

HOW K-12 LEARNING CAN CULTIVATE TRUE COLLABORATION



While collaboration is one of the four “Cs” in 21st century learning, students need skilled guidance to learn how to work with others most effectively. Here’s how to get started.

There's a reason even superheroes need to work together in the movies today to conquer the bad guys. Attacking complex problems single-handedly doesn't work anymore. And even smaller projects need multiple minds going at them for success. Yet, while collaboration is certainly a critical need for the 21st century, too often students are simply thrown together into teams to tackle group projects without first being prepared for the challenge.

To understand how schools instill collaboration into classroom practices, THE Journal recently surveyed educators, instructional technologists, school leaders and others in K-12 settings. Nearly everybody (82 percent) acknowledged their schools had room for improvement or were "work in progress" in terms of building a collaborative culture; just eight percent said the culture was "well developed."

Several areas emerged as possible targets for improvement. First is the recognition that collaboration isn't a single skill; it's a combination of strengths that need to be built up over time. Second, educators themselves could use more practice in effective collaboration in order to understand and model appropriate responses for students. Third, while collaboration doesn't require a lot of investment in specialized furniture or technology, it does require some; otherwise, the work is far less productive.

Common Routes to Collaboration

The prep work for collaboration starts with putting "protocols and processes" into place up front as well as developing students' skills in listening, reflection and clarification, explains Dr. Jeremiah Frink, a veteran educator, leader and

education strategist for Dell EMC. As he notes, educators need to be able to address myriad questions: "How do you handle disagreement? How are you going to handle conflict? How do you organize a project? How do you evaluate what pieces go in? How do you synthesize the different information and ideas that are coming together? How do you assess not just the quality of the information or resources or product, but also how well it matches the purpose of the project, the task or problem you're trying to solve?"

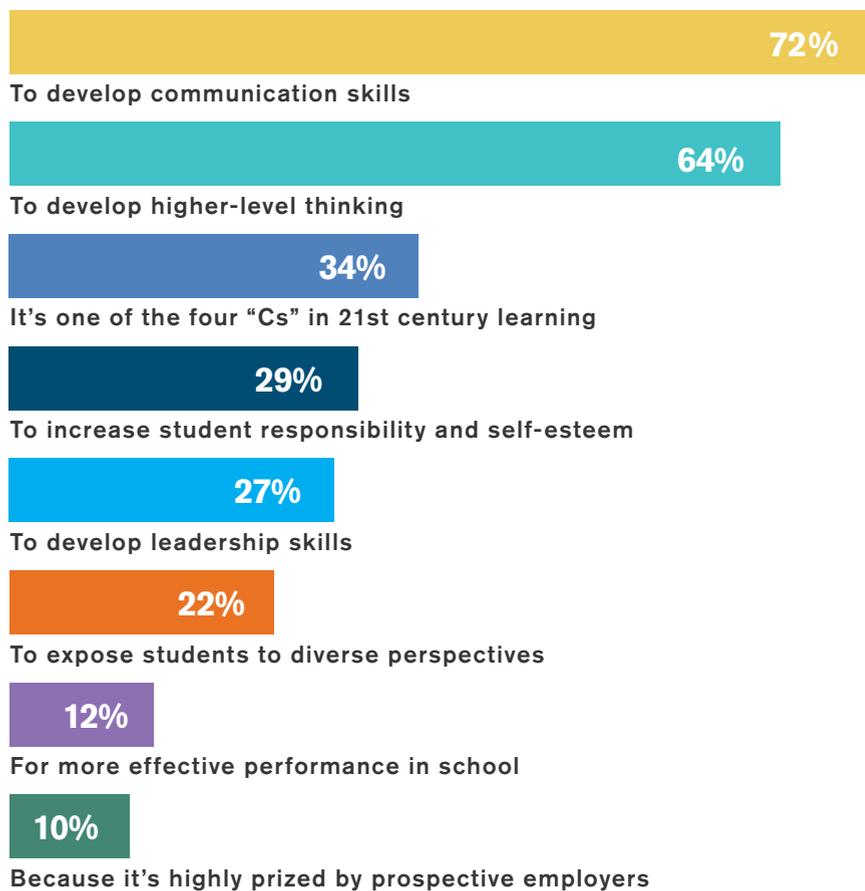
In other words, Frink says, students need to learn how to work with others in a deep and meaningful way. And

they need the right opportunities, space and tools to collaborate.

He offers a simple definition of collaboration: people working together productively or creatively to solve a specific problem. As students learn how to do that, they also develop skills in other vital areas, including communication and higher-level thinking.

In American education today, most collaboration efforts (88 percent) take place among students in the same classrooms. For team efforts among students in different classes, that share drops by half. And just over a quarter of educators seek out opportunities for their learners to work

What are the top reasons for students to develop collaboration skills?



with students in different grades or schools (27 percent) or with members of the community (26 percent). An even smaller number (17 percent) connect students with outside experts, such as scientists or industry mentors.

The “local” nature of most student collaboration reflects the avenues taken by teachers and school leaders as well for their own collaborative activities. Two-thirds of respondents (65 percent) said their primary form of collaboration was the in-school professional learning network; and nearly half prioritized collaborating on lesson development (49 percent) or co-teaching (46 percent). Far fewer go further afield by attending in-person conferences (31 percent), participating in pilot programs (23 percent) or even using social networking (20 percent).

A vital part of mastering full-board collaboration, Frink notes, is to hone skills through “micro tasks” and “smaller projects.” By scaffolding development of those individual strands through different activities, students develop the muscles they’ll need to address the “mammoth task” that really tests their collaborative skills. That can take a long time, he adds. “In a classroom I always figured it wasn’t until January that we were really ready to take on larger projects because I was spending the first half of the year working on those skills.”

Yet, frequently, says Frink, the professional learning on collaboration that educators receive doesn’t model the skills they need to practice to pass onto their students. For one, it’s too compressed. “Often, in professional

The Thing about Roles

When it comes to roles, classic group problems can emerge: one team member doing the bulk of the work, somebody playing a role that doesn’t really lend value to the final product, or a loud person who quashes input from the quieter ones. Moving beyond these kinds of scenarios is part of that scaffolding process, where you help students develop the qualities or “dispositions” of effective team members. Also, you need to be explicit so that students know where they’re expected to focus and each person needs to be engaged in the production and creation of the actual work.

For example, if you lay out criteria expressing the need for every role on the team to contribute something truly productive in development of a solution, you won’t have students whose entire role is group timekeeper. Or, in the case of that overbearing individual, if you’ve embedded opportunities to learn empathy in lessons, you can cue up reminders about those lessons before the collaborative work begins. If these strategies still aren’t sufficient, Frink has a tip: Once details of a project are worked out, have individuals sign forms communicating the level of their agreement selected from a range of options. “That way you can look through the list and come back to the group and say, ‘You know, you have this great idea. Not everyone in your group is comfortable with it.’ Then help facilitate a discussion within the group. Or if it’s later in the year and you’ve worked on facilitation skills, have another student facilitate that.”

development, we see someone standing up front doing [a slideshow] that breaks collaboration into its components, giving teachers a brief moment to think about that in a group—because we know that collaboration is people talking together—and then coming back together to quickly share up on the chart—and, ‘Oh, yes, you get the idea.’”

For another, the training seems to address something that stands apart from whatever else is going on in the classroom. While collaboration may seem like a stand-alone activity that needs to be piled on top of everything else to be done in the day, it’s not, insists Frink. Just as with students, collaboration

with educators is not a single activity. A more effective approach, he offers, would be building collaboration into the activities teachers already do, whether that’s administrative duties or curriculum work. The skill-building needs to encompass protocols and processes of collaboration and should be targeted at specific problems and projects those teachers are undertaking.

And that will require investment and support by school leaders. “We know that a single session of professional learning doesn’t work,” Frink adds. “That means multiple sessions over time, and that does cost money. There are creative ways to go about this, but in the end if you don’t value it, then it’s not going to happen.”

Student Collaboration in Action

Collaboration techniques are as varied as school mascots. In the survey, brainstorming was the top choice, mentioned by 81 percent of respondents, followed by the practice of letting students choose their teammates (70 percent) and running icebreaker or warm-up activities (69 percent).

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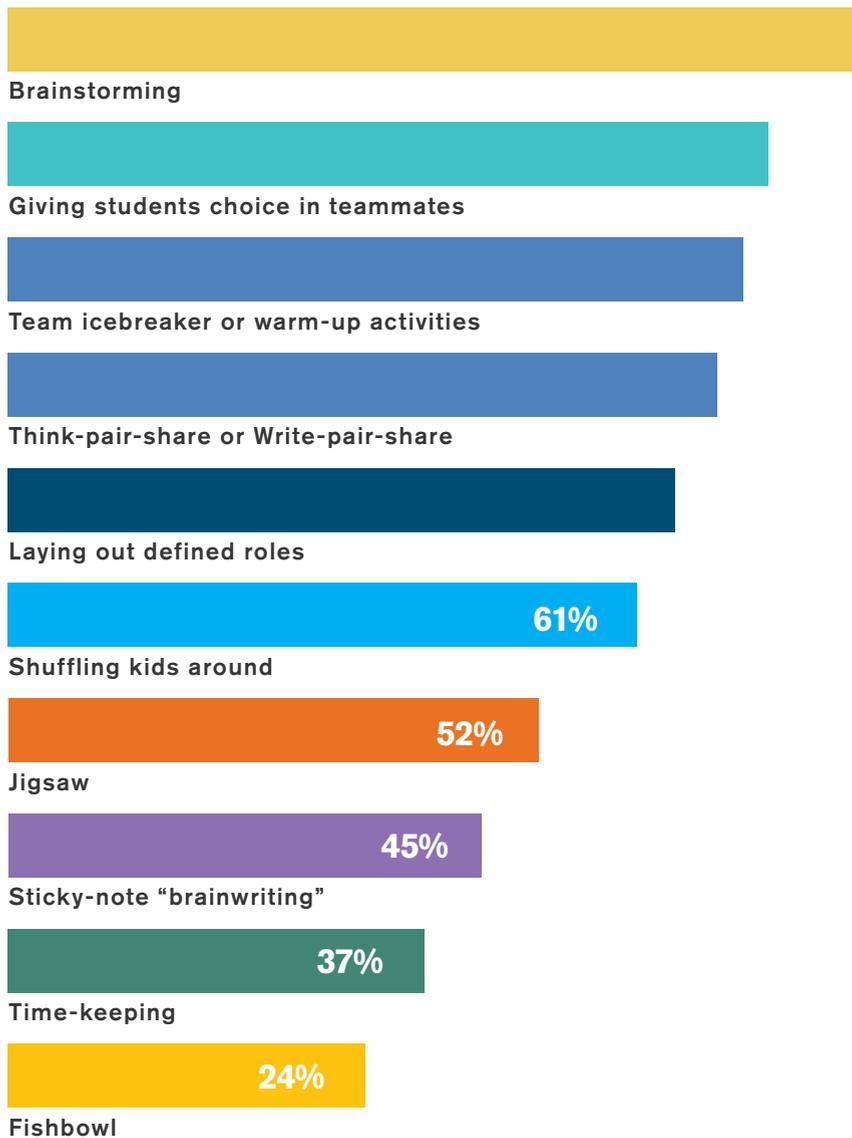
— Dr. Jeremiah Frink

An added dimension of variety encompasses role assignment. Although three-quarters of teachers (74 percent) said they assign team roles, nearly as many (68 percent) sometimes allow students to choose their roles. Four in 10 respondents say they cycle roles from one project to another and three in 10 (31 percent) mix roles among team members during the same project.

Pursuit of student voice and choice is also worth the struggle. Oftentimes Frink will come across situations where the teacher has “manipulated” options to give the appearance of choice while not sticking to the spirit of the idea. “Really, choice is about the students being able to have ownership of the learning process as a whole,” he clarifies. “As you look at the choice aspect, you need to situate the larger question and then either allow students to set a parameter around that or do it yourself.” His advice: “Just be upfront. Just say, ‘OK, we have to hit these aspects, these learning outcomes, but we have choice within that. It’s my job [to make sure] we still hit these pieces. But if you can figure out a way to be creative and address those, go for it.’”

Assessment in collaborative work is another layer of complexity that needs to be addressed. Frink recommends that teachers find ways to expand how they handle assessment of collaboration. “If you use a single measure, it’s not going to work well,” he notes. The survey results suggest that teachers already know this. At least half of respondents cited six different ways they measure collaborative learning among their students. The most popular form is performing observations during group work, mentioned by 93 percent of educators. That was followed by having students reflect on their own work (69 percent), grading each other (53 percent), grading themselves (52 percent), using individual quizzes or assignments (also 52 percent) and

Which of these collaboration techniques do you use with students?



“group grading” (50 percent).

What’s important during assessment is to track two different measures: both individual and group. Frink acknowledges that it’s hard to do. “Teachers will sometimes say that if a project is collaborative, you don’t know who did what.” You can successfully address this if you set up a clear protocol and process with the group that encourages them to document what they’re doing along the way, he observes. After all, as teachers we are

interested in the thinking and learning process that leads to that final project or artifact.

Collaboration Gear

Once the teacher has helped students work to develop the right mindset for collaboration and adjusted learning approaches in the classroom to entrench those skills, it’s time to look at the tools and classroom design aspects of collaboration. Although schools employ wikis, mind

mappers, dedicated software, video conferencing and bulletin boards for collaboration, sometimes you can get lost in all the options that are out there. What's really needed are three components, Frink says.

The first is a way to "externalize thinking" -- whiteboards, interactive displays, and interactive projects -- and provide a means for capturing "this intellectual pursuit" so it can be developed over time and changed easily. Those same tools also "allow the rest of the group to join in, add to and understand what's being said," he explains.

The second, technology -- computing devices and productivity applications such as Microsoft Office 365 and Google G Suite -- is "critical," Frink adds, because it "provides access to a way of working with a wide amount of information that typically ends up being very static and allows people to work on their piece of the project." Those digital tools also come in handy by enabling students to document their own individual contributions, which can later be part of their portfolio, and facilitating the individual pieces coming together to form the final result of the group project.

Frink emphasizes that a 1-to-1 program isn't essential; but ready access to a cart or some number of computers is. "In an environment where there are digital tools available to students to access the resources that are out there, you've changed the flow of information [and] you've

Cool Collaboration Ideas

Respondents to THE Journal's survey offered these cool ideas for promoting collaboration in the classroom:

- "...Involve children in preparing a favorite snack, sharing tasks and taking turns in the process from measuring ingredients, to mixing and baking, to serving and clean up..."
- "The word BUT is not allowed. Only AND can be used during collaboration."
- "I like to use icebreakers so that students can get to know students outside their clique and see that they are interesting people."
- "For book reports, students form groups of four, each with a specific task: biographer, historian, sociologist and team leader. These positions rotate with each new book report."
- "We've had success with robotics. Students collaborate, negotiate, and problem solve to get their robot moving."
- "...I give a photo of a person/place/thing and one student orally begins the story incorporating the photo. Then the next student picks up the story and continues it still relating the story to the photo."
- Using Google Hangouts or Skype, allow students to participate in "Mystery Location" calls.
- "I let students form small groups and choose a topic to research from several on the board. Students then research the topic, work together on a presentation and present the material to the class. The other students take notes on their presentations, and I fashion an open-notes quiz based on student-shared material. I am able to access the listening skills of all my students in this way."

changed the way you can produce and create in a dynamic and foundational way in that classroom."

The third element is a room that can be "reconfigured simply and quickly." A solid three-quarters of educators (78 percent) said they have classrooms with collaborative desk groupings or tables that can be moved around based on activity. About a third of respondents (37 percent) use classrooms with different

zones or areas of interaction or tap collaboration spaces in media centers and libraries.

Frink also offers a reminder: Make sure the physical space accommodates different groupings but also allows for individual focus for when that's needed.

Not Just for Superheroes

While managing the classroom is perhaps the toughest challenge most educators face as they integrate collaborative approaches into learning (mentioned by 52 percent of survey participants), other obstacles also commonly surface: finding time to prepare (42 percent), giving up teacher control (25 percent), getting shy students to participate (also 25 percent) and handling the complexities of different kinds of assessments (21 percent), among others.

Make sure the physical space accommodates different groupings but also allows for individual focus for when that's needed. —Dr. Jeremiah Frink

However, it's the mindset shift that poses the toughest hurdle, Frink asserts. "There's this idea out there that measurement is around standardized assessments, and because of that, collaboration is not something that we can do." As the argument goes, he says, "Collaborative projects take more time and it doesn't allow us to get to the actual content."

When this mindset gets in the way, Frink points out, what happens is that "as we try to do some collaborative activities, we're not building in those skills ahead of time. We're not thoughtfully creating these projects that are going to be engaging and allow for the student voice or choice."

While time is a barrier with everything in school, the secret is to bake the necessary skills into the learning. The improved outcomes will follow. "Think of teachers who have been successful in the classroom doing it well—not the ones who do this chaotic group work, but actually are doing some engaging collaborative work," he proposes. "Now think about the results of their students. You will find that it isn't that those students end up with lower scores. In fact, often those students end up with higher scores because they have been thoughtful about the content, which makes it more meaningful. So even

Digital Tools That Make a Difference

Dell Education Series laptops. Dell Education series laptops provide the ultimate in flexibility and choice for students. With three flexible form factors, durable chassis' that withstands extensive MIL-STD testing and powered by Intel processors, these devices are purpose built for K12 students. Dell Education solutions include Windows or Chrome operating systems and the functionality students need for today's digital world. Learn more about [Dell Chromebooks for Education](#) and [Dell Education Series](#) laptops.

Dell Large Format Displays. Dell classroom and conference room displays are built for collaboration, giving teachers and students various ways to work together with on-screen content. Dell offers a wide variety of models, optional multi-user interaction and flexible mounting options to meet a variety of collaboration needs, usage scenarios, and budgets.

Intel Unite with Dell OptiPlex Micro PC. While we all recognize Intel for its chips that run our computers, what's lesser known is its line of solutions for powering productive and secure collaborations. Intel Unite software, powered by Dell OptiPlex, lets people shift between their own devices and Dell larger format displays to share work from an individual, a team or the entire classroom.

on memory-based multiple-choice assessments, the 'stuff' has stuck with them more."

Collaboration is an important set of skills that need to be nurtured and developed in the classroom. Students need to be taught how to work together in physical and virtual spaces with others because that's what their college and professional careers will demand of them one day. Just ask a superhero.

Notes: Findings are based on a *THE Journal* online survey open

for invitation-only response in spring 2018. After filtering for appropriateness of job roles and completeness of answers, survey results represent 137 respondents. Roles included: teachers (47%), administrators (19%), instructional technologists (12%), Library/Media (8%), IT (6%), special education specialists (3%) and other (5%). Affiliation covered districts (20%), high schools (28%), middle schools (16%), elementary schools (23%), combination schools (11%) and other (1%). Among all respondents, 82% worked for public schools, 14% for privates and parochials, 3% for charters and 1% for other. District size encompassed those with fewer than 2,500 students (27%), 2,500-9,999 students (26%) and 10,000 or more students (47%). Responses may not total 100% due to rounding.

Protocol Resources

Dell's Frink has no particular preference when it comes to what protocols are useful for structuring classroom activities. However, he suggests these sources for freely available online materials that can help you bolster your approaches for building student skills, including those related to collaboration:

- [School Reform Initiative](#), whose protocols are especially relevant in building "resilient" professional learning communities.
- [engageNY Expeditionary Learning](#). Created for EngageNY, this packet of protocols was developed and distributed under a Creative Commons license.
- Education consultancy [EL Education](#) offers a set of actions for achieving collaboration in this protocol
- [National School Reform Faculty](#) offers a rundown on protocols and strategies in alphabetical order. You'll have to create an account, but it's free.

For more information, please visit www.dellemc.com/K12.

