EL EDUCATIONAL LEADERSHIP

1. Read Abstract

Digital Backchannels: Giving Every Student a Voice

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Technology can open up classroom discussions, sparking new levels of student participation and engagement.

Early in my teaching career, I felt that whole-class conversations in my high school courses were fairly effective. A few extroverted or extra-motivated students could be counted on to contribute, and discussions would pass by pleasantly enough. A decent quantity and quality of ideas were shared, and awkward silences were rare.

Eventually, though, I began to realize that only a small percentage of my students were actively participating. A handful of individuals kept the discussions moving, allowing the majority to disengage. As long as the non-contributors did not visibly misbehave, a détente was established. Fortunately, teachers and students today have access to mobile technologies that can disrupt such patterns of limited student participation.

Opening a New Channel

When educators hear the phrase *classroom discussion*, they tend to think of the spoken discourse managed by the teacher. This *frontchannel* discussion, however, usually shares space with *backchannel* communication (Atkinson, 2009)—which has traditionally involved whispers, note passing, and other distracting interactions that educators seek to stamp out.

Now, technology enables teachers to create *digital backchannels*—online interaction spaces that run parallel to spoken remarks. These new communication channels create unique opportunities for participation that can enrich discussions. In the backchannel, students can offer opinions, answer questions, analyze frontchannel content, or share supplementary information. Sometimes, teachers use the backchannel to briefly gather comments on a specific topic; other times, they keep it open longer to permit more free-flowing discussion. Consider four scenarios that show how teachers can combine digital backchannel and frontchannel discussions to engage all students.

Scenario 1. Collaborative Conversations

To start the day's lesson in her 11th grade U.S. history class, Mrs. Florio asks students what they found confusing from the previous night's homework, which was a reading related to the causes of the Civil War. Several students raise their hands. While the teacher addresses these spoken concerns, other students use their mobile devices to ask questions and make comments in a Todaysmeet.com chat room.
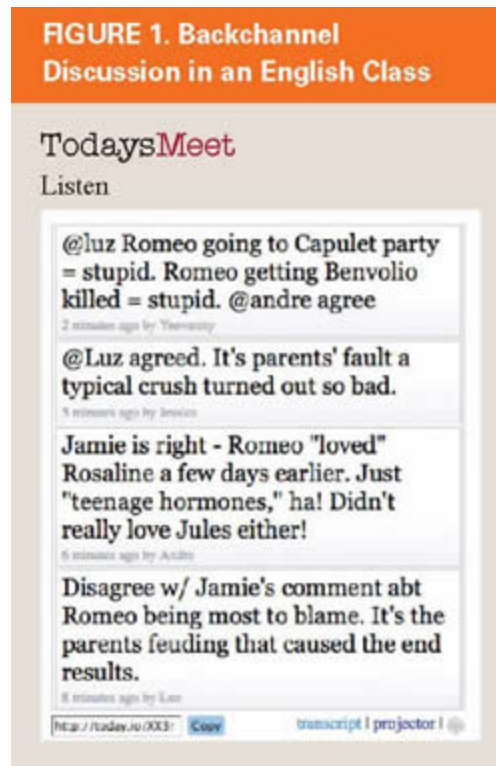
Mrs. Florio encourages students to answer one another's questions in the backchannel when possible. For example, Ray writes, "Wait, who was Dred Scott?" and Omar replies, "Slave who tried to get freedom in court, but Supreme Court said no."

As comments accumulate in the chat room, Mrs. Florio skims the chatter and looks for areas of confusion that run across student posts; she also challenges students to find common themes. It soon becomes clear that several students didn't fully understand the economic differences between North and South described in the homework. The frontchannel discussion turns to a review of those differences.

Scenario 2. Parallel Discussions

In Mr. Hall's 9th grade English class, the students in the inner circle of a fishbowl discussion debate aloud which character is most to blame for the tragedy in William Shakespeare's *Romeo and Juliet*. As students in the outer circle observe the discussion, they summarize, comment on, and add to the conversation using a shared TodaysMeet room (see fig. 1).

Figure 1. Backchannel Discussion in an English Class

FIGURE 1. Backchannel Discussion in an English Class

TodaysMeet
Listen

@luz Romeo going to Capulet party = stupid. Romeo getting Benvolio killed = stupid. @andre agree
2 minutes ago by Yeeventy

@Luz agreed. It's parents' fault a typical crush turned out so bad.
5 minutes ago by Jessica

Jamie is right - Romeo "loved" Rosaline a few days earlier. Just "teenage hormones," ha! Didn't really love Jules either!
6 minutes ago by Andre

Disagree w/ Jamie's comment abt Romeo being most to blame. It's the parents feuding that caused the end results.
8 minutes ago by Luz

Mr. Hall occasionally brings ideas from the backchannel conversation into the inner-circle discussion. For example, when there is a lull in the face-to-face discussion, he says, "I see here in the doc that Kaitlyn thinks that if Friar Laurence hadn't gotten involved, then nothing would have happened. Any thoughts on that?"

This new angle reenergizes the inner-circle discourse as Mona immediately says, "But he had good intentions!" and both the front and backchannel light up with further debate regarding whether intentions matter when assigning blame. Students switch places halfway through the activity to develop their communication skills in both oral and digital discussion.

## Scenario 3. Interactive Notes

In Ms. Wetterauer's 8th grade science class, groups of students are conducting a lab activity to build their understanding of the connection between chemistry and electricity by using citrus fruits to build batteries. As they complete various steps, students pause to tweet their predictions, questions, or pictures of collected data, adding their class-specific hashtag, #wetterauerwonders.

For example, Diego and Sara tweet, "Will size of fruit matter?" Bree and Jalil predict that "some fruits will be better batteries than others." Ms. Wetterauer then displays the aggregated tweets for the whole class to see and leads a class discussion of their content in the frontchannel. She asks Bree and Jalil to consider why different fruits might produce different results. While Bree and Jalil explain aloud the ideas and reasoning that went into their prediction, other students jump in with such additional tweets as, "Different fruits have different chemicals in them?" and "I bet some fruits won't work at all."

Scenario 4. Formative Assessment

Near the end of her advanced placement world history class on responses to the spread of global capitalism, Mrs. Burke asks her students to summarize the day's most important idea in a post using Socrative, a student-response system that enables users to post comments or questions in real time. After her students have submitted their individual summaries, Mrs. Burke shows the class the collected responses and has them vote on which is best (see fig. 2). The students select Steph's summary: *Some people responded by working within the capitalist system to improve working conditions, while others tried to resist capitalism and supported different systems such as Marxism.* Mrs. Burke invites two students who voted for this summary to explain its strengths, and the class closes with a brief frontchannel discussion of similarities and differences in a few of the other summaries.

Figure 2. Which Statement Best Summarizes the Day's Lesson?
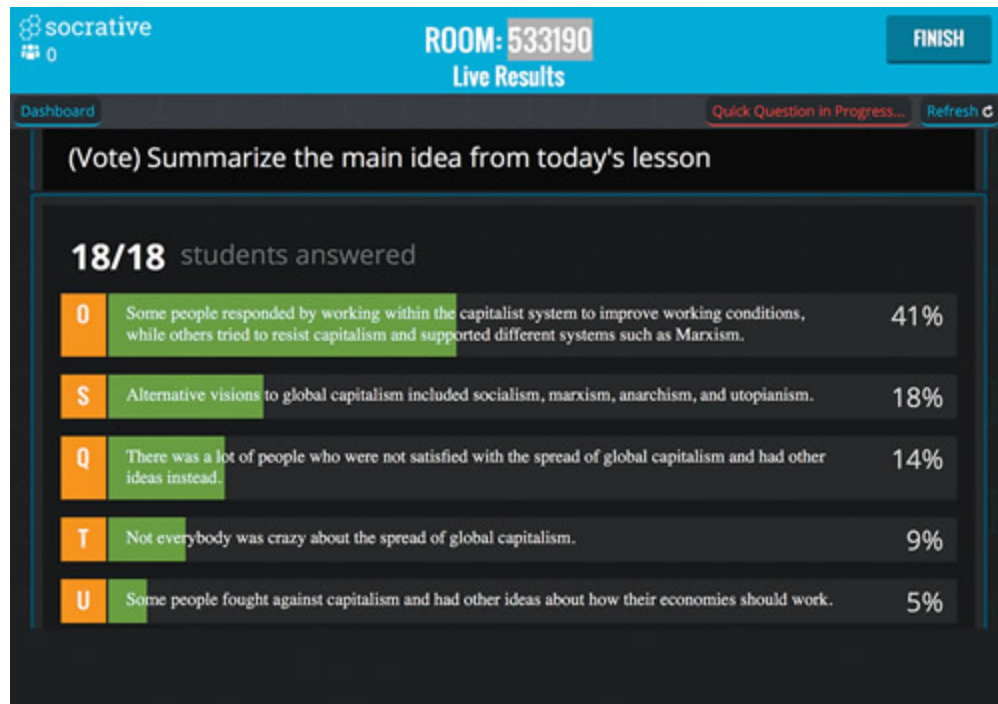
The record of the backchannel discussion helps Mrs. Burke make two decisions about her plan for the next class period. First, Alex's summary revealed that he did not understand that Marxism was in opposition to capitalism. She makes a note to pull him aside briefly at the beginning of class to address this misunderstanding. Second, Mrs. Burke recognizes that few students included the phrase "labor unions" in their summaries; she plans to ask a question related to labor unions in her "do now" activity the following day to expand students' understanding of the relationship of unions to global capitalism.

Backchannel Benefits

When teachers ask "Any questions?" they often encounter silence, even though the questions are lurking out there. Students may hesitate to speak up because they're not sure their comments or questions are relevant. As a result, teachers fail to receive enough timely feedback regarding student comprehension and the pace of their teaching. Backchanneling ramps up the level of teacher-student and student-student interaction. It enables students to ask questions, receive answers, and make comments without having to interrupt the frontchannel.

One study suggests that backchannels can increase student questions and unprompted comments, whereas in frontchannels students are more likely to simply respond to teacher questions (Vu & Fadde, 2013). Because turn taking is not an issue with backchanneling, more ideas and perspectives can be shared (Harry, Gordon, & Schmandt, 2012). Research also suggests that students who participate in digital backchanneling engage more deeply with course content (Elavsky, Mislan, & Elavsky, 2011; Yardi, 2008).

The backchannel can enhance frontchannel discourse as students contribute helpful comments that clarify, expand on, or give examples of ideas that the teacher or their peers express aloud (Atkinson, 2009). Peers can resolve minor questions in the backchannel, increasing the likelihood that only the most important questions are brought forward for frontchannel discussion. Some tools, such as Backchannelchat.com, even allow students to "like" or give a virtual

thumbs up to peers' posts so that the most interesting or important content rises to the top.

Including Everyone's Perspectives

Young people who are shy or who prefer to carefully craft their thoughts may benefit from backchanneling. The positive reception of their ideas in the backchannel may encourage these students to speak up in the frontchannel. Teachers can also bring forward the backchannel contributions of learners who may be uncomfortable sharing.

Digital backchannels can help students who face educational, economic, social, cultural, or other obstacles develop stronger academic identities. In fact, the stars of the backchannel are often not those who excel in traditional classroom discussions (Hunter & Caraway, 2014).

For example, English language learners who feel self-conscious about their speaking skills have the opportunity in the backchannel to more deliberately craft their thoughts (Harry, Gordon, & Schmandt, 2012). Students on the autism spectrum who struggle to negotiate the social cues of traditional classroom discussions may feel more comfortable contributing digitally.

The backchannel can bring the voices of all students into discussions, ensuring that a variety of perspectives are heard and thus supporting the Common Core standard that calls on students to respond thoughtfully to diverse perspectives. Some backchannel tools have public anonymity/private accountability options that make comments anonymous to peers but identifiable for the teacher. Such features may support students who don't feel brave enough to voice unpopular or minority opinions aloud, encouraging them to share their thoughts and challenge the status quo.

Extending the Classroom

The benefits of digital backchannels go beyond class time. When time runs short, students can finish explaining their thoughts on a topic or complete a virtual exit ticket using backchannels that remain accessible after class time.

Most backchannel tools also allow archiving of the conversation. Absent students can review the backchannel archive to catch up on some of what they missed. Teachers can analyze backchannel transcripts after class to look for areas of student confusion or misconceptions, thus obtaining useful formative assessment data that can help them fine-tune their teaching.

Meeting Backchannel Challenges

Like any teaching strategy, backchanneling requires thoughtful use. Research suggests that it's important for teachers to be involved in backchannel activities (Du, Rosson, & Carroll, 2012; Harry, Gordon, & Schmandt, 2012); if teachers simply provide access to a backchannel space but fail to engage with it, miracles will not occur. Additional challenges include the following:

1. *Access.* Some schools may lack adequate hardware for backchanneling. In classrooms where one-to-one computing or bring-your-own-device (BYOD) options are not available for all students, pairs or small groups could coauthor backchannel contributions.
2. *Distractions.* Unless they are implemented well, digital backchannels can distract both students and teachers. Even rich backchannel conversation can cause inattention to the spoken discussion.
3. *Quality issues.* Some degree of irrelevant or unhelpful chatter occurs in digital backchannels, just as it does in spoken discussions.

To address such potential challenges, educators should establish classroom norms and management strategies regarding backchannel use. Rather than allowing unrestricted access to the backchannel, teachers may sometimes want to provide more controlled opportunities to use digital tools. For example, Backchannelchat.com has a simple "lock/unlock" function that lets teachers determine when the backchannel is open for student contributions. Teachers can develop "screens down" or "devices off" hand signals or verbal commands that let students know when they need to refrain from backchanneling.

To help define expectations for backchannel activities, teachers might discuss the difference between helpful and unhelpful comments and provide examples of each; for example, posts that respectfully challenge ideas could be juxtaposed with comments that personally attack the individual who presented the idea. Students can review a backchannel transcript to identify places in which peers substantively built on one another's ideas or asked helpful questions. Also, peers could vote for a digital citizenship award that goes to the classmate who makes the most positive backchannel contributions. For more formal backchannel activities, it may be appropriate to create a backchannel participation rubric.

Why It's Worth It

Negotiating the challenges associated with backchanneling is worth the effort. To teach effectively, educators need to know where their students are in their understanding and what questions they have. The backchannel enhances access to students' thinking.

Today's students, who are accustomed to frequent interaction by way of mobile devices outside school, are unlikely to sit passively in their classroom seats waiting dutifully for a few limited opportunities to participate. Teachers can view the combination of chatty students and ubiquitous communication technology as a distraction in the classroom that they must overcome—or they can harness that same technology to direct students' social instincts toward academic discussion, and thus improve engagement and achievement for all.

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