Global Scrum Gathering®
Minneapolis
April 16-18, 2018
Agile in the Classroom:
How Agile Can Better Prepare Students for the Demands of the 21st Century Workplace

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Agile in the Classroom

Topics

• The Millennial Question
• Job Skills That Employers Want
• National and Local Visions of 21st Century Skills
• The Problem With Traditional Classrooms
• Technology in the Classroom: Hit or Miss?
• What Does Agile Look Like in the Classroom?
• How Can the Agile Community Support Agile in Schools?
“Greatness can’t be imposed; it has to come from within. But it does live within all of us.”

-Jeff Sutherland

Scrum: The Art of Doing Twice the Work in Half the Time

The Millennial Question
Today’s Students

How has social media and the abundance of technology impacted today’s youth?

1. Tech savvy?
2. Confident?
3. Entitled?
4. Unrealistic?
5. Hard to manage?
“Communication works for those who work at it.”
-John Powell
Today’s Team Work Environment

- **Denver Post**: In Demand Job Skills (Sept 16)
- Harvard’s Advanced Leadership Initiative (2014)
  - Critical Thinking
  - Problem Solving
  - Creativity & Innovation
  - Collaboration
  - Question Formulation
  - Global Awareness
  - Communication Skills
  - Technical Skills
“So as a parent, you should be asking that question: Is my child—whether 5 years old or 15—learning in a way that is different than I did. If they are learning in about the same way, something is wrong.”

-Jason Glass
Jefferson County Public Schools Superintendent
Jeffco Generations

A Learning Centered Vision for our Community’s Schools

- Communication
- Critical & Creative Thinking
- Collaboration
- Agility & Adaptability
- Self-Direction & Personal Responsibility
“Working effectively as part of a team is incredibly important for output quality, morale, and retention.”
-Edmond Lau
Quora Engineer
Traditional Classrooms

- Lecture
- Practice
- Test
- Repeat
“Don’t just digitize your teaching. Don’t just digitize students’ learning. _Transform_ their learning.”

-Ken Shelton

@k_shelton
Innovations in Schools

Traditional

- Lecture
- Homework

Flipped

- Video Lecture
- In-Class Work
Innovations in Schools

STEM EDUCATION leads to better careers
Agile creates a culture where ‘failure’ is celebrated as evidence of learning.
Introducing Agile
Agile Values

• Communication
• Collaboration
• Teamwork
• Self organizing
• Producing a product in a short time
• Learning from failure
• Trust
• Transparency
Sprint Execution


Sprint Execution
Backlog refinement = Teacher *Pre-Planning*

- What group projects would work well?
- What access to technology do my students have?
- What learning outcomes do I need to assess?
- How long will I give my students to work on this project?
Project (Sprint) Planning

- Explaining the parameters of the project
- Negotiate the DoD with students
- Teacher-story cards*
- Students-task cards
The Importance of Reflection

- Daily Stand Up

Sprint Review

Retrospective
Learning through communication, collaboration, and problem solving

Sprint process

Team reflection

Individual growth

Individual reflection
Scrum Board Examples

- Tracking student progress
- Holding teams & individuals accountable
Trello Boards
A Simplified Scrum Board

This scrum board was developed for middle school students in Virginia. Using simple manila folders, they eliminated the story column. The task cards they used were 1½” x 2” sticky notes.
The Retrospective

→ One of the most important aspects of student growth is to have students reflect on the process and to suggest improvements for the next sprint.
Redefining ‘Failure’

How to Learn From a FAILED EXPERIMENT!

You have only failed if you have given up.
Until then, it’s learning.
Teacher Post-planning (Backlog Refinement)

Prepare students for next sprint:

• What worked well? What do I want to change? Keep?

• Were the projects up to my standards, goals, DoD?

• Operational, systemic concerns?
Role of the Teacher
“Each person holds so much power within themselves that needs to be let out. Sometimes they just need a little nudge, a little direction, a little support, a little coaching, and the greatest things can happen.”
-Pete Carroll

How Can the Agile Community Help?
Spread the Word

• Support using Agile in School Projects
• Suggest using Agile in classrooms
  – STEM
  – PBL (Problem Based Learning)
  – Computer Science classrooms
  – Yearbook, newspaper
  – Clubs & activities (After Prom, Day Without Hate, fundraising)
• Observe and help facilitate Agile in schools
Know How to Talk to Your Schools

Working Together to help Students Succeed

School Corporate Community Partnership

Des Plaines School District 62

PARTNERSHIP FOR CHANGE

OUR SCHOOLS • OUR COMMUNITIES • OUR FUTURE
Resources: Agile in Schools

- Agileclassrooms.com (John Miller)
- AgileinEducation.org (Education Compass)
- ScruminSchool.org (Mike Vizdos)
- Hope HS, Arizona
Share Your Expertise

Teachers Who Scrum

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Be part of our quarterly newsletter to teachers who are trained in Agile: “From the Experts”
“That absolute alignment of purpose and trust is something that creates greatness.”

-Jeff Sutherland