

Conversation in the classroom



PHOTO: GETTY IMAGES

When educators understand the dynamics of conversation, they can promote more productive and equitable discourse with and among students.

By **Carrie Holmberg and Jamaal Muwwakkil**

Teachers often rely on classroom discussions to reveal students' understanding of course content and, in turn, to inform their decisions about what to teach and how to teach it. However, what students say in class does not necessarily provide reliable information about what they know and think. Given the subtle dynamics at play in everyday conversation — such as turn-taking patterns, the use of verbal and nonverbal cues, the speed at which people talk, and so on — teachers can easily come away from classroom discussions with distorted impressions of students' knowledge, motivation, engagement, and academic potential.

Extensive research in linguistics has shown that, in every language, these conversational dynamics are extraordinarily intricate and require people to make incredibly quick decisions and interpretations (Stivers, Enfield, & Levinson, 2010). In the cooperative, turn-taking world of social talk, meaning is often conveyed through actions that occur in milliseconds — yes, milliseconds (Enfield, 2017; Stivers et al., 2009).

Much of the research on everyday language use relies on data gathered in homes, workplaces, and other settings, but the findings have much to tell us about the discourse that goes on in schools, too. Of course, classrooms differ somewhat from other conversational contexts, given the inherently unequal teacher-student relationship and the highly structured nature of many academic interactions

CARRIE HOLMBERG (carrie.holmberg@sjsu.edu; @CarrieHoltberg) is a lecturer at San José State University, San José, CA. **JAMAAL MUWWAKKIL** (Jamaal@ucsb.edu; @WordsByJamaal) is a Ph.D. student in linguistics at the University of California, Santa Barbara.

(Cazden & Beck, 2003). In many ways, however, the back-and-forth dynamics of conversation in schools are the same as in other settings, and they have important implications for teaching and learning.

It may seem silly to state, but teachers have spent more time in a classroom than students have and, therefore, have had more time to become accustomed to the conventions of classroom conversation. Because students may have differing degrees of familiarity with the nuances of classroom discussion, their conversational behavior might not align with instructors' perceived norms. If educators become more aware of their own perceived norms, and subtle differences among students' ways of talking, they'll be better equipped to set clear expectations and validate the different ways students communicate. And the less educators know about these variations, the more likely they'll be to exclude and/or misunderstand some students, particularly so-called "quieter" students, those who are ever-so-slightly "slower" than their peers to process spoken language, English learners (ELs), and students (both ELs and non-ELs) with cultural communicative practices that do not align with the classroom culture.

In short, by learning about and attending to some basic lessons from the linguistic research into conversational

dynamics, educators can create more inclusive and educationally productive classrooms for all students, including those who speak softly, slowly, with an accent, or from a nondominant cultural perspective. So, what are some of these dynamics? To illustrate, let's look at a couple of ways in which it matters how fast or slowly students speak. We will focus on turn-taking and yes/no questions. While other conversational dynamics — such as communicative burden (Lippi-Green, 2012), literary voice (Royster, 1996), and linguistic agency (Hudley & Mallinson, 2014) — are important to consider, we focus on turn-taking and yes/no questions because they are ubiquitous, occur in all parts of lessons, are influenced by patterns established long before students have entered the classroom, and have important characteristics that frequently fly under the conscious radar of teachers. Additionally, recent research impels us to consider the implications of these dynamics as they play out in the classroom.

Turn-taking and conversational delays

Conversations are inherently rapid and cooperative, requiring participants to know precisely when to take turns (de Ruiter, Mitterer, & Enfield, 2006; Levinson & Torreira, 2015; Riest, Jorschick, & de Ruiter, 2015) and how to interpret brief silences and extended pauses (Jefferson, 1989). Even split-second variations in the length of time between turns can make the difference between being perceived as early (i.e., interrupting), on time, or late to respond (Roberts & Francis, 2013). In U.S. English, answers to questions typically start 150 milliseconds from the end of the question (Stivers et al., 2009), which is roughly twice as fast as the blink of an eye. And when a response to a question starts noticeably *later* (such as approximately 600 milliseconds after the end of the question), people tend to make assumptions about the reasons for this delay (Roberts & Francis, 2013). For example, say that a person asks his conversational partner if his outfit looks OK, and she takes the slightest of moments to consider how her answer may be perceived: "He knows I don't like to lie, but he did just ask me if that ugly tie he inherited from his father goes with his jacket." The question asker, sensing the milliseconds of delay, makes an assumption: "She thinks the tie doesn't go, but she's trying to protect my feelings." In this scenario, a 450-millisecond delay conveys an unspoken sentiment (Austin, 1975).

In the classroom, teachers and students arrive having already intuitively learned how to signal and interpret meanings during halves, quarters, and even tenths of single seconds in their own relative contexts. Their turn-taking timing skills have been honed, usually unconsciously,



"The project today is to find a YouTube video of someone building a chair."

through socialization with family members, neighbors, and friends. Their communication habits may, for example, tend toward faster-paced conversations in one-on-one interactions when the student could be better served by a slower pace. Students from different social classes and racial/ethnic backgrounds, some researchers have noted, use conversational overlap differently during small-group discussions in and outside the classroom (Kochman, 1981). Lowry Hemphill (1986) found that girls from middle-class families used overlap to make a bid to speak, while girls from working-class families used conversational overlap to show support for the speaker. The point here is that each conversational convention is correct within its own domain, and miscommunication may occur when varied expectations and practices come into contact. This is bound to happen in the classroom.

Questions and answers

People notice conversational delays in responding to all kinds of questions, but slight delays seem particularly significant when people have been asked yes/no questions. In a systematic study of a sample of languages from across several continents, researchers found that people are significantly quicker to come out with a verbal answer of yes or no (or a nonverbal equivalent, such as a nod or head shake) than to give other relevant responses, such as "I'm not sure" (Stivers et al., 2009). In other words, yes/no questions invite particularly quick and definitive answers, which makes them an unreliable tool with which to gauge student understanding.

Not just yes/no questions but also more open-ended questions often privilege students who are fast at processing language over those who aren't quite as quick to formulate responses. Indeed, students may avoid answering to give themselves this much-needed time to think — and by the time they're ready to contribute, the discussion has already moved on. If teachers and students are not consciously and vigilantly engaged with the dynamics of conversation, the fast processors in a class may dominate a discussion, which can structurally alienate students who need a bit more time to collect their thoughts.

Many teachers already know all of this and have well-established methods for managing eager beavers so that more reticent students gain opportunities to think

and speak (Duckor & Holmberg, 2017). And, of course, much of student response speed depends on context: Who the fast processors are may change on any given day on the basis of the content being discussed; students' prior knowledge of the topic, and even students' health, personality, mood, and well-being on that day. Still, it is all too easy for teachers to promote, unintentionally, the linguistic equivalent of the Matthew effect, in which the quickest and conversationally richest students get richer, while other students miss speaking opportunities, leaving them conversationally poorer.

But it's not just a matter of equity to ensure that slower-to-respond students have chances to participate. Fast responders also have a disproportionate influence on teachers' on-the-fly instructional decision making. Most teachers adapt their lessons in the moment, based on their observations and

interpretations of what they are hearing (and seeing). If they hear only from the students who process language quickly, they get a skewed perspective on the needs of the class as a whole. The greater the numbers of students who are able to give their opinions and share their thoughts, the more informative the classroom formative assessment (Duckor & Holmberg, 2017).

Another problem with yes/no questions, in particular, is that, on average, answering *no* takes nearly twice as long as answering *yes* (Stivers et al., 2009). This may be a matter of cognitive processing: It is easier for people to think about and deliver a quick *yes* than it is for them to decide the answer is *no* (Enfield, 2017). However, they may delay their *no* response because they are (perhaps unconsciously) aware that people tend to have an emotional preference for *yes* answers (Enfield, 2017). This finding is backed up by Tanya Stivers' (2010) analysis of naturally occurring conversations in American English, which found that even when asked questions that might be expected to elicit an equal number of *yes* and *no* answers, people answered with a *yes* nearly three-quarters of the time. As yet, though, it remains unclear whether teacher preference for asking "expected yes" questions may influence student responses.

It's worth noting, also, just how prevalent yes/no questions are in most classrooms. For example, one study (Kawanaka & Stigler, 1999) found that yes/no questions make up roughly one-fifth of all the questions teachers ask in 8th-grade U.S. mathematics lessons. These questions may have their place (Koshik, 2002; Lee, 2008) — for example, teachers may use

The greater the numbers of students who are able to give their opinions and share their thoughts, the more informative the classroom formative assessment.

them to get a quick check of students' understanding. Even here, though, teachers should be aware of the downsides of relying on them too heavily. For instance, we can infer from the research that if teachers have a habit of asking a lot of yes/no questions, with a distinct preference for *yes* answers, then students can consistently guess *yes* and be correct most of the time. When we combine this with the fact that students are faster to produce a *yes* than a *no*, some interesting conclusions follow: First, when teachers ask such a question of the whole class, the most likely response will be for students to call out *yes* in unison. This will happen even if teachers have provided adequate wait time, which research has found few teachers consistently do (Black et al., 2003; Rowe, 1974; Shrum, 1984).

Students who might have been preparing to respond *no* will hear their classmates call out *yes* (since *yes* answers are produced faster) and immediately change their minds, going along with the group's *yes* rather than sticking with their original choice. Even as a means of checking for understanding, then, yes/no questions tend to be unhelpful. They are heavily biased toward a group response of *yes*, giving teachers no way to know whether some students would have answered *no*.

How to address the complexity

Turn-taking and yes/no questions are just two examples of dynamics in conversation — both having to do with timing and speed in communication — that should be considered in the classroom. But many other dynamics need to be considered as well: for example, how classmates hear, or don't hear, soft-spoken students and what steps can be taken to address this common situation; how English learners can be positioned as voices of authority in classroom conversations; how social dynamics come into play in an ethnically diverse classroom and what can be done to support everyone in encouraging and respecting participation by students whose communicative practices differ from the dominant classroom culture (this may include students with special needs in an inclusive classroom).

All of the dynamics of conversation combine and intermingle with relatively common participation routines in ways that can make it difficult for students to participate equitably and for teachers to use classroom interactions to make decisions. But how should teachers address these

problems? Some simple fixes may end up being ineffective or even make things worse. For example, asking every student to respond aloud to a yes/no question simultaneously may have the "feel" of equity and fairness, but, as described above, this approach is riddled with problems. There are, however, other solutions to consider.

Teachers can address some of the problematic aspects of communication dynamics in their classrooms by using preventative strategies. For example, teachers who know about the problems with yes/no questions might make "no calling out" a classroom norm. Others make "no hands up" a norm. Many teachers have students write their yes/no responses down on paper or personal whiteboards and then hold

them up once everyone has had a chance to write down an answer. For some common classroom scenarios, such as a teacher asking the whole class a yes/no question, an electronic response system may be the answer, as long as the teacher ensures that all answers are in before revealing them. However, it is important to remember that these technological assists may require students to process and produce more written language but reduce the requirements for them to use oral language, which can work

against students who are more skilled at oral communication.

For more softly spoken students, the teacher's physical positioning in the room can help tremendously: Moving diagonally opposite the speaker so the student needs to project to be heard can work. Or the teacher can let a nearby student revoice what the quieter student has contributed and then follow up by asking the soft-spoken student, "Would you like to add anything to what Jasmine just said you said?" For English learners, rehearsals are key. Giving students time to pair and share with a partner before they are expected to make whole-class contributions can make a big difference. Depending on the purposes of the activity, turn-taking strategies can be explicitly manipulated so that how students are chosen to speak is or is not left up to chance. To better balance participation in small-group discussions, students can hold equal numbers of participation chips, giving up one chip per conversational turn. Group norms such as, "No one speaks a third time until everyone has spoken at least once," can work, too. Reflecting with students on what equity of voice means — and what it can look and sound like in their classroom — is important for all teachers to do.

The range of dynamics at play in classroom conversation can be daunting to contemplate and even more challenging

to act on consistently. As teachers, we want to ensure equity of student voice through several different lenses: gender, ethnicity, socioeconomic status, sexual identity, English language proficiency, individualized education plan status, interest in the topic at hand, preference for direct or indirect questions, perceived introversion or extroversion. The list goes on.

At the same time, we need to be humble about how our own histories, habits, ways of knowing, preferences for interacting, and position influence the way we understand what students are saying — or not saying. It's important for us to bring curiosity to the status quo in our classrooms, as we also endeavor to do something about it. We need to strive to make our classrooms safe places for students to take conversational risks. And, as we do so, we as teachers would do well to acknowledge our expectations of student communication and be willing to engage with students in a manner outside of our normative comfort zone.

As educators, we care about working to make the world a better place, and we strive to do so in ways that do not reproduce large social inequities or put particular students at a disadvantage. Responses to questions, including “delayed” responses, may be correlated to cultural, cognitive, and contextual dynamics instead of students’ understanding of the material. By becoming aware of these dynamics, we can better avoid penalizing students for hesitating, speaking quietly, having an accent, or engaging in other conversational behaviors that might lead us to make incorrect assumptions about their knowledge. Fairness for our students demands that teachers, professional developers, and teacher educators learn about the dynamics of conversation, take their implications seriously, and continuously seek out creative ways to help all our students speak, be heard, learn, and grow. **█**

References

Austin, J.L. (1975). *How to do things with words*. Oxford, UK: Oxford University Press.

Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2003). *Assessment for learning: Putting it into practice*. Berkshire, England: Open University Press.

Cazden, C.B. & Beck, S.W. (2003). Classroom discourse. In A.C. Graesser, M.A. Gernsbacher, & S.R. Goldman (Eds.), *Handbook of discourse processes* (pp. 165-197). Mahwah, NJ: Erlbaum.

De Ruiter, J.P., Mitterer, H., & Enfield, N.J. (2006). Projecting the end of a speaker's turn: A cognitive cornerstone of conversation. *Language*, 82 (3), 515-535.

Duckor, B. & Holmberg, C. (2017). *Mastering formative assessment moves: 7 high-leverage practices to advance student learning*. Alexandria, VA: ASCD.

Enfield, N.J. (2017). *How we talk: The inner workings of conversation*. New York, NY: Basic Books.

Hemphill, L. (1986). *Context and conversation style: A reappraisal of social class differences in speech* (Unpublished doctoral dissertation). Harvard University.

Hudley, A.H.C., & Mallinson, C. (2014). *We do language: English variation in the secondary English classroom*. New York, NY: Teachers College Press.

Jefferson, G. (1989). Preliminary notes on a possible metric which provides for a “standard maximum” silence of approximately one second in conversation. In D. Roger & P. Bull (Eds.), *Conversation: An interdisciplinary perspective*. (pp. 166-196). Philadelphia, PA: Multilingual Matters.

Kawanaka, T. & Stigler, J.W. (1999). Teachers’ use of questions in eighth-grade mathematics classrooms in Germany, Japan, and the United States. *Mathematical Thinking and Learning*, 1 (4), 255-278.

Kochman, T. (1981). *Black and white styles in conflict*. Chicago, IL: University of Chicago Press.

Koshik, I. (2002). A conversation analytic study of yes/no questions which convey reversed polarity assertions. *Journal of Pragmatics*, 34 (12), 1851-1877.

Lee, Y.A. (2008). Yes-no questions in the third-turn position: Pedagogical discourse processes. *Discourse Processes*, 45 (3), 237-262.

Levinson, S.C. & Torreira, F. (2015). Timing in turn-taking and its implications for processing models of language. *Frontiers in Psychology*, 6, 10-26.

Lippi-Green, R. (2012). *English with an accent: Language, ideology and discrimination in the United States*. New York, NY: Routledge.

Riest, C., Jorschick, A.B., & de Ruiter, J.P. (2015). Anticipation in turn-taking: Mechanisms and information sources. *Frontiers in Psychology*, 6, 62-75.

Roberts, F. & Francis, A.L. (2013). Identifying a temporal threshold of tolerance for silent gaps after requests. *The Journal of the Acoustical Society of America*, 133 (6), 471-477.

Rowe, M.B. (1974). Wait time and rewards as instructional variables, their influence on language, logic, and fate control: Part one: Wait time. *Journal of Research in Science Teaching*, 11 (2), 81-94.

Royster, J.J. (1996). When the voice you hear is not your own. *College Composition and Communication*, 47, 29-40.

Shrum, J.L. (1984). Wait-time and student performance level in second language classrooms. *Journal of Classroom Interaction*, 20 (1), 29-35.

Stivers, T. (2010). An overview of the question-response system in American English conversation. *Journal of Pragmatics*, 42 (10), 2772-2781.

Stivers, T., Enfield, N.J., & Levinson, S.C. (2010). Question-response sequences in conversation across ten languages: An introduction. *Journal of Pragmatics*, 42, 2615-2619.

Stivers, T., Enfield, N.J., Brown, P., Englert, C., Hayashi, M., Heinemann, T. . . . & Levinson, S.C. (2009). Universals and cultural variation in turn-taking in conversation. *Proceedings of the National Academy of Sciences*, 106 (26), 10587-10592.