

More than Words: Probing the Terms Undergraduate Students Use to Describe Their Instructors

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Undergraduates often use single words to describe their instructors, including “boring,” “enthusiastic,” and “organized,” but what instructional behaviors cause students to use these words? This study utilized interviews and an online survey to ask students to translate commonly used instructor descriptions into their associated instructional behaviors. Explanations from undergraduates revealed that these behaviors include both the way instructors interact personally with students as well as how they convey the content to the class. The instructional behaviors identified through this process were classified into themes representing three different aspects of classroom interactions and placed into a schema depicting the positive instructional behaviors that students indicated led to respect for an instructor. The results will give instructors insight into how what they do in the classroom relates to student perception of their ability to foster learning.

Instructors have a dramatic impact on student learning. This is because student-instructor interactions impact not only student achievement, but also student attitude and the overall culture of the educational environment (Halandya, Olsen, & Shaughnessy, 1982; Koballa & Crawley, 1985; Osborne, Simon, & Collins, 2003; Umbach & Wawrzynski, 2005). Since instructor influences can be beneficial or detrimental to student learning (Koballa & Crawley, 1985), Nussbaum (1992) suggested that understanding how instructional behaviors can differentiate effective instructors from ineffective instructors will be valuable for higher education research. For the purposes of this study, instructional behaviors refer to how instructors act or conduct themselves when interacting with students. This could encompass everything from how instructors teach (e.g., they pace and speak quickly), to interactions before and after class (e.g., they smile and laugh as they wander the room), to interchanges during office hours (e.g., they act preoccupied and are intimidating). It is through the summation of these interactions that students judge the effectiveness of their instructors in fostering learning.

Instructional behaviors should be identified from the perspective of students, because students are in the most ideal position to evaluate the instruction they are receiving in relation to their perception of learning (Zabaleta, 2007). Instructors, for instance, may believe a certain behavior is beneficial to student learning, while students may perceive this behavior as either a non-factor or even counterproductive to their learning (Feldman, 1988; Helterbran, 2008). Once instructional behaviors that impact student learning have been identified, such as the impact of enthusiasm on student attitude (Halandya et al., 1982), suggestions to improve teaching can be made in terms of modifying specific instructional behaviors (Nussbaum, 1992).

Instructor Descriptions

The purpose of this study was to explore what instructional behaviors undergraduates at one institution, a large research university, associate with words used to describe their instructors. The descriptive words were identified from a study of student perceptions of graduate teaching assistants (GTAs) and professors at the same institution (Kendall & Schussler, 2012). In this study, selected sub-scales from the Questionnaire on Teacher Interaction (QTI; Coll, Taylor, & Fisher, 2002) and College and University Classroom Environment Inventory (CUCEI; Coll et al., 2002; Treagust & Fraser, 1986) surveys evaluating interactions between individuals and classroom environment were used to identify whether student perceptions of GTAs and faculty members differed (Kendall & Schussler, 2012). Open-ended student responses supplemented these survey results and led to sets of descriptive words, organized into themes, that delineated GTAs from professors (Table 1); these differences are also supported by Dudley (2009), Muzaka (2009), and Park (2002). The authors chose a sub-sample of these descriptive words (shown in bold font in Table 1) to be used as probes in the current study.

While student perception of instructors may be based on comparisons of current instructors to past instructors, there may also be some instructor perceptions that are based on instructor stereotypes. This indicates that there may be certain descriptive words and associated instructional behaviors that students are more likely to ascribe to different subsets of instructors. Therefore, using the descriptive words generated from this comparison between GTAs and professors should provide a diversity of instructional behaviors that may be present in university instructors. It may be true for instance that a student would never call a professor nervous, so that descriptive word would

Table 1
Student Instructor Descriptions Grouped into Three Overarching Themes Within the Teaching and Personal Realms of Instructor Type

Realm	Theme	GTA	Professor
Teaching	Delivery Technique	Hesitant, nervous , uncertain , and unsure how to begin teaching.	Organized and structured, confident , in control, prepared for questions, enthusiastic , with previous teaching experience, and greater knowledge.
	Classroom Atmosphere	Relaxed and laid back, interactive, engaging , personalized, and having open student-instructor interactions.	Distant and formal, strict , serious, harder, with higher expectations and standards.
Personal	Relationship	Comfortable approaching GTAs and GTAs are relatable and understanding .	Intimidating and boring , and out of touch, yet undergraduates respect professors.

Note. **Bold** font = the descriptive words selected to further explore in the current study. Modified from Kendall and Schussler (2012).

never be investigated if the focus was only on what students said about professors. This study asked students to explain what an instructor would have to do in a classroom to be labeled with each descriptive word, regardless of what instructor type the descriptive word was ascribed to.

Throughout the article, we use the term *descriptions* (or *descriptors*) to refer to the words generated from Kendall and Schussler (2012) used in this study (e.g., boring, enthusiastic, or organized). In other studies, these may also be referred to as instructor characteristics, traits, or qualities.

Instructional Behaviors

The descriptive words undergraduate students use to convey their perceptions about their instructors are more than just off-the-cuff remarks; they are summaries of complex classroom behaviors that are seldom probed in the college teaching literature. This gap was addressed by Varca and Pattison (2001) and Pattison, Hale, and Gowens (2011) who studied the instructional behaviors that contributed to student perception of teaching performance.

Varca and Pattison (2001) implemented a “critical incident technique,” previously used in business settings, to identify instructional behaviors that contributed to student perception of excellent and poor teaching performance. This study was conducted in five different courses (student $n = 252$) at the University of Wyoming by asking undergraduate students to list two positive incidents (excellent teacher) or two negative incidents (poor teacher).

The results identified four critical performance dimensions associated with excellent teaching (administration, classroom delivery, student

interactions, and teacher motivation), with student interaction being an underlying thread of all dimensions (Varca & Pattison, 2001). Because it was possible that the student interactions result was merely a by-product of professional caring about students, Pattison et al. (2011) performed a follow-up study to determine more precisely what instructional behaviors students were referring to as critical.

Pattison et al. (2011) again implemented a critical incident technique with undergraduate and graduate students enrolled in 28 business courses at a large state university. They found that students perceived almost all instructional behaviors as an indication of the instructor caring and respecting the students. The instructional behaviors displayed by outstanding instructors included being knowledgeable, making material relevant to students, being prepared and organized, having a plan, integrating material from various courses, having well organized courses, and encouraging as well as answering student questions (Pattison et al., 2011). In contrast, ineffective instructors were tougher than necessary, did not grade impartially, did not return assignments or provide constructive feedback, were unprepared and unorganized, and impatient with students (Pattison et al., 2011). Students tended to be more satisfied with the educational environment when instructors were respectful of students, saw students as individuals, and appeared to care about them (Pattison et al., 2011); likewise, Hawk and Lyons (2008) documented that when an instructor lacked caring or respect for students, students reported feeling as if the instructor had “given up” on their learning.

Garko, Kough, Pignata, Kimmel, and Eison (1994) also documented instructor behaviors through open-ended response surveys asking students what they

desire in student-teacher relationships. Student responses emphasized classroom behaviors such as connecting with students, being open to discussion, and providing feedback, as positive for instructional relationships. Students also expressed the importance of familiarity, respect, availability, equality, knowledge, and caring (Garko et al., 1994). Finally, indicating a desire for mutual respect, they found that if the instructor modeled attention and energy when conducting classroom activities, students reciprocated with attention and energy (Garko et al., 1994).

Student Evaluations of Teaching

University instructors are often provided feedback regarding their instruction by means of student evaluations of teaching. These evaluations can be used to support employment decisions (e.g., promotion or termination) by the university administration; however, they also provide insightful feedback regarding effective instruction and student learning from the student perspective (Baird, 1987; Clayson, Frost, & Sheffet, 2006; Emery, Kramer, & Tian, 2003; Helterbran, 2008; Kogan, Schoenfeld-Tacher, & Hellyer, 2010; Wright, 2006; Zabaleta, 2007). While student evaluations of teaching have been criticized due to their anonymity (Kogan et al., 2010; Wright, 2006), students are some of the most appropriate authorities when it comes to judging the classroom teaching and learning environment (Clayson et al., 2006; Zabaleta, 2007).

Student evaluations often provide instructors with descriptive statistics of student ratings for a specified list of Likert-type items. Some evaluations also include student written responses solicited via open-ended response questions. This format provides instructors and university administrators an overview of student perception regarding the instruction and learning throughout the course; however, these responses also lack context (such as the rigor of the course or student preparation), which may impact student responses (Wright, 2006). Students may also interpret the Likert rating scale options differently (Huck, 2008) or have different interpretations of the same question (Rubin & Rubin, 2012). Therefore, Wright (2006) recommended completing in-depth interviews with a sub-sample of students, in addition to student evaluations of instruction, to clarify the circumstances leading to the rating of the instructor (also noted in Rubin & Rubin, 2012, as a reason for in-depth interviews).

Project Rationale

At most universities, it is impractical to conduct interviews of students as part of the student evaluation process. Instead, student open-ended comments may

provide additional insight into student perspective if the instructor can accurately infer the meaning of the student comments (Feldman, 1988; Helterbran, 2008). For example, a student saying that the instructor was “strict” may be referring to grading in the course, but could also be referring to their standard for classroom behavior. A better understanding of the meaning of student descriptive words may improve instructor interpretation of student feedback and empower them to modify the behaviors that most significantly affect instruction (Umbach & Wawrzynski, 2005; Varca & Pattison, 2001).

This study proposes to identify instructional behaviors associated with commonly used instructor descriptions from the perspective of students enrolled in introductory biology courses at a large Southeastern research university in the United States. Undergraduate volunteers were invited to be interviewed or to complete an online survey to provide explanations of descriptive words for instructors. These data were analyzed to identify the consensus instructional behaviors that students indicated would lead them to ascribe a particular word (e.g., boring) to an instructor. Although it may be possible that different groups of students (e.g., genders) have different behavioral descriptions for the same word, it was not the intent of this study to parse those differences; nor is there evidence that these differences exist in this population (Kendall & Schussler, 2012). Therefore, the goal was to obtain *consensus* behaviors associated with the descriptors that could be used as general guides for interpreting student evaluations of teaching. The instructional behaviors identified in the study were then organized by the researchers into a schema that summarizes the behaviors that students indicated supported their classroom learning.

Materials and Methods

Data Collection

Qualitative data in the form of written and oral explanations for each descriptive word were collected by means of interviews and an online survey with undergraduate students enrolled in general biology courses in spring 2011 at a large research institution in the Southeastern United States. Students were recruited from a total of eight classes: three second semester introductory biology classes, two biodiversity classes, one cellular biology class, and two genetics classes. Each lecture class seated anywhere from 32 to 225 students.

Interviews. Participants were recruited by means of e-mails distributed to the class by the lecture instructor on behalf of the researcher, as well as in class announcements by the researcher in February and

March 2011 (one in-person visit per class). The recruitment notices and announcements included information regarding the purpose of the interviews, contact information for the researcher, time frame, and nature of the interviews. Students were also assured that the interviews were not related to the course and that their instructor would not be involved in, or see the data. This recruitment yielded 24 undergraduate students who participated voluntarily in interviews.

The interviews were conducted from the 21st of March until the 21st of April solely by the first author of this paper. All interviews were conducted in a research laboratory at the university and were audiotaped with the permission of the participant. Each interview ranged in length from 17 to 37 minutes and a university bookstore gift card valued at \$10.00 was offered to each participant to compensate them for their time. The interviews were transcribed verbatim by the interviewer (Express Scribe v. 5.20), and at that time each participant was assigned a pseudonym. All procedures were reviewed and approved by the Institutional Review Board (IRB) for Human Subjects.

Interviewees were informed that the purpose of the interview was to explore undergraduate perception of instructors and how instructors impact their learning. The interviews explored the following specific instructor descriptions, one at a time: boring, confident, distant, engaging, enthusiastic, nervous, organized, relate, relaxed, respect, strict, uncertain, and understanding (Kendall & Schussler, 2012). After collecting demographic information, the format of the interview was the same for each descriptive word; the interviewer asked the student for the definition of the word, and then an example of how it related to an instructor. For instance, interviewees were asked, "How would you define confidence? Can you provide me with some specific examples of how your instructor is/is not confident?" The objective of the interview was to prompt students to describe classroom behaviors that would lead them to use a particular descriptive word for that instructor.

Online survey. The last week of classes in spring 2011 an online survey (hosted by surveymonkey.com) was distributed via an e-mail from the lecture instructor on behalf of the researcher to undergraduates in the same general biology courses. One of the original instructors, however, did not send the survey to his students (one genetics class). The e-mail contained information regarding the purpose of the study, which was the same as the interviews, as well as consent information and a link to the survey.

The online survey was a mechanism to allow undergraduates who did not participate in an interview the opportunity to provide their input on the meaning of the instructor descriptions. The online survey used the same descriptive words, and asked undergraduates to

provide a definition for each term based on its use in a simple sentence (e.g., "this instructor is understanding," "this instructor is boring"). Forty-two undergraduates anonymously completed this online survey. No incentives were offered for participation in this survey, and all procedures were reviewed and approved by the IRB. Since the same student population was invited to participate in interviews and anonymous online surveys, the possibility of double respondents exists in this study; however, the researchers will present evidence in the results section as to why this likely did not impact the results of this study.

Data Analysis

Interviews. Transcribed interviews were independently analyzed by three researchers (the authors of this article as well as a trained assistant) who read and re-read the student responses for each descriptive word and took notes on the behaviors that the students were describing. Each researcher then independently decided on the participant consensus for each descriptive word. Two researchers worked on each descriptive word: the first author completed all of the words, and the second author or the trained assistant provided the second consensus for each word. After this independent work, the research pairs for each descriptive word merged their interpretations via discussion to reach a final list of consensus instructional behaviors.

Student explanations of each descriptive word were remarkably consistent, and there was little negotiation necessary between the researchers to reach a consensus definition. For instance, the research assistant determined that students defined "understanding" as having compassion about student issues, being willing to bend the rules, accepting late work if the student has a problem, being willing to listen and help students, willing to make adjustments to student feedback, and remembering what it is like to be an undergraduate. The first author listed student definitions of *understanding* as empathetic and compassionate, willing to help students, being in the same shoes as students or having had similar experiences, not following the rules strictly, and extending deadlines. Discussion led to the final definition of understanding as compassionate, flexible, empathic, and knowing what it is like to be a student. The first author then pulled representative quotes from interviews to support the results. All quotes use pseudonyms for the participants. This analysis is similar to that outlined in LeCompte (2000).

Online survey. Online survey responses were analyzed in the same fashion as the responses from interviews. Responses for each descriptive word were independently analyzed by two researchers (the authors of this article) who read and re-read the responses and

took notes on how undergraduates defined the descriptive words. Once again, each researcher compiled their own findings and only then did they compare results with each other. Final behavioral descriptions for each descriptive word were determined when both researchers were in agreement. The first author then chose representative quotes from the online surveys (which were also given pseudonyms) to support each descriptive word.

Combined Results

Comparison of the online survey results and the interview results revealed that both methods of data collection resulted in similar findings regarding instructional behaviors students thought were associated with specific instructor descriptions. Thus, both sets of results were combined and are reported together in the results.

Compilation of the Descriptions and Schema Development

Once the analyses were completed, the authors noted that some descriptions appeared to be the opposites of each other (e.g., the descriptions of boring and engaging). Therefore, the student explanations were used to sort the descriptive words into positive and negative counterparts of the same behaviors. The positive terms were then grouped into themes that represented different aspects of instructional proficiency. Finally, to highlight the relationship between these themes, a schema was created that represented how the positive behaviors support classroom learning.

Results

Participants

Interviews. Undergraduates ($n = 24$) who participated in the interviews were mostly freshman (first year; 54%), non-biology major (71%), female (75%), native English speakers (100%). Second and third year students comprised 21% and 13%, respectively, of the respondents, with 12% more being fourth year or beyond. Twenty-nine percent of the students were biology majors, with 4% concentrating in ecology and evolutionary biology, 17% in biochemistry and cellular and molecular biology, and 8% in microbiology. The majority of participants had completed another biology course (54%); 38% had completed one other biology course, while 8% had completed two, 4% had completed three, and 4% had completed four. Twenty-one percent of participants were currently enrolled in second semester introductory

biology, 42% in biodiversity, 8% in cellular biology, and 29% in genetics. The majority of participants were Caucasian (75%), while the remaining participants were African-American.

Online survey. Forty-two undergraduate students completed the online survey; however, demographics were only obtained for 40 of these undergraduates. These undergraduate students were mostly freshman (first year; 68%), non-biology major (73%), female (70%), native English speakers (98%). Second and third year students comprised 23% and 3% of the respondents, respectively, with an additional 8% being fourth year or beyond. Twenty-eight percent of the students were biology majors, with 13% having a concentration in biochemistry, cellular, and molecular biology and 8% being microbiology. The majority of respondents had completed another biology course with a lab (65%), with 58% having completed one other biology course, 5% two courses, and 3% three courses. At the time of the survey, 45% were enrolled in second semester introductory biology, 30% in biodiversity, 13% in cellular biology, and 13% in genetics. Comparison of undergraduate student demographics for those who completed the online survey and those who participated in interviews revealed that of these 42 students there is a possibility that four may have completed both the interview and the survey. However, since behaviors were identified only via strong consensus among participants, it is unlikely that this potential duplication influenced the results of the study.

Student Explication of Instructor Descriptions

The results are presented by the descriptive word being explicated, in alphabetical order. For each descriptive word, the behaviors that lead to that description, as identified by students, are presented, and then supported by quotes from the interviews or online surveys. A summary of the overall results are found in Tables 2 and 3, in which the definitions for each descriptive word are sorted by the authors' inferred relationships between the words. Table 2 groups the descriptors into positive and negative ends of the instructional spectrum while Table 3 depicts the descriptors which had no opposites: organized and respect. At the end of the results, a proposed schema groups the positive behavioral descriptions into three overall themes, and shows how these may be related to student respect for an instructor.

Boring. Undergraduate students indicated that boring instructors are monotone, not engaging or interactive in teaching, and do not seem personally enthusiastic about the course material. For example, Cassia stated that they "are just monotone and I feel like I should be in Ferris Bueller's Day Off" (Interview). Robin explained that when instructors are

Table 2
Undergraduate Explanations of Descriptive Words, Sorted Into Paired, Positive and Negative Aspects

	Positive terms	Explanation	Negative terms	Explanation
Group A	Engaging	Keep student attention by being interactive or involved, have a passion for teaching, bring in examples, and communicate on student level.	Boring	Monotone, not engaging or interactive, not interesting, have no personal enthusiasm, do not come to student level, and as a result are unable to make material interesting or keep student attention.
	Enthusiastic	Exciting, happy, enjoy and have a passion for teaching, care about students, are interactive, have a connection to the topic, are able to interest students, and use examples.		
Group B	Confident	Know the material and information, are sure of their teaching, can answer student questions, come prepared, do not stutter or shake, are calm, and thus are effective instructors.	Nervous	Not confident, and thus are uncomfortable, shaky and sweaty, are a poor teacher, and do not know material.
	Relaxed	Not nervous or anxious; comfortable, prepared, and laid-back. Approachable, flexible about rules, and confident.	Uncertain	Not confident, do not know the material, unable to answer student questions, are unsure how to teach, and often come off as being nervous.
Group C	Relate	Approachable, able to connect with students, have common interests, understand how to present the material to students.	Distant	Not personally approachable, not engaging or interactive in class, do not care about students, are intimidating, and not relatable.
Group D	Understanding	Compassionate when dealing with student issues, are often flexible (especially in terms of deadlines), empathetic, and they know what it is like to be a student.	Strict	Adhere to policies and rules, are inflexible, are tough graders, and not tolerant of bad behavior or distractions.

Table 3
Undergraduate Explanations of the Descriptive Words "Organized" and "Respect"

Type of term	Term	Explanation
Positive term	Organized	Instructors who are organized have everything ready to go and orderly, have a plan for the course, start on time, provide prompt grading, do not lose assignments, and have a conscientious flow to class.
	Respect	Through their actions and knowledge they are able to earn the trust of students and in turn student will follow their rules and provide undivided attention to the instructor indicating they respect the instructors. Instructors which are respected are able to answer questions and make the material interesting, listen to students' perspective, and are willing to help students. Further, some instructors are respected due to their experience and seniority as an authoritative figure.

Note. There were no negative terms or similar words associated with *organized* or *respect*.

boring she is “falling asleep in your class (Robin laughs), it’s not engaging or interesting to me” (Interview). Finally, Olivia said, “the instructor cannot grab the attention of the students” (Online survey) when he or she is boring.

Interviewees further indicated that these instructors would not come down to the student level or adequately explain material, thus students are unable to understand or keep up with the information being taught. For example, Hannah affirmed, “they leave out big chunks of knowledge that they know already but the students do not know it” (Interview). Further, George said, “they’ll just read the slides, not really do any actual teaching because they just read to you,” (Interview) which he indicated was boring.

Confident. Undergraduates indicated that confident instructors know the material and information. This was exemplified by Tristan who said, “the instructor knows what he or she is talking about and is knowledgeable on course content” (Online survey). Due to their knowledge, confident instructors are able to answer student questions and are sure of their teaching. This was explained by Hannah who stated, “they can answer kind of obscure questions that students have, sometimes you just come up with crazy things and when they are able to answer them you are like ‘wow they have a really in depth knowledge of it’” (Interview). Not only do confident instructors know the material, but Megan said the instructor can “clearly teach the subject” (Online survey) and Rachel said they are able to “look at the information from all different angles and multiple different ways” (Interview), thus indicating that confident instructors are able to explain concepts to students and are good instructors.

Interviewees also indicated that confident instructors are typically prepared for class and are calm. This is exemplified by Kim who stated that confidence is “being prepared, ready to talk and knowing what to say and not stuttering through everything and just flowing through it and making it in a way that’s understandable for us” (Interview). This conveys that confident instructors are effective instructors.

Distant. Distant instructors are not approachable, nor are they engaging or interactive in the classroom. Melanie explained this by stating that distance is “not approachable, not engaging” (Interview), Kayla noted that the instructor “does not relate to the students at all,” (Online Survey), and Donna added, “you are really intimidated” (Interview). Distant instructors do not care about the students as shown by their unavailability for help, and their appearance that their mind is not on their teaching. Grace explained that they are “not really in the classroom, thinking about something else and not the material and lecture” (Online Survey). Lola indicated that, “she is not available to answer questions... she does not answer the e-mails quickly”

(Online Survey). These definitions indicate that distant is the opposite of approachability and availability.

Engaging. Undergraduates state that engaging instructors are able to keep the attention of students because they are interactive and involved in the classroom. For example, Emma said, “he interacts with the class. He asks questions and expects a response” (Online survey). Engaging instructors typically have a passion for teaching and bring in examples from real life for students. This is explained by Donna who said, “she brings her samples into class from her own research” (Interview). Taylor described an engaging teacher as one who can “grasp the attention of all students regardless of the subject matter. Even if the subject matter is deemed boring, the instructor will be able to engage students in learning and discussion” (Online survey). Students indicated that being interactive and involved in the classroom are important instructional behaviors for being engaging.

Interviewees further indicated that engaging instructors communicate on the student level and speak to students as individuals. For instance, Sally said, “being able to have that kind of communication with students so it doesn’t just go over their heads all the time” (Interview). Melanie agreed, saying, “being able to answer one-on-one questions, . . . and asking feedback from the class and things like that” (Interview). In these cases, students indicated that engaging can be at the classroom teaching level, but also at the personal level.

Enthusiastic. Instructors who are enthusiastic are excited to teach, have a passion for the subject, and as a result they enjoy teaching. Noah described it as “very passionate about what they teach and genuinely interested in subject and whether or not students learn” (Online survey). These instructors are interested in and care about their students and they are happy to be in the classroom. For example, Gabriella said, “the tone of voice the teacher uses while teaching. He or she sounds happy to be there, happy to be teaching the material and gladly answers questions” (Online survey). Undergraduates believe that enthusiastic instructors want their students to learn and do well in the course. Interviewees such as Jessica stated that her instructor “uses examples and you can tell how interested she is in the topic” (Interview). Thus, enthusiastic instructors engage their students in additional examples that make the material relevant to students while showing them their passion for the subject.

Nervous. When undergraduates use the term nervous they typically mean the instructor is not confident in his or her teaching or with the material. Samantha explained, “the teacher is not confident in their portrayal of class material and subject matter” (Online survey). Undergraduate students also indicated that a nervous instructor will act uncomfortable and

may be shaky and sweaty. Emma described this as “he is probably sweating profusely, shaking, and stutters or has a hard time saying something in the front of the class” (Online survey). Undergraduates expressed that nervous instructors are not good teachers. As stated by George, “A nervous person should not be a teacher I feel” (Interview). When prompted to further explain how nervous instructors impact his learning, George explained that, “it would be a negative impact because you think to yourself does this person really know what they are talking about” (Interview), thus indicating that nervous teachers make students doubt their subject matter knowledge.

Organized. Instructors who are organized have everything ready to go for class. This is explained by Hannah who said, “coming in and having everything ready to go when class starts and not fiddling with technology and corrupted files and stuff, they have already taken care of that before” (Interview). Amy explained organized as, “knowing exactly what you are going to teach and exactly how you are going to explain it instead of say flipping back and forth between slides because you forgot which one was next” (Interview), indicating that the instructor has thought through the lesson and have their courses planned out. Amy said, “she has a plan every week when we go in there and we follow the plan just exactly” (Interview). Additionally, Kaitlyn said, “they grade assignments and tests within a timely manner and do not lose any of them” (Online survey) indicating that organized instructors do not lose student work and promptly grade assignments.

Relate. Relatable instructors are able to connect with students because they have common interests with students and thus students feel as if these instructors are approachable, unthreatening, and accommodating. Ella said, “there is an understanding between the instructor and the student” (Online survey), and Jenna explained, “relating to the instructor means that you can find some common ground and a way to communicate with each other in a comfortable manner.” (Online survey). As a result of being able to relate, Lindsey states, “I can easily go and talk to her about my concerns” (Online survey). By being relatable, these instructors understand how to present the material. Kelsey explains this as, “the stories or anecdotes they use to make the material engaging is something I can understand or relate to in some way” (Online survey), implying a positive effect on learning.

Relaxed. Undergraduate students indicated that relaxed instructors are not nervous or anxious; instead they are comfortable and laid-back because they are prepared for class and confident. Megan revealed, “the teacher is confident and not afraid to be in front of the class” (Online survey). Alina commented that, “the instructor is just talking to you about things that you need to know. They aren’t fidgety or walking around

and pacing constantly” (Online survey). Elijah merely suggested they are “well prepared” (Online survey). Relaxed instructors are typically lenient about rules and students feel they are approachable. Jenna elaborated on this by saying, “the instructor is not intimidating or overwhelming, but is ‘laid back,’ approachable, and willing to help students” (Online survey), and Chloe added, “they are understanding if a student needs to turn something in late and has a valid reason” (Online survey), indicating that relaxed instructors are flexible.

Respect. Instructors earn respect from students through being able to answer questions, and making sure students understand the material. Ethan stated that the “instructor has taken time to answer questions outside of class and [is] willing to help” (Online survey). Chloe elaborated that, “respect means that the student feels that the instructor is a person who obviously loves their job and is more concerned with the students than themselves” (Online survey). When students respect instructors they typically trust them and will follow their rules and listen to them. Jessica said that with an instructor she respects she is “polite in class by not talking and making sure that you get your homework done. Don’t cause any extra stress, that kind of thing” (Interview). Respect can be earned, as explained by Megan:

[H]e/she gives you respect, they know what they’re talking about and they help you throughout the semester with questions. They earn your respect by their actions in front of the class and to you personally. I completely lose respect when the professors completely disregard your feelings maybe about a bad grade or they use curse words in class. (Online survey)

While respect may be earned, Ted explained, “I’m just the kind of person that feels like [they are] authority figures, I’m going to treat them with the same respect” (Interview), so some students will respect an instructor merely due to their status as an authority figure.

Strict. Strict instructors adhere to the rules and policies without flexibility and as a result are not tolerant of bad behavior or distractions in class. For example, Arya said the instructor “won’t allow for talking, foolery, joking” (Online survey). Mia explained, “she is not understanding to the various situations and dilemmas a student may have” (Online survey), while Michael commented, “the instructor will not budge on the schedule or work assignments” (Online survey). Caleb explained, “they harshly enforce assignments, have little toleration for distractions and grades on a difficult level” (Online survey), indicating that undergraduates also consider strict instructors to be tough graders.

Uncertain. Similar to nervous instructors, undergraduates express that uncertain instructors are not

confident about the material. Noah described it as, “the opposite of confident, they are unsure of their abilities as a teacher or they are unsure of their knowledge in the subject” (Online survey). As a result, uncertain instructors are not able to answer student questions nor are they sure how to teach. Logan explained that they are “Indecisive. The instructor does not have a full enough understanding of the subject matter to convey a certainty in the information they are presenting” (Online survey). Julia added that the instructor “doesn’t know if what she is teaching is exactly correct, can’t answer all of the students questions” (Online survey), revealing a perceived lack of content knowledge.

Understanding. Understanding instructors are compassionate when dealing with student issues (personal as well as academic); they are typically empathetic. As explained by Rachel, “she takes each students situation into account when they come to her with a problem and is willing to work with them based on their individual needs” (Online survey). Adrianna said, “the instructor has empathy with the students” (Online survey). Marie said, “the instructor knows what it is like to be in the students shoes and not every student catches on quickly to the subject” (Online survey), indicating that understanding often stems from

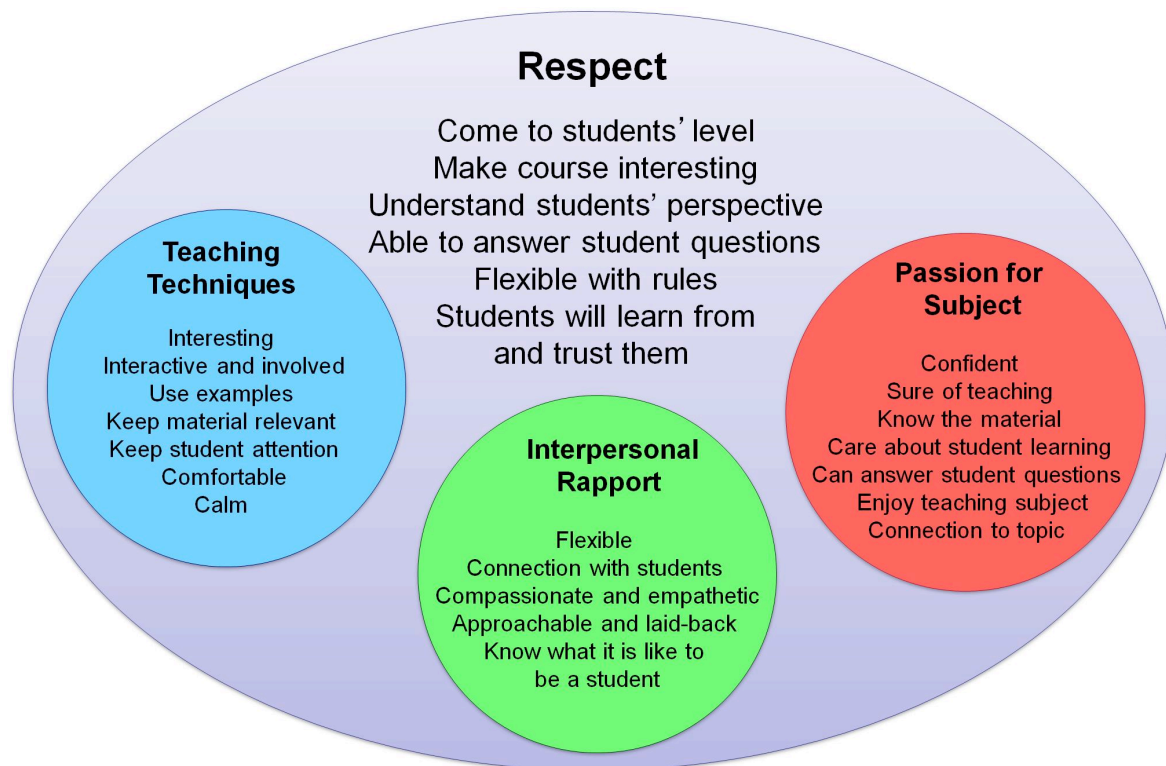
the instructor knowing what it is like to be a student. Specifically, interviewees noted that understanding instructors would extend deadlines for students. Wendy said, “I’d say they are more likely to let you turn stuff in late,” indicating they are flexible.

Themes and Schema

The researchers first organized the positive explanations shown in Table 2 into three themes: teaching techniques, interpersonal rapport, and passion for subject. The teaching techniques theme reflects the behaviors of the instructors as teachers, specifically how they deliver the course material to students (e.g., use of examples, being interactive, and being calm). The interpersonal rapport theme features person to person behaviors, such as the comfort level and understanding between students and instructor (e.g., compassion, ability to relate, and approachability). Lastly, the passion for subject theme incorporates factors related to instructor knowledge and desire to teach that subject, such as their confidence in the material, enjoyment teaching that subject, and ability to answer questions about the topic. Based on student descriptions, and the lack of an opposite word for the

Figure 1

Schema Depicting Positive Instructional Behaviors within the Three Themes Identified from Student Perspectives, Which Lead to the Overarching Description of Respect



term *respect*, it was hypothesized that respect is an outcome of good instructional practices. Therefore, the three themes are represented as leading to the overarching description of respect, which encompasses the instructor behaviors that students indicate earns their trust, fosters their learning, and makes them more willing to engage in the class (Figure 1).

Discussion

This study identified the instructional behaviors, linked to specific descriptive words, which undergraduates at one university indicated led to respect for their instructors. Undergraduates in this study emphasized that instructors must earn their respect through three themes: teaching techniques, interpersonal rapport, and passion for subject. This mirrors the previous findings of Varca and Pattison (2001) that there are several dimensions to good teaching. Although the themes identified in this study are slightly different from those identified in Kendall and Schussler (2012), the schema from this study also reflects the findings of several studies emphasizing the importance of classroom instructional behaviors such as open communication, respect for students, caring about students as individuals, and being knowledgeable (Garko et al., 1994; Hawk & Lyons, 2008; Pattison et al., 2011; Teven, 2007).

When it came to excellent instructors, students participating in this study demanded more than just good teaching; they also put a premium on interpersonal behaviors that indicated care and concern for students. In fact, students in this study often indicated that there were two layers of behaviors for each descriptive word: personal and instructional (also seen in Arnon & Reichel, 2007). For example, the description for *relate* was explained as an instructor having something in common with an individual student, but also as being able to communicate information at the knowledge level of a class. The descriptive word *relaxed* indicated an instructor's classroom persona while teaching, but students also indicated that this word meant that they were approachable on a personal level.

Changing Instructional Behaviors

The explanations provided by the undergraduates in this study have provided insight into the potential instructional behaviors that might lead students to assign certain descriptive words to their instructors. As suggested by Nussbaum (1992), this allows inferences to be made about the instructional behaviors that are associated with effective and ineffective instruction, from the perspective of students. Thus, instructors could potentially use the words that students ascribe to

them on student evaluations to better understand what instructional behaviors they might be able to modify to convey different impressions (Goffman, 1959).

This awareness of student perception of instructional behaviors is particularly beneficial for instructors practicing reflective teaching. Reflective teaching brings about change in one's teaching by evaluating and considering the purpose of actions or teaching style through observation and reflection (Richards, 1991). Through reflective teaching instructors can identify what instructional behaviors they display in the classroom, get feedback about student perception of the impact of those behaviors on classroom learning, and then carefully consider making changes to their behaviors for the purpose of improving student learning. Instructors employing reflective teaching techniques will therefore achieve greater insight regarding what changes to make and why by listening to student perception of the classroom environment (Pena & Leon, 2011).

Instructors, for instance, may be able to improve student perception of their involvement, engagement, interactive, ability to keep student attention, and ability to make the material relevant to students by using active and collaborative learning practices such as case studies, clickers, and question and answer sessions (Martyn, 2007; Umbach & Wawrzynski, 2005). Studies have also shown that instructors can show they care about student learning by employing behaviors such as answering student questions or making themselves available to students through office hours, review sessions, or open discussion sessions (Garko et al., 1994; Hawk & Lyons, 2008; Johnston, Ivey, & Faulkner, 2011). Social media sites can be used to foster student-instructor relationships by conveying a competent and trustworthy instructor; however, instructors must be aware that they need to maintain consistency between the personality they portray on social media versus in the classroom (Mazer, Murphy, & Simonds, 2007). Instructors might appear more calm and comfortable in front of students if they spend more time preparing for their course, rehearsing, and visualizing success (Collins, 2004; Marincovich, Prostko, & Stout, 1998); this would support improved student learning of the content, and the ability to explain the content and answer questions about it. When instructors receive questions that they are uncertain how to answer they can use the moment as an opportunity to connect with students and show enthusiasm for finding the answer while fostering positive student attitude (Halandya et al., 1982), versus being uncomfortable and uncertain.

Relationships Among Behaviors

When Kendall and Schussler (2012) first identified the descriptive words used in this study, they attempted

to organize them into themes without knowing the behavioral descriptions this study has revealed. Student explanations of the descriptive words have now allowed them to be re-grouped into positive and negative counterparts of the same behavioral aspect (Table 2). For instance, instructors identified as being engaging or enthusiastic share common instructional behaviors such as being interactive and having a passion for teaching. On the other hand, student explanations of the term *boring* indicate that it is the behavioral opposite of engaging and enthusiastic. Similarly, *confident* and *relaxed* are described by positive instructional behaviors such as being comfortable and being sure about themselves, which appear to be the opposites of the descriptive words uncertain and nervous. This is also the case for the behaviors associated with the terms *relate* (i.e., approachable) and *distant* (i.e., not approachable). Lastly, *understanding* instructors are described as being flexible and empathetic, as compared to *strict* instructors, who appear to be the opposite.

However, this study also identified two descriptive words that could not be organized into the proposed themes. The descriptive words *organized* and *respect*, had no negative behavioral counterparts verbalized by students in this study. In the case of the word *organized*, it may be that there was no descriptive word that served as its opposite identified in the original study (Kendall & Schussler, 2012). Organization is associated with having everything ready to go, good planning, and prompt grading; it may be that no terms such as *disorganized* appeared in the original study because although GTAs may be perceived as less organized than professors, they are not perceived as *disorganized*.

The description of *respect* appears to be a bit more complex, however, because in order for students to indicate that they respect the instructor, the instructor must be able to answer questions, have some flexibility, understand student perceptions, and make the course interesting. Students in this study indicated that if an instructor is one they respect, they believed they would learn from them and indicated that they were a good teacher. Based on the description of this term, it appears that respect is an overarching factor that emerges from an instructor displaying multiple positive instructive behaviors within each of the identified behavioral themes in this study. Pattison et al. (2011) also found that respect was an overarching theme of their study; however, in our case it is respect *from* students while Pattison et al. (2011) examined respect *for* students. It is unknown, however, whether an instructor has to display all of the positive behavioral aspects described by students in this study to achieve respect, or whether they may still hold some less positive behaviors and be respected for other reasons.

Future studies can use the schema generated from this study to see whether the same descriptions and behaviors hold true for students at different institutions, or for students taking courses in a discipline other than biology. Researchers can also determine which instructional behaviors instructors must display to gain student respect, or if respect is afforded at the beginning of the semester and then lost through the emergence of negative instructional behaviors. Also, studies can explore if particular themes of the schema are more important than others for earning respect. Moreover, the schema can be used to explore the impact of modifying particular behaviors on students evaluations, or if some behavioral modifications benefit one instructor type more than the other (e.g., GTAs versus faculty members).

Limitations

Since student participants of this study came from a single institution, it is unknown how these perceptions might compare to students at other institutions. It is possible that students at different institution types (e.g., public versus private) may view these descriptors and underlying behaviors differently. Also, institutions with more diversity may also impact student perception of these descriptors because of different cultural perceptions of teaching and learning behaviors. Another limitation of this study is that students were asked to describe their biology instructors; it is possible that students may emphasize different instructional behaviors when asked about instructors in different disciplines. Given this, it is cautioned that the results of this study are not likely to be generalizable to all institutions or disciplines, unless further research indicates that the results are in fact consistent across a diversity of contexts.

Conclusion

Instructor descriptions used by undergraduates are much more complex than the single words might imply due to the multiple personal- and classroom-level instructional behaviors that lead to the descriptions. These data have the potential to impart useful insights into undergraduate perceptions of instructors, particularly into how behavior affects student perception of learning. It also allows for the exploration of a caution made by Feldman (1988) indicating that while students determine specific characteristics that are important for good teaching, these may not be the same aspects they use to judge instructors in practice. Future studies can use these results to work with individual instructors to identify their instructional behaviors and study how they affect student perception of learning.

This study can also be used as a potential tool to interpret student evaluations of teaching (Zabaleta, 2007). Interpretations of descriptive words in student evaluations may give instructors more insight into how undergraduates perceive them, and help them to understand that it is more than just their teaching that students are reflecting on (Helterbran, 2008; Nussbaum, 1992). From these reflections, instructors can identify what instructional behavior modifications could be made in order to earn the respect of their students, and increase their abilities to foster student learning.

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