



 **AGILE CLASSROOMS**

COACHING STUDENT AGILITY

A SCIENTIFIC APPROACH FOR GROWING STUDENT AGILITY

Becoming An Improvement Scientist

Educating youth, especially in 21st century skills, is inherently complex and filled with uncertainty. As educators, we navigate the evolving needs of our students, balancing content delivery with the development of essential skills like self-direction, collaboration, and adaptability. These skills don't emerge overnight; they develop through incremental and iterative growth, guided reflection, and experimentation—a mindset we can adopt as Improvement Scientists.

The Improvement Scientist approach encourages both teachers and students to treat learning as a series of small, manageable experiments. Instead of aiming for immediate perfection, this mindset emphasizes iteration: making gradual improvements, gathering evidence, and refining strategies to foster meaningful progress. By focusing on this iterative growth, educators help students learn to adapt, problem-solve, and become more resilient learners.

KEY PRINCIPLES OF THE IMPROVEMENT SCIENTIST MINDSET

Iterative Progress

Growth is achieved over time, through small, continuous steps. The focus isn't on perfection but on getting better with each experiment. By testing, reflecting, and refining strategies based on what works, both teachers and students steadily improve.

Empirical Reflection

By gathering data from growth experiments and observing their outcomes, both students and teachers rely on empirical results to refine their strategies. This approach ensures that adjustments are based on what truly works, fostering a cycle of continuous improvement.

Embracing Emergence

Growth isn't always predictable. New insights and skills surface as students experiment and face challenges. By creating space for exploration, educators help students uncover abilities that may emerge unexpectedly.

Growth Mindset

Students won't become self-directed and collaborative overnight, but we must believe they can. A growth mindset is essential because it fosters the belief that skills develop through effort, helping students and educators turn challenges into opportunities for improvement.

Procedure

This form is designed to be used alongside one of the Agile Classrooms rubrics for any of the five self-directed learning routines that make up a Learning Sprint (e.g., Sprint Planning, Check-In, Review). The rubric helps identify the student's current competency level and the next growth goal. Here's how to use the form, step-by-step:

Identify the Competency to Improve

- Select one of the five self-directed learning routines to focus on.
- Use the corresponding rubric for the chosen routine to assess the current level of student competency .

Set the Next Growth Goal

- Based on the rubric, define the desired next target level. This goal should be specific and measurable, ensuring the students are working toward clear, incremental progress.

Identify Root Causes

- Reflect on the key factors influencing the current level of performance. What is holding the students back from reaching the next level? This might include obstacles, skill gaps, or challenges in collaboration or self-direction.

Plan Growth Experiments

- For each experiment, outline specific actions or strategies the student or team will try to move toward their growth goal.
- Limit it to one experiment at a time to ensure focus and clarity.

Record Progress

- As each experiment is completed, document the outcomes in the "Progress Notes" section. Did the experiment lead to the desired improvement, or did it reveal new insights?
- Based on the outcomes, decide whether to continue, modify, or replace the current approach.

Student/Team		Learning Sprint Routine	
Competency To Improve		Current Level	Next Target Level
Causes: What are the factors influencing the current level of performance?		Growth Goal: What is the desired future state of performance? What does better look like?	

Growth Experiment	Next Improvements To Try	Progress Notes
Experiment 1 Date:		
Experiment 2 Date:		
Experiment 3 Date:		
Experiment 4 Date:		
Experiment 5 Date:		

Student/Team	Team Innovators	Learning Sprint Routine	Check-In
Competency To Improve		Current Level	Next Target Level
Articulate progress of work		Advanced Beginner	Competent
Causes: What are the factors influencing the current level of performance?		Growth Goal: What is the desired future state of performance? What does better look like?	
<ul style="list-style-type: none"> Struggles with breaking down tasks into smaller, manageable parts, making it difficult to keep tasks moving on the Learning Canvas. Reluctant to share progress, fearing negative judgment. 		Articulate and visualize the progress of tasks during Check-Ins by identifying and moving tasks between columns on the Learning Canvas with minimal prompting by me.	

Growth Experiment	Next Improvements To Try	Progress Notes
Experiment 1 Date:	Post the four Check-In questions visibly in the classroom. Facilitate a round-robin Check-In where students move their tasks on the Learning Canvas as they respond.	Students began moving tasks independently, but some still required teacher validation.
Experiment 2 Date:	Color-code sticky notes based on task ownership. Assign a student facilitator to guide the Check-In. Each student moves tasks as they answer the questions.	Increased participation, but some students hesitated to update the Learning Canvas and share their progress with their peers.
Experiment 3 Date:	Celebrate when students move items on the Learning Canvas and discuss their progress. Try a clapper device or bell to celebrate when any item moves to done.	Students became more proactive and engaged in updating their progress during the Check-In.
Experiment 4 Date:	They are now at the Competent level of proficiency. Yay!	
Experiment 5 Date:		

RUBRIC: CHECK-IN ROUTINE

This rubric is used to support the Coaching Form example on the previous page. It helps guide assessment and improvement during the Check-In routine, outlining distinct levels of competency to identify growth opportunities and set specific goals.

COMPETENCY INDICATOR	NOVICE	ADVANCED BEGINNER	COMPETENT	PROFICIENT	EXPERT
Articulate the progress of work	Relies on the teacher to describe progress and update the Learning Canvas.	Relies on the teacher to prompt them to describe progress, but students update the canvas on their own when prompted.	Describes progress with some support and updates the Learning Canvas independently but inconsistently.	Shares progress and updates the canvas accurately without prompting.	Updates the Learning Canvas and progress in real-time, as soon as tasks are completed, without waiting for check-ins.
Identify impediments	Relies on the teacher to identify roadblocks and update the Learning Canvas.	Relies on the teacher prompts to identify roadblocks, but students update the Roadblocks section themselves.	Identifies most roadblocks independently and updates the Roadblocks section with occasional reminders.	Consistently identifies roadblocks but tends to wait for check-ins to communicate them.	Flags roadblocks immediately as they arise and updates the Roadblocks section, not waiting for Check-ins.
Articulate need for feedback and support	Relies on the teacher to request feedback and support on their behalf.	Relies on the teacher to prompt them to ask for feedback or help. Students update the Feedback section themselves when prompted.	Requests feedback and help independently but needs reminders at times.	Regularly asks for feedback and help during the Check-In. Updates the Feedback section without prompting.	Seeks feedback and support and updates the Learning Canvas as soon as it's needed, not waiting for the Check-In to do so.
Accountable to self and others	Relies on the teacher to hold each student accountable.	Takes responsibility when prompted but struggles to own or address issues independently. Limited peer accountability.	Takes responsibility and communicates issues with guidance. Hold peers accountable with prompting.	Consistently takes responsibility. Holds peers accountable to maintain progress without prompting.	Fully accountable for both personal and team tasks. Steps up to move tasks to done, even if not assigned to them
Provide support to others	Rarely offers help to peers, even when prompted.	Occasionally offers support but requires reminders from the teacher to engage with peer tasks.	Offers support when asked but is inconsistent in following through on peer support tasks.	Regularly offers support when requested by peers during the Check-In.	Supports peers without waiting for the Check-In, responding to requests for Feedback or Roadblocks.

Acknowledgments and Research

The Improvement Scientist Form draws on a range of educational theories and research-backed practices, designed to guide students and educators through iterative growth while fostering self-direction and collaboration.

ISTE Standards for Students

1. Formative and Ipsative Assessment

Both formative and ipsative assessment are central to this approach.

Formative assessment involves providing ongoing feedback to improve student outcomes, as supported by Black and Wiliam (1998) and Hattie & Timperley (2007). **Ipsative** assessment, which compares a student's current performance with their previous performance, is a central feature of this framework. Research suggests that ipsative assessment helps students focus on personal growth rather than external standards, thereby fostering intrinsic motivation and long-term development (Hughes, Okumoto, 2011).

2. Improvement Kata and Empiricism

Inspired by Mike Rother's **Improvement Kata**, this framework promotes structured, iterative experimentation. The emphasis on empirical learning and continuous improvement mirrors the scientific method, where we test hypotheses, reflect, and adjust based on evidence.

3. Growth Mindset: Aligned with Carol Dweck's Growth Mindset theory, this framework encourages perseverance and learning from mistakes. Both students and educators are encouraged to embrace challenges and view setbacks as opportunities for growth.

4. Self-Regulation: This coaching approach also builds on Zimmerman's Self-Regulated Learning, where students set goals, monitor their progress, and reflect on their outcomes. By conducting small growth experiments, students develop key skills in planning and self-regulation.

Further Learning and Final Thoughts

Want To Learn More?

Unlock the full potential of Agile Classrooms with our immersive workshop designed for educators ready to take their teaching to the next level. Dive deep into agile methodologies and receive expert coaching from seasoned practitioners. Gain hands-on experience and personalized guidance to implement agile strategies effectively in your classroom. Elevate your teaching practice and empower your students to succeed in adapting their academics, careers, and lives in the age of uncertainty and change.

Explore more about our workshop at <https://learn.agileclassrooms.com/act> and download more resources at <https://learn.agileclassrooms.com/resources-agile-edu>.



<https://learn.agileclassrooms.com/act>

Thank You Dear Educator,

I'm thrilled to see you taking the initiative to explore Agile methodologies in your classroom. As the founder of Agile Classrooms, I've witnessed firsthand the transformative power of Agile practices in education. By embracing agility, you're not only enhancing student learning but also fostering a culture of collaboration, adaptability, and continuous improvement.

Remember, Agile Edu is not a rigid framework but rather a mindset with supporting methods that empowers you to tailor it to suit your unique classroom. Don't hesitate to experiment, iterate, and innovate as you embark on this Agile journey.

Thank you for your dedication to empowering students and driving educational innovation. Together, we're shaping the future of education one Agile classroom at a time.

Your In Education,



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ABOUT THIS GUIDE

Templates, protocols, and practices are useful guides to help you think and expand your perspectives. Use them as is, change them, break them, and in some cases, when they do not fit the context, discard them.

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