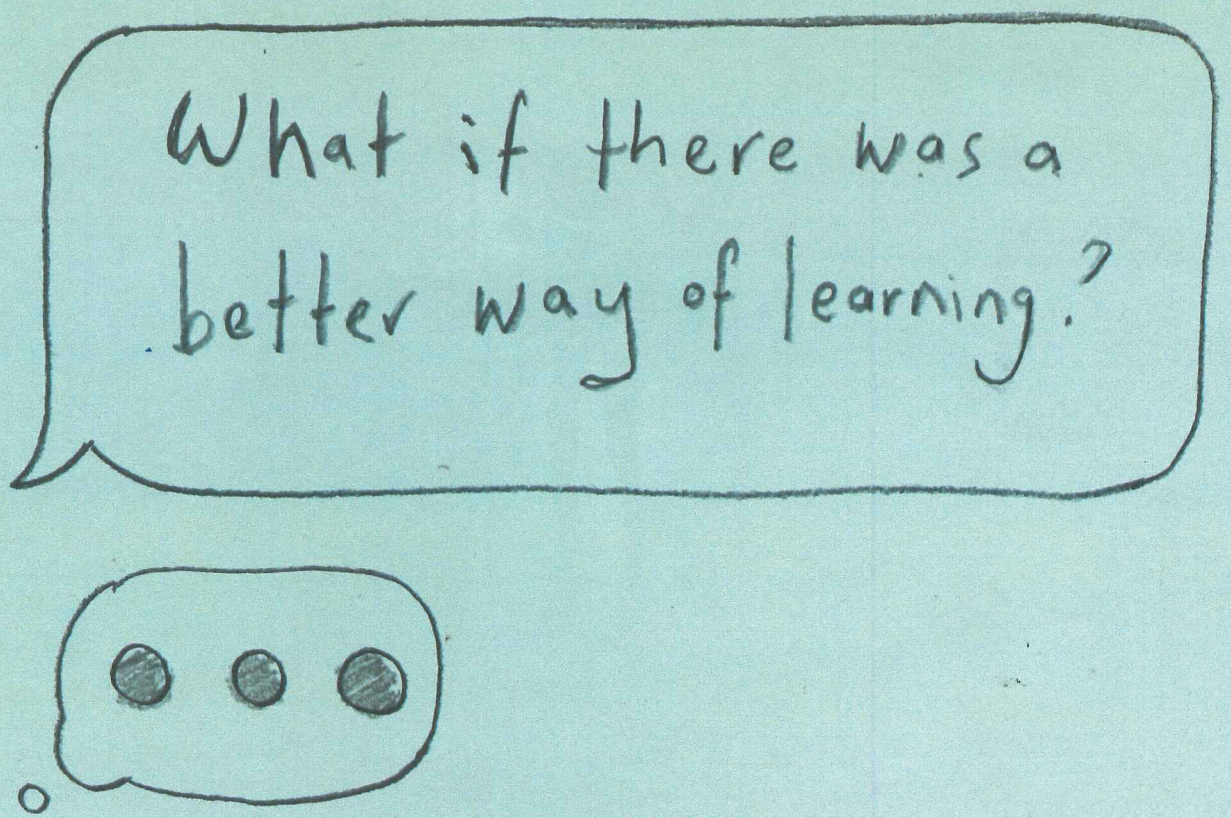
GEORGE SOROS ON THE NEW WORLD DISORDER *plus* BEING BOHEMIAN AT 103

GoodWeekend

NOVEMBER 3, 2018

The Sydney Morning Herald



BY *Sharon Bradley*

Abby McLeod, who nearly dropped out of high school, now has her sights set on a career in forensic science.

LESSONS IN LEARNING

A highly personal way of teaching disengaged students is catching on around the globe, leading some to ponder whether it's a harbinger of broader educational change.

STORY BY *Sharon Bradley* PHOTOGRAPH BY *Wolter Peeters*

IT'S A cold, blue-sky morning in Windsor, in Sydney's north-west, and 19-year-old Abby McCleod is in her favourite coffee house. In that mystifying way of the robustly young, she's wearing just a thin, scoop-neck singlet under her parka as she sips a soy cappuccino.

Abby is in the last term of a forensic science degree at Western Sydney University. In February, she applied for a place on a graduate program with the federal police: she's just found out that she's been offered one of only two places, starting in February. "I'm so excited," she says, grinning. "I want to work in forensics ultimately, but I wouldn't have to choose straight away. You do a rotation for a year through the different departments."

Before she went to university, Abby spent a week as an intern at Waratah Police Station near her family home in Maitland in NSW's Hunter Valley. "I was shown the fingerprint department, did some target practice, visited the morgue – I didn't see cadavers that time, but we do at uni – and volunteered in a homeless shelter. It was so cool."

Abby, you notice, is manifesting that almost elemental surge of confidence that comes with being good at, well, *life*. But it wasn't always this way. Six years ago, as a year 8 student at a local high school, she was struggling – badly. Despite wanting to learn, she couldn't grasp the subjects – even the ones she used to like, like science – the way they were being taught. "I didn't understand what the teachers were saying and gave up trying," she says. "I didn't ask questions because I'd stopped finding any of it interesting. I just lived for the weekends.

"In maths, I kept getting moved down streams as my marks went from bad to worse. The way the teachers viewed me – as someone who wasn't at all academic – was the way I started to see myself and soon I was, like, 'Yeah, they're right: you're really bad at this.' "

By year 9, Abby was only going to school two days a week – to film, drama and English lessons. The rest of the time she was at home, crocheting and watching documentaries on iView. "I became quite reclusive," she says, "and I'm a pretty big extrovert normally. When I told Mum I was done with school, she didn't freak out. She was, like, 'Well, staying home isn't an option: we've got to figure something out.' "

Abby's mum, Bronwyn Gallagher, is a lecturer in teacher education at the University of Newcastle, and has long had misgivings about the current education system. Abby's truancy was the natural consequence, she felt, of its shortcomings. "I didn't feel dismay," she says, "I felt vindicated. Abby's an intelligent, sensitive, thinking human being; of course it didn't suit her to feel like a cog in a machine.

"There were tears. Here was a confused 15-year-old who badly wanted to be home-schooled, but she needed to lean into the bewilderment, not run away from it. And teenagers need a peer group."

It was Abby's school counsellor who told them about a new way of learning that was being offered inside a growing number of public high schools nationwide by the not-for-profit organisation, Big Picture Education Australia (BPEA). Teaching, which would include core subjects like English, maths and science, would be designed around the specific interests of each student. Cooks Hill Campus, an annexe of Newcastle High School, would be launching the new model in 2014, the year Abby was due to start year 10. The counsellor suggested she and Gallagher go along to have a chat with founding leader Tracey Breese.

"I just loved the way Tracey talked about growing the individual," says Abby. "It wasn't about being defined by a test score number anymore. And I really liked that we'd call the teachers by their first names. It made the relationship more personal somehow."

PETER STOOP

"ABBY'S AN INTELLIGENT, SENSITIVE, THINKING HUMAN BEING; OF COURSE IT DIDN'T SUIT HER TO FEEL LIKE A COG IN A MACHINE."

"We were, like, 'Thank you, universe!' " says Gallagher. "Abby and I both felt we'd finally found someone who was speaking our language." Along with 61 others, Abby enrolled in the school's inaugural year 10 intake.

IF THE battle of educating children is won or lost in the classroom, our schools are turning into fields of ever more bloody conflict. Over the past two decades, Australia's academic performance has gone into sharp decline compared with other developed countries. In 2000, we were at the top of the pack, according to the Organisation for Economic Co-operation and Development (OECD), and able to swap congratulatory handshakes with education powerhouses such as Hong Kong, Finland and Japan. By 2015, though, they were waving at us in their rear-view mirrors as we slipped unceremoniously down the rankings in reading and science, and dropped nearly 20 places for maths. Our new neighbours in mediocrity included Sweden and Russia. No part of the education sector – government, independent or Catholic – could brush lint off its shoulders and feel smug: the rot was pervasive.

"The extent of the decline is widespread and equivalent to a generation of Australian school children falling short of their full learning potential," was the stark warning from businessman David Gonski, whose Review to Achieve Educational Excellence in Australian Schools, was commissioned by the federal government and released in April.

Above: BPEA's Vivienne White has devoted decades to transforming education to better meet the needs of young people.

Early last year, in a report using data from two large studies carried out in Western Australia (2009) and South Australia (2014), the Grattan Institute announced that 40 per cent of all Australian students are disengaged from their learning. At another public policy think tank, the Centre for Independent Studies (CIS), Dr Jennifer Buckingham, a research fellow with expertise in early reading instruction, has her own alarming findings. "One in four Australian kids in year 9 is just at the minimum standard of reading and that minimum standard is very low. It's inexcusable," she says, clearly frustrated. "It's not about a lack of funding; billions of dollars have been spent."

Across the globe, a band of education reformers who believe that as long as we carry on underestimating the mysterious complexities of learning we'll carry on offering wasteful ways of teaching, is instituting change. The current education model has long exceeded its sell-by date, they argue. Designed during the Industrial Revolution, it smacks of factory-process management: ringing bells tell students when to clock on and off and mark the times at which they must move from one stage of their manufacture to the next – 45 minutes of Algebra 1 in this room, 45 minutes of William Blake in that one; the periodic table over here; logarithms over there. Even the batch size, the class itself, is determined not by the most obvious thing that a group of students might have in common, their ability, but by their own dates of manufacture – their birthdays.

High school teachers, who see, on average, more than 150 students a week, are conduits of content that must be memorised and later regurgitated in a barrage of standardised tests. After 13 years of formal education, the batch has reached the end of the assembly line and, regardless of whether it has been well fabricated or not, is dispatched into the outside world.

Disengagement lies at the heart of the rot, agree these advocates for change, with students reporting four reasons for it: a poor sense of autonomy ("Why don't I have any say in what I have to learn?"), competence ("I'm rubbish at languages and now my parents and teachers know it, too"), relatedness ("I don't like my

teacher: why don't I feel like I fit in here?") and relevance ("Okay, so astatine is the rarest element on earth: when am I *ever* going to need to know that?").

Compromise, the symptom of an overburdened system, is everywhere.

Below: CIS researcher Jennifer Buckingham says one in four Australian year 9 students is struggling to read.

AN UNPROMISING-LOOKING building on an unprepossessing street in Marrickville, in Sydney's inner-west, is the home of BPEA and a new learning model currently at work in 44 (and counting) public schools in Australia. Chief executive and co-founder Vivienne White is a small, self-possessed woman with platinum-blonde hair and a dry sense of humour. She's also passionate about transforming education to better meet the needs of students in the 21st century, a subject to which she has devoted three decades of her working life – as a teacher, researcher, activist, innovator and entrepreneur.

Outside, squalls of rain are buffeting the windows, but her first-floor office is a cosy sanctum of bright Persian rugs, antique wooden furniture and a sprinkling of picture frames. White relates how she first came across Big Picture – back in 2003, when she was working with the Victorian Schools Innovation Commission and had been charged with seeking out places around the world where real, transformational learning was taking place. In Columbus, Ohio, she went along to a conference organised by the US Coalition of Essential Schools, an initiative begun in 1987 by Theodore Sizer, a highly respected educator who had been dean of Harvard Graduate School and then a professor at Brown University. "I was just blown away," she says.

Two decades earlier, Sizer had conducted a five-year study of American high schools. The result was his seminal book, *Horace's Compromise: The Dilemma of the American High School*. Horace was a fictional character, a composite of every frustrated, over-scheduled, compromise-dogged teacher that Sizer met during those five years on the road. His conclusion: how can a teacher teach a student he doesn't know well – and how many can he know well?

His prescription for reform was simple: dramatically smaller class sizes; personalised learning with deeper dives into fewer subjects; the student as worker, the teacher as coach; the student's mastery of a personal project to be demonstrated to peers, parents and teacher; and assessment to be made on the basis of tasks successfully completed in the real world.

Sizer recruited fellow reformers, academics Dennis Littky and Elliot Washor, to build a new type of school. In 1996, the Metropolitan Regional Career and Technical Centre, in downtown Providence, Rhode Island, opened its doors to 50 first-year high-schoolers. Four years later, 48 of them graduated.

In the early 2000s, Microsoft co-founder Bill Gates and his wife, Melinda, pronounced The Met their favourite high school in the country and, over the next few years, pledged three large grants to see its design replicated in other parts of the US (there are now 65 of them across 16 states). In 2010, the then president Barack Obama added his voice to the general chorus of approval.

In the Ohio conference, White listened, spellbound, as Elliot Washor presented a workshop on The Met's achievements and an education model he was now calling Big Picture. "I wondered if we could make it work in Australia," she continues. "I already knew in my head and my heart that making schools bigger wasn't the answer to the problem of disengagement. We'd already begun experimenting with different teaching strategies here, but Big Picture brought all of those things together into a single, new framework."

In 2007, working with Western Australia's Department of Education, Big Picture Education Australia opened its first whole-school conversion at Yule Brook College, in the Perth suburb of Maddington. "This was a very poor community where a number of initiatives had already been implemented to solve problems around attendance, behaviour and failure to learn," says White. "When they saw what we were about, they were, like, 'We're in.'"

Since less affluent schools generally feel the effects of disengagement first, explains White, they tend to be early innovators. "They come to us for help," she says. "In my long life in education, I've seen too many 'solutions' imposed on schools. Often, the bright, shiny objects look very appealing in the first instance, but unless you have the profession working deeply with these new ideas, you just won't get take-up." Soon White was approached by other schools in WA, Queensland, NSW and Tasmania.

IN BIG PICTURE, a class size averages 18 students, who stay together – sharing the same teacher – as they journey through high school. The teacher's first job is to help each of them develop an individual learning plan based on a deep and abiding personal interest – anything from yoga and physiotherapy to animal husbandry and forensic science – an approach called project-based learning. Subjects for study are then "contextualised" around that area of interest. A student who wants to become a mechanic, for example, might learn about the behaviour of physical bodies in physics; another, with an interest in law, might be encouraged to read the play *Twelve Angry Men*. Every student, regardless of his or her interest, spends two days a week being mentored in the workplace, steering a project that genuinely benefits the employer for assessment. There are no exams apart from NAPLAN.

By the time Abby McCleod started at Cooks Hill Campus in Newcastle, any interest she'd had in science had atrophied. "When Aurelia [Nowak, her Big Picture teacher] asked me, 'What are you interested in?' I said, 'I liked science, but I don't have the brains for it.' She started drawing some basic chemical reactions and asked, 'Do you understand what I'm doing?' I said, 'Yes,' and she said, 'You can do this.'" Abby's intellectual curiosity started to bloom again.

"It was like watching a spark ignite," says her mother. "Abby likes to work with images, colour, schematics, and she was able to say to Aurelia, 'This is how I like to learn.' And off they went!"

Abby realised that she'd been interested in forensics for years. "I love audio books," she says, "and I'd gotten really into crocheting. I used to sit for hours making blankets and listening to crime fiction – Patricia Cornwell, Michael Connolly: the Harry Bosch series was my *life*!" She changed from the year 8 kid who couldn't stand being at school for more than two days a week to the girl who studied through recess and lunch.

At the end of every term, students present a portfolio of work about their Personal Interest Project to their peers, teacher, parents and mentors. One of Abby's earliest was a "book" she'd written about forensic science with chapters on criminalistics, the history of fingerprinting, DNA profiling and genetics. Her mentor was a police liaison officer who'd helped organise her internship. "I was *so* proud of her," says Gallagher. "I felt this deep gratitude to all the people in that room who were making her community and forming her life."

ROB LEWANDOWSKI has been a teacher for 17 years, the last two at Launceston Big Picture in Tasmania. On his first day at this school, he had six students in his class; now he has 14. He tells me about a year 9 recruit called Brittany who used to sit in their early classes, sullen, withdrawn, wearing a hoodie. Her first project was on a mixed martial artist, but he got the feeling that she wasn't really interested in that. He sat with her, started asking her questions; every day, she told him a little bit more about herself. Eventually, he learnt that she had a box at home and, sitting inside it were "oodles" of short stories she'd written. Lewandowski asked her to type them up, print them out and bring them to their next one-on-one later in the week. "At first she wouldn't show anyone," he says, "but then she put them in one of her portfolio presentations and her mum and dad got to read them."

This year, Brittany Leahy is the Tasmanian winner for the year 11-12 category in the Whitlam Institute's What Matters? essay writing competition. In September, she travelled to Sydney to pick up her $350 prize money and attend a two-day writing workshop.

Lewandowski introduces me to 17-year-old Mitch Spencer, a big kid with a buzz cut who, four years ago, was also flailing around in the wreckage of a derailed education. "I was getting bullied because of my passion and never went," says Mitch.

Ever since he found an egg by a dam close to his home and asked his parents if he could bring it home and hatch it, chickens and ducks have been Mitch's life. The egg didn't hatch, but his parents let him buy two ducklings, which he named Dixie and Daisy. Before too long, he had them eating, quite literally, out of his hand. "They're 12 now," he tells me, "and both of 'em are blind."

These days, Mitch not only runs his own thriving poultry business, he's been working with Dr Gil Stokes, a retired biochemistry lecturer in Westbury, Tasmania, who's engineered a new breed of "super chook", the Quamby, a prolific layer of big brown eggs – "about 320 a year" – that's also a large, robust, meaty bird. "I'm learning how to breed my own duck variety," says Mitch. "A compact Call duck [a bantam breed of domesticated duck] that'll also be a good layer."

In August, Mitch was a judge of Campbell ducks at Brisbane's Royal Agricultural Show and would like one

day to have his own farm. Now in year 11, he's considering an associate degree in agriculture business at the University of Tasmania. "No way I'd still be in education without BP," he says. "I'd be a dropout."

Lewandowski loves to hear what he calls "the quiet din" of his students working hard, often collaborating, in his classroom. "It's like a beehive," he says. "In the mainstream, I saw a lot of non-productive busyness at school. This is different: there's an *energy*."

AT YULE Brook College, where classes start in year 8, the improvement in NAPLAN mean scores between 2010 and 2012 was greater across every subject than that measured in other public schools in WA. More than half of the kids are now going to school more than 90 per cent of the time (as opposed to 31 per cent of students in 2008) – and there are way fewer suspensions. In April, the Gonski Review hailed BPEA as "a pocket of innovation".

The CIS's Jennifer Buckingham, who's been watching Big Picture's roll-out with interest, would like to see more research that isn't so reliant on self-reporting. "I don't think the evidence at the moment is solid in terms of students doing better in a BP school than they would in a mainstream setting," she says. "I'm not being critical that this research hasn't been done – it would be difficult. What's required is a longitudinal study with children allocated into BP and mainstream by a lottery to randomise the selection and then we need to measure their progress." She pauses. "An absence of evidence doesn't mean evidence of an absence, though."

Until recently, BPEA was almost wholly reliant on private philanthropic donations from a handful of organisations, most notably Origin Foundation which, between 2011 and 2017, donated $1.2 million, and the Tim Fairfax Family Foundation, which pledged $600,000 over 2009-10. "We've never received government grants – just government money by way of their supporting our initiative in their schools," says White. "But we've reached a strategic point now. We've done the pilot, we've shown it can work: now we need substantial government investment to grow the work."

Schools such as Melbourne's Templestowe College – an "alternative school for alternative thinkers", according to a *60 Minutes* segment that aired last year – John Marsden's Candlebark and Alice Miller schools in Romsey and Macedon, Victoria, and the rise in popularity of Steiner schools across the country (there are currently 44) attest to the fact that parents and children are feeling less and less well served by the conventional Australian schoolhouse.

"I agree there's a problem in our classrooms," says Buckingham, "but I'm not sure that giving the students the option of self-directed learning is the answer. The evidence on this is pretty clear: explicit, direct instruction across the board is way more effective in achieving higher student outcomes. The PISA [the OECD's Programme for International Student Assessment] studies show this, but it's always played down because it doesn't fit the 21st-century learning narrative, which is all about inquiry-based learning."

Direct instruction is a familiar model: the teacher sets an objective for the lesson and teaches his or her students a particular problem-solving skill, embedding it in memory through repetitive practice until the student can apply the same principle more widely to solve other problems. It's a process that Alan Finkel, Australia's chief scientist, recently referred to as "Principle. Practice. Application". In his keynote address to the Australian Science Teachers Association Annual Conference at the University of Sydney in July, Finkel described the concept of the "T-shaped worker".

"The vertical line of the T stands for deep expertise in a discipline," he explained. "The horizontal bar stands for your flexibility to apply that expertise creatively, as part of a team in the workplace. Think of it like a garden trellis. Your subject gives you structure while you grow. Without the trellis, you're just ground cover, sprawling out in all directions."

It's all very well talking about cultivating 21st-century skills in our children, he says: what the workplace of the future needs is graduates who are fluent in their discipline of choice.

In 2015, the Australian Curriculum Assessment and Reporting Authority (ACARA), the developer of the national curriculum from kindergarten to year 10, funded research to determine whether Big Picture was meeting the required achievement standards: it concluded that it was. "After year 10, ACARA has no jurisdiction," continues BPEA's Vivienne White. "So we identified a national standards framework, which we called the Australian Core Skills Framework, against which to assess our students' work. This framework is recognised by every state government and university in the country. There are five levels of achievement across five domains: a student isn't considered ready for tertiary education until he or she has reached level 5 in all of them. "The BP design *isn't* a traditional curriculum coverage design," she emphasises. "That's what's leading to disengagement and what we're trying to challenge."

"IN THE MAINSTREAM, I SAW A LOT OF NON-PRODUCTIVE BUSYNESS AT SCHOOL. THIS IS DIFFERENT: THERE'S AN *ENERGY*."

Above: BPEA alumnus David Parsons is now at university studying bio-medicine. He hopes to become a surgeon.

RATHER LIKE travel to a distant planet, education is a long journey towards an unknown destination. What we can be sure of, though, is that the job market our children will enter is likely to look very different to the one that was waiting for us. With China already opening its first unmanned stores – not to mention testing pilot-free planes and captainless ships – automation is the new investment hot spot. As human beings become more and more dispensable in the discharging of routine, low-skill jobs, new-age school-leavers will need to be brighter, more flexible and more versatile thinkers than ever before.

"We have to get everyone to figure out what their potential is, how it maps to their passion and go for it – because there'll be nothing to do if you're under-educated in Australia," warns Professor John Fischetti, the American-born dean of education at the University of Newcastle in NSW. "Those jobs down the mine, at the mill or in transportation, they're dwindling. The adaptability that comes with having an astute, brilliant mind now has to be for everybody.

"Big Picture is exciting because it's meeting kids where they are – at the upper and lower ends of academic success. It isn't for kids who are disengaged because they're disadvantaged: it's for kids who are disengaged from schooling as it exists across the academic spectrum. It's raising the floor *and* the ceiling."

In 2016, his university became one of the first in Australia – there are currently 10, with four more under negotiation – to offer admission to year 12 Big Picture students on the strength of a graduate portfolio. It was developed by White and her team in 2015 as an alternative to the Higher School Certificate (HSC or equivalent) and its dreaded companion, the intellectual sorting house that is the ATAR.

"Confidence in the ATAR isn't strong anymore," says White. "Only 37 per cent of year 12 students are using it to get to university. There's a new narrative now that accepts we have to imagine learning done differently for our young people and that means taking a fresh look at how we assess their learning."

David Parsons, 19, is in his second year of biomedicine at the University of Newcastle; he wants to become a surgeon. His graduate portfolio included a selection of his best work from his three years at the BP Academy at Hunter Sports High School in Gateshead, NSW, and a 1500-word thesis examining the effects of disease in key organ systems of the human body. "Getting an ATAR was never on my checklist," he says.

At the academy, David's classroom ennui was overtaken by a sense of dawning possibility. "My first exhibition was on butchery – my dad said I had to get a trade," he says. "I was good at biology, but never thought I was smart enough to even think about a career in medicine."

By year 11, he was working out ways to get into operating theatres to watch surgeons at work. "It was surreal to be in the room, standing above the patient's head, looking down into the chest cavity while it was open and talking to the surgeon. You can only dream of doing that when you're 16."

In 1852, Victor Hugo wrote, "Nothing is more powerful than an idea whose moment has come." Our education system may be less on the brink of a revolution, though, than feeling the deep stirrings of something slower, kinder and ultimately, perhaps, more viable: an evolution. Big Picture, which is now at work in nine countries, is in its vanguard.

"We have a tested and true model," says White, who was awarded a Member of the Order of Australia in January. "Our dream is to see a BP stand-alone school in every rural and regional town in Australia where there are already two high schools, and one in every inner city and to be supported by government to do that. We'd like those communities to have the choice of a different type of school."

A different type of school, a new type of learning and maybe, just maybe, a better type of life. ■

PETER STOOP; PETER BRAIG