

Developing a Positive Classroom Climate

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Abstract

Classroom climate is a broad construct, made up of students' feelings about their instructor and peers. Although there is a plethora of research on the effects of classroom climate on student outcomes at the secondary level, there is a relative dearth of such research on the postsecondary level. However, much of the research that does exist shows that students' perceptions of classroom climate at the postsecondary level have a great impact on learning, motivation, satisfaction, and achievement. This paper will thus provide strategies to help instructors promote positive interpersonal relationships in the classroom, which increases student connectedness, thereby improving classroom climate. Instructors should always consider how their behaviors may be interpreted by their students and keep the classroom climate in mind when developing courses and lesson plans. Doing so is likely to increase positive outcomes for students as well as levels of satisfaction for the instructor.

Although the goal of any higher education instructor is to encourage students to learn, learning involves more than just being exposed to information. The higher education classroom is a multidimensional environment comprising psychological and social interactions among a diverse academic community. Moos (1979) concluded that "the social-ecological setting in which students function can affect their attitudes and moods, their behavior and performance, their self-concept and general sense of well-being" (p. 3). The social-ecological setting of the classroom, often referred to as *classroom climate*, encompasses its social and emotional aspects. According to Norton (2008), the association between classroom climate and students' academic performance has been well researched. Classroom climate is also the best predictor of students' overall satisfaction with their college (Graham & Gisi, 2000). Instructors help develop the classroom climate and can engage in several interpersonal behaviors that contribute to a positive one (Frisby, Berger, Burchett, Herovic, & Strawser, 2014); specifically, those behaviors that build a strong *rapport* with students. Good *rapport* between instructors and students is essential to a positive classroom climate and leads to better student outcomes. Therefore, the goal of this paper is to provide instructors with strategies that promote positive interpersonal relationships in the classroom while also focusing on instructional practices.

What Is Classroom Climate?

The classroom climate is a reflection of students' opinions of their academic experience (Reid & Radhakrishnan, 2003). This includes students' perceptions of the rigor of the class, their interactions with their instructor and

class peers, and their involvement in the class. Although each student will develop his or her individual sense of the classroom environment, there is also a community, or collective, sense among the students and the instructor, so the classroom climate is a general feeling shared by all in the class (Fraser & Treagust, 1986). Students' perceptions often define the classroom climate because their exposure to multiple learning environments and their many opportunities to form impressions give them a credible vantage point from which to make judgments (Fraser & Treagust, 1986). Some researchers have attempted to define and measure classroom climate in higher education. For example, Fraser and Treagust developed the College and University Classroom Environment Inventory (CUCEI) to assess students' and instructors' perceptions of actual and preferred classroom environments. Administration of the 49-item CUCEI to 372 students and 20 instructors in 34 classes found seven internally consistent dimensions of the higher education classroom climate:

- *Personalization*. The instructor provides opportunities for student-to-teacher interaction and expresses concern for students' welfare.
- *Involvement*. The instructor encourages active student participation in class.
- *Student cohesiveness*. Students know one another, help one another, and are friendly toward one another.
- *Satisfaction*. Students enjoy class.
- *Task orientation*. Class activities are clear and well organized.
- *Innovation*. The instructor utilizes unique teaching methods, activities, or assignments.

- *Individualization*. Students are permitted to make decisions and treated differentially based upon ability and interests.

When creating the CUCEI, Fraser and Treagust found that five of the seven dimensions of classroom climate—involvement, personalization, student cohesiveness, task orientation, and individualization—were positively correlated with student overall class satisfaction.

Similarly, Winston, Vahala, Nichols, Gillis, and Rome (1994) developed the College Classroom Environment Scales. Factor analysis of the original 143 items yielded a 52-item scale with 6 factors:

- *Cathectic learning climate*. An environment that stimulates students to be active participants.
- *Professorial concern*. Students perceive the instructor as personally concerned about them as individuals.
- *Inimical ambiance*. Students view the environment as hostile, competitive, and rigid.
- *Academic rigor*. An environment that is intellectually challenging and demanding.
- *Affiliation*. The environment promotes informal interaction that is highly supportive, friendly, and student-centered.
- *Structure*. Students see evaluation criteria and course content clearly articulated.

Fraser and Treagust (1986) and Winston et al. (1994) each differ in the factors they identified that contribute to classroom climate. However, there is one overarching similarity among all the factors: They represent those characteristics of interpersonal relationships that instructors can control, such as listening to and respecting students, expressing interest in student ideas, encouraging participation, and offering help to students inside and outside of the classroom. Classroom climate also doesn't include those aspects that instructors are not able to control such as the physical setting of the classroom and equipment, background of the students, and organizational structures such as class scheduling and sequencing. Frisby and Martin (2010) state that the ability to develop an interpersonal relationship based on harmony, connection, and mutual trust—or to develop *rapport*—enhances the instructor-student relationship as well as student-student relationships, and therefore helps develop a positive classroom climate. Classroom climate is fundamentally interpersonal in nature, which is why it is expressed through the perceptions of the students and demonstrated to have such a profound impact on student outcomes. The instructor can use all these rapport-building strategies regardless of who or what they teach. Therefore, an essential component of teaching is building strong relationships with and among students.

Beyond Instruction: Focusing on the Interpersonal Aspects of Teaching

Rapport is a feeling between two people encompassing a mutual, trusting, and prosocial bond, and students have reported that rapport with pupils is a fundamental

characteristic of any successful instructor (Catt, Miller, & Schallenkamp, 2007). Teaching is a rapport-intensive field (Jorgenson, 1992) where both instructor and students enter the classroom with relational goals (Frymier, 2007). Rapport is built and a positive classroom climate is developed when instructors and students coconstruct a learning environment that encourages active student participation (Sidelinger & Booth-Butterfield, 2010). The development of rapport and a positive classroom climate has been linked to positive student outcomes, such as promoting student motivation and diminishing student apprehension (Ellis, 2004). Engaging in rapport-building behaviors has been shown to positively influence students' opinions of instructor credibility and students' evaluations of instruction (Schrodt, Turman, & Soliz, 2006). For example, using the Professor-Student Rapport Scale (Wilson, Ryan, & Pugh, 2010), instructor rapport was found to account for 54% of the variance in end-of-semester student ratings of instruction (Richmond, Berglund, Epelbaum, & Kelin, 2015). Additionally, Richmond et al. found that students' self-reported course engagement and their perceptions of professor humor added only 4% and 1% of variance respectively to end-of-semester student ratings of instruction. Instructors should remember that communication with their students is both interpersonal as well as content-driven (Frymier & Houser, 2000), meaning that instructors not only influence what students learn but play a crucial role in developing rapport and a positive classroom climate. Students who rate their instructors high in rapport also report that their instructors convey caring by expressing concern for how well they learn, create an atmosphere that encourages student effort and commitment, clearly communicate course expectations, and stimulate their interest in and enthusiasm for the subject (Hoyt & Eun-Joo, 2002). Such rapport-building communication behaviors include *confirming behaviors*, which are “the transactional process by which teachers communicate to students that they are endorsed, recognized, and acknowledged as valuable, significant individuals” (Ellis, 2000, p. 266).

Instructors can utilize several confirming behaviors to convey care and develop rapport (Ellis, 2000, 2004). First, instructors *respond to questions*, which verbally and nonverbally communicates interest in students' comments. This occurs in class, during office hours, or electronically, demonstrating the instructors' accessibility outside of class. Instructors *demonstrate interest* in and *communicate concern* for students, whether regarding academic or personal matters. Such interest can be expressed toward the whole class (e.g., “Because of the low quiz grades, I want to review the material from last week to make sure it is clear before we move on) or individually (e.g., “Your high absenteeism is concerning because I'm afraid you won't be able to complete the required assignments”). Students have reported that instructors who help build rapport and communicate concern and interest do so by praising student work, actions, or participation; engaging in informal conversation with students before or after class; utilizing the terms *we* or *our* class; and asking students about their feelings regarding assignments (Ellis, 2000, 2004).

Instructors can also adjust their *teaching style* as needed to help students understand material, which includes using a variety of instructional techniques, periodically confirming students' understanding of the material, and providing feedback on students' work. By employing the appropriate teaching style, instructors can communicate their interest in and desire to share that material with the students. In addition, when instructors ask students if they understand the material, they communicate that they care about the students' academic performance.

Instructors can engage in many teaching practices to help develop rapport with their students and demonstrate warmth and openness, reinforce student participation, and show clear organization (Freeman, Anderman, & Jensen, 2007). For example, the use of humor can aid in building rapport with students, possibly because it makes professors seem more approachable (Frymier, Wanzer, & Wojtaszyk, 2007). Humor may also help clarify the content, which, in turn, may increase students' capability to process the information (Wanzer, Frymier, & Irwin, 2010). Rather than infusing humor into all aspects of the class, instructors can find subtle ways to add humor wherever they feel comfortable. Humor can include funny stories and comments, appropriate jokes, or professional humor, such as mnemonic devices, cartoons to illustrate course content, puns or riddles, top 10 lists, and comic verses. Students can also use humor, such as sharing their experience about a comical moment in a classroom (Berk, 1996). Interestingly, instructor use of self-deprecating humor is positively associated with learning, possibly because it may be unexpected and therefore gains students' attention (Wanzer, et al., 2010).

Another way for instructors to develop rapport and communicate interest and concern to students is by talking openly about themselves in class, using appropriate *self-disclosure* (Hosek & Thompson, 2009), which increases students' perception of a comfortable classroom climate (Mazer, Murphy, & Simonds, 2007). Brookfield (2006) claims that instructor self-disclosure illuminates an instructor's personhood to students, which is "the perceptions students have that their teachers are flesh and blood human beings with lives and identities outside the classroom" (p. 71). Another way for instructors to reveal their personal identities to their students is to show how they apply course material and skills in their own work and lives and to describe their own fears and struggles related to learning new material. In fact, online self-disclosure (e.g., via web pages or social media) has been found to have the same positive effects on students' learning and motivation as in-class self-disclosure (O'Sullivan, Hunt, & Lippert, 2004; Mazer et al., 2007).

Conversely, instructors who engage in *disconfirming behaviors* may not develop a good rapport with their students, and their classroom climate may not be as positive. For example, students have reported that it is difficult to build rapport with instructors who neglect to learn students' names, are inconsistent in their policies or practices, or are unresponsive to student questions (Webb & Barrett,

2014). Engaging in these disconfirming behaviors may lead to more negative student outcomes. For example, if an instructor engages in offensive behaviors, such as verbal aggression, they are evaluated less positively and are viewed as less trustworthy by students, because these behaviors are negatively associated with students' perception of the classroom climate (Myers & Rocca, 2001). Students who perceive the classroom climate as less personalized, satisfying, task oriented, involving, cohesive, and individualized are more likely to cheat and to justify cheating behaviors (Pulvers & Diekhoff, 1999).

As the preceding research shows, instructors who develop positive rapport with their students help create a positive classroom climate. When instructors engage in interpersonal interactions that demonstrate that students are valued and cared for, it has a profound impact on student outcomes. Just as it would be difficult to develop an exhaustive list of all rapport-building behaviors, it would be equally difficult for instructors to engage in all such behaviors in every class. Rather, the goal is to keep some rapport-building behaviors in mind and infuse them into the teaching of course material and communications with students. When instructors establish positive instructor-student relationships, focus on the students and their needs, and strike a balance between being challenging and being caring (Pratt, 2002), their students will demonstrate better academic outcomes.

Beyond Learning: Focusing on Creating a Connected Classroom

Although instructor-student rapport plays a critical role in classroom climate, student-student rapport may also contribute as well (Frisby & Martin, 2010). A connected classroom climate is perceived by students as a compassionate and supportive student-to-student environment (Dwyer et al., 2004). Student-to-student connectedness is built on a collection of behaviors—including praise, smiling, or sharing personal stories or experiences—that have positive effects on educational processes and outcomes (Sidelinger, Bolen, Frisby, & McMullen, 2012).

Teaching and learning do not occur only between the instructor and students, but also among students themselves (Hirschy & Wilson, 2002), and instructors are critical in modeling positive interactions and demonstrating supportive behaviors in the classroom (Johnson, 2009). For example, instructor behaviors such as calling on students by name, asking probing questions, smiling, and nodding (Crombie, Pyke, Silverthorn, Jones, & Piccinin, 2003), as well as disclosing personal opinions and posing questions to the class (West & Pearson, 1994), can help increase student participation. Such behaviors aid in the development of student trust in the instructor, which makes it easier for students to take risks in class (Frymier & Houser, 2000).

Fassinger (1997) claims that instructors' interpersonal style might not affect student interaction as much as do the structures they create to encourage it. For example, to

promote interaction and participation, students should be encouraged to engage in one-on-one conversations with one another, moving next to small-group interactions and eventually to whole-class involvement (Sidelinger & Booth-Butterfield, 2010). This contrasts with how interaction and connectedness are typically developed in the classroom: asking whole-class questions initially and then focusing more on small-group and one-on-one interactions as the class progresses (Howard & Henney, 1998). Instructors could also articulate expectations for behaviors at the beginning of the class, as well as structure the class into smaller learning communities, encouraging debate and constructive conflict within these smaller groups before doing so within the larger classroom (Book & Putman, 1992). Fassinger suggests developing in-class exercises that increase students' confidence and encourage active participation, such as asking students to work together to develop strategies for conquering the fear of public speaking or to discuss what it means to be prepared for class.

Research indicates that students benefit from a connected classroom climate. Instructors who create connected environments may help motivate students to learn and discourage cheating (Bouville, 2010). A connected classroom climate is linked to students' increased preparedness for class (Sidelinger & Booth-Butterfield, 2010) and participation in class (Frisby & Martin, 2010). Students have recognized the importance that supportive peers play in creating a participatory environment (Dallimore, Hertenstein, & Platt, 2004). In fact, students' perceptions of peer friendliness are a greater influence on their decision to participate in class than their perceptions of the instructor (Fassinger, 2000). There are positive relationships between student-to-student connectedness and learning, specifically affective learning (feelings toward course material and instructor) (Johnson, 2009); cognitive learning (recall, knowledge, and skills related to the course) (Prisbell, Dwyer, Carlson, Bingham, & Cruz, 2009); and self-regulated learning (being active in one's own learning and goal setting) (Sidelinger & Booth-Butterfield, 2010). The combination of supportive peers and a supportive instructor increases attendance, study time, school satisfaction, and academic engagement and leads to higher academic efficacy (Rosenfeld, Richman, & Bowman, 2000). Such results are consistent regardless of the size of the class (Sidelinger & Booth-Butterfield, 2010).

In contrast, Sidelinger, Bolen, Frisby, and McMullen (2011) found that instructor misbehaviors such as irresponsibility, derisiveness, and apathy are negatively associated with student-to-student connectedness in higher education classrooms. Instructor behaviors such as not paying attention to students, making fun of students, or being overly critical can reduce student participation (Wade, 1994). Instructors who are described by students as boring, bored, pushy, moody, close-minded, too opinionated, condescending, and unfriendly also have students who report reduced classroom participation (Berdine, 1986). Overall, if students perceive their instructors as verbally aggressive or overly critical, they

are less likely to attend class, participate (Rocca, 2009), and communicate with their instructor (Goodboy, Myers, & Bolkan, 2010).

Although it is important for instructors and students to establish a positive rapport with one another, it is equally important for students to develop a positive rapport with their peers in order to foster a positive classroom climate. A climate where students and the instructor respect one another, the students respect one another, and the instructor demonstrates that he or she cares about students is conducive to high levels of class participation (Dallimore et al., 2004). Moreover, students who participate more in class value the course and subject more (Messman & Jones-Corley, 2001). Similar to building rapport with students, when instructors model interpersonal interactions that demonstrate students are valued and cared for, students are more inclined to treat their instructors and one another with respect.

Implications

Instructors and administrators realize that several factors influence academic outcomes. One such factor is instructor interpersonal characteristics, which play a vital role in student motivation, cognitive and affective learning, and overall academic performance. This corpus of research suggests that students believe their learning is greatly enhanced through personal interaction with their instructors and with other students. Ultimately, students want instructors who are respectful, supportive, available, and display enthusiasm for teaching. This objective could help guide faculty development efforts as well as individual instructors' efforts, which usually place more emphasis on the instructional aspects of teaching, and less on the interpersonal aspects of the classroom. Instead, a *learner-centered* manner of instruction would be adopted, whereby the instructor focuses on the students' perspectives, experiences, interests, capacities, and needs (McCombs, 1997); establishes positive instructor-student relationships; fosters student self-efficacy, and strikes a balance between being challenging and being caring (Pratt, 2002). This contrasts with a *teacher-centered* manner of instruction, which focuses on teaching and assessing learning objectives solely through course content and delivery. Although not all instructors feel comfortable engaging in every type of interpersonal interaction with students, they should be made aware of the importance of such interactions. For example, some instructors might feel more comfortable interacting with students in a typical classroom environment or during office hours, whereas others might use tools such as social media to communicate with students outside the classroom.

Another aspect of faculty development could focus on encouraging instructors and students to discuss their expectations of the classroom environment at the beginning of a course. Although both instructors and students want more positive interactions in the classroom, instructors view the classroom environment as more positive than do

students (Fraser & Treagust, 1986). Instructors can benefit from assessing their students' views of the classroom environment as well as their own, using one of several measurement instruments readily available (e.g., Fraser & Treagust, 1986; Winston et al., 1994; Wilkie, 2000). The assessments might expose disparities between students' and instructors' perceptions of the classroom climate. Such feedback could help instructors engage students in discussions about the classroom social systems, individual and collective behavior, and instructors' and students' expectations for interaction inside and outside the classroom. Exposing and discussing the differences in perceptions of the classroom environment could lead to greater course satisfaction for both students and instructors and improve instruction through greater respect and responsiveness.

Conclusion

The goal of this paper was to explore the elements of a positive classroom climate. Although it does not provide an exhaustive list of important interpersonal classroom skills, it does demonstrate that interpersonal skills influence the classroom climate, which has a profound impact on student academic outcomes. Specifically, developing a positive rapport with students improves students' learning and motivation. It also creates a model for how students should behave in class toward their peers, which increases student connectedness and also leads to greater student learning and motivation. Instructors should always consider how their behaviors may be interpreted by their students and keep the classroom climate and interpersonal interactions in mind when developing courses and lesson plans. Doing so is likely to increase positive academic outcomes for students as well as higher levels of satisfaction for the instructor.

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References

- Berdine, R. (1986). Why some students fail to participate in class. *Marketing News*, 20, 23–24.
- Berk, R. A. (1996). Student ratings of ten strategies for using humor in college teaching. *Journal on Excellence in College Teaching*, 7(3), 71–92.
- Book, C. L., & Putman, J. G. (1992). Organization and management of a classroom as a learning community culture. In V. P. Richmond & J. C. McCroskey, *Power in the classroom: Communication, control, and concern*. Hillsdale, NJ: Erlbaum.
- Bouville, M. (2010). Why is cheating wrong? *Studies in Philosophy and Education*, 29(1), 67–76.
- Brookfield, S. (2006). *The skillful teacher: On technique, trust, and responsiveness in the classroom* (2nd ed). San Francisco: Jossey-Bass.
- Catt, S., Miller, D., & Schallenkamp, K. (2007). You are the key: Communicate for learning effectiveness. *Education*, 127, 369–377.
- Crombie, G., Pyke, S. W., Silverthorn, N., Jones, A., & Piccinin, S. (2003). Students' perceptions of their classroom participation and instructor as a function of gender and context. *Journal of Higher Education*, 74, 51–76.
- Dallimore, E. J., Hertenstein, J. H., & Platt, M. B. (2004). Classroom participation and discussion effectiveness: Student-generated strategies. *Communication Education*, 53, 103–115.
- Dwyer, K. K., Bingham, S. G., Carlson, R. E., Prisbell, M., Cruz, A. M., & Fus, D. A. (2004). Communication and connectedness in the classroom: Development of the connected classroom climate inventory. *Communication Research Reports*, 21, 264–272.
- Ellis, K. (2000). Perceived teacher confirmation: The development and validation of an instrument and two studies of the relationship to cognitive and affective learning. *Human Communication Research*, 26(2), 264–291.
- Ellis, K. (2004). The impact of perceived teacher confirmation on receiver apprehension, motivation, and learning. *Communication Education*, 53(1), 1–20.
- Fassinger, P. A. (1997). Classes are groups. *College Teaching*, 45(1), 22–26.
- Fassinger, P. A. (2000). How classes influence students' participation in college classrooms. *Journal of Classroom Interaction*, 35, 38–47.
- Fraser, B. J., & Treagust, D. F. (1986). Validity and use of an instrument for assessing classroom psychological environment in higher education. *Higher Education*, 15, 37–57.
- Freeman, T. M., Anderman, L. H., & Jensen, J. J. (2007). Sense of belonging in college freshmen at the classroom and campus level. *Journal of Experimental Education*, 75(3), 203–220.

Frisby, B. N., & Martin, M. M. (2010). Instructor-student and student-student rapport in the classroom. *Communication Education, 59*(2), 146-164.

Frisby, B. N., Berger, E., Burchett, M., Herovic, E., & Strawser, M. G. (2014). Participation apprehensive students: The influence of face support and instructor-student rapport on classroom participation. *Communication Education, 63*(2), 105-123.

Frymier, A. B. (2007). Teachers' and students' goals in the teaching-learning process. *Paper presented at the annual meeting of the National Communication Association*. Chicago, IL.

Frymier, A. B., & Houser, M. L. (2000). The teacher-student relationship as an interpersonal relationship. *Communication Education, 49*, 207-219.

Frymier, A. B., Wanzer, M. B., & Wojtaszyk, A. M. (2007). Assessing students' perceptions of inappropriate and appropriate teacher humor. *Communication Education, 57*, 266-288.

Goodboy, A. K., Myers, S. A., & Bolkan, S. (2010). Student motives for communicating with instructors as a function of perceived instructor misbehaviors. *Communication Research Reports, 27*, 11-19.

Graham, S. W., & Gisi, S. L. (2000). The effects of instructional climate and student affairs services on college outcomes and satisfaction. *Journal of College Student Development, 41*, 279-291.

Hirschy, A. S., & Wilson, M. E. (2002). The sociology of the classroom and its influence on student learning. *Peabody Journal of Education, 77*(3), 85-100.

Hosek, A. M., & Thompson, J. (2009). Communication privacy management and college instruction: Exploring the rules and boundaries that frame instructor private disclosures. *Communication Education, 58*(3), 327-349.

Howard, J. R., & Henney, A. L. (1998). Student participation and instructor gender in the mixed-age college classroom. *Journal of Higher Education, 69*, 384-405.

Hoyt, D. P., & Eun-Joo, L. (2002). Teaching "styles" and learning outcomes. *IDEA Research Report #4*. Retrieved from <http://ideaedu.org/wp-content/uploads/2014/11/research4.pdf>.

Johnson, D. I. (2009). Connected classroom climate: A validity study. *Communication Research Reports, 26*, 146-157.

Jorgenson, J. (1992). Social approaches: Communication, rapport, and the interview: A social perspective. *Communication Theory, 2*, 148-156.

Mazer, J. P., Murphy, R. E., & Simonds, C. J. (2007). I'll see you on "Facebook": The effects of computer-mediated teacher self-disclosure on student motivation, affective learning, and classroom climate. *Communication Education, 56*(1), 1-17.

McCombs, B. L. (1997). Self-assessment and reflection: Tools for promoting teacher changes toward learner-centered practices. *NASSP Bulletin*, 81, pp. 1-14.

Messman, S. J., & Jones-Corley, J. (2001). Effects of communication environment, immediacy, and communication apprehension on cognitive and affective learning. *Communication Monographs*, 68, 184-200.

Moos, R. H. (1979). *Evaluating educational environments*. San Francisco, CA: Jossey-Bass.

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(2), 113-137.

Norton, M. S. (2008). *Human resource administration for educational leaders*. New York: Sage.

O'Sullivan, P. B., Hunt, S. K., & Lippert, L. R. (2004). Mediated immediacy: A language of affiliation in a technological age. *Journal of Language and Social Psychology*, 23, 464-490.

Pratt, D. (2002). Analyzing perspectives: Identifying commitments and belief structures. In D. Pratt, *Five perspectives on teaching in adult and higher education* (pp. 217-255). Malabar, FL: Krieger Publishing Company.

Prisbell, M., Dwyer, K. K., Carlson, R. E., Bingham, S. G., & Cruz, A. M. (2009). Connected classroom climate in the basic course: Associations with learning. *Basic Communication Course Annual*, 21, 145-165.

Pulvers, K., & Diekhoff, G. M. (1999). The relationship between academic dishonesty and college classroom environment. *Research in Higher Education*, 40(4), 487-498.

Reid, L. D., & Radhakrishnan, P. (2003). Race matters: The relation between race and general campus climate. *Cultural Diversity and Ethnic Minority Psychology*, 9(3), 263-275.

Richmond, A. S., Berglund, M. B., Epelbaum, V. B., & Kelin, E. M. (2015). $a + (b1) \text{ professor-student rapport} + (b2) \text{ humor} = (b3) \text{ student engagement} = (Y) \text{ student ratings of instructors}$. *Teaching of Psychology*, 42(2), 119-125.

Rocca, K. A. (2009). Participation in the college classroom: The impact of instructor immediacy and verbal aggression. *Journal of Classroom Interaction*, 43(2), 22-33.

Rosenfeld, L. B., Richman, J. M., & Bowman, G. L. (2000). Social support networks and school outcomes: The centrality of the teacher. *Child and Adolescent Social Work*, 17, 205-226.

Schrodt, P., Turman, P., & Soliz, J. (2006). Perceived understanding as a mediator of perceived teacher confirmation and students' rating of instruction. *Communication Education*, 55, 370-388.

Sidelinger, R. J., & Booth-Butterfield, M. (2010). Co-constructing student involvement: An examination of teacher confirmation and student-to-student connectedness in the college classroom. *Communication Education*, 59(2), 165–184.

Sidelinger, R. J., Bolen, D. M., Frisby, B. N., & McMullen, A. L. (2011). When instructors misbehave: An examination of student-to-student connectedness as a mediator in the college classroom. *Communication Education*, 60(3), 340–361.

Sidelinger, R. J., Bolen, D. M., Frisby, B. N., & McMullen, A. L. (2012). Instructor compliance to student requests: An examination of student-to-student connectedness as power in the classroom. *Communication Education*, 61(3), 290–308.

Wade, R. (1994). Teacher education students' views on class discussion: Implications for fostering critical reflection. *Teaching and Teacher Education*, 10, 231–243.

Wanzer, M. B., Frymier, A. B., & Irwin, J. (2010). An explanation of the relationship between instructor humor and student learning: Instructional humor processing theory. *Communication Education*, 59(1), 1–18.

Webb, N. G., & Barrett, L. O. (2014). Student views of instructor-student rapport in the college classroom. *Journal of the Scholarship of Teaching and Learning*, 14(2), 15–28.

West, R., & Pearson, J. C. (1994). Antecedent and consequent conditions of student questioning: An analysis of classroom discourse across the university. *Communication Education*, 43, 299–311.

Wilkie, C. J. (2000). Preferred college classroom environment scale: Creating positive classroom environments. *Journal of the First-Year Experience*, 12(2), 7–32.

Wilson, J. H., Ryan, R. G., & Pugh, J. L. (2010). Professor-student rapport scale predicts student outcomes. *Teaching of Psychology*, 37, 246–251.

Winston, R. B., Vahala, M. E., Nichols, E. C., Gillis, M. E., & Rome, K. D. (1994). A measure of college classroom climate: The college classroom environment scales. *Journal of College Student Development*, 35, 11–18.

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