001). Relationships among teacher characteristics and perceived caring. *Communication Education*, *50*, 159–169.

Teven, J. J. (2007). Teacher caring and classroom behavior: Relationships with student affect and perceptions of teacher competence and trustworthiness. *Communication Quarterly*, *55*, 433–450.

Teven, J. J., & Gorham, J. (1998). A qualitative analysis of low-inference student perceptions of teacher caring and non-caring behaviors within the college classroom. *Communication Research Reports*, *15*, 288–298.

Teven, J. J., & Hanson, T. L. (2004). The impact of teacher immediacy and perceived caring on teacher competence and trustworthiness. *Communication Quarterly*, *52*, 39–53.

Teven, J. J., & McCroskey, J. C. (1997). The relationship of perceived teacher caring with student learning and teacher evaluation. *Communication Education*, *46*, 1–9.

Watson, J. B. (1930). *Behaviorism*. New York: W. W. Norton & Company.

Weiner, B. (1985). *Human motivation*. New York: Springer-Verlag.

Weiner, B. (1992). *Human motivation: Metaphors, theories, and research*. Thousand Oaks, CA: Sage.

Whitsett, D. A., & Winslow, E. K. (1967). An analysis of studies critical of the motivator-hygiene theory. *Personnel Psychology*, *20*, 391–415.

Zhang, Q. (2007). Teacher misbehaviors as learning demotivators in college classrooms: A cross-cultural investigation in China, Germany, Japan, and the United States. *Communication Education*, *56*, 209–227.

Received March 18, 2008
Accepted September 22, 2008