LEYSIN AMERICAN SCHOOL
EDUCATIONAL RESEARCH

Spotlight

PULLING AGILE INTO EDUCATION

FALL 2019 EDITION

Welcome

There is something very compelling about the agile mindset. Frequent iterations, learning from feedback, lots of choice, and above all working from a position of trust … isn't that the way we'd all like to work?

Often in education we tinker around the edges. While this is safe and doesn't upset the status quo, it's also not terribly satisfying, perhaps because it doesn't upset the status quo enough! In the interview with Bill Tihen we encounter a truly different vision for education, one which we have glimpsed here at LAS. Teachers Erin Hill, Jennifer Manly, and Bret Thayer share their visions from US public schools, and perspectives like Howard Sublett at the head of Scrum Alliance and Willy Wijnands, at the head of eduScrum, give us the feeling that agile in education is something to be taken seriously.

Can we nudge the predominantly push system of education (check out the interviews to learn more) toward a pull system full of student initiative and choice? Will the adoption of an agile mindset help us get there? These are big questions. If the goal of education is the best possible learning we can provide for our students, we shouldn't be shy. Let's go after the big issues and learn to guide learning differently, learn to support learning that lasts. Let's help students, as David Perkins suggests, make useful changes to their minds.

LAS Educational Research continues to provide professional learning opportunities for our own faculty, in addition to welcoming outside groups and visiting schools and universities. Our goal is to learn from our work with our students and faculty and then to share that learning through presentations, workshops, and publications - including the one you are holding.

We invite you to immerse yourself in the interviews and short articles we've collected here. We hope your reflection leads you to contact us so that we all might continue the conversation.

Thank you for your interest in what we do, in furthering teaching and learning, and in the next generation. We are all relying on our students to be responsible, compassionate, and innovative global citizens when they take the reins for the next generation.

PAUL MAGNUSON
Director,
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Research Center

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Teacher, Physical
Education; Associate,
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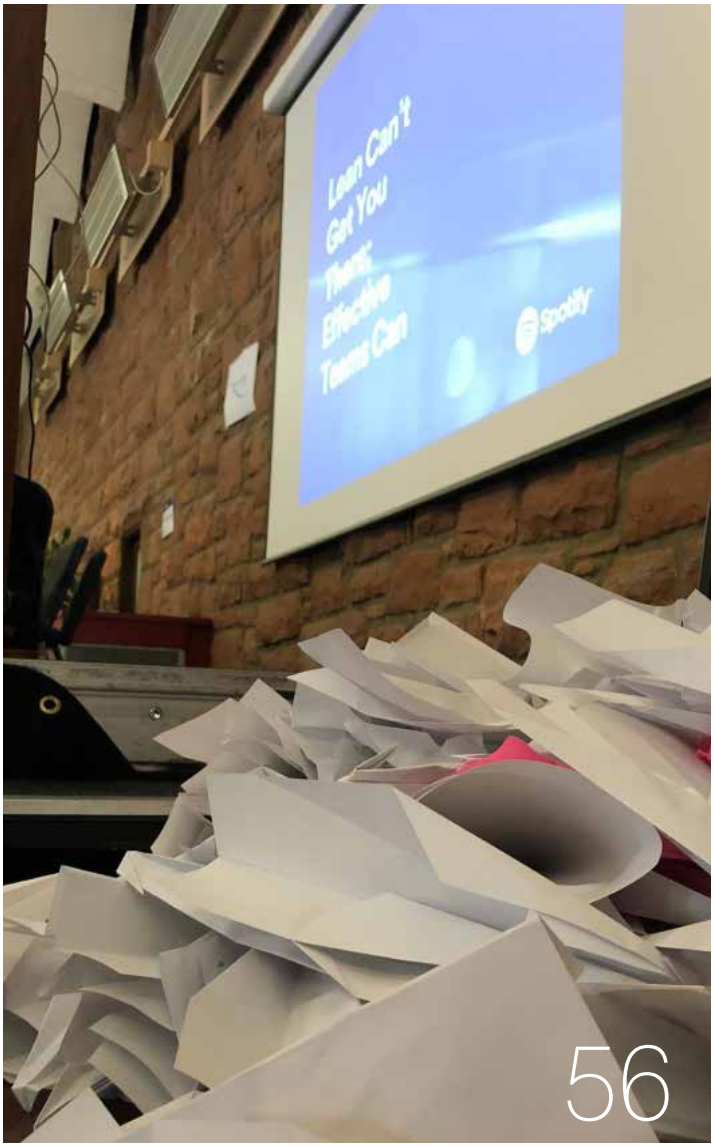

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Studying Agility

Moving Forward

Spotlight

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LAS Educational Research
LAS Educational Research (LASER) is a center for professional development, action research, citizen science, curriculum development, and outreach.

The center supports LAS teacher research projects, including dissemination through international presentations and publications, and hosts student teachers and visiting scholars, representing ten countries and over two dozen projects to date.

Individuals and institutions interested in professional development in innovative education or partnering with us for research and development are encouraged to contact us.

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For additional readings on education, please visit
www.las.ch/learning/educational-research

Patient Explanations Lead to Good Things

AN INTERVIEW WITH BILL TIHEN, GARAIO AG

Bill Tihen studied engineering but found the field a bit repetitive for his taste. He moved to education, where he applied his engineering approach in schools. Of course, not all curricula are ideal fits with an engineering approach to teaching and often it can feel that one is always at the beginning and doesn't get into any subject very deeply. Bill moved on to IT, at schools, and while at LAS helped build experimental classes in which he was able to apply his engineering and IT mindsets. He now works in Bern, where he can be seen walking his dog, Njima, after hours.

Paul: It's you who got LAS started with agile - at least that's how I see it. Is that your perspective, too?

Bill: I'd say we were migrating to agile in the IT office, or agile/kanban. When we started our research project with the classroom sets of tablets and the large touch screens we had a project to really test agile workflows (not just Kanban workflows).

Paul: That was the project for Samsung in 2013. How was that agile?

Bill: As a team, my IT colleagues and I developed user stories for the study - and then we ran it past you. It wasn't all that agile, I guess, but it was our first step away from a traditional project management approach. We were moving away from plan-based project management to user needs-based project management.

Paul: At the time I had no idea what agile was, nor how you were managing the study. You might have told me but I probably didn't understand what you were saying. The Samsung project is the one that really gave rise to the research center, and now I learn it helped kick off our agile mindset as well.

Around that time we spent a lot of evenings talking management, too. Do you remember how long it took for me to start seeing the agile mindset?

Bill: I don't. I know there was a turning point, though, when I got Sutherland's book about doing twice the work in half the time. That's where I first ran across eduScrum, which I googled for more info, and then we really started changing our thinking.

Paul: That's when I had the experimental language class, with projects that weren't going very well, and you suggested we try eduScrum.

Bill: Right. That's when you really realized there was something to it.

Paul: Plus the eduScrum guide was in Dutch, which was fun because I was studying Dutch in the experimental language class.

Bill: Right.

Paul: And then we talked to John Miller and ended up going to scrum training in the Netherlands -

Scrum for Schools, as it turned out. At the time we didn't realize that eduScrum and Scrum for Schools were different organizations. We even ended up doing a poster session during lunch.

Bill: The main takeaways I got from that conference were the nice things they do with student self-management. I was a little surprised by how tight they stuck to scrum rules. Not that this is all bad. Kids need a structure, it's just not the way I like to do it. I like to focus on the student's connection to the topic they are studying, so all my classroom "rituals" revolve around encouraging exploration, experimentation, and reflection. Each student is engaged in a "story" they choose related to a topic. I'm not so interested in following a process just to be true to the process.

Paul: We experimented a lot in the language class - I remember trying a variety of ways to do a burndown chart. We made it really complicated for awhile. Then we quit trying to use one altogether. But you brought it back in the 3D Nautical Design class you developed a couple of years later.

Bill: In that class I did it differently though, using discussions with the students. Like scrum, but different. I laid out certain steps that students had to accomplish, all of them moving toward a completed boat. I started with easy challenges, like designing and printing a box instead of a boat, and then getting increasingly difficult with each iteration.

Paul: How did that go?

Bill: Ideally, students should be able to take a complex project and create their own graduated levels. But so far my experience is that middle school and high school students are so focused on a "correct" solution that they jump straight to a perfect solution. They haven't yet learned how to build their skills toward a goal - and ideally even enjoy the process and hurdles to get there! I combined the burndown chart with a navigation discussion using sailing as the analogy.

Paul: From what I remember, that worked.

Bill: Yes. I also like to think of it like levels in a video game. You lay out a path, with a story, and show the kids the beginning, and maybe a glimpse of the end, and then you help them with the path, showing the minimum pieces that are each building blocks toward the end. They struggle just a little, but you make sure those struggles are easy in the beginning, and get harder over time, just like in a video game.

Paul: You could coin a new term, like "Addictive Education" or something. Like how when you fail at a video game your first impulse is to restart from the beginning and do better the next time.

Bill: Wouldn't that be nice in school!

Paul: Because you want them to keep up the effort and really be able to produce.

Bill: Think where these kids are starting. If you were to ask any of the students at the school today how to do 3D design for a boat, they would probably look at you like you have three heads.

Paul: Meaning they wouldn't know where to start?

Bill: Right. But you lay out the project in challenging but doable steps, and with time they can do it. Another example is the engineering class where all students created a company …

Paul: That's the part where they create a story…

Bill: … and then create web pages for their company on Github. Because there was a story there was motivation to build the webpage - and they added products to the webpage as they made them. They could do easy projects first, and grow in iterations, not at all unlike making a box first, instead of a boat, and then making a box with a triangle prow, and then a box with a prow with a bottom, and so on.

Paul: So it's like the video game levels again. They kept the webpage up-to-date with their products, in short but increasingly complex iterations.

Bill: Right. The kids could also see what other groups were doing, between iterations, and learn from each other, or even get motivated by each other.

Paul: Lots of people react negatively if kids are seen as copying …

Bill: In my class, the rule was: if you don't incorporate at least one idea (and credit the person) from another group you aren't done yet, period. The students had to prove that they had gotten ideas from others. So I would say, "Steal ideas from each other and make your own variation relevant to your project, goals and storyline."

Paul: Every iteration you collect new ideas, get new suggestions for changes, and then you have to be able to incorporate the feedback.

John Miller made his third visit to LAS in August 2019 to deliver a two-day Certified Scrum Master training. LAS faculty interested in working with an agile mindset - particularly in the new LAS *edge* programs for grades 9 to 11 - joined forces with some interested former visiting scholars and, happily, the source of inspiration for us here at LAS, Bill Tihen.

John's work can be found at Agile Classrooms (www.agileclassrooms.com).

Bill: Right. And you had to be able to credit at least one idea to someone else.

Paul: That's an interesting take on teamwork.

Bill: It changes the nature of competitiveness. You have to learn from each other, it's built in. But seeing the work of other students, at the same time, makes the students a little competitive. They want to build cool stuff like the other teams.

Paul: That's inspiration.

Bill: And perhaps intrinsic motivation. They are inspired. They are competitive. As long as the students are working ideally from their own motivation—not mine—I don't care too much about the underlying reason. And once they are working, my job is to make the minimum standard hard enough so that everyone has to struggle a bit, so that there is a feeling of success in their accomplishment. It has to be hard, but not so hard that the motivation is all external. If the teacher has to push too hard, they associate negativity and external motivation with the topic.

Paul: It's just like the video game levels again. The levels can't be too easy, because that's boring. There has to be struggle, but not too much at first. And as soon as you finish one level, there's another level immediately available that builds on the same skill, just a little bit harder.

Bill: Right.

Paul: How does this tie into the 10 practices that we came up with for EDgility?

Bill: It ties in because we came up with the ten practices together, but also because in many ways this is how I always taught, especially back when I was a math teacher.

It's why I like talking EDgility instead of agile education, because it's the education that's important, not just being agile that's important. We have to lead with education and learning and enjoying that process.

Paul: I do wonder sometimes if we are just repackaging old themes in education in a vocabulary that comes from agile, or whether we are really working on a new mindset for education.

Bill: There's a difference of doing agile things and being agile. You can focus on doing agile things, for example using a kanban board, but if the effort isn't growing into self-motivation, self-reflection, and learning to find doable steps to a goal, then is it really helping educate or just another process over people strategy?

It's important to start with education, kids who have ownership, and self-motivation (or at least not teacher, grades or fear-based motivation). You need kids who pick their own goals and set their own pace and learn to scaffold their own projects and learning, who enjoy the exploratory aspect of the unknown.

Paul: So … learning.

Bill: Right. Then kids can learn whatever they want and need. To that end, I feel it's important to give students projects and contexts where no one has a known, perfect solution. Where context is important and where learning isn't defined by the ability to memorize, or use Google well, but instead to interpret and synthesize ideas into something meaningful for the kids.

Paul: One way we tried to shake things up was making the academic exploration classes in the middle school gradeless. Was that a move that supported the agile mindset?

Bill: I think so. Going gradeless helps students to get away from doing the work the way the teacher says, which is unempowering, and to learn to pick the level of quality they are going after, on their own individual paths. While having lots of choice doesn't make things agile, I don't think you can say the students are working in an agile mindset if they don't have any choice.

Without grades, some students do the minimum, but most go way beyond expectations.

Paul: What do you mean by the minimum?

Bill: I define the minimum to be work that has been influenced by others and demonstrates enough knowledge to solve a dilemma within a context. This is very important. The minimum work is that kids have to enough knowledge and understanding to solve a dilemma and understand the compromises they themselves introduced. I'd

say this is wildly underappreciated in education, but in the end makes the learning meaningful and requires understanding. I go to great lengths to ensure learning is within a context and has a dilemma. That's my definition of minimum learning, which by the way is far more rigorous than tests. So I guess I'm pleased when when students get by with the minimum, because I've set that bar high.

With the pressure of grades - meaningful contexts - using stories in my case - and solving dilemmas is a difficult sell to the kids. Their focus quickly becomes the grade, not the joy of learning and the fun of solving a dilemma through exploration and understanding. I find grades very distracting for the kids and for my joy of learning.

Another huge drawback of grades, for me, is that grades force me to have power over their learning. That steals the underlying meaningful context and storyline from the students and makes my storyline the important one. I do everything I can in a classroom to be non-judgemental. I have the other kids provide most of the feedback and suggestions. Students assess those suggestions within the context of their goals.

Paul: How do you do that?

Bill: I teach a non-judgemental feedback process that they all learn, and I supervise closely in the beginning.

My idea of an ideal final exam is a public presentation. I want the kids to have ownership for the quality of their work and to feel proud - or embarrassed - when presenting. Like when the students present their story and the audience has fake money to buy the solution that they enjoy or think is best. This allows for a diversity of appreciation and feedback and is in many ways much more natural and diverse than just my feedback. This is also a much nicer role to have with the kids.

Paul: Are there any practices that we describe in our Springer chapter that really jump out at you?

Bill: Uplift. That has to be it. Being uplifting in learning is the groundwork for all the other practices. For example, it's much more uplifting to be redirected than to be told how to do things all the time. And as teachers, let's admit it, we tell students how to do things a lot.

Paul: So being uplifting is the basis.

Bill: Let's call it the ground floor. Then we can call whatever educational goal we have the top floor. The agile practices that accompany the project-based learning we are striving to support are all the floors in-between.

Paul: And of course we were making the case that those ten practices should all be working together, and probably some we didn't think about, too.

Bill: Of course. And in the same way, I argue that not only should certain good practices be happening concurrently, at least if we want a good educational environment, but the concepts students are learning should be happening at the same time, too.

If students are working in a context, in a story - say, like when they created boat companies and designed, printed, tested, and marketed their own boat designs - learning is authentic. All the different skills are integrated: engineering, design, geometry, advertising, all of it. You aren't just doing science that somebody else already did, in an environment in which the teacher took out all the messy variables. You are doing something that feels original. You are making meaning yourself. You are telling your own story.

That has a totally different feel than doing what the teacher says.

Paul: If you had taken a different life path you might have been a curriculum theorist.

Bill: Maybe. I didn't know that job even existed!

Paul: Do you think there's a future for agile in schools?

Bill: Remember, I don't think "agile" is the goal. I think learning to understand is the future of schools. I really feel that all systems (even agile) are flawed unless learning is based on exploration within a context in which the student can solve dilemmas. That's my engineering background. Agile is helpful with learning to take apart complexity and make the parts learnable. Agile

> "Everything that makes it hard to be good and efficient at learning and working, well, schools do that."
>
> – BILL TIHEN

also has nice ways to track progress. The built in emphasis on reflection is also important for improving learning and making it more enjoyable.

However, schools are very attached to grades and evaluation and correction. I don't anticipate much change is schools until the top-down approach to learning, the teacher push process, is replaced with bottom up student growth, a kanban pull by students. Until that change happens, all reforms are just a change in the paint color - not a change in the learning process.

Paul: That's heavy.

Bill: Schools are far too concerned that everybody is doing and learning the same thing. And schools are worried if students don't know the answer. But I think, who cares about the answer?

Paul: Who does care about the answer?

Bill: The answer is boring. It's the question that is interesting. And asking the right question, at the right time, is the goal. It's okay to figure things out. And it's okay for the teachers to have to figure things out and for the students to watch you figuring things out. You give students guidance by modeling how you figure things out, and you try to solve real problems that no one has an exact answer for. That's so much more real than when the teacher always knows the answer and the students go through the steps that the teacher has laid out. In this case you can be sure the context and dilemma are real and not just another example from a page in a book.

There's also way too much fear in schools. People worry about experimenting with kids. People

Ten Agile Practices

Getting Agile at School was published in a collection of chapters about agile in education (Agile and Lean Concepts for Teaching and Learning). We outlined 10 practices we believe contribute to an agile mindset. All of these practices are reflected, sometimes directly, sometimes indirectly, in the interviews and conversations we have had with colleagues applying agile in schools. Our practices are:

01 **EXPLORATION**
Exploration over fixed content

02 **GROWTH MINDSET**
Growth over stasis

03 **TRUST**
Self-regulation over teacher control

04 **TRANSPARENCY**
Visibility over obscurity

05 **ADAPTABILITY**
Flexibility over rigidity

06 **SMALLIFY**
Quick, workable iterations and feedback over big plans

07 **VALUE**
Valuable learning over convenient assessments

08 **COLLABORATION**
Working together over competing against

09 **REDO**
Reflection and progress over right and done

10 **UPLIFT**
Problems as opportunity over problems as problems

What practice would you add?

worry whether the kids know the answers. And if the teachers now the answers. In my opinion, learning should be fun and exploratory. Let's say that school should be 80% exploration and 20% results.

Paul: Another way to say that is maybe that school is driven by answers, not questions.

Bill: Messy demos where students discuss context and compromises are more important than getting things right in a void. Solving dilemmas within a context, being able to show processes, learning, and exploration, taking and adapting feedback through demos is more important than right answers on tests. That requires a much deeper understanding and more internal motivation.

Paul: OK.

Bill: I want kids to ask me questions I don't know the answer to so that we can figure out an answer together. I don't want them asking me things that are just out there on the internet anyway. I send them off to Google or another student when I get asked those kinds of questions.

Standard school is about proving stuff, not excellence. You could think of it as a series of disassociated, individual proofs. Think of kids that are really good at math - what I used to teach. Ask them an applied question and they'll say … "I don't know. What page is that on?" It's nice they can do the problems in the book, but to what end?

Paul: Is there anything you'd like to say in summary?

Bill: I think it's fantastic that you and others at LAS are working on agile. You are simplifying complexity so that it's workable. And you are focusing on reflecting on the learning process, making it more enjoyable and giving students self-control. These are important in agile and education. That's what agile can bring to education. And I knew that you had internalized an agile mindset when you started thinking more about people than processes. The process is there to help people, not the other way around.

Paul: And you contend that schools tend to get it backwards.

Bill: Education can't be about the framework. It has to be about the people.

Paul: One time you said to me that schools are the biggest waterfall system you could imagine.

Bill: Standard school—and that's just about all of them—has subjects, curriculum, units, and even lessons all planned before the school year starts for students of a certain age, regardless of interest, confidence, prior preparation, or ability. And all packaged in isolated boxes regardless of interest, confidence, prior preparation or ability. On top of that, schools ask kids to do lots of different things at once, all of them unrelated and generally devoid of a context. And without input from the kids to make it their own!

Everything that makes it hard to be good and efficient at learning and working, well, schools do that. On top of all that we add external correction, grades, and pressure.

Paul: Wow.

Bill: Maybe the way schools work is good if the goal is to teach students how to survive in a world where top-down management is the focus.

Paul: Those are some strong statements.

Bill: You can redact if necessary.

Paul: No. I think what's necessary is that we confront exactly what you are saying. You have a good insider-outsider perspective as a former math teacher turned IT specialist, who returned to the classroom for the unique classes you talked about here. At the end of the day, whether we are agile or not isn't so much the point. What we want to get at is some basic realizations about how we might be doing education far less well than we could. And how we can turn those bad practices around.

Bill: Yes. Little kids like to learn. They integrate things and they like to learn. Why take that away as they get older?

eduScrum

AN INTERVIEW WITH FOUNDER & CEO, WILLY WIJNANDS

Willy Wijnands is an Aikido teacher as well as a science teacher at Ashram College in Alphen aan den Rijn. He is the founder of eduScrum and a founding member of the international initiative called Agile in Education. Willy describes eduScrum through personalized teacher training around the world, as well as in the eduScrum guide, the book Scrum in Actie, and a chapter in Agile and Lean Concepts for Teaching and Learning.

Paul: You have presented eduScrum all over the world. That must feel very good.

Willy: Indeed, it's a very good feeling to see that eduScrum is helping change education into a more agile way of working together in teams. In all the countries I have gone to, education is so much the same. With the right agile mindset, we can change that.

Paul: What made you think scrum was a good fit for education?

Willy: I believe that agile suits the needs of the fast changing education market. The educational system and workforce of tomorrow has to cope with these changes. Unfortunately, the current old-fashioned system of education is not fit anymore. This creates a gap between what education offers and market requirements.

Paul: What specifically do you think needs to change?

Willy: We need to pay more attention to developing twenty first century skills: collaboration, communication, critical thinking, creativity, and so on. I want students to learn to develop as human beings and to let them make individual progress in their own unique qualities. At the same time, the era of the individual at the workplace is over. We need students to know both their good qualities and their flaws, so they can contribute to as team members.

Paul: And how does eduScrum help with that?

Willy: Teams of students learn to work in short cycles. They deliver small results quickly and share what they've learned during reviews. As a teacher, I get involved only when the team gets stuck or is moving in the wrong direction. First I let them understand what they don't understand.

"At first I thought I could do everything at the last minute, but now I prefer to work with the team."

– EDUSCRUM STUDENT

WHAT WILLY'S STUDENTS SAY ABOUT EDUSCRUM

I usually don't like collaborating, I like to rely on my own ability. But eduScrum has changed my viewpoint. eduScrum lets you learn and contribute a lot, so you learn about yourself and get to know others well. Through team accountability, everyone works better. eduScrum teaches you to take more account of others. Because you are actively engaged in each lesson, you manage the job faster and better.

You get to know your own qualities better, and you develop them a lot over a period of time. Because you work in a team, you can help explain difficult topics. And you get higher grades!

eduScrum was of enormous help for my personal development. It gave me a lot of insight into myself, into what I already can do and what there is to learn. It showed me that I can do much more than I thought, which gives me confidence.

With eduScrum you learn a lot about yourself. Knowing yourself now, you can change a lot, by focusing on personal improvement. It's not only a method to deliver a better result. It creates a development that can offer you a good future!

– Farah, Student

Then I give them a little push to get back on track. Then they see what they didn't understand before. That is getting new knowledge. And this is teaching in my view.

Paul: That's inspiring.

Willy: It's necessary. The teacher is no longer the source of knowledge. Many students want to lie back as if they were in a movie theater. Children must get out of this cinema attitude.

Paul: Do you ever feel like you hit Jeff Sutherland's magic 400%?

Willy: I feel it through the work, speed, and quality with which the students understand the content of lessons and how they grow personally and as a team player. My students definitely work faster and finish their work earlier.

Paul: What's hardest for teachers to internalize when you do training?

Willy: The hardest part for teachers is that they must change their mindset. They have to trust and believe in the power of their students. And they have to step out of their comfort zone. They need to create an agile mindset for themselves. You don't do agile. You must be agile in your mind and really feel and understand it. Otherwise it won't work. eduScrum is more about behavior then it is about process.

Paul: Do you think the current wave of interest in scrum and agile in schools will continue? Might it even be a game changer?

Willy: Yes, I truly believe that Scrum, eduScrum, and an agile way of working will be a game changer. The educational system must change, as I mentioned. It's time for a change.

THE MAGIC 400%

Jeff Sutherland claims that scrum will help teams get twice the work done in half the time (as seen in the title of his book), thus a 400% improvement. Perhaps this goal is ambitious. One can be happy with scrum even if it doesn't speed up the work, as long as doing the work is satisfying and brings about learning.

EDUSCRUM TURNS EDUCATION UPSIDE DOWN

From teacher-driven education to student-driven and organized education.

eduScrum is an active collaborative education process that allows students to make assignments according to a fixed rhythm. Students plan and determine their own activities and keep track of their progress.

The teacher determines the Why and the What, the students determine the How.

Students own their own learning process, resulting in intrinsic motivation, fun, personal growth, and better results.

The effect of greater student ownership of learning is that students are more engaged, more productive, and more responsible. They discover who they are and what their abilities are. It is such a wonderful experience to see them developing themselves! By giving students trust and freedom to run their own class they become, simply, beautiful people.

LAS faculty members Rob Barnett, Nic Cosgrove, Tom Cosgrove, and Paul Magnuson have all visited Alphen aan den Rijn to see eduScrum in action.

WAAR KOMT HET IDEE VAN EDUSCRUM VANDAAN?

eduScrum is begonnen met een flesje bier en een barbecue in de zomer van 2011 met Mark Reijn. Mark had net een scrum training gevolgd van Jeff Sutherland bij Schuberg Philis, waar Mark werkt als software engineer. Mark was erg enthousiast over scrum, geïnspireerd door Jeff en hij legde Scrum aan mij uit één A4-tje. Hij is de vonk geweest die bij mij het Scrum vuur heeft aangestoken. In september ben ik gelijk Scrum gaan toepassen in mijn klassen als try-out om te kijken of het werkt in de klas. In het begin was ik verbaasd dat het werkte en begon ik eduScrum te gebruiken in al mijn klassen. Het was verbluffend, gewoon super, om te zien hoe de leerlingen dit oppikten, plezier hadden en leuk met elkaar samenwerken in teams. Wat ik gedaan heb, is de leerlingen vertrouwen gegeven. Zij krijgen vrijheid en ruimte om binnen bepaalde kaders te gaan werken en dus eigenaarschap krijgen over hun eigen leerproces. De leerlingen nemen hun verantwoordelijkheid voor wat ze doen en het effect is dat leerlingen productiever worden en de resultaten beter zijn.

WAT IS ER, VOOR JOU, ZO SPECIAAL AAN EDUSCRUM?

Persoonlijkheidsontwikkeling is voor mij het belangrijkste als leraar om bij leerlingen te ontwikkelen. Leerlingen worden zich bewust van kwaliteiten die ze al hebben, maar die nog niet zijn aangeboord. Hun persoonlijke ontwikkeling komt hierdoor veel beter tot hun recht. Op het moment dat leerlingen zich bewust zijn van hun eigen kunnen, werkt dit door naar de leereffecten en kunnen ze hun kwaliteiten toepassen in de praktijk. Ook leren de door zelforganisatie beter onderling communiceren, samenwerken en kritisch nadenken. Bovendien komt hun creativiteit veel meer tot uiting door de vrijheid die ze krijgen, met als gevolg intrinsieke motivatie, plezier, persoonlijke groei en betere resultaten. Ik ben als leraar hun coach en facilitator en zorg voor een goede werkomgeving.

Scrum Alliance

AN INTERVIEW WITH HOWARD SUBLETT, SCRUM ALLIANCE CHIEF PRODUCT OWNER

Howard Sublett is the chief product owner at Scrum Alliance, a new position for him and for the organization as they continue to evolve toward sustainable agility. Howard brings a wealth of experience in a variety of agile practices to this role, including serving as an agile coach and leader at several agile consultancies. As chief product owner, his primary responsibilities are to forge coalitions, to decide which products and services best deliver value to and serve customers, and to promote agile and scrum principles and values in the greater community. He shares the C-suite with Chief Scrum Master Melissa Boggs.

Paul: I met you when I was a pretty new to agile, but you took a chance on my colleague Bill and me for a podcast with Agile Amped. Are you still doing those podcasts?

Howard: I am not continuing that particular series but there may be something from Scrum Alliance with a familiar voice. I really can't say more than that for the moment!

Paul: Your voice is really familiar from all those podcasts. Do people ever recognize you just from your voice?

Howard: Oh yes. Once at a conference in Minneapolis a Target employee blurted out, as soon as we started talking, "Oh wow! Are you the voice of Agile Amped?" He told me that some practitioners at Target were listening to every episode.

Paul: What did you like most about doing the podcasts?

Howard: They gave me the chance to meet some of the best and brightest people in the world. I love that ability to sit down and have real conversations with all sorts of people.

Paul: Now you are the chief product owner at Scrum Alliance. Can you tell me what the mission of Scrum Alliance is? And do you have to explain your title?

Howard: The title does represent a change in the organizational structure. In the past, we've had a more traditional leadership structure with a CEO. And there's nothing wrong with that. CEOs can be agile! But we wanted to try something new - to push the boundaries and see what it might look like if we structured our leadership differently.

So we thought, what if I was brought in not as a CEO but as a chief product owner - someone who would focus outward on the market and our environment. Someone to make sure that what we prioritize reflects our community and brings our vision to create a world of work that is joyful, prosperous and sustainable forward. And that's what we did.

To create balance, we also wanted to bring in a chief ScrumMaster as the other half of the C-suite—and we were lucky enough to find Melissa Boggs to fill that role. Melissa's focus is on the organization, helping our great team continue finding ways to improve and be more agile.

Culture is a core element of any agile transformation, so we wanted to visibly demonstrate that it is a priority for Scrum Alliance as well.

Paul: And what big goal do you have in mind for the organization?

Howard: Up until now, I think we've done a pretty good job of setting the bar for what scrum and agility are. We've put in place good mechanisms for what great agile training means and what a great agile trainer looks like. I think the big thing for us is to continue to set the bar - and to focus next on sustainable agility.

We all know that doing an agile framework like scrum isn't the goal. Becoming more agile so that you can create what the market needs when it needs it in a way that delights customers and inspires joy in employees - that is the goal. Training and certification are part of that journey, sure. But they are only one part. Becoming agile might start with a CSM® or CSPO® certification, but it shouldn't end there.

So we're setting our sights on helping organizations move towards sustainable agility. We want to help companies implement changes that are lasting, that are sticky. Part of that is doing a better job of telling the world about our best-in-class Certified Agile Coaches and the role they can play in an organization's success. Another part is enlisting the help of our certified trainers and coaches - and other agile experts - to help establish an evidence-based path to sustainable agility.

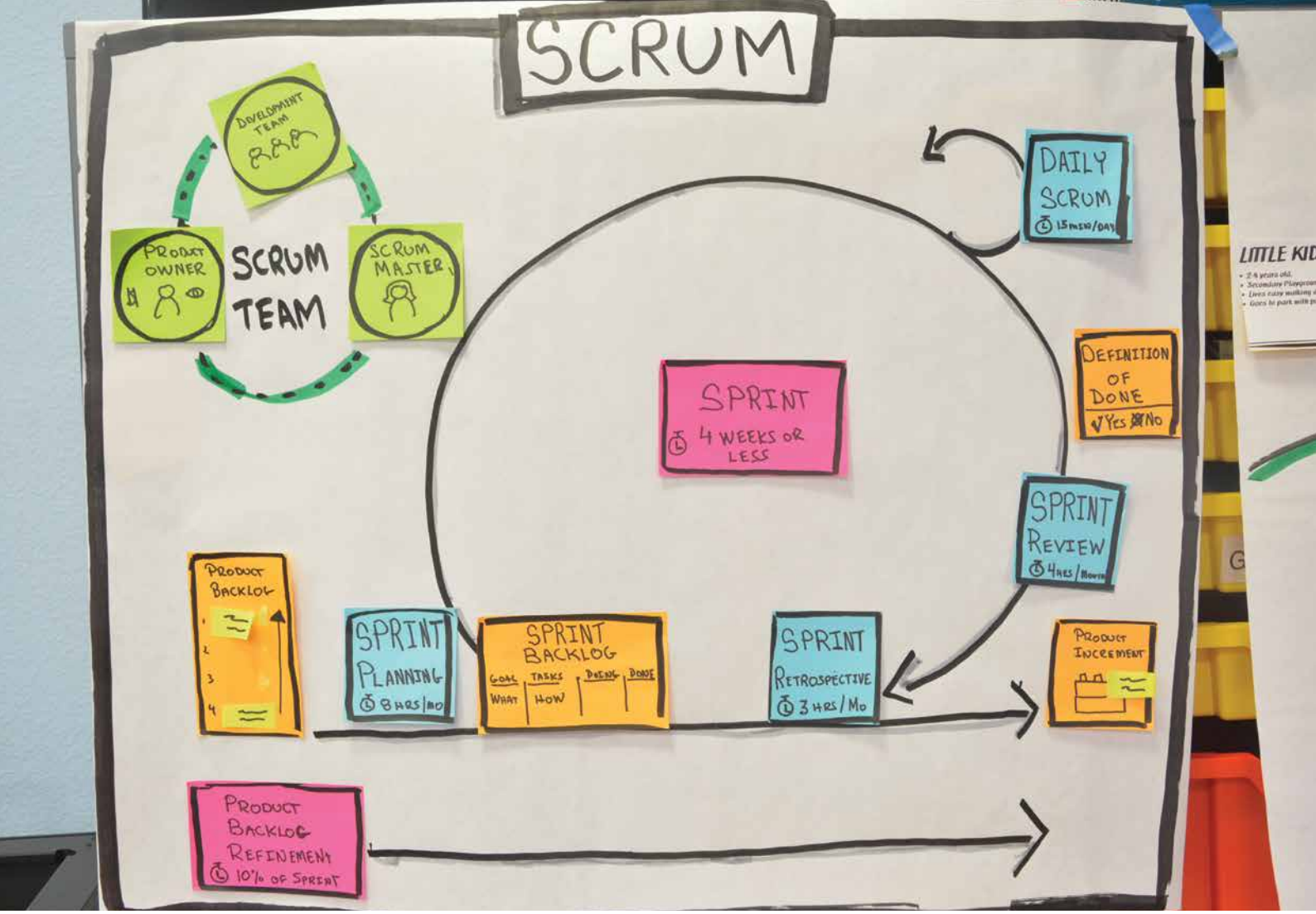
Paul: Agile has really changed me personally. Is it the same for you?

Howard: Of course. Otherwise I wouldn't be where I am now. This isn't just a job for me. I'm here because this is the thing I need to do in the world. My intro into the agile space, like

Scrum Alliance

Founded in 2001, Scrum Alliance is the largest agile membership and certification organization—and the only one that is not for profit. Creators of the popular ScrumMaster® (CSM®) and home of the Certified Agile Coach (CAC) program, Scrum Alliance's vision extends beyond certifications—to a world of work that is joyful, prosperous and sustainable.

Scrum Alliance's mission is to inspire and guide individuals and organizations with Scrum and agile principles, practices and values. Scrum Alliance has over 900,000 certificants and 400 official user groups worldwide. It also sponsors numerous global, regional, and local Scrum and agile events. To learn more, visit www.scrumalliance.org.



yours, was through a friend. In my case, a friend in my own small hometown. He was working at Scrum Alliance and he asked me to join the organization.

I remember telling him that "I'm not interested in pyramid schemes." I really thought he was launching into one of those pitches! But he showed me on a piece of paper what it was all about. Then he took me to a company to talk to people and to see for myself how much scrum and agile practices had changed people's work lives. I saw how teams could choose work for themselves - rather than having it pushed on them - and how scrum allowed them to deliver it in frequent increments. I was hooked.

Paul: It's a big change.

Howard: Yes, it is. The agile movement is really about valuing humanity in the workplace. And it benefits business, too. It felt like magic and I wanted to be part of it. I went home and couldn't sleep that night thinking about all its implications and the force it could be to change things.

That's how I started a learning journey to understand this stuff. That was the beginning, 11 or 12 years ago, of how I ended up here.

Paul: And in your day-to-day life?

Howard: It has shaped everything. My wife is a finance manager for Habitat for Humanity. I've worked with them to help them visualize their work. I have businesses here in town run with a giant Kanban board. I have a Kanban board for planning our next vacation. It's just the way we visualize work in my house now. We deliver things to done in small bits of time.

Paul: Our school is pulling agile into education, and I've run across a number of other schools doing the same thing. From where you sit, do you think agile will make it into schools in a significant way?

Howard: I do. The indicators that point to yes are the grassroots, viral nature of adoption. When something is a bad idea and it's pushed out there, people just don't adopt it. But when you

hear stories from schools all over the country about a little implementation here and there and about the way it's spreading by word of mouth, it just makes me feel like we're on the right path.

Paul: My colleague Bill pointed out to me that schools are one of the biggest push systems imaginable. Students do not pull work to themselves, as you described with your initial encounter with agile - teachers and curriculum push work at them.

Howard: Right. Not only are teachers pushing, they are often pushing to a classroom of 30 students at the same time, supposedly at the same level but actually of 30 different levels, and that sets up a dynamic that is nearly impossible for learning.

Look. We talk about what a volatile and unpredictable world we live in. Teachers have got to figure out a way to keep up with rapid changes. When a teacher pushes work that's planned a year in advance, with tight prescriptions about content, it sets the teacher up for frustration because students don't have a say. Teachers teach because they are passionate but it's a tough, tough job. I don't know how teachers find the strength and energy to go to work some days.

Paul: Some days it is hard.

Howard: Our current system leads to burnout. They often are in an unwinnable situation.

Paul: Hopefully pulling agile into education will help. What do you personally see as the next big thing for agile?

Howard: I see a movement back toward principle-based adoption of agile frameworks like scrum instead of rote framework adoption.

The early days were all about principles; over time that morphed into these large-scale frameworks that were only about doing. Now that people have been trying to *do* long enough, they are swinging back to where it all began, to more of an emphasis on being agile as opposed to blindly following some prescriptive process.

Here's a tip: agile isn't a thing to install. Agile isn't a noun; it's an adjective. You can have an agile team or agile implementation, an agile mindset

or an agile framework … but you can't have an agile. It's not a thing.

Agile shouldn't be capitalized. It's not a brand-name product that you plug in and play. It's an adjective that describes a culture, a mindset—a movement.

Paul: Do you ever worry about the agile movement?

Howard: I have some days when I worry that the agile movement might fade away. And others that are full of hope and joy. That's why I'm so passionate about us investing in an evidence-based path to sustainable agility. For the agile movement to continue, we have to find better ways to make it stick.

Here is one of my personal visuals. I was in York, England, looking at the cathedral there. It took centuries to build. I started thinking of the people doing the work on it that never saw it when it was finished.

In a lot of ways some of the work we are doing is the same. It can take generations for this kind of mind shift to happen—or for something as big as education to change. I'm seeing indications that we're moving in the right direction. And while I probably won't see it solved while I'm in this role, it doesn't mean we shouldn't do the work. At Scrum Alliance, we are uniquely positioned to be the torchbearers for sustainable agility—and I plan to do everything in my power to see that we are.

The Agile Toolkit: Fifty Percent Content, Fifty Percent Skills

NICOLA COSGROVE, PHYSICAL EDUCATION TEACHER

Over the past two years, I have been working on an 'Agile Toolkit' for teachers in order to help them easily implement agile practices into the classroom. I'm committed to the agile mindset, because education is less today about the content you learn and much more about how you learn the content. That's what matters. Today and even more so in the future, we can access any information we want with a touch of a button. How we persevere in our thinking and work with that information is also vital.

When you first hear about agile, it is hard to really comprehend because it is such a broad topic with links to many aspects of teaching. It really took some trial and error for me to find my own way of utilising agile to suit my students, but it seemed so useful that I knew I wanted to give back my experience so that other teachers could benefit. With that in mind, I put together my personal experiences and resources for my first LASER resident scholar project.

That first year I was very interested to see what teachers would actually adapt. The toolkit I put together seemed right to me at the time, but in hindsight it was a lot of information in a folder, which, realistically, wasn't the best method to disseminate information. Surprisingly, I wasn't too worried that the project had largely failed. While I am definitely one of those people who strives for perfection, with good organization and a sense of getting it right on the first try, perhaps I was adopting an agile mindset myself! I had certainly "failed fast," as they say, and learned from it. My previous lessons were rubbing off on me, changing how I was thinking and how I would go about helping teachers the next time around.

Before my second resident scholar year I began working on a website to connect with educators beyond Leysin American School. I created 'Agile in the Alps' and a Twitter account with the same name. In addition, I started a blog and a resource bank of information that people can access. This collection includes some of my own work and links to work from others.

Furthermore, I also co-authored a chapter in the Springer publication Agile and Lean Concepts for Teaching and Learning, called 'Getting Agile at School.' The book's collection of articles about agile in practice has given me more insight into what teachers are accomplishing with agile, and how.

Visiting other schools is also particularly helpful; we do not do it enough. In the second year of my resident scholarship it was great to get out and visit educators from the Netherlands, who were implementing agile in their classes. The thing that really struck me is that you don't need anything special to operate in an agile way, you just need trust in your students and a will to try something new or adapt what you have already been doing.

How to make learning visual

5 DETAILED TIPS

1.) START WITH A KANBAN BOARD

Start with a basic, all class board to show tasks that will be completed during a lesson. You as the teacher begin to model this process. All you need is a whiteboard, pens and some sticky notes or magnets.

2.) APPOINT STUDENTS TO HELP

Give students the opportunity to be you and take charge. What are the tasks? When do we move them over? Did we get everything done? Can you add or remove a task?

3.) RELEASE MORE OWNERSHIP

Begin each lesson with a maximum 5 minute 'Stand up' where all students engage in setting tasks for the lesson. You can start this off by helping the group at first, then slowly becoming less and less involved.

4.) UPDATE YOUR BOARD

Make sure students update the board with what has been done and begin to work out what should be attempted next class. This will help with the stand ups and with your own planning.

5.) EXPERIMENT WITH DIFFERENT TYPES OF KANBAN TO SUIT YOUR STUDENTS.

Regularly engage with your students and create different boards that can be used in certain situations. See my video 'How to introduce a Kanban board' on my youtube channel for more help.

AGILE TERMINOLOGY

We've used some terms that will be familiar to folks working in an agile environment. For those of you who aren't, here's a quick guide to a few of them.

AGILE - The most general term for the family of practices including scrum, lean, kanban and more. We aren't trying to do things at LAS according to some prescription of what Agile is, but instead we are trying to adopt an agile mindset. We describe what the mindset is in our book chapter published by Springer in Fall 2018.

AGILE MANIFESTO - A document that laid out the foundations of agile, often referred to with a touch of reverence. It lays out the vision and is the starting point for understanding the "movement," if that is the right word.

STAND-UP - It's common in agile environments to eschew the long meeting. What better way to do this then by meeting standing up, literally. Who wants to stand up through a long meeting? Keep it short and to the point - and then get back to work!

I've learned that one doesn't use the toolkit in every lesson, nor do the tools have to be used in the same way that others use them. At the same time, you can have an agile mindset, or be ready to apply an agile mindset, at any time. I don't classify myself as totally agile all the time. In fact, doing too much of anything will make students ridiculously bored. In my case, the toolkit methods, such as the Kanban board, are processes used to help, support, and encourage independent learning and knowing when and how to use them is key. In my mind, agile is a mixture of a mindset and teaching methods we already use.

At the same time, agile has changed my philosophy of teaching and my own personal outlook on life. I am much more relaxed in my teaching (finding the balance takes a while) and often I let students figure out or struggle for just that little bit longer. I give them more control, authority, and choice regarding the 'what' or 'how'. Someone observing my lessons might at times wonder exactly what is happening, since there are times when I'm waiting for students to organize and literally nothing is happening! For a teacher who was always organised and planned her lessons ahead of time, the change was hard, but it has taught me to be flexible with my students, with myself, and with what I teach. The benefits (big and small) I have gained so far from practicing in an agile way have been amazing. Although the shift in mindset may have slowed me down, the pace, depth and organization I've learned have caught up again, and I think I'm in a better place with my teaching, and hopefully my students are in a better place with their learning.

How to collaborate with students

5 DETAILED TIPS

1.) CREATE CRITERIA

Start by creating small criteria for tasks or projects. This can be known as a 'Definition of done,' an agreed set of criteria between a group that will help achieve an outcome. Set clear rules when allowing students to be considered as 'done.'

2.) USE FEEDBACK

Give students the opportunity to write down what was achieved in class and to plan some of the tasks for next time. Keep it visible so that students can start working as soon as they walk in the door, without prompt from you!

3.) LESS INSTRUCTION

Slowly begin to give less instruction at points in class where possible. Limiting the amount of questions you answer and instructions you give will bring out natural leaders.

4.) NOMINATE LEADERS

As per the feedback tip, give students the role of leader in the class. This means that most of the time they can make decisions (within reason), create tasks and plan how the lesson will run.

5.) PULL IN EXPERTS

Using your students, pull in those more able that are seen as 'experts.' These students have the opportunity to teach part of the lesson to the class or a small group. Giving time to prepare outside of class can be helpful and hold accountability.

AGILE IN THE ALPS

How to improve mindset

HOW CAN WE CHANGE TO A GROWTH MINDSET?

1.) CREATE CREATIVITY

Allowing more opportunities to be creative can help with how students think about the work they are producing and the pride they take in it. Students are used to power points and essays, how about something else?

WIDEN YOUR MATERIALS

Provide more materials that can help with this creativity and have them readily available. The more you have, the more options they have to produce something that is meaningful to them.

2) MODEL BEHAVIOUR

Model and build learning power by learning yourself! Introducing hobbies, struggles or even just not knowing all the answers, will help your students see how you learn and build grit.

3) MAKE LEARNING MEANINGFUL

Students are more likely to learn something if they find it is relevant to them. Making your assignments part of something and not just 'doing for doing's sake' will help hold accountability. Showcases of work are also a good event to help with this.

4) REFLECT

Spend that extra time reflecting. What did we learn in terms of content? This is important, but what is equally important, is the skills we obtained whilst learning the content. Focusing on fundamental skills such as teamwork and communication will help increase how much these skills are used and practiced.

AGILE TERMINOLOGY

DEFINITION OF DONE - An end goal to a project or chunk of work. If we know something is DONE, what does that look like? Specific criteria are key here. An example might be: To create an escape room that when tested, provides a challenge, but allows participants to be successful, within a specified amount of time.

SCRUM - Yes, the term comes from rugby. We're not sure it's the best picture for what it is: two sets of people pushing against each other. Rather, scrum aims to align the entire team in the same direction, moving forward in an inclusive way with plenty of chances for individual input and quick adjustments along the way. In our minds, scrum fits project based education very well.

SPRINT - A sprint is a chunk of work accomplished during a specific period of time. While the word is probably intentionally chosen to show how the team works fast, what is most important to us is that the team work together, and then checks its own work often. While a rigid agilist (can there be such a thing?) would say a sprint should be about two weeks, in our context, a sprint is a unit, which at school might be a week, or if we don't bind ourselves with tradition, a sprint might be one cohesive activity, even if it falls entirely in one class.

Designing an Escape Room Using Scrum

TOM COSGROVE, MATH TEACHER

While I was living in London in 2013, there was only one escape room game. It was ranked as the most popular thing to do in the whole city. Some friends and I got together to check it out and it turned out to be an enjoyable surprise. We were given a brief story to set the scene before moving into a room filled with furniture and various objects suited to the storyline. The door was locked behind us. We had one hour to solve a series of problems to escape from the room. That first time, we failed to beat the clock, but it was close! As a teacher, once I left the room I immediately thought about the educational potential of this kind of activity. My brain was buzzing.

Today, if you go on TripAdvisor and look up the most popular activity to do in most any city of the world, it's likely you will come across an escape room game.

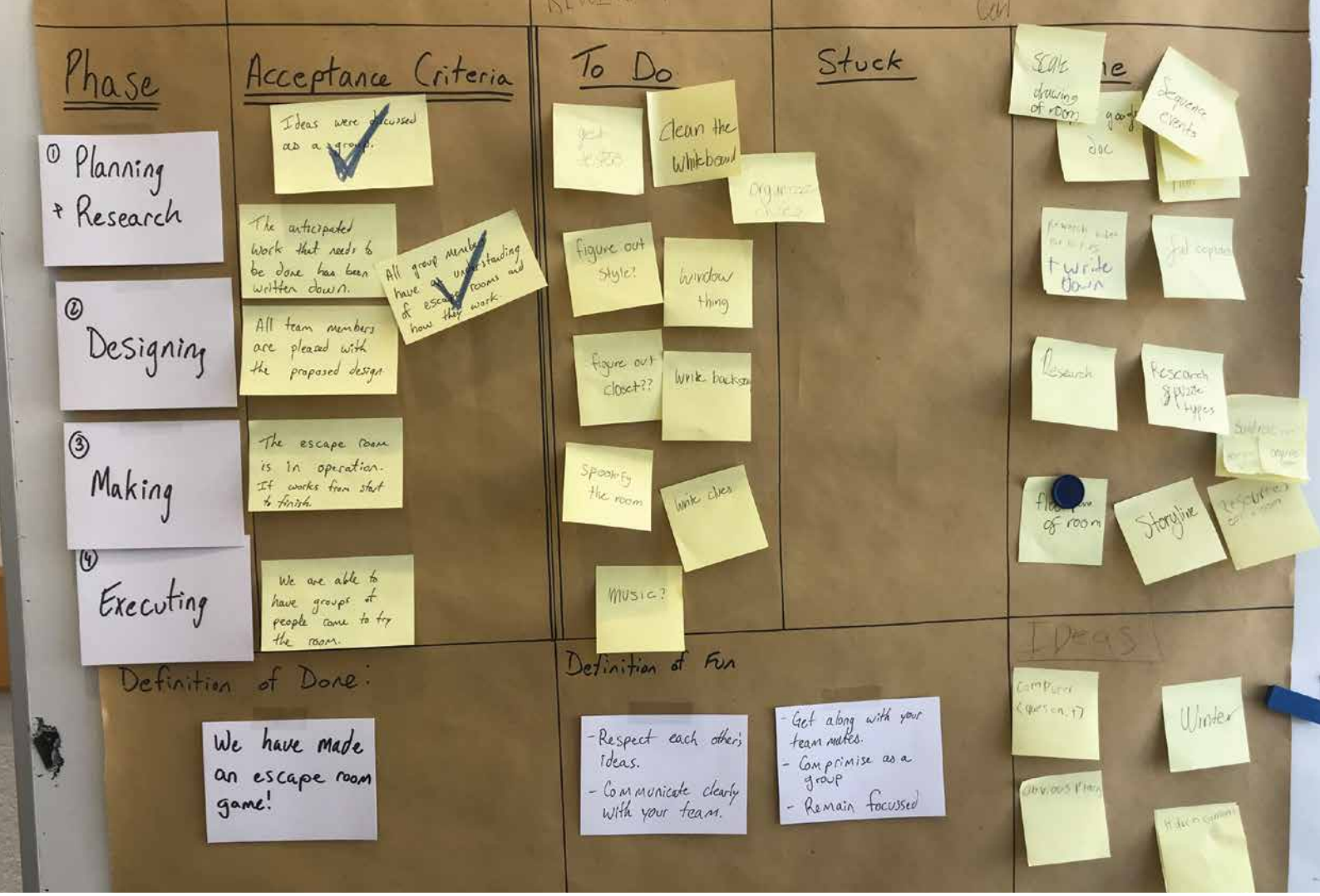
In fact, since my original experience I have been to five more escape rooms in various cities. I always thought about the educational benefits, especially the time I solved an escape room with a group of teachers. We talked afterward about some concrete ideas to apply this game to the classroom and I committed to getting students to create their own escape room game.

Coincidentally, I decided to incorporate an escape room into my class just after visiting Ashram College in the Netherlands as part of my professional development. Willy Wijnands (see his interview in this magazine) teaches chemistry there, and he developed a technique for project-based work that we wanted to learn about. The technique is called eduScrum, which Willy adapted from scrum, the name of which comes from the type of teamwork that goes on during a scrum in a rugby game. The goal is fostering solid teamwork in order to complete a project. While scrum is well-known in the corporate world, it is only just beginning to appear in schools. We've been working on it at LAS for five years now, trying to leverage it to help students direct their own learning.

I could see the good fit between my escape room project and the scrum way of working. I just needed to put the two together.

We began the escape room project by choosing teams based on character traits that the team captains felt were desirable. All students were given a list of skills and they were asked to choose three that they felt represented them the best. I folded the page so their names were hidden, then the team captains went next door and chose their teams based on the traits (not the people) that they wanted their team to have. We formed the teams and started the planning phase next.

A very appealing element of the scrum process is to make the tasks for the project visible. This is done using a Kanban board. (Willy calls it a flap, others call it a scrum board, but they are all the same thing. See the photo of mine.) I prepared a Kanban board for each team, including some



fixed goals for their escape room. I then explained to the students how we were going to use the Kanban board, and the scrum process, to help us work efficiently together.

Kanban boards can be very simple, starting with three columns of To Do, Doing, and Done. We suggest you try it out, adjusting its appearance to fit your purpose and taste.

Each team of students came up with a list of the things they needed to do to complete the project. These items were then written on sticky notes and placed in the To Do column of the Kanban board. The idea is that students now have a record of what they need to do each lesson. When they arrive in class, they can look at the board and get to work. They update the board as they make progress. Some of the things they started with in the To Do column were:

- Make a google doc
- Create a storyline
- Research puzzle types
- Purchase resources for the room

Kanban boards can be very simple, starting with three columns of To Do, Doing, and Done. We suggest you try it out, adjusting its appearance to fit your purpose and taste.

As they progressed through their escape room designs, they continued to add things they realized they needed to do and they moved things to the done column as they were completed. Students could also indicate if they were stuck or waiting for something to be completed by placing the sticky note, marked with the task, in the middle column.

After a period of research and brainstorming with their teams, both groups had a rough plan in place. One group chose a jail theme and the other an abandoned dorm room. Luckily, our building has two spaces that were ideal for these settings. I ordered some supplies and we spent a good deal of time working on the creation of some clever puzzles that would make escaping from the room a real challenge. The group working on the jail theme printed their own money. The goal of their room would be to collect the bills and add them up to reveal the code for a lock that contained the final key to get out. The other group designed an elaborate story that gave clues as to where to look in the room for an initial key which would then start them on a path to find multiple additional clues in order to escape the room.

In the end, both rooms came together quickly and tasks were moved from the To Do column to the Done column rapidly. We invited other students in the school to test the rooms – a key notion in the scrum world! – and we found that students really enjoyed the puzzles. We also had some time to review the whole process and the teams got feedback from other students on what went well and what they could have done better. The students identified that the scrum process was a challenge for them and that they weren't very good at managing their time or the project as a whole. They found teamwork difficult, but by doing this project their skills improved. The process helped maintain the organization from lesson to lesson. Without the Kanban board and visible stickies, I feel they would have been less organized and less efficient. This can create a situation where the teacher takes over more and more of the direction, which in turn quickly undermines the goal of students learning to organize their own projects.

The students learned new skills in a fun and exciting way, even though, or perhaps because, both the content (escape rooms!) and the method (scrum) were new to them at school. I'm looking forward to continual experimentation with how scrum can be used to help students manage their own work.

AGILE TERMINOLOGY

KANBAN - The kanban board (or flap, or scrum board, or radiator) has been for us the entry point for thinking about agility. Associated with Toyota's change of fortunes in the 1950s, a kanban system makes work very visible.

At its simplest, it's a three column display of what needs to get done (To Do), what is getting done (Doing) and what has been accomplished (Done).

Understood a bit deeper, a kanban board exemplifies the notion of a pull system. Group members (students) pull a task when they are ready to, from To Do to Doing. The opposite, a push system, is familiar to all of us. Someone up the line gives us work, whether we are ready for it or not. That's a push system, and it's almost as prevalent for us as water is for a fish, making it hard to see. Unlike water for a fish, a push system isn't necessarily healthy for us.

See the end of the interview with Bill Tihen at the beginning of this magazine for a particularly clear statement of the push system's role in education.

New Programs, New Directions

WE ARE PLEASED TO ANNOUNCE A NEW ACADEMIC YEAR PROGRAM STARTING FALL 2019.

Following the lead of LAS *summer*, which introduced LAS *summer edge* in Summer 2018, students in grades 9 and 10, and starting in Fall 2020, grade 11, can apply for a special program called LAS *edge.*

The academic year LAS *edge* program emphasizes student self-regulated learning, guided by a team of teachers committed not only to the content of the classes, but the manner in which students learn. Our most important outcome for LAS *edge* students is the ability to be in charge of their own learning. We refer to this as self-direction and self-regulation. We want to give students the tools they need to find their own areas of interest in the world, to organize their thoughts and actions in useful manners, to collaborate with their peers and the people around them, and to develop as leaders.

The program, open to approximately 25% of students through faculty recommendation, brings together the multiple talents and interests of our younger high school students. During the first semester, students practice group collaboration across all four themes of the program, forming a close community while learning to work together.

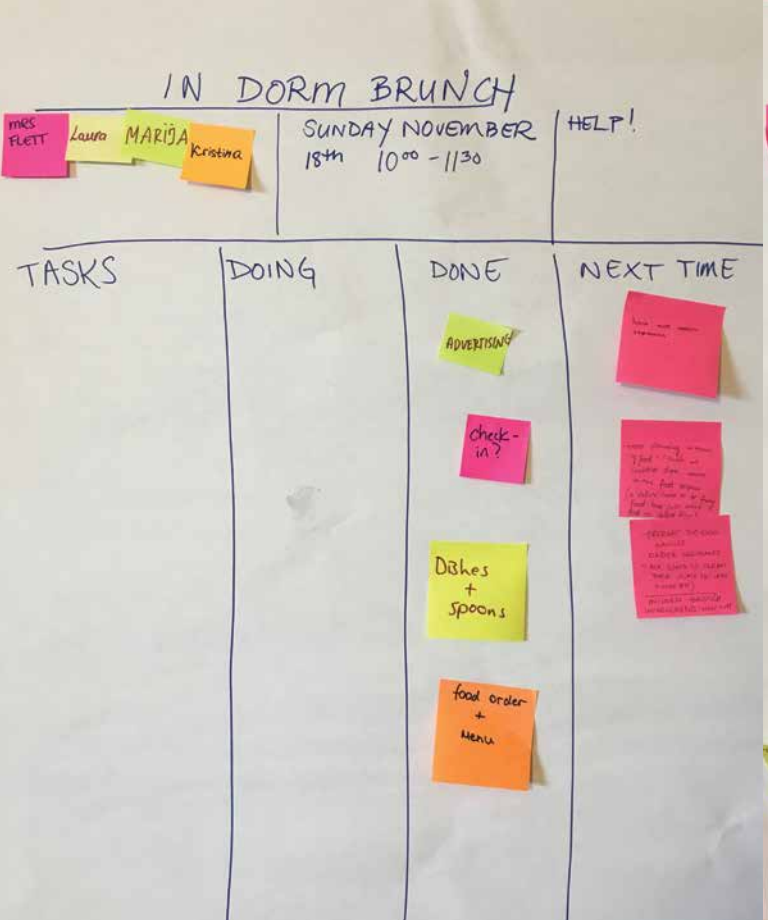
Starting with the second semester and until the end of the two-year program, students narrow their focus to one of the program's four specialty areas: Entrepreneurship; Innovation; Alpinism; and The Arts.

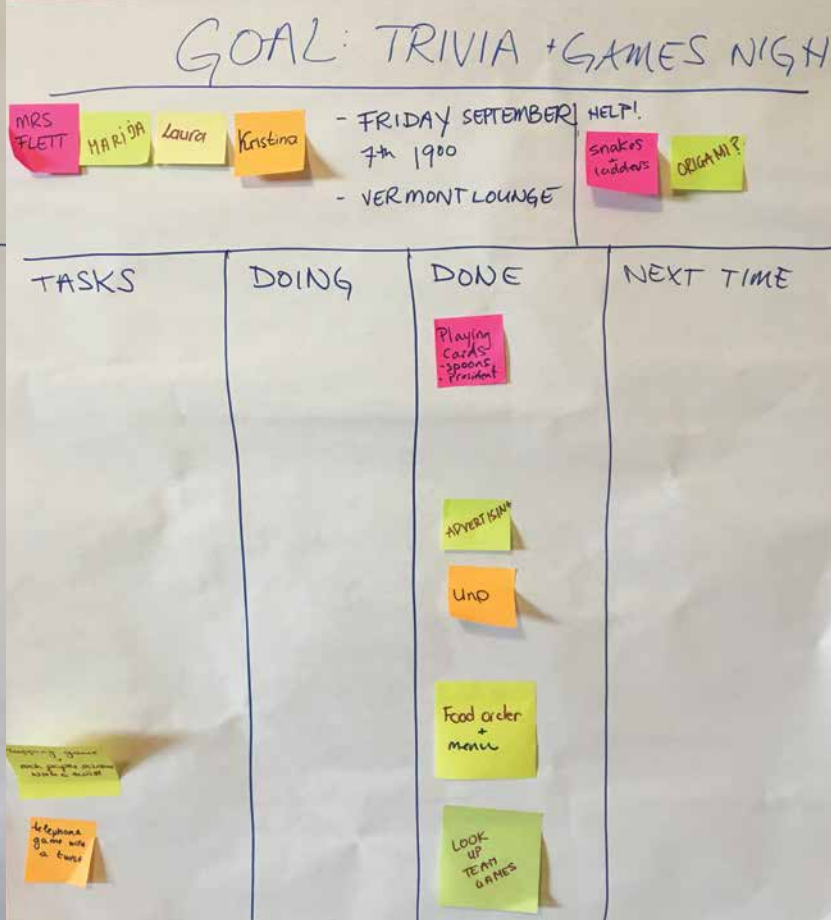
Young Founders Incubator. Students who focus on entrepreneurship will start for-profit businesses or not-for-profit organizations for social change.

Da Vinci Lab. Innovation is the heart of the Da Vinci Lab. Students will be invited to imagine, design, create, and re-create in the areas of science, technology, engineering, arts, and math.

Alpine Institute. Students with an interest in the outdoors and physical activity experience everything the Alps has to offer, including a love for doing science outdoors.

Design and Performing Arts Conservatory. Students choose from two areas in the arts, focusing either on design or musical theater. Other areas may be offered if student interest and conservatory resources coincide.





Agile in the Dorm

ANDIE FLETT, RESIDENTIAL LIFE

The dormitory can be a great venue for genuine student leadership development at school. When the structured and higher stakes academic classes are done, our students still have many hours of learning left in the day. Because learning in the dormitory is not graded and because peers often provide the most genuine formative assessment, the dormitory provides a unique environment for students to take risks, collaborate, and experience success and failure, reflect, learn, and plan for next time.

Asking four students to plan and deliver a two-hour social event, for example a movie night, might seem like an easy task. The hardest part, for me, has been to learn to step back and let them have their own experience, and in doing so let go of my vision of what success should look like. But there is a difference between saying "good luck - go for it!" and playing a supportive role. My goal is focused on developing student leaders rather than ensuring that movie night happens in a particular way, or even happens at all.

So what is my process? We begin with a meeting, and although I hate to be cliché, we start with a collection of Post-Its and Sharpies. Meetings can sometimes be one or two people talking while the rest of the group nods and follows, so I help all students gain a sense of commitment by asking them to choose a color of paper and a marker to tag the planning board with their individual name. This sets a tone of personal responsibility and collaboration from the start, with all names represented in the "who" space on the board. It also increases personal accountability as the event approaches, because everyone can see who

is progressing on tasks and who may be stuck.

We use these tools to break down the end goal into smaller tasks, for example to order snacks, survey the dorm on movie choices, buy paper cups, make posters, put up posters, email students, pick up food, etc. What I notice with using the sticky notes is that, on paper, the quiet voices are just as loud as the loud voices; I smile inwardly when the most soft-spoken student reaches for fluorescent orange notes and a gold sharpie and then quietly says "bubble tea" and decisively tacks her note on the planning board as we brainstorm snacks. My role then shifts from being the person who runs around trying to do all of these tasks to the person who steps back in the meeting and occasionally asks questions like "don't you need bigger straws and cups for bubble tea?" Then I'll see another fluorescent orange note in the "to do" column with "order big straws" as the student commits herself to the tasks that will bring the idea to fruition. I can also ask the student how long it may take to ship this specialty item and help her put a date on the board by which the items needs to be ordered.

A movie night may seem like a trivial example, but in my experience it's not, particularly if you remember that the whole project is allowed to fail. And perhaps it's important to have the day to day tasks support the overall push for greater student self-direction. One of the huge pressures classroom teachers face is that failure is often not acceptable, the stakes are too high. While in theory I can say that it's important to risk-take and experience failure, nobody wants a strong student to fail a major assignment that will stain their transcript.

We often ask "what does success look like?" and we should continue to broaden our definition of success to focus on what the student has learned, but I also find it productive to ask myself "what does failure look like?" In the case of developing collaborative student leaders, failure could be a movie night where no one shows up; failure could also be a well attended movie night planned and delivered by one person or, even worse, a movie night where I do all the work and then take a picture of my students and congratulate them for doing such a great job. If the learning goal is collaboration and leadership, a movie night that no one attends provides a wonderful opportunity for reflection. In the debrief, I can guide the group with the following questions: Was there a conflict with another event on the date? Where did you advertise? Did you talk up the event with the girls in the dorm? What would you do differently next time? The debrief is really important because this is where the "fails" can transform into learning and where we can build success for "next time." For example, the bubble tea cups and straws arrived late because we ordered these cool compostable products; people still came to the movie but we served other drinks, let's do our movie night with bubble tea next month, it was a great idea and we have the materials now!

"We use these tools to break down the end goal into smaller tasks, for example to order snacks, survey the dorm on movie choices, buy paper cups, make posters, put up posters, etc."

What I notice with using this method for planning and debriefing events in the dorm is that time management and personal responsibility become visual, thus making tasks more do-able. As the team manager, I can really take a step back while still tracking what is being done - or not being done - and keep myself in a supportive role versus taking over the doing. It's a wonderful thing that teachers are so invested in the success of their students, but there is a special opportunity for learning when we create low stakes projects where students may just fail, and in the process, succeed.

In the Zone

RAE NEWMAN, VISITING SCHOLAR

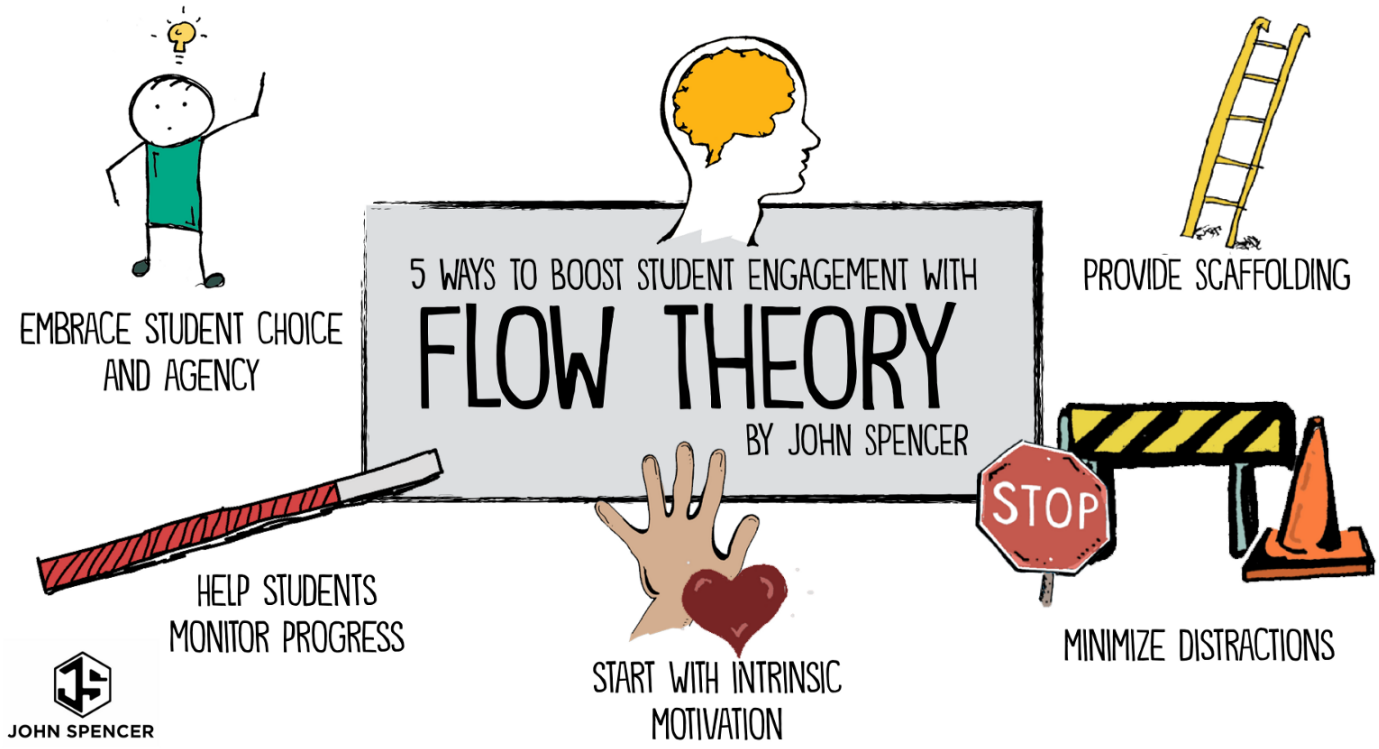
"In the Zone" characterizes a state of being which is generally an expression of peak performance, optimal experience, and skillful alignment most often thought of in the area of sports, music, or art. When have you felt you were "in the zone?"

Research initiated by Mihaly Csikszentmihalyi lead to what we call flow theory. Flow theory suggests that there are conditions which facilitate this optimal state of experience and performance. Better yet, flow theory claims that being in the zone can happen in everyday experiences. Certain factors help you get there:

- clear and immediate feedback;
- clarity of goals and progress;
- complete concentration and focus; and
- a feeling of control over the task.

Visionaries, leaders, and change agents working at the intersection of education and transformational learning have made visible the implications for utilizing design thinking in learning to facilitate flow experiences. By minimizing distractions, helping students monitor progress, embracing student choice and agency, providing scaffolding, and encouraging intrinsic motivation, research has demonstrated that students are better positioned to get "in the zone" while in the classroom.

A fundamental emphasis of flow theory is a balance between skill and challenge. In learning, it is



"It was evident to me during my stay at LAS that many teachers are reflecting on approaches to education that fundamentally support a growth mindset. This lays a solid foundation for creating a more agile school culture overall."

- RAE NEWMAN

Rae was a visiting scholar of LAS Educational Research in Spring 2019. Since 2014, LAS has hosted 30 visiting scholars from 10 different countries.

important that we create doable challenges and constantly check that we know students' current understanding. Then we incrementally build on skill and challenge alignment. Students are then less likely to be bored (be underchallenged) or, conversely, experience anxiety (be over-challenged). They are more likely to experience flow, a zone in which they are able to explore, create, take risks, and ultimately learn.

Being in the zone helps with other conditions that support learning. Being willing to take risks, embracing continuous learning, and adopting a can-do attitude are all directly in line with psychologist Carol Dweck's mindset theory, which characterizes the differences between a fixed (or static) mindset and a growth mindset. By adopting and building on a growth mindset, learner's can undergo a transformation that opens up learning. Students' thinking can evolve from "I'm not good at this" to "What am I missing?"; from "I just can't do math" to "I'm going to train my brain in math"; and from "It's good enough" to "Is it really my best work?"

In essence, self-regulation, self-agency, and intrinsic motivation is at play and the "power of yet" emerges, through a growth mindset, which further facilitates learning. "I don't understand…yet" indicates an openness to learning and less fear of failure. The power of 'yet' is not only essential for self-actualization, but also a vital 21st century mindset.

Finally, pulling agile into education provides a framework for reflection in the classroom. Research has shown that self-reflection and feedback loops support a zest for lifelong learning. The agile mindset, coupled with agile tools and methodologies, promotes self-regulation, collaboration and discovery. In other words, an agile mindset is one way to encourage flow for students, while simultaneously reinforcing the growth mindset.

The agile mindset encourages focus (as opposed to multi-tasking), incremental development in short iterations (which scaffolds learning), and approaching learning playfully. An agile mindset also allows emergent leadership and prepares students for the uncertainty of life outside the relatively cleaned up exercises of the classroom. Through agile we can encourage a growth mindset, give the joy of being in the zone, and ultimately better prepare students to tackle ill-defined problems, prototype solutions, self-organize and adapt to changing requirements and environments. All while having fun!

Building the Network

INTERVIEWS WITH AGILE PROFESSIONALS

Erin Hill

TEACHER, CODE RVA REGIONAL HIGH SCHOOL, USA

Erin is helping lead her school with an agile transformation. Erin wasn't entirely satisfied with her teaching career, so she registered for training to become a scrum master. During her work to become certified, she noticed parallels with the scrum working environment and the classroom environment. She then refocused on teaching - and the adoption of scrum - for herself, her colleagues, and her students.

Paul: You must be pretty convinced that there's a place for agile in education. You've made a website, you are on Twitter, and your entire school trained in scrum. What interests you so much about scrum?

Erin: I just realized what a good fit scrum is for teaching. For example, the things that scrum calls features and stories show up in education as lesson objectives.

When I realized that, I began to think more innovatively about school and about how to apply scrum to school. In a way the scrum master training was all about exploring whys as well as how to be innovative - usually for a company - but I also saw so much potential for scrum to be a conduit for change in schools and to facilitate student work.

Scrum plays into mastery, autonomy, and purpose - just like Daniel Pink describes in his book, Drive. When students have autonomy, there is better student work and higher motivation. Encouraging students to manage their own time, to innovate, and to reflect helps make things better as a whole. Hopefully students will be able to go on to tackle bigger problems in the future.

Paul: What specific parallels did you see between scrum and school?

The first thing I noticed was the creation of user stories and features in scrum and how we use lesson objectives and standards to talk about the same constructs.

When we say what the student will be able to do, that fits user stories, as I mentioned. But perhaps the most useful concept was the notion of time management in agile and applying that to school. How can you best put constraints on a 90-minute block of time to help students be productive? Often we just sort of hope that they are going to be productive. I actually made a 90-minute block class into a single sprint. The idea is that students can fail quickly, so they know what they don't know, and learn quickly.

Paul: Are there more parallels?

Erin: Yes. The reflection piece, for example. Teachers are expected to do reflection all the time. There are agile methods that explicitly make reflection happen. In scrum there is a sprint review (a review of the work completed in a specific time box). Teachers are probably familiar with an exit pass, for example, that's a quick review of content at the end of a class - or a sprint. And there is also a notion in scrum called a retrospective, which is a review of the work process itself.

Paul: Does using scrum add value because it is explicit about these different types of review?

Erin: Yes.

Paul: When you talk to other teachers about using scrum, are they excited?

Erin: It depends. I think it's best to start with the why. Why should teachers use this? That's what I do in the PD sessions I've led. The why is really important.

"New teachers find it helps with time management, and therefore classroom management. I'd say it's been well received by them."

– ERIN HILL, CODE RVA REGIONAL HIGH SCHOOL

New teachers find it helps with time management, and therefore classroom management. I'd say it's been well received by them. Veteran teachers need to hear why and how, and then that it is okay to take small steps and try on little pieces for size. To experiment.

I also let people know that I don't do scrum all day every day. I use it when it fits.

Paul: You aren't the only teacher using agile?

Erin: The entire instructional staff got scrum master training in December. People are still testing it out. Our school has really embraced it wholeheartedly.

Paul: I see a kanban board on the wall behind you - how many kanban boards are in use in the school?

Erin: Students have them individually and there are a few large kanban boards. I'd say about fifty percent of the students are using an online kanban board that I created for them on a google sheet.

Paul: We've found that the kanban boards are quickly understood by early adopters.

Erin: Yes. We're using the kanban boards a lot but not all students are using scrum. The kanban boards are also not organized with user stories and features. They are usually set up in tasks in columns of to do, doing, and done. We showed teachers and I explained the history behind kanban and why it works. How we process things quicker and better, for example, if we can make them visual.

Paul: We found that students won't update the board if they don't see the point.

Erin: Right. Our rollout was a bit inconsistent and we still have students that don't use it correctly.

Paul: Have you felt that agile has had an effect on your own thinking?

Erin: Yes. I've gotten better at prioritizing, I'm better at knowing if tasks are small or big, and I'm better at being really conscious of how I am working.

Paul: You also do professional development with the agile mindset. Can you tell me about that?

Erin: Recently we ran an entire faculty meeting about digital citizenship with a series of sprints in groups. After an hour we had three pretty detailed plans about how to tackle digital citizenship in our school. Now a smaller faculty team will use scrum to develop one of the plans further, so that we can all use it. That makes for good buy-in.

We also use scrum for our open houses for prospective parents and students. Specifically, we use the lean coffee method where students and parents tell us what they want to know and we prioritize those questions by dot voting. Students and staff then answer questions. That goes over really well. In this case, students and parents knew we valued their input. The success of a meeting like that can catapult staff into believing in agile more.

Paul: Right. The trick is to get a success even when people don't yet know they want to adopt. One more thing. I noticed on the web page that you recommend teaching scrum through games. Can you tell me more about that?

Erin: The most popular is a game called Spaceteam. It's like a card game, but I use phones.

You download the Spaceteam app - we've done this with both students and adults - and teams compete to keep the spaceship going. Participants learn communication and it teaches the concept of iterations really well. You have to play the game multiple times. To get better, it helps to have sprint reviews. At the end you do a retrospective on the process, with everyone in the room.

Paul: The connection with education is really clear.

Erin: Yes. Students are used to doing something once, getting a grade, and then moving on. Iterative development reinforces a growth mindset instead. You do things over and over and there is not an end. There is always room for improvement. I remind kids that Instagram, for example, is constantly creating, constantly iterating, in order to make the app better. It's a simple concept, but also hard for kids and even adults to wrap their heads around.

Paul: Has that mindset affected your assessment?

Erin: Definitely in terms of formative assessments where the feedback is focused on learning. I allow students to take quizzes over and over again. But for summative assessments our grading system still limits us and our impact of the growth mindset.

Jennifer Manly

TEACHER, UNIVERSITY OF MARYLAND

Jen Manly is a Computer Science Master Teacher in the Terrapin Teachers program at the University of Maryland. In this role, she also teaches Computer Science at a local high school. Prior to moving into this role, Jen pioneered an innovative Computer Science curriculum at Old Mill Middle School South that offers students the opportunity to do authentic projects for real-world clients. She is a Certified ScrumMaster, facilitating workshops on using Scrum in the classroom at the national level, enabling educators to empower all students to do work that matters.

Paul: I see you often on Twitter. What do you tweet about most often?

Jennifer: I tweet about how to give kids meaningful learning experiences. My hope is to inspire other teachers. Agile is something that gives kids more autonomy. It's all about how to give kids the ability to connect what they are learning to the real world in ways that matter right now, not later. I want to help more kids learn beyond the worksheet and apply what they are learning right now. They shouldn't wait to apply something until after they are graduates.

Paul: Do you have a tweeting strategy, so to speak?

Jennifer: I queue about ten tweets for the week on Monday morning. I go for a mixture of things I'm thinking and things I've already written, like blog posts, papers from graduate classes, and conversations in Twitter chats. And of course if I think of something else during the week I go ahead and tweet that, too.

Paul: And what is your connection with agile?

Jennifer: I was at a PD session on group work where scrum was mentioned, but not actually talked about. It was on a list of things you could use for group work. As a middle school teacher, I thought it was something my kids could do that

would help them do better group work. So I looked into it. Through colleagues and my younger sister I reached out to a network of software engineers, asking about scrum and how I could implement something similar in my classroom. We basically modified scrum for the middle school level.

It turned out to be a big success. My kids loved the scrum process. My classroom basically ran itself and I could help my kids better. I didn't have to go over the same thing over and over; we accessed meaningful learning instead. And they were able to work on projects that made an impact in their communities. They never would have been able to accomplish what they did had they not been using the scrum process.

I knew I was onto something good when a friend of mine, a scrum master who works for the government, visited my school. My seventh graders had such high-level conversations with her about work. They used terminology she was familiar with to show her what they did and how they did it.

Paul: So how exactly are you using scrum at school?

Jennifer: This year I got certified as a scrum master. My county actually invested in getting 18 of us certified as scrum masters.

One of the things I learned is that not every project fits an agile approach, but in each class one or two major group projects are right for scrum teams. I start by introducing scrum to my classes for a project where the content isn't that important so they can understand how scrum works without risk. We then walk through setting up product backlogs and they do a first sprint.

A sprint is typically two weeks long, which for us is five classes. Projects are typically two to three sprints. Students do a daily scrum meeting, look at the board, and do the three questions of a stand up. I generally conference with someone from each scrum team while the class is working.

At the end of each sprint the kids have a meeting and present their work to date to me. At the end of the whole project they present their project to the whole class.

We actually also use scrum at the school level - our grade eight students take on a changemaker project through Ashoka. The STEM students have a

capstone project where they partner with a mentor of a community organization to do work that really matters. They create something for positive change. We use scrum to manage those projects. Because they may only meet as a team once a week, scrum is important to guide them what to work on between meetings.

Paul: What do your colleagues who aren't trained in scrum think about all this?

Jennifer: I think sometimes teachers are hesitant because it's new. And scrum doesn't come from education so it's a little different. And maybe teachers are hesitant because they want everything in education to be prescribed.

Paul: They do?

Jennifer: Well, they have been trained that way. In education programs teachers are taught group work in a certain way. Typically it is three to five students in a group where everyone has a role. The reality is that group work doesn't work that way - usually one kid does everything and a few kids don't seem to do much at all. What's taught doesn't match how things work in the real world.

We want to train students to work in groups as it really happens in the real world. Students are better prepared for the real workforce if we do group work in an agile way.

Paul: Do you think that agile has a big future in education?

Jennifer: From what I've seen on Twitter and at conferences, I do think that agile has a future in education. If the purpose of education is to prepare students for the world, then agile has a place.

And the number of teachers who are using scrum is expanding. Every week I talk to someone new who wants to implement it in the classroom. Maybe agile is the future for group work in education. Hopefully we can change the way we teach teachers so that more of them feel comfortable with this way of learning.

Paul: Is the way we teach teachers the biggest impediment to agile's growth in education?

Jennifer: No, the curriculum is. And standardized tests. I teach computer science. It isn't tested so I have a ton of autonomy. I can teach my course how I like. I write the curriculum and I'm able to teach kids in meaningful ways. What I find is that teachers in other subject areas don't feel like they have enough time to implement scrum. Teaching kids a lot of standards for standardized tests doesn't give students much time to work on long term projects. That's a shame because meaningful work takes time. And the curriculum guides just don't allow it.

Paul: One time my colleague Bill Tihen and I talked about how education is the biggest push system we can imagine, at least the way we normally do it. A push system generally has a Big Plan up front, before any of it has been implemented. Then the plan is pushed out to those who have to follow it. There isn't much room for short iterations to inform future iterations, because that changes the Plan. It's all mapped out. You can't adjust on the fly.

Jennifer: Yet I can adjust, even in the middle of the class. I don't need to be nervous about covering a particular topic at a particular time.

Paul: That's a luxury. I sort of wonder what content students really have to know, anyway?

Jennifer: My view of education is that most kids don't have to know the content of, say, eight different subject areas before they leave school. The most important thing is that they have a good, deep understanding in the particular field they

WHAT IS A STAND UP?

A stand up is a short meeting, performed while standing - which helps keep it short! The traditional three questions in scrum are: What did we just get done? What are we going to get done next? Is there anything blocking any of us from being productive?

> The number of teachers who are using scrum is expanding. Every week I talk to someone new who wants to implement it in the classroom. Maybe agile is the future for group work in education.
>
> – JENNIFER MANLY, TEACHER

are interested in. You get that through long term projects.

Students need to be always learning, open to growth, and gaining an ability to persist even when things are challenging. If our classes are not training kids to be excellent and tenacious and that the act of learning itself is the most important thing, then we aren't preparing kids to be successful in the real world.

Just think about the best teachers you know. They are open to adapting and learning new strategies and making learning more meaningful for students.

Paul: You mentioned perseverance. Do you let students redo work?

Jennifer: The whole point of agile is that we learn through constant iterations. In my version of the scrum board, there is a review column. Before a task can be moved to the done column, someone else on the team has to give it a green light. That's one level of redo built right in. If the task doesn't check out with a peer, it goes right back to the "To Do" column. When I'm not doing scrum, I let kids redo work as well. I want kids to be able to show mastery. If we don't let them redo work, the message we are giving is that if it's not right the first time, it's not worth doing. We know that's just wrong.

Paul: Is there anything else that is important for teachers to know about scrum and agile?

Jennifer: One of my favorite features of scrum in the classroom is how easy it makes it to both differentiate and assess. Because it makes the work task-focused, it's easy to combine students of different interests, paces, and learning styles. Some students may complete more tasks or more complex tasks, but every student is able to meaningfully contribute to the project. For assessment, the task structure and management using a scrum board easily allows you as the teacher to assess students on the work they are doing individually. Plus, there's multiple points to check-in and monitor progress. In terms of assessment, it's a dream.

Wayne Stevens

TEACHER, PAPAMOA COLLEGE, NEW ZEALAND

Wayne is a math and technology teacher at Papamoa College in New Zealand, where he has worked since 1994. He is an eduScrum representative for New Zealand and has been working with this process in his current classes.

Nic: If you were to explain agile or scrum in education, what would you say?

Wayne: It's in the very early stages as far as I can tell. It's limited to a few teachers in USA and the Netherlands. The place where they seem to spend the most time collaborating is on Twitter. I have been trained in a system called eduScrum by Willy Wijlands from The Netherlands, which is basically scrum for children. My interest actually lies in seeing a school run in an agile way the way that MindLab is in New Zealand - they train teachers in NZ - but unfortunately I am not seeing this idea gaining much traction at the moment.

Nic: Have you always believed in this type of learning, or was there a 'lightbulb' moment where you realised you wanted to shift?

Wayne: The Mindlab course introduced me specifically to agile last year, but I have never been a fan of the "top down" method of management. I do think change needs to happen at the management level of schools before we have any chance of imparting these techniques to our students. Such methodologies need to be understood on a deep level before you can begin teaching them.

Nic: If we were to walk into your classroom, what would it look like?

Wayne: I am drip feeding these ideas into my classrooms a little at a time so some days you may see self-organising teams in action, other days you may see them working in silence from a book. I am still new to these ideas myself so I am being very careful in how I introduce them.

Nic: Are there any challenges that you face when implementing scrum and agile as a tool for learning?

Wayne: Getting younger students to work in teams is very challenging and can jeopardize the whole process. I have read a couple of books on the subject but they don't really relate too easily to children.

Nic: Do you ever encounter students that are not receptive to these methods of teaching and how would you react in these situations?

Wayne: Students who can't work in a team either work independently or in pairs.

Nic: If you could give three tips on how to implement agile and scrum, what would they be and why?

Wayne: Make sure you fully understand what you are trying to achieve. Work with older students at first. Make sure the students fully understand concepts such as self-organising teams and why you are introducing them.

HELPFUL RESOURCE

Agile and Lean Concepts for Teaching and Learning - a book devoted to agile in education, with chapters on agility at LAS and through eduScrum, our agile partner in the Netherlands.

Bret Thayer

TEACHER, JEFFERSON COUNTY SCHOOLS, USA

Bret Thayer is a teacher and a certified scrum master in Jefferson County Schools in Denver, Colorado, USA. He is passionate about sharing how Agile practices can revolutionize the way teachers teach in schools and better prepare students for the 21st century workplace. He has presented Agile in the Classroom many times including Scrum Gathering Minneapolis (2018), ISTE Chicago (2018), InnEdCO (2017), and Mile High Agile (2017 and 2018).

Paul: Are you working on a publication?

Bret: Yes, I'm putting together a manual about how we use scrum in school. The book will have two sections: a philosophical background about how agile merges with education and then a lot of examples.

Paul: Examples in the classroom?

Bret: From my own classroom and from other teachers, including English, foreign language and others.

Paul: Computer programming is scrum's origin, so I think early adapters seem to be in computer science.

Bret: Any class that uses project based learning is a good place for scrum. Sometimes that's in computer science, but it's by no means only computer science.

Paul: So can we call it a movement? Agile in education?

Bret: My brief take is that there is a need for a new approach. In Agile Amped's podcast at Mile High Agile we ended up talking mostly philosophy. What should education look like in the 21st century?

We definitely need to move from teacher directed learning to student directed learning. That's a flip in thinking. So I've made it my mission to tout the advantages that scrum gives students to get them ready for 21st century practices, processes, and the ability to work in groups. I'm not sure if that counts as a movement.

Paul: But student self-regulation is a major goal of yours?

Bret: Yes—and also supporting student reflection. The focus on retrospectives are one of the most important things in scrum. What were the lessons learned? That's the big takeaway. It's not just the scrum board and the stand ups. It's the retrospective. That's an important piece.

Paul: What does a retrospective look like?

Bret: For example, I teach a class called AP Seminar. This class was created by the College Board three years ago, because they found that many students entering college were missing research and presentation skills. In AP Seminar students can do a lot of hands-on projects based on what they want to research, not what I tell them

HELPFUL RESOURCE

Agile Amped - Podcasts on all topics in the Agile space, including education. *Search Agile in education at Leysin American School, Preparing the next generation for the new agile world, and Embedding agility into education.*

to research. They have to do a lot of collaborative work and prepare a presentation.

All this fits into agile perfectly, because the teacher's role is reflective questioning. Agile becomes a critical piece about how to do the project better next time - looking at the process, looking at what went well and what didn't go well, learning to be reflective. All of these aspects merge really well in this class. The students are used to running the stand ups.

Paul: Stand ups are to plan work, right?

Bret: Yes. Traditionally to ask what was done, what is going to get done, and if anyone on the team is stuck. Once I had a mini coup d'etat. The students wanted to change some things. For one, they didn't want to actually stand up during the stand up. But that wasn't all. They wanted to take over more responsibility for running the stand ups.

We want them to be in charge of their own learning. They are becoming the scrum masters. They rotate the role and facilitate their own work. That is exactly where I wanted them to go.

Paul: And it's better if they decide to take over then you telling them they have to.

Bret: Right. That increased their own accountability and their participation. It's motivating.

They are doing so well on a longer project that I introduced burndown charts to them. Since I have more than one group working at a time I can use a little competition to help the work get done. I think students like competition. They can see if one group is getting ahead - that sort of spurs them on.

They learn real skills that they can take to college and on into work.

Paul: We talk a lot about how content is such a major focus in school that skills play second fiddle. Do you find that?

Bret: It depends on how much flexibility a teacher has in the classroom. There's a lot of content to cover in some courses, like AP History for example. Students finish that course with a 3.5 hour test that covers centuries. It's hard to use agile when the test and the curriculum dictate the pace and the content of the course.

But other courses have more flexibility so anytime I can infuse project based learning, I use scrum. There just needs to be an authentic task. For example, once students created resumes for European explorers. Working individually or in groups, they organized themselves with a scrum board and I gave them four days to work. They can be flexible and creative - and it all leads to a final presentation. So you get presentation skills on top of everything else. And it makes the retrospective really fun. We have time to talk about the soft skills: communication, collaboration, and presentation. It's less content focused and more skills focused.

Paul: I've found in my own context that focusing on skills can backfire. Students and parents are so focused on content.

Bret: It depends what their mindset is and if the students see that they need these skills to be successful in the workplace.

We don't want kids who are merely proficient in passing tests. That thinking is left over from the 20th century. No employer is going to ask what you got on an exam. If I were interviewing someone, I'd ask about projects - that's more valuable.

Paul: What are the fundamental changes you'd like to see in schools?

Bret: Teaching teachers how to use project based learning for authentic tasks. Using scrum as a

Arvada West High School is a public school in Jefferson County Colorado serving over 1700 students of diverse backgrounds. Arvada West is celebrated for its music, choir, and theater programs as well as offering a variety of college and career ready courses. "We support students as a community of learners who think critically about the world around them and develop college and career-ready skills necessary to find success in a collaborative, technology-driven world."

mechanism to get kids real world experience. We have to flip from teacher-directed to student-directed. Student-directed gets you the soft skills, the ones that are really needed. That's the key.

When I was trained as a scrum master, I learned that if you are leading correctly, you aren't needed. High functioning student teams don't need a teacher in a classroom. And that might be a scary thought. It's giving up control.

Paul: We feel like we have to be actively teaching.

Bret: Right. But if an administrator comes in my classroom and I'm not active there could be a problem. They are looking for the teaching. But I would say: "Talk to the students. Ask them what they are doing. Ask them what they are learning."

Paul: So it's important to get administrators on board with this shift in mindset.

Bret: Absolutely. I've been here since 2000. I have a lot of trust built up and that helps a lot. We are also a one-to-one school with technology, and we are very collaborative. These factors help, too.

Paul: How do you explain what you are doing with agile to people who haven't heard about agile?

Bret: I say I'm training kids to be 21st century thinkers.

Paul: What does that mean exactly?

Bret: Imagine having a project where kids are in charge from beginning to end. They use a scrum board to track their progress and they meet, including retrospectives to make adjustments as they go. And what's my role? I'm a facilitator only.

Paul: Do you train teachers from other schools?

Bret: Yes. I've presented at ISTE and an educational conference in Colorado, plus Scrum Alliance conferences in Colorado and Minneapolis. Brad Swanson trained me as a scrum master. Together Brad and I want to come up with a training specifically for teachers regarding how to use agile in the classroom.

Paul: People talk about agile as a mindset, not a process. Is that where you are, too?

Bret: Absolutely. That's why I break up how I talk about agile into two different things: the philosophy and the process. In presentations, people and teachers understand the process. They are slow to understand the mindset. I think you have to do one before the other. Teachers understand a scrum board in 45 minutes. But it takes a two-day training to get past just the bits and pieces of the ceremonies to the mindset.

Paul: And has working with agile affected you personally, in how you think and work with people?

Bret: In 2015 I was thinking maybe I needed to get out of teaching, even though I'd been a teacher since 1995!

My wife, who is in the IT world, encouraged me to train as a scrum master. When I was going through the training I thought, "This could revolutionize how we work in schools." Now it's infused my teaching and I have a new mission. There's no going back. I'm doing what needs to be done for my students. Old 20th century methods aren't going to work in this new environment.

Rae Newman

EDD CANDIDATE, EDUCATIONAL LEADERSHIP
MILLS COLLEGE AND UC BERKELEY, USA

VISITING SCHOLAR, LEYSIN AMERICAN SCHOOL

Rae is a doctoral student in a joint program of UC Berkeley and Mills College, California. Her interests include learner-driven design, international student mobility, and the effect of globalization on 'citizen of the world' education. Rae's current research focuses on a qualitative inquiry into critical cosmopolitanism and the 'Agile student identity', for and within international education. Rae also serves as a Pathways Fellow at the US Department of State, collaborating with educational, political and non-profit leaders on sports diplomacy programs, as well as educational exchange policies and programs.

Paul: I know you are a certified scrum master and a doctoral student in educational leadership. Which interest came first, scrum or education?

Rae: My interest in scrum and the overall agile/lean processes and mindset came first. I was introduced to it in my corporate profession working as a Learning Designer and Senior Instructor in the Learning & Development (L&D) department for a large global brand. What I've found from my work with diverse learner needs, and from collaborating within highly culturally diverse L&D working groups, is that the more agile and lean your training framework is, the more you can move toward advancing and sustaining an equitable and innovative learning environment, that readily adapts to changes in learning requirements and constantly iterates in an innovative manner.

Having a highly mobile childhood, growing up amongst five different continents, peaked my interest in global phenomenons from a young age. As a professional, a scholar, and an athlete, I continue to value international experiences. A cornerstone of my practice and inquiry directly relates to valuing and leveraging a wide variety of cultural, geographical and socio-economical perspectives; as a result, I'm comfortable facilitating learning and leading training for diverse audiences.

Paul: Your own experience continues to affect you.

Rae: Of course. Essentially, thinking critically about my own transnational and transcultural formal and informal educational experiences aided in my realizing how I needed to work with diverse learners, that was a light bulb for me. As a leader of learners, you must be both learner-centric and nimble. I believe, it's with an agile mindset, and supportive and innovative culture within a learning ecosystem, that meaningful growth experiences are achieved.

That's what sparked a real interest in me to get scrum master certified. And when you grow an appreciation for scrum and agile, then you become excited about the potential for bringing its practices into education - because it's a good fit. In my leadership program, I wanted to adopt these practices in schools and learning institutions, particularly those with a high degree of cultural diversity. Some of my personal learning experiences were rigid. In moving from school to school in my travels as a youth, I found that often the school culture and curriculum expected me to adopt to it, rather than allowing it to be agile enough to adopt to my unique desires as a transnational learner. With scrum and agile, there is a chance to promote learner-centered design and moreover, foster life-long learners.

Paul: And you've brought agile into school?

GROWTH MINDSET

Rae: I've been working with a few select schools, across the spectrum of academic performance. My most involved pilot experience with agile in school, so far, is in collaboration with California College of the Arts (CCA). The Head of Curriculum of the pre-college component is also part of my leadership program. We have been taking small steps to implement some agile strategies in to their specialty areas, so far just with teacher training for the English Immersion program.

Paul: Why those subject areas?

Rae: English just seemed like a good fit, as I am particularly interested in utilizing storytelling in agile as an approach to engage with learners; shifting the focus to leveraging their own unique stories and backgrounds as we adopt an agile mindset and approach to learning. We started with the English Immersion specialty, too, because the program has some embedded structural flexibility; there is room in the curriculum to try new things.

Paul: What have you done so far at CCA?

Rae: We want to ultimately help teachers develop more self-regulation in students. To get there, we've started with teacher professional development, using some methodologies associated with agility insofar as learner centered design thinking, which we are introducing incrementally. I call it 'feedforward', instead of feedback, because we're helping teachers develop a critical agile mindset at the outset, one which encourages empathy and innovation on the front-end. We think approaching the introduction to educational leaders and teachers from this angle will allow for excitement and co-construction of vision; which in turn should make the learning experience more authentic.

Paul: And how far have you got?

Rae: With CCA, we've initiated by exploring and implementing the qualitative and visual tool of learner journey mapping. So far teachers have been reflecting on learner experiences. Learner

experience (LX) is a direct parallel from the user experience (UX). I am borrowing the basic concepts from UX to apply to learner experience (i.e. storytelling, learner research for empathy-driven design, learner journey mapping, prototyping, etc.)

Paul: LX?

Rae: Yes; user experience (UX) is an agile/lean, empathy-driven, practice of approaching and qualifying the actual 'experience' that one has when engaging with a product, service, or an overall experience. In my corporate work environment, we utilize UX and applicable design strategies in a collaborative fashion, as an integral aspect with agile and scrum practices. In adapting it to education, it reasons that learner experience (LX) applies this same design strategizing - as part of the 'feedforward' idea. LX design is the process of creating learning experiences that enable the learner to achieve the desired learning outcome in a human-centered, goal oriented, and ultimately, self-regulated way.

Paul: Can you tell me more about the concept of a learner journey map?

Rae: Sure. At the outset, the assumption I lead with is that everything we learn comes from experience, although not every experience is as 'educational' as others. Then I ask the questions, "what kind of experience makes a student want to learn and helps to achieve learning goals? How do we design these experiences?"

A learner journey map tells the story of the learner's experience longitudinally (i.e. over the course of a program, semester, or school year), for a particular engagement with a product (i.e. curriculum block or educational project), or for an event (i.e. a cultural trip, or significant school event). Typically, this is a process of making the learner story visual from initial contact, through the process of engagement and into a long-term relationship with their learning. It may focus on a particular part of the learner story or give an overview of the entire process. It hyper-visualizes the sum of experiences that learners go through when interacting with their 'learning ecosystem'. Instead of just looking at just part of the knowledge transaction or educational experience, the learner journey map aims to document the breadth of the experience of being a learner. Clearly, then, this process is highly qualitative and user research (learner research) is a major part of the process.

This is basically applying design thinking to the classroom. Starbucks and other big brands do this routinely, of course. What is the customer experience from the moment someone walks in the door? By applying that type of thinking to learning environments, teachers see teaching and learning from the students' point of view, allowing them to recognize impact, or lack thereof.

What's kind of neat about doing this is that teachers realize where the 'pain-points' are, or maybe reframing to the 'moments of opportunity'.

Paul: What do you think adopting some of these working habits by a classroom teacher, or by a school, will change?

Rae: I'm hopeful that working this way helps educational leaders align with an agile mindset, and ultimately aids in developing an educational strategy for transformation, knowledge

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"As a leader of learners, you must be both learner-centric and nimble. I believe, it's with an agile mindset, and supportive and innovative culture within a learning ecosystem, that meaningful growth experiences are achieved."

– RAE NEWMAN

HELPFUL RESOURCE

The Art of Getting Twice as Much Done in Half the Time - A book by scrum co-founder Jeff Sutherland. His reference to eduScrum brought LAS in contact with Willy Wijnands and John Miller in Fall 2014.

collaboration, motivation, and encourages self-sustainability of creative and technical agile practices. Particularly at CCA, I believe adopting these working habits will aid in inspiring artistic citizens who feel empowered and comfortable as self-regulated learners.

For me the transformational mindset is one driven by empathy and informed by learner-centered design. What has been successfully exampled in the business sector is a shift to a far greater focus on employee-centered work.

Paul: Is there a reason you picked to work with teachers first, then students? I could imagine an implementation that rolls out your program directly to students, or maybe students and teachers at the same time, in small iterations.

Rae: In the pilot with CCA, I am making the assumption that the degree of impact - regarding agile mindset, and inclusive of design thinking for LX - will be higher by beginning with the educators. From a scaled perspective, for every 5 teachers whom the agile mindset resonates with through this component of professional development, they will hopefully foster that mindset in their classes of 15-25 students. Hopefully this breeds a knowledge and cultural transformational sharing process, which can then begin to be co-constructed with the students themselves.

Teachers, of course, want to feel supported and equipped at the outset. Adopted from change management strategies in business, the teachers are identified as 'primary implementers', so creating a vision with them initially seemed like a natural stating point in this effort. However, I'd love to see ingenuity in 'bottom-up' agile in the classroom implementation in the future at other school sites.

Paul: So you've prepared the way with teachers to bring the agile mindset to students.

Rae: We're on our way; it's an evolving effort.

Paul: And what happens next?

Rae: The next step is initiating implementation in the classroom, understanding that it is a messy process.

Paul: What are you going to have the students do first?

Rae: We'll look with the students at how to value their individualism and their interactions. What does self-regulated learning look like for them? We'll ask them: "What is meaningful education for you? What do you think you need to be prepared for?"

Paul: And what makes that agile? Wouldn't any teacher, given enough time, be asking students those kinds of things?

Rae: It's part of shifting to an agile mindset. With persistent and emerging constraints, I think in general there's been some imagination zapped from education in America; however, there is much more that is possible. These seemingly simple questions may be asked, but the work of critically engaging and interrogating them is where the real transformational mindset shift begins. Maybe some of the fun and joy of learning has been taken away. Agile/lean processes are inherently 'hard fun' and 'serious play', and offer new approaches to engagement and productivity. The initial step with the students will focus on inquiring around such questions, but challenging the students to utilize agile storytelling to work through the 'why behind the what' as it relates to their own learning desires, experiences and outcomes.

Paul: And the mindset shift?

Rae: It's toward self-regulated learning. It's toward students taking ownership of their learning and having and facilitating a culture of iteration. It's toward teachers having agile 'tools' which are both technical and creative, which aid in empathy-driven design for learning, resulting in a student and teacher co-created learner-centric culture. And ultimately, the shift to an agile mindset pulls from growth mindset principles and propels all individuals within a learning ecosystem towards identifying as lifelong learners.

Paul: That's the central theme of our research center here - self-regulation. And it sounds very similar to one of our own core agile practices, the one we call uplift.

Rae: Sure. And collaboration is important in that effort, too. Collaboration and co-ownership needs to be a key value for teachers and for students in the learning process.

Often there is so little focus on collaboration. We need to promote a different approach. There needs to be much more empowerment and accountability for a team. Students need to be able to learn to define some of their own learner outcomes. That's the shift: How do we turn much more over to the student?

Paul: You are in a unique position of studying agile in education at the university. Which agile thinker has been important for you?

Rae: I've been influenced by a lot of people, mostly thinking in the corporate arena. An innovative executive in my professional setting, Ranjan Goswami, is probably the first person that really got me thinking about how agile can be applied elsewhere. Once the agile culture and mindset becomes more tangible, the core concepts have seemingly endless cross-industry applicability. I have the pleasure of working and studying with and under a lot of forward-thinking educational leaders in my doctoral program, as well as a lot of great global business leaders and innovators throughout the greater Bay Area – this has fostered a great deal of inquiry and interrogations surrounding the cross-over capacity of industry best-practices in and for education. I know this can philosophically be controversial; however, in keeping equity and social-justice components central, I'm excited to be in a place to collaborate with other thought-leaders on this.

I also regularly engage with and follow a few industry cross-over agilists such as Oana Juncu and Anjali Sharma, who emphasize, on a meta-level, storytelling for agile transformation. The next phase of my inquiry is keenly focused on leveraging narrative and storytelling as a principal way in which to facilitate people's minds and acquire an agile mindset. I am working on a StoryCorps project with the Library of Congress centered on preserving and sharing formal and informal educational stories, in the context of 'sense making' and 'ways of knowing'.

> "Ultimately, the shift to an agile mindset pulls from growth mindset principles and propels all individuals within a learning ecosystem towards identifying as lifelong learners."
>
> – RAE NEWMAN

In international education, getting connected with your school has been helpful and really exciting and I greatly look forward to my visit. Also, of course John Miller, has been a very valued, California-centric agile influencer that I follow. On the whole, my agile inspiration spans industries.

Paul: I remember days in grad school when I doubted my entire program, my whole dissertation. Do you have days like that when you think maybe agile is a red herring?

Rae: Oh yes. That happens. For example, I often wonder if I'm the right person to be doing this. I'm not a teacher in the traditional sense. My lens is design thinking, and I come from a professional background of design strategizing, learning and development innovation, and change making strategizing in the global corporate world. I am passionate and highly inquisitive about education as a result of my own unique formal and informal experiences spanning the globe. I am excited about the buzz around the cross-applicability of agile and scrum from industry to education. Therefore, it is imperative to collaborate intentionally and meaningfully with change makers in education, and I'm fortunate to have access to many educational leaders through my doctoral program.

Paul: You are planning to come to LAS as a visiting scholar. What's most exciting about that?

Rae: I'm really looking forward to engaging with the learning ecosystem of LAS. You have a relatively small but very diverse student body and tremendously diverse thought leaders. I think it is incredible that you have a Visiting Scholars program, and I'd say that is part of making an agile mindset tangible. I'm also excited about giving my own thinking a push through collaborating with all of you at LAS. I've been to Leysin quite a few times to engage in outdoor recreation and absolutely love the entire aesthetic; to revisit to engage in my doctoral studies will be meaningful on many levels.

HELPFUL RESOURCES

The eduScrum Guide - A parallel of classic scrum for the classroom, now available in several languages. Videos and other materials available at eduscrum.nl/en.

Scrum Alliance - The organization whose Fall 2016 conference in Munich further cemented our new agile convictions at LAS.

agileinthealps.com - Pulling agile into education.

agileclassrooms.com - Hosted by our colleague from California, John Miller, who is a pioneer in the field of agile in education.

LAS Educational Research -
Self-regulation, agile, and action research as teacher professional development.

teddintersmith.com - A visionary whose work helped propel us at LAS deeper in considerations of agile, his film "Most Likely to Succeed" and book "What School Could Be" are deep breaths of very fresh air.

Why Not? Employees at Tazebaez Believe They Can

ANA AGUIRRE, CO-FOUNDER, TAZEBAEZ, SPAIN

Ana is co-founder of a cooperative filled with the agile mindset, which arises out of the shared values of everyone who works there.

She writes: I wanted to be a transatlantic boat captain but instead I found LEINN, a program in leadership, entrepreneurship, and innovation at the University of Mondragon. I landed in a group of students that worked hard, became a real team, and we created a company called TAZEBAEZ.

After four years at the university and work experiences in Brazil, China, Finland, India the Netherlands, and the United States, we re-founded TAZEBAEZ as a worker-owned cooperative working in the field of innovation consultancy.

Currently I lead the business and international sides of our INNPULSORY line. I am also co-founder of the Young European Cooperative Network, and part of the Global Shapers Community in the Bilbao Hub.

Paul: Your company seems full of the agile mindset, but in two days of working with you and your colleagues, no one has mentioned agile.

Ana: Right. I'm not even sure exactly what you mean by it.

Paul: Let's just talk about what you do. You started a company at 18, with university colleagues, and now nine years later you have over 30 colleagues and all kinds of interesting projects.

Ana: We started our company, TAZEBAEZ, as first

year students at the University of Mondragon. We were part of LEINN – leadership, entrepreneurship, and innovation – which is a very unique program. Essentially, we had to create our own companies and work with the same group of people all through the university years. We stayed together after graduation and, well, we've grown.

Paul: With no formal training in agile?

Ana: No. We read about lean startup and design thinking but not agile. I know agile probably has its own beliefs and methodology but we just learned ourselves. In our last year of LEINN we took a service design class.

Paul: Service Design?

Ana: Yes. It was a seminar based on design thinking applications for the creation of new services and products. We talked a lot about the touch-points between customers and companies and how you create a fast prototype, pilot it, and get feedback from the market quickly. It really was all about creating products and services that are quickly prototyped in a market.

Paul: See, that sounds like agile to me: Create with feedback, prototype, fail fast … But you had no formal training in agile.

Ana: No.

Paul: Is anyone in the office trained in agile?

Ana: I don't think so.

Paul: I guess LEINN itself must work on principles similar to agile and you've continued to incorporate and develop them. Why do you think quick feedback loops and prototyping are important?

Ana: Because they bring you close to the customer and create a product that answers customer needs without investing a lot of money or time in something that might not be what the customer wants. If you do very simple prototypes and get feedback quickly and remake the product accordingly, you'll be sure that customers like what you are doing. Your product will be something they need. And that they agree with. It creates a sense of ownership with customers because they

TAZEBAEZ

Dentro de TAZEBAEZ ha habido varios hitos importantes todos ellos centrados en el equipo y las personas que conformamos la cooperativa.

El primero fue elegir la forma jurídica. Sabíamos que queríamos ser una organización inclusiva, horizontal y democrática donde todas las personas tuvieran su espacio y todas las voces se escucharan. La siguiente fue la fusión en 2016 con Make It Visual. Tras un tiempo de acercamiento y varios trabajos en común, les lanzamos la propuesta de juntarnos como empresa para hacernos más fuertes y así TAZEBAEZ tuvo su primera fusión y tres socios nuevos.

Después de eso, tuvimos dos momentos en los que los números decían que estábamos al límite, pero siempre apostamos por que el equipo creciera para desarrollar más negocio en vez de reducir el número de personas. Podemos decir que de momento siempre ha salido bien.

Por último, el último gran paso ha sido la creación de INNKUBO, una empresa, en forma de S.L., de aceleración de proyectos que se ha gestado en 6 meses y que es ya entidad inversora en cuatro empresas en las áreas de *blockchain* y gastro-alimentación basada en insectos.

have been included so often in the process. They might even think everything is their own idea!

Paul: In other words, customers don't always know what they want.

Ana: And ideas about what is wanted change over time. Once we were working with an oil company that wanted to create a better version of an existing app. They wanted to integrate google maps and a bunch of features inside the app. At the beginning they were very sure that they wanted those features and while we initially went along with them, we eventually proposed to do some market research in case the company's users didn't agree with what the company thought.

We went to the market during development to validate their hypothesis and realized it was indeed wrong. So we proposed a new idea, which they accepted.

Paul: Some things I see in your company are very parallel with what we have named "practices" in our agile framework for schools. Like trust.

Ana: We are very self-critical and I think all of us would say there is a gap between the level of trust we would like and the level of trust that we have. But we are doing a very good job in general and I think that our success – and our level of trust - relies on the fact that we spend a lot of time together with consistent spaces for dialogue and 360 feedback sessions twice annually.

There's lots of trust in specific working groups – the home team – and our relationship as workers goes beyond just workmates. I think most people that come into the company are considered friends after a couple of months.

Paul: Where does it come from?

Ana: Trust comes from the intensity of the relationships that we create.

Paul: I really feel it here.

Ana: It comes from feedback, too. Feedback is not a personal thing. Negative feedback is that you can do something better. It's not a personal attack on you. Positive feedback is also part of the continuum. It's not about ego boosting. We

TAZEBAEZ runs an annual design workshop at LAS called Global Futurizer. During the course of one day, students solve real world problems posed by international companies like Generali, Melody Maker, and Swiss Learning.

appreciate when someone does well and it helps the company and we ask them to please keep it up.

Paul: We also emphasize the notion of uplift and joy in our model. What makes working at TAZEBAEZ joyful?

Ana: Let's see…we like each other. And our team leaders care about individuals and the team. We changed the CEO term to chief empathy officer – he spends ridiculous amounts of time talking to people.

Paul: And you find it a good use of time?

Ana: Yes, it's something that makes people feel appreciated. If it's not him, it's the line leader or someone in your team that talks to you. It gives you the feeling that what you are doing is contributing to the whole effort.

We also give people ownership of their own role. From Day 1 they own their processes and are entrepreneurs inside an entrepreneurial team.

Paul: I hear everyone mention teams a lot. Collaboration is highly valued, isn't it?

Ana: People are always open to help someone else. People are not bothered by being asked for help.

Paul: Your workstations are all right next to each other. I bet that contributes to collaboration.

Ana: Yes.

Paul: We also emphasize exploration. TAZEBAEZ seems to take on anything – from insect food to working on blockchain. Why does that work for you?

Ana: We have different people with different profiles and different interests. We have worked hard to become a place that people want to work at. Regardless of which market. If someone thinks that this or that is the future and they are willing to take on the challenge, then we are happy to provide that space.

Paul: I think we'll be hearing about more and more successes here at TAZEBAEZ in the future. The atmosphere just feels full of promise.

Ana: I'm glad you think so.

Agile Can't Get You There, Effective Groups Can

KATIE TRUPIANO, LICENSED PROFESSIONAL COUNSELOR

For years, I have lived at the edge of agile, observing on the outside the intricacies of the agile movement and how it plays out in real-life situations. My sister has been an agile coach for years and always told me how complementary her job was to mine as a socio-emotional counselor. We utilize similar strategies to help individuals and teams reach their full potential.

Fast forward to March of 2018. Over a cup of coffee, my sister and I decided to find a way to marry our experiences in agile and counseling to empower and support agile teams. I drew on my experience in group counseling, particularly Yalom's curative factors, to address what makes groups highly effective and how these factors can be adapted from a counseling setting to virtually any working group.

The Agile Manifesto lists four core values, one of which is: individuals and interactions over processes and tools. The values of the IB program, listed in the learner profile, are for learners to become inquirers, knowledgeable, thinkers, communicators, principled, open-minded, caring, risk-takers, balanced and reflective. Both of these documents strive to counter our tendency to focus more attention and place more value on the end product than the individuals and the interactions of the teams themselves. The physical representation of work completed, whether it be a software platform, a product, a class project, or a school grade, has become more valuable than the individuals and interactions it took to get there.

In October 2018 at the Lean Agile Scotland annual conference, my sister and I led a workshop in which we challenged teams to work together to build and test (they had to fly over 10 feet) as many paper airplanes as they could in a

> "When you focus on individuals and interactions, the team members will walk away feeling a part of something bigger than themselves. They will feel valued and able to work more effectively."
>
> **– KATIE TRUPIANO**

set amount of time. Over a few iterations, we assumed that teams would focus on the process of building more airplanes, rather than focusing on the group members' interactions. We employed standard agile practices, but with a little twist. While most team participants focused on building and testing the airplanes, one team member was asked to observe the process as a silent participant. Equipped with a sheet of group dynamic behaviors, the job of the silent observer was to score the team during each iteration.

After the third iteration of the airplane game we reviewed the numbers from each round. Some teams showed improvement, other teams stayed about the same, and some teams actually declined in airplane production. It was then when we threw our curveball by revealing that the focus was on the group dynamics and not the overall number of planes created. We posed the question: How well did your group work together? The silent observer shared feedback, much like an agile coach would do, and allowed the team to debrief and reflect on areas of strengths and room for growth. To allow for concrete practice afterwards, teams completed a fourth iteration of the game in which the focus was on one or two group dynamics each team selected as a growth area.

The takeaway of the workshop, to put it simply, is that the job can get done (there will still be a product) when you focus on individuals and interactions, and that the team members will walk away feeling a part of something bigger than themselves. They will feel valued and able to work more effectively on other future projects with teams.

The workshop in Scotland was well received and we were invited to deliver this workshop to a different arm of the agile world—the testers at Agile Testing Days USA June 23-27, 2019. High profile companies believe in this mindset and it blends beautifully into the educational world if the compass is reset to "true north" - that of valuing individuals.

Moving Forward

PAUL MAGNUSON, DIRECTOR, LAS EDUCATIONAL RESEARCH

NICOLA COSGROVE, TEACHER, PHYSICAL EDUCATION; ASSOCIATE, LAS EDUCATIONAL RESEARCH

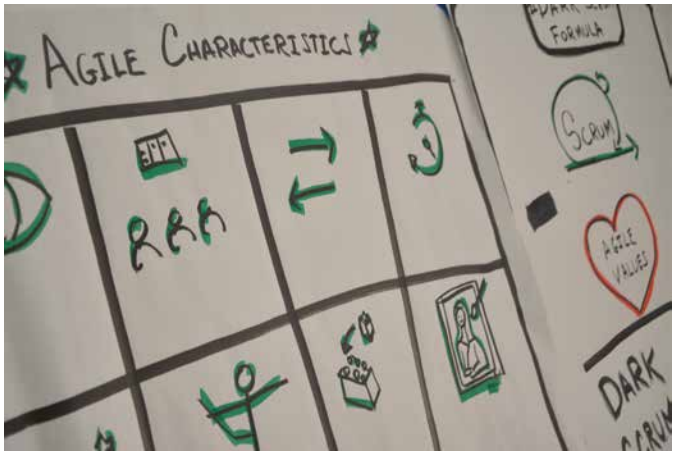
Playing with agile's central ideas and its implications in education has been rewarding for many of us. At times we feel we are on the cutting edge of something new. At times we wonder to what extent we are simply repackaging Dewey in currently attractive terms.

Sometimes we feel like we are moving forward quickly. Sometimes we feel bogged down. Change is like this. We think it's worth it.

The first day after the 2018-2019 school year, Rachael Passant-Coy, science teacher and one of our resident scholars, convened a meeting of fifteen faculty members, all of whom would like to advance our overall awareness of the climate crisis and the role we play in it, teacher or student. The meeting started with a brief introduction of the topic and the tool. The tool was Trello, an organizational platform introduced at LAS during our first year of eduScrum. In Trello Rachael had set up four columns: Areas to consider, Areas of planned action, Action in progress, Items completed/Goals Reached.

We then worked in self-organized groups to look through the areas to consider, adding to the topics as we saw fit, and selecting the ones we thought we could productively work on, sliding the virtual sticky notes into the second column. Areas of planned action.

To recap in agile terms: our scrum master Rachael facilitated a short stand-up so everyone was up to speed on the kanban board before we combed through the backlog to determine early priorities we could commit to as a team. And nobody batted an eye.



In other words, we are moving forward with what may be the most important and most difficult part of our own agile transformation: creating a culture in which agile thinking can thrive.

We heard about cultural change in our interviews with other educators pulling agile into education. We've seen the cultural change ourselves in our classes and dormitories, our curriculum and instruction, our meetings, and working groups.

It is an exciting time in education. Perhaps there is indeed room for a significant shift in mindset and the way teachers teach and students learn. The world we live in is certainly changing; we hope that education can keep up with it.

Contact us if you'd like to explore the agile mindset further or learn how we've been able to shape a new culture during the first year of our edge program for young high school students. Come visit us for a day - or longer. Invite us to your school. We think we're on to something worth exploring further.

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