

Teaching important lessons beyond curriculum

BY TALYA EDLUND
SPECIAL TO BDN

I recently visited Texas Instruments in South Portland with a group of teachers. Our purpose was to gain an understanding of the skills employers seek when hiring today's high school and college graduates. Touring the semiconductor plant, we learned that engineers work in teams to create improved templates for technology and to solve efficiency problems.



Edlund

One of the head chemical engineers told our group that a stand-out on resumes is the amount of lab time an applicant has under her belt. She explained that lab time indicates an applicant has likely developed skills beyond those that are measured by papers or exams. In short, they are looking for applicants with 21st-century skills.

What is 21st-century learning?

This type of learning is a framework for teaching that is often referred to as the four C's: critical thinking, creativity, communication and collabora-

tion. Using these skills can connect curriculum to experience, as well as encourage students to take greater ownership of their learning.

There is an increasing body of evidence in educational research showing that students who develop 21st-century skills are better able to apply content learning to real-life situations. Ultimately, this leads to deeper engagement and understanding of taught material. Moreover, practicing 21st-century skills helps build the resilience, accountability and ingenuity that will carry today's students into careers of the future.

21st-century learning in an elementary classroom

Keeping a focus on 21st-century skills has caused me to elevate my instruction to include more rigorous questions, more time for trial and error and more time for reflection.

My students now have richer conversations about literature and are able to synthesize information from expository texts.

In math, students explain their problem-solving approaches, and they have more opportunities to reason and wonder. Within a 21st-century learning framework, the content has not changed, but the level of engagement and rigor has skyrocketed.

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Overcoming challenges together

Twenty-first-century learning can certainly happen without modern technology. I recently observed a fourth-grade classroom that was bursting with the four C's, and yet there was not a computer in sight. On the day of my visit, students were working in research groups to study weather topics. Teams of students dispersed throughout the room, organizing materials, determining goals for the day and poring over their notes.

The teacher breezed among the groups to offer support, and she noticed that the students in the hurricane group sat silently, thumbing through their various books. She briskly gathered the four kids around her and asked them to articulate their research plan. However, not a single student spoke up. Rather than taking the easy route and assigning each child a task, she asked them, "What are you going to do about that?"

At that moment, her teaching

was as much about close reading of nonfiction texts as it was about successful collaboration and communication. After just a few minutes, the students arrived at a purposeful plan and were productively engaged in their learning.

In my own third-grade classroom, we have been studying circuits and simple motors. In a recent session, I gave students wires, batteries, tape and a paintbrush. I then directed them to assemble a painting machine. When one group successfully completed the task, the three kids decided to split up to help the others.

Just before lunch, we gathered on the rug to debrief our successes and challenges. Each child agreed that they had experienced moments of frustration during the task. However, they also expressed that overcoming the challenges gave them a greater sense of accomplishment.

A third application of 21st-century learning that does involve technology is an activity

called Mystery Skype. This is an educational game in which two classrooms use the video conference program to call one another without saying what city and state they are in. The goal is for the students to ask a series of "yes or no" questions that help them determine the other class' location.

For example, students might ask, "Is your state landlocked?" or "Does the Mississippi River run through your state?" Students use iPads, laptops and atlases to research the results and to guide their ensuing questions. An activity like this gives students an authentic purpose to use the four C's. It also broadens their perspectives by extending the learning experience beyond the classroom walls.

Since visiting Texas Instruments, I have wondered if the collaboration and problem-solving in my classroom in any way reflects the kind of work that happens in their offices and labs. Whatever the future holds for my students, I believe they are developing a reserve of skills that empower them to be courageous, to learn from failures and to embrace creativity. I can hardly wait to see what they will do.

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It's State of the Union time. You know what awaits.

BY ANN MCFEATERS
TRIBUNE NEWS SERVICE

Resign yourselves. It's time for POTUS to give the SOTU address. I know. It seems as though it just happened yesterday. But it has been a year.

This is the constitutionally mandated occasion when the president assesses the condition of the nation for us.

It is sort of like the Oscars: You feel guilty because you don't really care (you haven't watched most, if any, of the movies); you know it is a big deal (but it is SO LONG); you know exactly what the formula is; you feel as though you must watch because something might happen. (Once, Supreme Court Justice Samuel Alito actually mouthed "not true" when President Barack Obama criticized the court's controversial campaign finance decision that opened the door to tons more money in political campaigns.) Obama will be making his last official

SOTU speech Tuesday and you just know he is going to proclaim, "My fellow Americans. The state of the union is strong." What else can he say? "Things are not great; Donald Trump is a menace; Hillary Clinton will probably hang my portrait in the basement; I have no idea how I am going to get through the next 12 months; I have decided to spend the rest of my presidency in Hawaii." No way.

The real news, so far, is that South Carolina Gov. Nikki Haley was picked to rebut the president. The rebuttal (aka the GOP kick-in-the-shins response to the president) is a relatively new idea, born of cable TV and the idea that it is un-American to listen to the president of the United States without hearing his political opponents deride him for half an hour.

Bobby Jindal, Louisiana's governor, gave the rebuttal in 2009 but was widely panned for a sing-song style and sophomoric ideas. But he couldn't let it go. Last year Jindal tweeted before

Obama spoke, writing, "I'll save you 45 mins. Obama will decry Republicans, beat up on private business and argue for more 'free stuff.' Your welcome." Bad grammar. Bad idea. Jindal ran for president in 2015 but got no traction and pulled out: "Not my time."

Marco Rubio's rebuttal was late-night-comics fodder for ages after he sidled left to take a drink of water, all but disappearing from the TV screen. He is battling tooth and nail for third place in Iowa and New Hampshire, trying to tamp down ridicule from other candidates about his high-heeled boots.

So there's a curse in responding to a SOTU. But Nikki Haley! In case you haven't heard, she is going to be the GOP vice presidential candidate. Whoever the GOP presidential candidate is. Cable news has decreed it because, one, she's an attractive female; and two, she impressed everyone with her handling of the aftermath of the Charleston church shootings and her decision to re-



REUTERS FILE

President Barack Obama delivers his State of the Union address to a joint session of Congress, as Vice President Joe Biden (left) applauds and House Speaker John Boehner listens on Capitol Hill in Washington in January 2015.

move the Confederate battle flag from statehouse grounds. Honest! A Republican did that!

We have to watch Obama's address to see who from the Cabinet is not there. That's in case a meteor falls on the Capitol; the administration must have someone to carry on.

We'll see Vice President

Joe Biden applaud like crazy at Obama's finely crafted oratory and Democrats pop up like robots to signal their excitement, while House Speaker Paul Ryan makes disdainful grimaces and Republicans sit on their hands.

This year Obama will tout job growth, the expanding economy, shrink-

ing deficits, bustling industry and booming energy production. Again.

He will plead, again, for effective gun control, combating climate change, restoring the middle class, closing Guantanamo, destroying the Islamic State, bringing civility to politics, paid sick leave and maternity leave, free community college, improving health care and job training for veterans, trade pacts to sell more U.S. goods abroad, more research and development, an overhauled tax code, stronger diplomacy, a renewed commitment to justice and an end to overt racism, and fixing the broken immigration system. He will ask God to bless this great country we love.

It will be a good, if lengthy, speech. But Obama will step down from the podium as a lame duck, and the endless presidential primary games instantly will begin again.

Don't forget the popcorn.

Ann McFeatters is a columnist for Tribune News Service.

Ammon Bundy (left) arrives to address the media at the Malheur National Wildlife Refuge near Burns, Oregon, earlier this week. Last Saturday's takeover of the refuge marked the latest protest over federal management of public land in the West, long seen by conservatives in the region as an intrusion on individual rights.



JIM URQUHART | REUTERS

Politics

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courts. Watch for an elderly widow selling off her late husband's firearms getting arrested by ATF. Think it can't happen? Ask the kids who have lemonade stands shut down or the presently incarcerated ranchers-cum-terrorists.

Meanwhile, some of the pre-emptive objections of Republicans this past week were overdone. Obama's proposals, it turns out, are fairly milquetoast. Some even have real merit, such as increasing access to mental health services and ensuring state-level criminal convictions are added to the background check database. These are some policies those of us supportive of

firearms rights have been calling for — credit the president for following suit.

And that is really the point. The Oregon protesters and Black Lives Matter folks have more in common than one would think, despite the heated rhetoric. Obama has adopted some of the policy prescriptions put forth by Republicans; in those cases, it should be acknowledged. Contrary to

popular belief, there are things we can agree on. Let's put the charges of "terrorism" and "treason" aside. If we don't, we're going to be _____.

Michael Cianchette is former chief counsel to Gov. Paul LePage, a Navy reservist who served in Afghanistan and in-house counsel to a number of businesses in southern Maine.

Caribou

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neglect and slow atrophy. When I think of a place called Caribou, I don't want it to be a sad declining patch of weeds near an old

sign. Caribou is more than just a name on a map or a bunch of mill rates. The more I consider a place called Lyndon, the more I see it as an insult to generations of people, like my parents, who worked to build this place called Caribou.

This is why my mother is

upset, she knows that the hard work and sacrifices where folks "made do" and "called it good" would be wasted if Caribou fails.

In the end, I have no loyalty to a place called Lyndon and have no wish to become part of it, either, by voting to destroy the community I was

born in or by allowing Lyndon to exist by my silence.

So, what would I do if I woke up in a place called Lyndon? I think I would move home to Caribou and make do.

John Albert-Murchison is a resident of Caribou.

Waste

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cery stores and retail outlets went unsold, according to a 2014 study by the USDA Economic Research Service. An industry group, the Food Waste Reduction Alliance, estimates about 40 percent of unsold food in grocery stores ends up at food banks, a major source of donations.

"Tax incentives are a benefit, but they're not the root cause for why retailers donate," David Fikes, vice president of community affairs and communications at the Food Marketing Institute, said. "Food retailers donate because it's in their DNA to feed hungry people in their communities."

Hannaford, for instance, has completely eliminated food waste from 40 of its 60 stores in Maine, according to the grocery chain's spokesman Eric Blom. Hannaford says it diverts about 80 percent of all waste, including food and packaging, from landfills across all its Maine stores.

"We are enormously committed to reducing food waste," Blom said. "Our sustainability team and individual stores work really hard every day to reduce or eliminate food waste."

Blom said Hannaford's 188 stores across the five states in which it operates diverted 18 million pounds of food that would have gone to waste to feed hungry families last year, with 10.5 million pounds coming from Maine stores. If the food isn't fit for donation, Blom said, the chain works with composters, farmers

and waste-to-energy plants to find a use for the remaining food.

The biggest hurdle to donating food for retailers isn't whether they can get a tax credit or the size of the credit but limited resources to transport the food to food banks and limited storage at food banks.

"With perishable items such as fresh fruits and vegetables, time is of the essence, so having immediate pick-up and adequate safe storage is a critical concern," Fikes said. "Food has to be safe."

Pingree's bill would provide financial assistance to farmers and retailers to build facilities to store food destined for use by food banks, which would help grocers create the infrastructure needed to divert more food to feed the hungry.

Her bill doesn't address another major source of wasted food: food manufacturers have recalled because of unlabeled allergens. Nearly half of all recalls are for products containing unlabeled allergens, according to the U.S. Food and Drug Administration. Such recalls represent a huge barrier to reducing waste and growing food donations, Fikes said.

"An efficient protocol enabling more products recalled due to allergen mislabeling to be mended — designated as containing the said allergen — and made eligible for donation to food banks would mean these products could serve the higher purpose of feeding people," Fikes said. "If we can 'fix' recalled foods, it would enable more food to be donated."