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“LAUGHTER IS THE BEST MEDICINE”

Pedagogies of humor and joy
that support critical thinking
and communicative competence

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Summary

Teachers are often told to refrain from smiling until they’ve achieved full “control” of their students, yet they are simultaneously expected to maintain their students’ full attention while teaching challenging ideas and skills. This chapter describes a qualitative research study (following 70 students in three urban high school classrooms) in which computer science teachers’ pedagogies of humor and joy were actually essential to not only engaging their students in what many initially believed to be a boring or intimidating subject but also participating in critical thinking and communication practices valued across all fields of study.

Introduction

Many of us have received the following advice before our first day of teaching: be strict and don’t smile until you have firm “control” of your students. Humor, joy, laughter? Not to be expressed until later, if at all.

No wonder Ferris Bueller¹ needed that day off.

Yet ironically, many of us have also been told that our students should be fully engaged, not distracted or “off task.” And what better way to convince students that learning is worth their time, if not with humor, joy, and laughter? Youth demonstrate their best achievements and are motivated to engage in learning if they actually enjoy the activities at hand (Csikszentmihalyi, Rathunde, & Whalen, 1993). So why has in-school learning come to be seen as something that should be “serious,” while humor and joy are “not serious enough” for the critical thinking skills we hope to see among our students?

This is an important question to ask when considering the challenges we face in capturing and maintaining students' interests, specifically in Science, Technology, Engineering, Math (STEM), and Computer Science (CS) that, internationally, have raised concerns as segregated fields in which females and people of color are underrepresented. Research shows that students do not lack ability or interest, but rather lack access to quality learning experiences that make them feel capable and excited to pursue these fields of study (see Margolis, Estrella, Goode, Jellison-Holme, & Nao, 2008, for example, which describes how segregation in computing along race/ethnicity, gender, and socioeconomic lines is due to both institutional barriers and stereotypes about who should excel with computers). Furthermore, students have been receiving differential access to opportunities to engage with the deeper learning, critical thinking, and creative aspects of STEM and CS based on race/ethnicity, gender, and socioeconomic status, with only the elite being prepared to be the creators of new inventions while the majority are taught simply to be users of those inventions (for example, Boaler & Sengupta-Irving, 2006; Pearson, 2002; Watt, 1982). In response, efforts across the world (the United States, Africa, Europe, etc.) are now focused on broadening participation in STEM and CS for *all* our children.

This chapter illustrates why pedagogies of humor and joy are important for the success of efforts such as these, not only for increasing interest and engagement in computing specifically, but also for supporting young people's critical thinking skills and communicative competence that sit at the heart of all fields of study.

A review of research regarding pedagogies of humor and joy

Humor and joy have been shown to be effective for building the engagement *and* enjoyment we want to see in all classrooms, by: 1) supporting retention of new ideas (Derks, Gardner, & Agarwal, 1998; Hauck & Thomas, 1972; Schmidt, 1994, 2002; Schmidt & Williams, 2001; Ziv, 1988); 2) decreasing nervousness and improving test performance (Adams, 1972; Horn, 1972; Mechanic, 1962; Monson, 1968); 3) decreasing anxiety about a subject (Neuliep, 1991; Long, 1983; Smith, Ascough, Ettinger, & Nelson, 1971; Ziv, 1976); 4) improving teacher-to-student relationships by making teachers appear more accessible and responsive to students' needs (Crump, 1996; Gorham & Christophel, 1990; Wanzer & Frymier, 1999; Welker, 1977); 5) building classroom community by using humor to embrace diverse cultural practices or decrease conflict between students (Cornett, 1986; Kelly, 1983; Wallinger, 1997); 6) establishing boundaries while reinforcing positive, desired behaviors (Cornett, 1986; Kelly, 1983; Wallinger, 1997); 7) motivating students' desire to learn (Gorham & Christophel, 1992); and 8) encouraging creativity (Moran & John-Steiner, 2003; Smolucha, 1992; Vygotsky, 1978).

Furthermore, playfulness (that involves humor and inspires joy) has been described as creating a zone of proximal development for learners – the space between one’s current developmental state and where one will be with maturation. As children engage in pretend-play, while “playing house” and pretending to be a mother or a father, or while “playing school” and pretending to be teachers or students, they have the opportunity to imagine different ways of thinking, acting, and reacting that supports mental growth. Vygotsky (1978) explains that, as children play, they can therefore become “a head taller” in those imaginative moments of playfulness (Vygotsky, 1978, p. 102). Relatedly, playfulness – which is “about asking what if and imagining how the ordinary can become extraordinary” (Ackermann, Guantlett, Wolbers, & Weckstrom, 2009, p. 5) – can lead to deep critical thinking practices by allowing one to look at things from different angles to derive unique and creative solutions (Ackermann, 2004; Kafai, 2006; Resnick, 2007). As Bogost (2016) notes, play can encourage people to pay closer attention to their surroundings and think outside the figurative “box” when encountering limitations in the world that are usually beyond their control, often boring, and even unpleasant.

Studying pedagogies of humor and joy – Research context and methods

Building on this body of research, this chapter describes a study conducted in three Exploring Computer Science (ECS, www.exploringcs.org) classrooms, which is an introductory high school CS course employing inquiry-based and culturally relevant teaching strategies for democratizing access to CS. Curricular activities focused on teaching youth to be the creators, not just consumers, of new technology. In many ways, the problem-solving and critical thinking skills employed in the ECS classroom are transferable to other subjects and classrooms.

Through a year-long study (following 70 students and 3 teachers; collecting 50 interviews and over 105 hours of audio/video recordings and fieldnote observation), this research illuminated how very different educators’ uses of humor promoted critical thinking skills (such as considering alternative perspectives and solutions, evaluating evidence, etc.) and communicative competence (such as expressing their ideas, challenging each other’s ideas, etc.). The classrooms were located in a large urban school district on the west coast of the United States, enrolling primarily Latinx and African American students in proportions representing the district’s demographics. The schools were typical for the district in terms of state and national test scores, and focal teachers were chosen based on their reputations (among principals, colleagues, and students) as dynamic and dedicated teachers committed to broadening participation in computing (as articulated during CS professional developments). For these focal teachers, “broadening participation in computing” meant challenging the historical underrepresentation of people of color and women in computing by providing

CS learning experiences that could encourage underrepresented students' sense of confidence, engagement, and desire to learn CS and use CS toward their own personal, academic, and career goals.

The teachers included Ms. Mendoza, Mr. Torres, and Mr. Santos. Ms. Mendoza was a Mexican American woman in her early 30s who identified as lesbian and grew up in the local city. She came from a family of educators and was a certified social studies teacher who chose to teach CS due to her love of technology and her commitment to increasing access to CS learning for *all* students and not just those who fit the stereotype of "technology geek." Mr. Torres was a Puerto Rican American who was raised in New York City and identified as heterosexual. He was in his late 30s and newer to teaching. He began his career in the tech industry, but his desire to have a positive impact on his community through teaching resulted in a mid-life career change. Mr. Santos was a Mexican American heterosexual man in his late 40s who was a certified math teacher. He grew up in a migrant farming community in Central California. He was passionate about teaching and had been working for almost two decades at the time of this research.

Data analysis focused on examining teacher-student and student-student interactions during whole-group discussions as well as students' problem-solving processes while creating computational artifacts (e.g., websites, animations, etc.). Initial rounds of coding focused on how social interactions related to teacher practice and student engagement with CS activities, as well as the types of computational practices engaged during these interactions (e.g., *critical thinking practices* – such as analyzing the effects of computing on society, evaluating the usability of computational artifacts, using abstractions and models, engaging in algorithmic thinking to solve problems, etc. – and *communicative competence* such as explaining the meaning of results, describing the impact of technology or computational artifacts, justifying appropriateness or correctness of programming choices, etc.). These first rounds of codes surfaced themes such as "teacher practice" that involved sub-themes such as "addressing real-world issues" or "humor/joy." A second round of coding resulted in parsing down these codes into differences in kind, such as kinds of teacher assistance or types of student-to-student assistance. A third round of coding focused on outliers in the data that could help point to unique situations or new ideas about what seemed "typical" in the classrooms.

These analyses revealed the salience of humor and joy as pedagogical practices for motivating learning, encouraging critical thinking, and developing communicative competence. In what follows, teacher and student interview data describing the importance of humor and joy are shared, followed by two detailed vignettes as well as shorter descriptions from the three classrooms illuminating what pedagogies of humor and joy look like, as well as the critical thinking and communicative competencies they support. The chapter concludes with suggestions for how educators can take these ideas and put them into practice in their own classrooms.

Pedagogies of humor and joy: Research evidence of effectiveness

Teacher and student testimonies

The original intention of this study was not to examine humor in the classroom. However, when 36 of 43 students mentioned, *completely unprompted*, that they most valued having a “funny” teacher with a “nice sense of humor,” and six others emphasized valuing their teachers’ senses of humor when asked if their teachers made them laugh (see Figure 10.1 below), the topic became worthy of closer scrutiny.

Yet, why did pedagogies of humor and joy matter to youth in these classrooms? Across the board, students described how teachers’ uses of humor made boring or intimidating material more accessible, engaging them with the learning at hand. More specifically, students described that pedagogies of humor and joy mediated their relationships to CS learning by: 1) shifting their views of CS from “boring” to “fun”; 2) increasing engagement with the learning at hand; and 3) encouraging new ways of thinking and learning by motivating interest in CS assignments.

Numerous students in all three schools described how they didn’t sign up for the course, thought they would hate CS because they didn’t fit the stereotypical image of “computer nerds,” and even tried to change classes. However, their teachers’ uses of humor convinced them to want to learn. For example, Lena² from Midtown High thought she would hate CS at the start of the school year, but Ms. Mendoza’s “jokes, they’re funny.... Which makes me want to do the work.” By the end of the year, Lena successfully created complex websites and animations, and decided to study CS after high school. Julieta noted that she used to skip Mr. Torres’s class at Presidential High, but she began attending regularly because of his sense of humor.

Other students described how pedagogies of humor and joy were useful for student engagement. Typical student comments described how teacher humor keeps “you more concentrated, not spacing out” (Olimpia), helps students feel that “it’s not like work, just something you *like*” (Carlos), “gives [students] energy

FIGURE 10.1 Students’ interview responses related to humor.

to work” (Orlando), “makes me keep on going” (Enrique), “pay more attention” (Xochitl), and “makes class to be interesting” (Jesenia and Natalia) because the teacher “[makes] us smile so I feel like I should do the work” (Hyun).

Pedagogies of humor and joy also influenced students’ views of CS, leading to engagement in new forms of thinking and learning. Similar to Lena above, Catalina described initially feeling insecure about coding, but “[Ms. Mendoza] show[ed] us her [programming] project and I thought it was hilarious...I was like ‘Oh my gosh! I wanna do that too!’” Ms. Mendoza’s website, which welcomed student laughter, included a colorful picture of a llama wearing a scarf with the statement “cooler than the other side of your pillow.” Invited to engage with the critical thinking skills of CS through Ms. Mendoza’s sense of humor, Catalina not only became one of Ms. Mendoza’s top students by the end of the second semester, but was also observed trying to teach her classmate to think critically about data analysis the way Ms. Mendoza had taught her. Catalina pointed to her friend’s pie chart and, instead of telling Annie what to think, asked: “So what can you say about this chart?” followed by a comment that, while the pie chart was colorful, it appeared that the health levels documented were all the same size.

Of course, none of the three teachers were coincidentally funny. Teacher interviews revealed the primacy of pedagogies of humor and joy in their own practice. Mr. Santos at City High intentionally kept his students laughing, comparing his pedagogy to the saying: “Luring bees is best to do with honey...Vinegar’s not going to work.” When Mr. Santos first started teaching, he was “told not to smile until Christmas,” but he realized that this made him “miserable” while having a negative impact on the students who shirked classroom participation and struggled in the class. However, “[When I] joked around a little bit more, I was able to get more out of them than with the structured, serious teacher that I was pretending to be.”

Similarly, when asked the question “What do you think makes a really good teacher?” Ms. Mendoza at Midtown High immediately replied, “Ha! A sense of humor!” More specifically, Ms. Mendoza emphasized how humor and joy helped students gain self-confidence when working with abstract ideas, allowing them to laugh at mistakes, ask questions, share answers, and figure out solutions to CS problems without feeling worried about being wrong or punished:

[S]tudents that came in and may have been a little bit intimidated with the idea of computers and [that] this was obviously a man’s thing; and to see my girls now...they’re willing to say what their solution is, even if it’s wrong. And I think that’s where the real learning comes in.

Mr. Torres echoed this belief, adding how humor was a pedagogical tool that distinguished his classroom from others that were regimented and dull:

They have several other classes where it’s just very “okay, sit down, and get to your studies.” And I try to lighten up the mood for them because...I want this to be a class that they look forward to...the teachers that I remember the most are the teachers that made me laugh!

Mr. Torres emphasized that “laughter is the best medicine” for engaging students with academic learning.

But what did it look like to teach with humor and joy? And how did such pedagogies impact students’ thinking and communication practices? The following vignettes illustrate how pedagogies of humor and joy supported not only engagement with new learning but also critical thinking and communicative competence.

Supporting critical thinking

Ms. Mendoza regularly invited student participation and critical thinking with humor and joy, especially when topics were challenging to discuss. For example, in the context of a data analysis unit (the fifth of six units, taking place during the second semester of the school year), students collected their own data about the snacks they ate throughout the day³. The following example shows how Ms. Mendoza’s use of humor encouraged critical thinking about how gender, student status, environment, and more might impact their research results.

Ms. Mendoza pulled up a graph of the health levels of the entire class’s snacking data. She asked her students how the graph might be different if collected by adult men. Clara said the snacks would be unhealthy “Because men don’t care what they eat.” Dario quickly called out, “That’s sexist!” and Ms. Mendoza smiled, asking him why. Dario explained, “Women eat unhealthy too!” **Ms. Mendoza laughed, replying: “Whoa! Whoa!” while holding a yardstick between Dario and Clara as if to prevent them from having a fist fight.** Dario laughed and Clara smiled, saying “I didn’t say all guys...” Dario quipped back, “Yes, you did!” Ms. Mendoza and the class laughed, recognizing Clara’s mistake. Ms. Mendoza then asked, “What if college students were doing these surveys?” Xochitl replied that healthiness “would be all over the place because some care, some don’t.” Jack pointed out, “It depends if there’s a healthy store nearby.” Ms. Mendoza added, “Or if they have a meal plan.” Then she described all the different supermarkets surrounding a local university near their school, asking, “How would it be there?” Dario said, “Up and down,” and Nico said, “When people are under stress, they may not have time to cook, so they’ll probably eat unhealthy.” Ms. Mendoza said this was a good point and asked, “So would they eat more snacks? Or would it depend on time? **Like around finals and exams time, you’re all like ‘aaraaar’**” and Ms. Mendoza pretended to gobble imaginary food while joking about the fact that the pizza deliveryman knew her first name, last name, and phone number during exam time. The class erupted in laughter. Spurred on by the discussion about local options, Nico pointed out, “Doesn’t it matter if we’re in the city or not? In the city, there’s more fast food around, but if you’re in a rural area, maybe you don’t have as many.” Ms. Mendoza replied, “Good point! What if the university was in the middle of a rural area?” Nico thought snacks would be healthier, and Ms. Mendoza agreed this was possible, but that there were fewer options in rural areas.

Then Ms. Mendoza showed a graph of the students' snack prices and asked how these might change if they were African Americans. Students were silent and Ms. Mendoza laughed saying that it was difficult to talk about race in the classroom, but that the classroom was a safe space where people should not judge one another. Then Dario replied, "It would be cheaper because colored people are lower class." Ms. Mendoza gently corrected, "Let's say 'living in poverty.'" Then Dario clarified: "And when I say 'colored,' I mean Latino people too." The majority Latino classroom remained quiet and **Ms. Mendoza said, "Hey! We're all adults here! We can say it! Why are we so uncomfortable?" Then she joked that her eighth graders felt uncomfortable saying that President Obama was Black even though it's true.** Students laughed as she asked, "What if only White students were collecting this data?" Clara noted, "The snacks would be more expensive." Nico countered this, saying, "It depends on which state." Ms. Mendoza nodded her head and replied, "So let's say we're in our home city [a diverse, big city]." Dario reflected that not only White people were wealthy, while Jack disagreed, saying White people have more income. Ms. Mendoza asked, "What if they're white high school students living in rural Tennessee?" Jack changed his analysis, saying the snacks would be cheaper. Ms. Mendoza replied, "So you're saying that socioeconomics matter?" Jack said, "Yes, it does matter." Ms. Mendoza smiled, nodding her head in agreement.

In this discussion, students engaged in a range of critical thinking practices: 1) they interpreted graphs of their snack consumption data (health level and cost); 2) they analyzed data in relation to different contextual considerations (debating how things like gender, socioeconomic status, etc. might impact data); 3) they made inferences about various populations' behaviors and environments (thinking about the availability of resources or the intersectionalities of race and class in urban versus rural contexts); 4) they integrated different ideas across demographic and physical contexts (when considering university students' eating habits during exam time, for example); and 5) they explained their reasoning while challenging each other's thinking (questioning blanket statements about men or the wealth of White people).

To facilitate this deeper thinking, Ms. Mendoza was clearly skilled at asking students "why" (for example, when Dario challenged Clara's statement as "sexist," she neither agreed nor disagreed but gave the students an opportunity to think it through together). She built on students' ideas to push the conversation further (when Jack pointed out the importance of having a healthy store nearby, she described the local university's surroundings and asked students to consider health levels of snacks there as well). And she supported students in thinking about the language they were using to explain their thinking (such as considering the difference between saying one is "lower class" versus "living in poverty" or being able to explain that "socioeconomics matter" and not just race/ethnicity).

While these teaching practices were important for facilitating students' critical thinking and communication skills in the classroom, Ms. Mendoza's students did not begin the school year actively participating this way. In fact, most students felt

forced to take the class and had little to no prior experience with CS. So what motivated their excitement to engage in the conversation and push their thinking?

Over time, the key teaching practice that consistently resulted in greater student participation in critical thinking and communicative competence was Ms. Mendoza's pedagogy of humor and joy. Ms. Mendoza always used jokes or cheerful statements to capture student attention that led to participation in the deeper thinking she wanted to see. By the time of this particular vignette, Ms. Mendoza had successfully built a community of sharing and laughter through her pedagogical approach of humor and joy. In this vignette, Ms. Mendoza demonstrated three turns of humor that served specific purposes in the classroom discussion.

The first example occurred when Dario and Clara argued about "sexism." Ms. Mendoza encouraged them to dialogue about the topic, but held up a yardstick and pretended to be fending off a fight at the same time. While this may come off as simple theatrics, Ms. Mendoza's playfulness was purposeful: she used her sense of humor to acknowledge that these kinds of discussions can be heated and personal, but that the classroom was a safe space where it was okay to disagree.

Ms. Mendoza's second use of humor and joy was visible discussing university students' snacking behaviors. Building on Nico's comment about how stress or lack of time for cooking impacted snacking, Ms. Mendoza pushed students to think critically about this, while encouraging laughter about her demonstration of frantically eating and her description of the pizza deliveryman. This laughter kept students engaged in the conversation, but her joke about the pizza deliveryman also encouraged Nico to go deeper in his thinking about context: he shared how rural areas may not have as much fast food like Ms. Mendoza's pizza place. Humor and joy not only welcomed students to remain part of the discussion but also to ask more questions regarding their various lines of reasoning.

The final example of humor occurred when Ms. Mendoza tried to encourage her majority Latinx students to reflect on the ways race/ethnicity might impact snack prices. Ms. Mendoza's joke about her younger students' hesitation to acknowledge that President Obama was Black served as a way to recognize that their discomfort was not only real and okay but also something students could overcome as "adults" in a "safe space." As a result, students engaged in thinking critically about how race might intersect differently with urban versus rural contexts or socioeconomic status.

Supporting communicative competence

In Mr. Torres's classroom, pedagogies of humor and joy were central for encouraging disengaged students with communicative competence and critical thinking. The following vignettes from the eleventh day of class mark a turning point during which Brittany and Jessica finally began participating in whole-group discussions at Presidential High. At the start of the school year, both Brittany and Jessica actively resisted both the teacher and course, proving responsible for over half of all off-task behaviors during the first ten days of class (e.g., refusing

to answer Mr. Torres's questions, loudly chatting about unrelated topics, putting on makeup instead of participating in group work, etc.) during which Mr. Torres led ten extensive, whole-group discussions.

This vignette shows Brittany and Jessica's shift in participation when Mr. Torres began *consistently* integrating a sense of humor throughout the whole-group conversation in a way that he hadn't before. This particular day, he incorporated six humorous comments that solicited playful responses and generated new ideas from students. Brittany willingly contributed four ideas to the conversation, and Jessica shared her opinions on two different topics without hesitation. Both young women demonstrated a sense of pride in academic participation that was previously absent. The following vignette took place 50 minutes into a 90-minute class period that Jessica had skipped. When she arrived without an excuse, Mr. Torres did not scold her and moved seamlessly into a discussion about students' uses of communication technology:

Mr. Torres asked students how they would ask their parents' permission for something when they knew that their parents would say no: "For those of you who would say 'phone call,' why would you choose that?" Belén explained calling was best because you could hang up on your parents. **Mr. Torres widened his eyes in mock horror, explaining with a smile that he could never do that to his mother.** In response, Belén joked that you could rustle a bag of chips by the phone speaker and say that the connection was bad before hanging up. **Mr. Torres laughed, then proceeded to act out this scenario, crinkling an imaginary bag of chips next to an imaginary phone, saying: "Sorry...bad...con...ction!"** Students laughed.

Suddenly, Brittany called out, "It's better face-to-face with your parents because texting is rude." Mr. Torres asked who in the class was really persuasive and Brittany mentioned that she was persuasive and said, while batting her eyelashes and frowning, that "if you do it face-to-face, you can use a sad face and say 'Please!'" The class laughed as Veronica agreed. Mr. Torres nodded his head and asked, "Has anyone used Facebook with your parents?" Hector said that he did once and then Lissandro shared that he couldn't use Facebook anymore since his mom labeled him as her son. William joked, "You need to create a new one [account]!" Everyone laughed.

Mr. Torres asked what technologies were best for seeking homework help, and students discussed disliking Twitter because people used it to describe everything they were doing. **Mr. Torres joked about tweeting from the grocery store or about blowing his nose.** Students laughed and Jessica, again unsolicited, agreed that Twitter was "stupidness" as Hector commented Twitter users were "immature."

Mr. Torres asked students how they would mourn the loss of a loved one. Belén shared, "My aunt was pregnant and then lost her baby at birth; she posted on Facebook about it. Is that dumb?" William supportively replied, "It's not dumb. She's getting her feelings out..." Students shared what they do to grieve – showing their grief, feeling their personalities change, talking to friends on the

phone – when Belén reflected, “It’s bad to keep to yourself!” Jessica shook her head in disagreement, explaining, “Why talk about it? It’ll make you remember that person and you’ll get emotional.” Mr. Torres replied, “Is it bad to get emotional?” Jessica said, “Yeah, because why cry in front of somebody? I’m not saying emotions are bad, but...” Mr. Torres nodded his head thoughtfully and asked if people agreed. Marisa noted, “It depends on the person.” Emilio raised his hand and shared, “It’s better to express yourself.” Mr. Torres then turned back to Jessica and asked in clarification, “So Jessica, does it make you feel better to keep it inside?” Jessica responded, “I try not to think about it, try to push it out of the way.” Mr. Torres replied, “Okay. There’s no right or wrong, everybody deals with it differently.” Then, without a pause, **Mr. Torres asked the class: “What’s the saying about taxes and death...?” to which David replied, “There are only two things you can’t run away from: taxes and death.”** Mr. Torres and his students laughed together.

Mr. Torres used pedagogies of humor and joy to encourage participation, support students’ communicative competence and critical thinking (to express what they believe and why), and even got both Jessica and Brittany actively participating despite weeks of disengagement. The on-the-spot creativity of students’ ideas (e.g., pretending there was a bad phone connection, manipulating parents’ decisions, etc.) and efforts to explain their reasoning (e.g., for disliking Twitter, sharing personal reactions to death, etc.) were motivated by Mr. Torres’s sense of humor and his students’ subsequent desire to create laughter, in kind.

Brittany and Jessica’s unusual engagement – twice Jessica shared her opinions unprompted, and Brittany actively tried to make her classmates laugh while voicing her perspective – showed a willingness to share ideas, even when classmates did not agree with them. Even though the final topic of conversation – mourning – was difficult, Jessica did not hesitate to speak openly and defend her beliefs regarding the importance of suppressing one’s tears and sadness. Mr. Torres validated all the students’ ideas, quickly emphasizing that there were no “wrong” or “right” ways to mourn, and Jessica’s engagement only grew after Mr. Torres’s joke about death and taxes. Mr. Torres demonstrated how his sense of humor and willingness to share ideas could be woven together in these conversations, encouraging students to practice different forms of communicative competence: sharing, defending, and questioning ideas.

Putting pedagogies of humor and joy into practice – Concluding suggestions for teachers

But how can other teachers implement pedagogies of humor and joy in their classrooms? Below are five key ideas to reflect upon, as well as teaching practices to try for educators interested in incorporating more humor and joy in their classrooms.

First of all, lessons do not need to be perfect stand-up acts. As Mr. Torres noted, you can’t “have a comedy routine every time.” Teachers can begin by incorporating jokes or puns into daily practice in the simplest ways possible. As Mr. Santos exemplified, simply showing one’s openness to laughter can have

the important effect of capturing students' attention, which can then lead to deeper interest in learning (Gorham & Christophel, 1992). For example, as Mr. Santos went over his course syllabus, he joked that mobile phones weren't allowed because they encouraged "chismosos or chismes" (meaning "gossip" in Spanish); he called the "grades" section of his syllabus "the fun part." These weren't gut-wrenchingly funny comments, but they added a levity to daily lessons that gave students an opportunity to see that their teacher was welcoming them to be playful and joyful, while also making Spanish-speaking learners feel like they could embrace their home languages in his classroom.

Secondly, Ms. Mendoza and Mr. Torres employed senses of humor that were specific to their personalities. This is an important feature of pedagogies of humor and joy: teachers' unique selves *should* be reflected in their practice. In Mr. Santos's case, the first time he took attendance, he noted: "Sorry if I massacre your last names. My Spanish is terrible." Students laughed because Mr. Santos's first language was Spanish. Teachers building humor and joy into their classrooms need to be willing to share who they are with their students and be okay with the vulnerability of showing their students who they are.

Yet, alongside being true to oneself with one's humor, teachers must also recognize that the tone of their jokes really matter. Thus, a third key point with pedagogies of humor and joy is that there are risks to spontaneous humor in the classroom. Teachers must be careful not to unintentionally insult their students with overly sarcastic remarks or off-color comments. Even when a person has positive intentions, words can deeply harm people, and within the classroom context where teachers have more power than students, this is of particular concern when trying to engage pedagogies of humor and joy. As Mr. Santos noted in the interview, teacher humor and joy must build on a foundation of respect for all students: Teachers should "insist" on students working hard—demonstrating that teachers have high expectations about their students' abilities to do challenging work—but also incorporate humor in ways that show the teachers "still enjoy their presence." Jokes should never involve sarcasm that may be taken personally, or involve passive-aggressive comments that mask teacher criticism or judgment. To that end, the teachers in this study were very careful to never tease students; they were, in fact, quicker to laugh about themselves in front of the students instead. When incorporating pedagogies of humor and joy, teachers must clearly define boundaries for their jokes, completely avoiding jokes that demean anyone or suggest that any group is undesirable, wrong, stupid, etc. This means avoiding jokes that suggest judgment or condescension toward students, or that make individuals feel like an outcast in any way based on race/ethnicity, gender, sexual orientation, home language, religion, etc. Educators must "read their audience" to see how their humor is impacting their students and adjust accordingly. There needs to be a conscientious effort to check oneself in the moment between coming up with a spontaneous joke and actually saying it to one's students to carefully self-censor humor that might actually counteract the joy students should be experiencing.

Fourthly, as Ms. Mendoza described, pedagogies of humor can encourage under-represented students to feel less anxious about new subjects such as CS, encouraging students to feel okay sharing ideas, even if they're not sure if they're "right." This has already been supported by research studies showing how humor encourages participation in potentially intimidating subjects (see Smith et al., 1971, for example) and being okay with sharing ideas that may not be "correct" (see Cornett, 1986, for example). Teacher pedagogies of humor and joy can also help students feel comfortable communicating their ideas, even if they conflict with other peoples' ideas (as was true in both Ms. Mendoza and Mr. Torres's classrooms above). Thus, teachers may consider creating opportunities for students to debate their ideas in ways that allow space for laughter with safety to think differently, where teachers simultaneously serve as a mediator between students, using humor to ease tension.

Fifthly, teachers should incorporate pedagogies of humor and joy as a way to think about ideas from new angles. When teachers acted out different ideas in their classrooms, for example, their theatrics inspired students to also think of new ways to express their ideas and build on class discussions. Teachers used humor to wax upon youth's perspectives, encouraging further critical thinking about the conversations at hand (such as data analysis or communication technology, for example). As Ackermann (2014) describes, the same joy at the center of humor lies at the heart of creative thinking. Playfulness encouraged through pedagogies of humor and joy can lead to ways of thinking differently and communicating those different ideas in exciting ways.

Building on these five ideas, here are some practices to try: Smiling more, laughing more, incorporating jokes or puns into daily practice, facilitating learning activities that involve play, being willing to be relaxed and playful as well, and injecting important discussions with moments of laughter as a way to break up the intimidation students may feel in communicating their ideas so that they can more freely express themselves. Teachers can try joyfully shaking their students' hands as they enter the classroom, greeting them as "computer scientists" (or whatever experts would be named in their field of study). They can begin class sharing a joke of the day or funny video related to their subject area (available online). They can give extra credit points to students who come up with school-appropriate puns or jokes related to subjects they are learning. There are a number of small ways teachers can begin demonstrating their openness to humor and joy which, in turn, can support this pedagogical practice to grow in their classrooms.

Yet teachers should also know when and how they want to draw boundaries with their students. This is because pedagogies of humor and joy will invite students to also try out their own jokes and ways to make others laugh. It is important for teachers to recognize when students' jokes are hurtful or sarcastic and to actively protect students who are potential victims of such jokes. The primary goal should always be ensuring all students feel respected so that classroom humor creates a community of learners that is positive and safe. When students try out jokes that are potentially hurtful, they should be encouraged to think about how to create laughter without also creating pain.

In conclusion, beyond motivating student engagement, the examples shared in this chapter demonstrate how pedagogies of humor and joy can encourage critical thinking and communicative competence. As humor and joy gently welcome students to engage in discussions, share and challenge different ideas, and view concepts from various angles, youth may gain new interest in subject areas they did not initially know or care about. Using such pedagogies can potentially engage more of our students in the critical thinking we value, the communicative competence we hope to develop, and the subject areas that need our diverse students' perspectives and voices, such as the segregated fields of STEM and CS.

Notes

- 1 Ferris Bueller – a character from the 1986 film *Ferris Bueller's Day Off* – develops an elaborate plan to get away with skipping school for a day.
- 2 All names of students, teachers, and schools are pseudonyms created to protect their privacy.
- 3 Ms. Mendoza and her students called this snack consumption data their “snacking” data.

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