Seven Learning-to-Learn Skills for Adolescents

(Originally titled "Learning to Learn: Tips for Teens and Their Teachers")

"Many teens today don't have effective learning skills – and they need them more than ever," says Ulrich Boser (The Learning Agency) in this article in *Educational Leadership*. Boser and his colleagues have found the following strategies especially helpful to middle and high-school students:

- *Actively retrieve and explain.* Re-reading notes and highlighting textbook material is too passive, says Boser. Much more effective is testing oneself or explaining material so it makes sense to another person. Low-stakes classroom quizzes also help solidify memories and pinpoint problem areas.

- **Focus.** Trying to study while listening to music, watching YouTube, texting, or doing Snapchat and Instagram is inefficient because short-term memory is compromised. Difficult though it may be, teens learn far more when they tune out distractions

- **Check for understanding.** "Adolescents can be naively overconfident about what they actually know," says Boser. Teachers should encourage them to regularly ask themselves whether material makes sense.

- **Find the deep features.** Learning sticks when students dig for concepts, connections, and underlying structure. Comparing and contrasting are good ways to probe these levels.

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IMPORTANT DATES

October 8	Yom Kippur begins at sundown
October 11	All Cape Professional Day
October 14	Columbus Day (No School)
October 22	Early Release- Parent/Teacher Conferences & PD
October 24	Early Release- Parent/Teacher Conferences & PD
October 31	Halloween

IMPORTANT NOTICE:

Central office is a **fragrance-free zone** so please be respectful and plan accordingly when you visit.

Due to one of our members at the CO being highly sensitive to any type of fragrance, we ask that staff visiting/meeting at the Administration building refrain from using any scented products. Fragrances from personal care products, air fresheners, laundry and other cleaning products have been associated with adversely affecting a person's health. We ask that we all work together to make the environment a safe and healthy workplace for everyone.

Thank you very much for your cooperation!

- **Embrace feedback**. Teachers should encourage students to get over their natural hesitation and seek feedback from peers and adults – something that's common in sports.

- **Being aware of feelings.** Teens are subject to emotional and hormonal surges and downswings. Being aware of these and practicing meditation – or simply counting to ten before acting – can make a big difference. It's also helpful if teachers break up intense academic work with short breaks.

- **Reflect.** Adolescent learners should be prompted to ask questions like, *What are my assumptions about what I'm doing? How has my thinking changed because of this experience? What could I do next time* to improve my practice?

"**Learning to Learn:** Tips for Teens and Their Teachers" by Ulrich Boser in *Educational Leadership*, May 2019 (Vol. 76, #8, p. 70-73, 78), available for ASCD members or for purchase at https://bit.ly/2JwWzjp; Boser can be reached at ulrich@the-learning-agency.com.

Carol Ann Tomlinson on What Teenagers Need in School

(Originally titled "Being a Guiding Light Teens Need")

In this article in *Educational Leadership*, Carol Ann Tomlinson (University of Virginia) says that adolescents "are cocky – and terrified. They know everything and, for all practical purposes, nothing. They long to be accorded the privileges of adulthood while yearning (if they are lucky) to crawl back into a parent's lap. They are becoming many things, and the becoming is awkwardly incomplete. They often see themselves as wonderful when adults see them as maddening, and as maddeningly inadequate when adults see them as wonderful."

Drawing on the work of Max van Manen, Tomlinson says teens need adults to do the following for them:

- ✓ **Embrace** – Seek to know them, respecting who they are and may become. "Students who have teachers who see them in this light, are, I believe, far more likely to traverse adolescence – and beyond – successfully," says Tomlinson.

- ✓ **Invite** – Create classrooms where students "feel seen, known, appreciated, challenged, and supported."

- ✓ **Lead** – "A strong leader listens more than speaks," she says, "learns more than tells, has a sharp sense of direction, and communicates that direction clearly."

- ✓ **Trust** – Adolescents should do challenging work and use their developing judgment in significant ways – with support developing the skills, attitudes, and habits of mind they need to be successful.

- ✓ **Embody** – Effective teachers don't just cover their subject. "Rather," says Tomlinson, "they help students see the poetry and drama in their lives, show them the long parade of human triumph and folly, enable them to lend their voices to the human song, and guide them to wonder at the reliability and flux in the natural world."

"**Being a Guiding Light Teens Need**" by Carol Ann Tomlinson in *Educational Leadership*, May 2019 (Vol. 76, #8, p. 88-89), https://bit.ly/2w8aKTs; Tomlinson can be reached at Cat3y@virginia.edu.

Breaking Free of the Five-Paragraph Essay

(Originally titled "Engaging Teen Writers Through Authentic Tasks")

"We have to remember that the purpose of writing is to communicate effectively in the world beyond school," says Los Angeles teacher/author Heather Wolpert-Gawron in this *Educational Leadership* article. "If we're falling asleep as readers, it's possible that our students are falling asleep as writers." Wolpert-Gawron remembers the moment she and her middle-school colleagues realized they were using the wrong approach to writing instruction. Students' essays were proficient, but they lacked spark. That was because teachers had been putting all their energy into teaching the five-

paragraph essay, which sapped any risk-taking. "This kind of over-scaffolding, for many students, might feel like driving a car at Disneyland," she says. "You're moving forward, but you're on a track that doesn't let you steer or teach you to drive."

"The teen brain is a powerhouse of connectivity," Wolpert-Gawron continues. "Behind teens' frequent evasiveness, there is a vast network of neurons constantly firing and creating pathways brighter than Times Square." How could teachers move beyond inauthentic, "greyscale" writing and tap into this potential for engagement?

The first step was to look at the characteristics of real-world writing. A sampling of university marketing brochures, medical reports, and lawyers' opening and closing statements revealed these characteristics: a variety of text structures; different ways of presenting evidence; writing organized around the purpose; varied paragraph lengths; a blend of genres; academic language specific to the content area; and effective use of data and statistics.

Drawing on these models, Wolpert-Gawron's team decided to use two strategies to get students more engaged in their writing:

• *Role-playing* – Students were asked to pretend to be someone else – perhaps an engineer – and produce the kind of writing typical of that profession. In one exercise, students role-played a doctor working with an adolescent who showed signs of learned helplessness. The task was to write a mock medical report for the teen's parents aiming to convince them of the brain's plasticity and debunking the myth of static intelligence. Students had to compose a cover letter and include background information, evidence, and recommendations, and use research and data, argumentative writing, and summarizing skills.

Another simulation: students were asked to imagine they were astronauts who had landed off-course on Mars. Groups of students debated the tools and equipment they would need to survive, collaborate, and search for a beacon. They then produced individual essays describing their plight,

outlining a plan, and persuading fellow astronauts to follow it.

• **Student choice** – Teachers began to give students some options on four dimensions of their writing: the topic; whether or not to use an outline or graphic organizer; resources; and the structure of their product. "At the same time," says Wolpert-Gawron, "it is important to note that we shouldn't give students the run of *every* decision *all* the time. Research has found diminishing returns when students have too many choices."

Since introducing role-playing and increasing student choice, and continuing to plug away at grammar, syntax, and spelling, "the writing that students have submitted has been unique and full of voice" says Wolpert-Gawron. "This approach elicited more creativity, and as a result, a higher *quality* of writing." As the teacher team reads over students' essays, there are comments like, "Who has this awesome student?" "This is so funny!" and "Oh my gosh, listen to this line!"

"Engaging Teen Writers Through Authentic Tasks" by Heather Wolpert-Gawron in *Educational Leadership*, May 2019 (Vol. 76, #8, online only), https://bit.ly/2JAebLF; Wolpert-Gawron can be reached at heather@tweenteacher.com.

Four Ways to Build Student Motivation and Self-Sufficiency

In this article in *Mathematics Teacher*, math educators Anjali Deshpande and Shannon Guglielmo report on four teaching moves that they have found maximize student motivation and foster productive mindsets (i.e., the way students perceive their abilities):

• *Deconstructing productive struggle* – In her New York City high-school classroom, Guglielmo gave students a challenging problem and walked around taking notes on the strategies they used. After five minutes she paused the lesson and told students the strategies she'd noticed and wrote them on an easel sheet: reading the question again, doing a Google search, talking to a classmate, looking at notes and a previous assignment, looking at the word wall, using

a calculator, and asking the teacher. Students could see the wide variety of resources that were available if they were stuck on the problem.

The class got back to work, and this time Guglielmo took notes on students' facial expressions and body language as they continued to wrestle with the problem. After five minutes, she paused the class again and asked, "So, what does it look like, feel like, and sound like to persist in solving a problem?" and charted what she'd seen around the classroom: deep sighs, putting head in hands, thumping arms, shuffling papers, surprised looks at a breakthrough moment. "To name what productive struggle means in the context of a mathematics classroom is to give students concrete examples of what is acceptable, meaningful, and generative in the school space," say Deshpande and Guglielmo. They suggest posting easel sheets like the ones generated in this lesson and referring to them often so students will more readily embrace occasional frustration and keep trying.

• *Silent think time before collaboration* – When a group of students is given a problem and starts discussing it, eager beavers may jump in with a solution, creating a power dynamic about who is smart at math and who isn't. In addition, some students become freeloaders, relieved of having to do any concerted mathematical thinking. "Speed is often mistaken for intelligence and capacity," say Deshpande and Guglielmo; "the fastest finishers are usually considered the smartest by their peers." To counteract this tendency, they tried a partnership protocol for tackling a new math problem:

➢ **Each student reads the problem silently, generates ideas about how to solve it, and jots them down.**
➢ **Students ask if their partner or groupmates need a few more minutes or are ready to work together.**
➢ **When everyone is ready, students share strategies, ask questions, and support each other.**
➢ **When they're finished with the assignment, students ask themselves if they were**

persistent, if their solutions make sense, and if they have any questions.

This protocol prevents a few students from hijacking the problem-solving process and gets everyone working at full capacity, with enough time to think through the problem.

• *Revise-and-resubmit grading* – When students receive a low grade for a test or project, they may take it as an evaluation of their mathematical ability and even of their intelligence, becoming less motivated for future work. Deshpande and Guglielmo experimented with several variations of a revise-and-resubmit policy for students who receive a low grade:

➢ **Students can take an alternative test on the same content and get a new grade.**
➢ **Students can revise their answers on the original test and the initial grade is replaced with a new one.**
➢ **revise their answers on the exam, or take a similar exam, and the new grade is averaged with the initial one.**

Students responded very favorably to revise-and-resubmit. One commented that the teacher "doesn't want to see us fail; she is that type of teacher. She cares, and a lot of people know that."

• *Helping, but not giving too much help* – Some students rely heavily on teachers' hints and rescuing; they need to be weaned from this dependence if they're going to be self-sufficient down the road. "The keys to using this move successfully," say Deshpande and Guglielmo, "are to remain neutral in tone, refrain from sharing direct answers to student questions, and paraphrase students' questions back to them so as to give them a second chance at answering their own questions. End the move by saying, 'I know you can do this; I'm going to walk away now, OK?'" This approach was helpful in getting students to persist and see themselves as mathematically competent. One student said it was like a parent guiding a child learning how to ride a bicycle and letting go at just the right moment: "She's basically doing the same strategy but with math, and that feels comfortable."

All four strategies, conclude Deshpande and Guglielmo, "are about building a risk-tolerant space in which students build confidence and sustain engagement."

"Four Moves to Motivate Students in Problem Solving" by Anjali Deshpande and Shannon Guglielmo in *Mathematics Teacher*, May 2019 (Vol. 112, #7, p. 510-515), available for purchase at https://bit.ly/2HSfjIs; the authors can be reached at EducatorAnjali@gmail.com and sguglielmo@landmarkhs.org.

Jennifer Gonzalez Takes a Critical Look at "Creative" Classroom Work

In this *Cult of Pedagogy* article, Jennifer Gonzalez describes the figurative language mobiles hanging in a language arts classroom. There's one is for Alliteration, with several examples hanging under it, and others for Simile, Metaphor, Personification, and Onomatopoeia. Students spent two full class periods working on the mobiles and they look great, creating a colorful canopy over the classroom.

These lessons were entered in the teacher's plan book as a creative activity about figurative language, meeting curriculum goals for higher-order thinking. Gonzalez is skeptical. Yes, students showed creativity using wire hangers, construction paper, markers, and glue to make the mobiles, but in fact, she says, the mobiles "represent no higher-order thinking at all."

So what is higher-order thinking? Gonzalez believes it's the top three levels of Bloom's revised taxonomy: Analyzing, Evaluating, and Creating. With the unit on figurative language, she says a better approach would be to have students use figurative language in their own personal narratives, poems, or essays. "The writing wouldn't necessarily make the classroom any prettier," says Gonzalez, "but for the rest of their lives, those kids may be more likely to use better metaphors, personification, and alliteration to make their writing more powerful: college essays, professional presentations, even love letters."

Are the lower Bloom levels unworthy of teachers' attention? Of course not, says Gonzalez: learning new information, understanding it, and applying it are all important to a good education. And the lowest levels can include a lot of rigorous mental activity: interpreting, classifying, summarizing, inferring, comparing, and explaining.

"But if our students work *only* at those levels day in and day out," she says, "they aren't becoming good thinkers. Without regular opportunities to pull ideas apart, evaluate texts and situations, and use what they learn to develop new ideas, they aren't going to be able to do much with the information they learn at the lower levels, especially once they're out of school." What's more, if all students are doing in school is memorizing and regurgitating information, they'll be bored.

Gonzalez has noticed two common mistakes teachers make as they try to engage students in higher-order cognition:

• **Mistake #1:** *Thinking a task is about Analysis when it's really about Understanding –* Asked to analyze a painting, some people give a detailed description and say what they believe to be its meaning. This isn't real analysis, says Gonzalez. That would involve:

❖ **Looking at the painting's component parts (colors, materials, technique) and how they contribute to the whole;**
❖ **Differentiating relevant from irrelevant information;**
❖ **Organizing ideas within a particular structure;**
❖ **Recognizing underlying bias, values, and point of view.**

She adds that for an activity to really be at the Analysis level, students need to be doing it with a fresh object – in this case, a painting they hadn't seen before.

• **Mistake #2:** *Thinking a task is at the Creating level because the product is aesthetic –* Posters, dioramas, booklets, videos, digital games, Prezis, and other nifty classroom projects often pass as being at the higher Bloom levels. But Gonzalez says that in many cases, students "are still working at a very low cognitive level, merely reassembling facts

and delivering them in a pretty package." For example, when students build a clay model of a habitat for an animal studied in class, they're just making a three-dimensional representation of facts they've learned.

In a truly creative activity, students organize elements into an original product, structure, or pattern – something that hasn't existed before. For the unit on animal habitats, this might be creating a habitat for another animal with different characteristics. An activity "doesn't really need glue, markers, scissors, or technology to qualify as a 'Create' task," says Gonzalez. "If you remove all the 'creative' trappings and just look at the mental work students are doing, it should still involve creating something new with the content they're learning."

She gives two examples of eighth-grade units, one problematic and one exemplary, on identifying and explaining what's granted by the Bill of Rights and identifying contemporary issues that involve those rights. The first unit:

❖ The teacher gives a lecture with PowerPoint slides listing and explaining all ten amendments that constitute the Bill of Rights.

❖ Students fill in names, definitions, numbers, and examples from the lecture on a worksheet. (These two activities take one class period and are at the Remember level.)

❖ Each student chooses one right and creates a website about it, providing the original text, giving a definition, adding two pictures showing how the right is exercised, and including at least four links to articles showing the right being exercised or violated. (This activity takes 3½ class periods; the teacher believes it's at the Create level because students are making original websites.)

❖ Students take a test in which they: (a) identify the number of each amendment, (b) match them with descriptions of people exercising their rights, and (c) give three examples from their daily lives where they exercise First

Amendment rights, and why each is important to them.

Gonzalez believes this unit never rises above the Understand level. Worse still, it's consumed a lot of instructional time without truly exercising students' analytic or creative muscles. Here's a better unit covering the same curriculum objectives:

❖ Students are given a copy of the Bill of Rights and asked to translate each amendment into contemporary language. (This takes half of a class period and is at the Understanding level.)

❖ Students choose five rights they think are most important and rank in order of importance, then answer a few questions about why they made those choices.

❖ The class discusses whether being younger or older or in a different family situation would change their answers. (These two activities take half of a class period and are at the Evaluate level.)

❖ Students work in groups reading cards with descriptions of various scenarios; they debate which rights are being violated and which amendment offers protection. (This takes one class period and is at the Understand level, classifying the amendments.)

❖ Students are asked to locate five current news stories related to the Bill of Rights, summarize each story, identify which amendment is involved, and discuss how the issue might touch their lives. (This activity takes one class period and is at the Analysis level.)

❖ After reading the short story, "Life Without Rights for the Accused," students write their own stories about what life would be like if citizens didn't have a particular right. (This takes 1-2 class periods and is at the Create level, using knowledge of current rights and how they would apply in a different society with no rights.)

Gonzalez suggests a simple question to focus unit and lesson planning: *What do I want students to be able to do with this knowledge once the lesson is over?* "In other words," she says, "why are they learning this stuff, how do I want them to transfer that learning to real life, and how can I replicate

those uses in a classroom activity?" The two activities at the end of the second lesson – applying knowledge of the Bill of Rights to everyday situations and imagining a world without those rights – are good examples of lessons that meet that big-picture goal.

"Is That Higher-Order Task Really Higher Order?" by Jennifer Gonzalez in *The Cult of Pedagogy*, May 12, 2019, https://www.cultofpedagogy.com/higher-order/

A Different Approach to Teaching Grammar and Conventions

"It's no secret that struggling and reluctant readers tend to also be struggling and reluctant writers," says former high-school English teacher Brandie Bohney (Bowling Green State University) in this *English Journal* article. She shares several insights that helped her figure out a more effective way to teach grammar and conventions to ninth graders who hadn't had much success with reading and writing up to that point:

➢ Bohney's nine-year-old daughter, a voracious reader, started using semicolons in her writing without being taught, simply by noticing how they were used in books.

➢ With high-school students who haven't been voracious readers, it's impossible to give them the wide reading experience necessary to intuit conventions like semicolons.

➢ Researchers have established that teaching grammar and conventions deductively and in isolation – memorizing and practicing rules – is ineffective.

➢ People pick up the rules of language inductively and instinctively, and the best way to use them correctly is by practicing communicating, with feedback.

"What I needed, I decided," says Bohney, "was to design activities that would concentrate on the conventions my students most needed to improve their writing (or meet the standards of our district) in a way that would push them to discover for themselves how the conventions work without

requiring years of intense reading to develop those understandings." Drawing on the work of Constance Weaver and Andrea Lunsford, Bohney implemented this plan with her ninth-graders:

➢ She decided on a particular convention or grammar rule based on what students were struggling with in their writing and state curriculum requirements.

➢ In one class, she used a passage from a Ray Bradbury short story that demonstrated the correct use of quotation marks.

➢ Students (working individually or in small groups) read the text and analyzed how Bradbury made clear to readers who was speaking.

➢ Bohney and her assistant circulated, clarifying the instructions and keeping students on task (including those who hadn't done their homework).

➢ With the whole class, Bohney elicited students' insights on what Bradbury did with quotation marks, attributions, and new paragraphs. She pointed out parts of the text where these "rules" were used.

➢ Students worked in groups of three to clarify the rules and then generate a dialogue between two imaginary characters (perhaps two dogs discussing what the moon was made of), passing a sheet of paper from student to student, each adding a new line of dialogue and punctuating it correctly.

➢ Bohney and her assistant circulated, keeping students on task and not telling students if they were correct; their go-to line was, "What does the evidence tell you?"

➢ Students looked over their finished dialogues and exchanged them with another group, each looking for fidelity to the rules of dialogue.

➢ Bohney convened the whole class and called on students to share their rules until they had a complete set on the screen.

➢ Finally, she asked for volunteers to read their group's dialogue. These were often funny, and sharing them with the whole class made the activity even more effective.

How did this work out? Bohney found the activity took a full 90-minute class period, sometimes spilling over. This meant she had to choose her sample passages (or lists of exemplar sentences) carefully and focus only on a few high-priority grammar/convention examples for the semester.

The results were impressive. By going through this process with a handful of carefully chosen conventions, students' writing improved and they became more critical and thoughtful writers, asking questions like, "Does this make sense the way I've written it?" and "Would this make more sense with a semicolon?"

"Thinking Inductively About Conventions: Activities for Teaching Grammar in Context" by Brandie Bohney in *English Journal*, May 2019 (Vol. 108, #5, p. 61-67), e-link for NCTE members; Bohney can be reached at bbohney@bgsu.edu.

Leading High-Quality Class Discussions

In this *Chronicle of Higher Education* "advice guide," Jay Howard (Butler University) remembers all the times he couldn't get a class discussion going: good questions were met with silence, or only a few eager beavers took part with the rest of the class watching passively, or the discussion fizzled out. "Why the blank faces?" Howard wondered. "Did the students fail to read the assignment? Was it the early hour? Perhaps you were the problem. Did you make interesting material seem dull? Did you misjudge what they would find engaging?" These could be the reasons, or it could be a lack of good planning and pedagogy. Here are Howard's observations and suggestions:

- *Why discussion matters –* Opening up a class for discussion has risks for the instructor (*What if students wander off the topic or don't get it? What if someone says something offensive?*) and also for students (*What if I say something that makes me look stupid? What if people look daggers at me because I'm talking too much?*). These worries notwithstanding, says Howard, discussions are a valuable part of good teaching. That's because they increase student engagement with the material, their classmates, and the instructor. Simply put, mental sweat increases learning; the best scenario is where students are co-creating knowledge and understanding.

There's also the "curse of knowledge," says Howard. "Sometimes as novice learners, students are better able than the instructor to clear up confusion and identify next steps in logic or problem-solving. Because of your expertise, you might view those steps as so obvious that you don't think about them anymore; they go without saying to you. Students have an easier time seeing the steps that an expert takes for granted and, as a result, can clarify them for one another. Your role is to guide them in the endeavor."

- *Norms that prevent good discussions -* In most secondary-school and college classrooms, there's the unspoken norm of "civil attention" – students look at the instructor, nod their heads, take notes, and chuckle at attempts at humor. "Students who are paying civil attention aren't necessarily listening," says Howard. "They may, in fact, be daydreaming or deciding on their lunch plans. They may be writing a paper for another course when they appear to be taking notes. But by paying civil attention, students perceive that they have met their obligation to the course and to you, the instructor. Engage in discussion? They see that as optional."

A second unspoken norm is that a few students will volunteer to take part in discussions, and they'll be responsible for 75 to 95 percent of the interaction with the instructor while the remaining students watch passively. "It's easy to be deceived into thinking that you helped facilitate a great discussion," says Howard, "when, in reality, you had a great discussion with five students, while the majority were spectators."

The good news, he says, is that these age-old norms can be changed. Here are his suggestions:

- *Ask better questions.* One of the worst questions is, "Are there any questions?" Almost as ineffective are questions that can be answered with a Yes or No or where the instructor is fishing for a single correct answer (*When did President Lincoln's*

Emancipation Proclamation take effect?). Howard suggests four ways to ask questions that spark good discussions:

- *Ask questions that inspire a range of answers, for example, Why did Lincoln issue the Emancipation Proclamation in the fall of 1862 but make it effective in the fall of 1863?*
- *Have students apply a variety of theories or perspectives, for example, Which of the five theories of why people commit crimes explains the Bernie Madoff Ponzi scheme?*
- *After illustrating a topic or concept, ask students to provide their own example, for instance, Give me a different illustration of someone learning new behaviors by observing or imitating others.*
- *Ask about the process, not the content. For example, here's a new differential equation.*

What is a good first step in solving this equation? Where do we begin?

In each case, students are challenged to think beyond literal answers and do some intellectual heavy lifting.

• *Set the stage on Day One.* A typical first day is instructor-dominated, dealing with logistics and going over the syllabus. This, says Howard, creates an expectation that civil attention will be the norm going forward. Better to devote a good portion of the first class to a lively, interactive discussion.

• *Use a syllabus quiz up front.* Howard suggests creating 10-20 multiple-choice questions on key elements of the class syllabus and on Day One, dividing the class into groups, and having each group discuss the questions. Groups then report out what they believe are the correct answers, and you provide clarification if necessary. This has the added benefit of helping students get to know several of their classmates.

• *Have a discussion about discussion.* Some students may see your expectation that they participate in class discussions as an attempt to "catch" them unprepared and embarrass them in front of classmates. Shy students and second language speakers may become anxious. "These perspectives, left unattended, can fester and lead to an unnecessarily hostile relationship," says Howard. He suggests having an explicit discussion about why verbal class participation is important. This might include students' experiences in other classes, why they think participation is an important part of their grades in this class, and the research on participation as a key factor in learning. This is also the time to formulate discussion norms, including civility (*It's okay to challenge and refute ideas or positions, but not acceptable to attack someone personally or engage in name-calling*), and to discuss the difference between unsubstantiated opinions and reasoned, supported arguments.

• *Don't give up on discussion in a large class.* One idea is randomly assigning students into teams, giving each team a name, and having them sit together for the entire semester. "At multiple points during class," says Howard, "pose a question for team discussion. To ensure that the teams stay on topic, wander the room and eavesdrop on the debates. After a few minutes, randomly call on a few teams to offer their responses."

• *Think/pair/share.* Regularly pose a question, have students spend a minute writing responses, pair up and share, then ask, "Whose partner had a brilliant insight? Whose partner really hit the nail on the head and summarized an important point? Call out your brilliant partner and let's make them speak up." This is particularly helpful for shy students, since they've had a chance to rehearse their thoughts in the pair discussion and aren't volunteering.

• *Consider taking the conversation online.* An online forum can continue or extend in-class discussions, and important insights and contributions can serve as starting points for the next day's class. The downside is that many students limit their posts

to "Good point" and "I agree."

• *Address overparticipation*. "Dominant talkers are typically more extroverted and willing to process material aloud," says Howard. "They may wander around a topic, figuring out what they think as they speak. More-introverted students need to gather their thoughts before sharing them in class." Students who speak less in class often have a love/hate relationship with those who talk a lot. On the one hand, there's resentment at a few people hogging the stage, sometimes sharing too much personal information. On the other hand, students who aren't prepared or don't like to talk in class can sit back and let the eager students do the heavy lifting. Nonparticipating students often turn and look at the big talkers, nonverbally signaling that it's okay for them to speak on behalf of the class. The more a discussion revolves around a few dominant students, the less likely the instructor is to "cold call" others.

How can instructors deal with this dynamic and allow reticent students time to process and get more actively involved? Howard's suggestions:

- *Have all students write silently about a discussion question, turn to share ideas with a neighbor, and then take part in an all-class discussion.*
- *Explicitly invite nonparticipating students to join in: "Let's hear from someone who hasn't spoken up yet" or "Now I want to know what those of you at the back are thinking." This signals to the dominant talkers that it's time to let others join in.*
- *Give all students three poker chips as they enter the classroom; each time they speak, they put their chip into a basket, and they can't speak after they've used the third. Also, all students must "spend" their chips by the end of the class.*
- *Use an object like a Nerf ball; only the student who has the object can speak, and when finished, that student decides who will speak next and passes the object.*
- *Use quizzes to check on pre-work and launch discussions.* Howard suggests several approaches to have short tests do double duty:

⬧ *In the opening minutes of class, have all students write responses to a question that draws on the reading they've done. Then randomly call on a student to read or talk through their response.*

⬧ *Give students a question ahead of time and ask them to come to class prepared to share their answer, then random-call on one or two students.*

⬧ *Ask students to complete a brief online quiz an hour or two before class (multiple-choice and short-answer questions) and start class by highlighting (anonymously) an exemplary response ("What makes this a particularly good answer?") or one that contains a common misunderstanding or error in logic ("Where and how did this response get off track? How could the writer have made it better?").*

• *Frame discussion questions up front.* Howard suggests handing out questions before students read an assigned text, helping them focus on key points, concepts, and controversies as they read. These questions will boost the quality of subsequent discussions if they are:

- Relevant to students' lives;
- Analytic in scope, pushing students to read between the lines and make connections;
- Focused on the big points of the text.

During discussions, simple strategies are often most effective, says Howard, for example: having students repeat a key idea out loud, pointing out a particularly effective response – "That's it! Did everyone hear what Omar just said?" – and summarizing before moving on.

• *Ask about the "muddiest" point.* In the closing minutes of class, have all students write about the topic or idea they felt was the least clear that day. Those can be highlighted and clarified at the beginning of the next class. An alternative is to ask students to jot down the most important points from the class – their biggest takeaways.

• *Encourage participation by students who may not be speaking up.* In some classrooms, female students, English language learners, and students of color may not be getting enough air time. Howard

has these suggestions:

- **Provide discussion questions before class; this is particularly helpful for English learners.**
- **Orchestrate small-group or paired discussions, which get all students speaking, and are usually more comfortable for students who might feel marginalized or less confident about their English skills.**
- **Recognize that some students may not have had the same outside-of-school experiences as others, and be careful making references or allusions that assume privileged experiences and may trigger the "imposter syndrome" – the feeling that they don't belong in the class or school.**
- **Don't call on a student to represent their gender, race, or ethnicity.**

• *Decide whether to grade students on class participation.* The pro argument is that students who sit passively in class aren't learning as much, and grading participation creates an incentive for silent students to speak up, even if it's uncomfortable. The con arguments are: *(a)* it's very difficult to keep track of who's speaking and how much; *(b)* it's even harder to evaluate the quality of student comments; *(c)* that means grading participation will be subjective and possibly inaccurate and unfair; *(d)* introverted students may be under severe stress if they are pressured to participate; and *(e)* it's unfair that extroverted students are rewarded for being extroverted.

Howard seems persuaded by the con arguments and advocates maximizing small-group and pair turn-and-talks, which are less stressful for shy students and get many more students actively participating. He also suggests having students self-assess on their participation at the end of each class or at intervals during the school year. This relieves the instructor of the challenging task of keeping track of participation, and also gets students reflecting on their own contributions.

• *Decide how to deal with incorrect, unsupported, misguided, and offensive remarks.* Publicly calling attention to off-base comments can put a damper on student participation, but instructors don't want to let offensive comments go unchallenged or have students remember false or misleading information. Howard suggests:

- Affirm, then correct – for example, "You got the first step correct but then ran into a common misunderstanding" or "Okay, that's one strategy. But it's not as effective as others. What's another approach?"
- Invite a rejoinder – for example, "That does a good summarizing the liberal viewpoint, but let's play devil's advocate for a minute. If you wanted to rebut that position, what evidence would you present?" or, "Josh, assume for a moment that you believed the opposite. How would you challenge the argument you just made?"
- Deal respectfully with off-topic comments – for example, "You've lost me there. Sorry if I'm slow on the pickup today. Explain the connection for me" or "We're not on that subject yet. It's easy to get off track here. Who can help us out and redirect us to finish what we were discussing?"

• *Deal wisely with controversial topics.* Howard says these can add depth and relevance to the curriculum, but they can also cause problems. He suggests:

- Up front, establish ground rules on civility and arguing with relevant evidence, and guide students to depersonalize difficult topics and disagree agreeably.
- Relevance is the key criterion: does the topic serve curriculum goals?
- Instructors shouldn't abuse their power by imposing their point of view, but a school may allow them to chime in after a pro-and-con discussion by students.
- The tactic mentioned above can also be effective: "Imagine you are an advocate for the other view. How would you challenge your initial position? Where are the weaknesses in your argument?"

"How to Hold a Better Class Discussion" by Jay Howard in *The Chronicle of Higher Education*, May 26, 2019, https://www.chronicle.com/interactives/20190523-ClassDiscussion; Howard can be reached at jrhoward@butler.edu.