

A New Model

Our educational system was built on a manufacturing model. That model assumes students arrive with the same skills, learn at the same rate, and that application of a consistent process will produce consistent results. None of those assumptions are correct.

If the job of schools is more than the mere provision of instruction, a product development lens is far more useful. It allows us to reframe responses to the failures of the manufacturing model--personalized, inquiry based, social and emotional learning, etc. under a central question “What might this student become?” It allows us to move beyond simply working towards implementation of the next new practice with fidelity, and offers a framework for understanding how schools can create more value for their students and community.

Key Shifts From Traditional Maturity Models

Traditional Model	Product Development-Inspired Model
Standardization is the goal	Variation is a feature; adaptability is essential
Fidelity = effectiveness	Learning velocity + feedback = effectiveness
Processes are optimized top-down	Teams optimize locally within a coherent strategy
Cost of delay is uniform	Delay in key student needs/opportunities has asymmetric impacts
Outcomes are predictable	Uncertainty is expected; experimentation is vital

Shifting the model of education is a product development effort in its own right. It requires schools and educators to rethink what it is they offer and how they do so. Getting there requires teaching teams that are able to collaborate, experiment, and learn together to envision, build, and evolve a school that is up to the challenge.

Teaching Team Capabilities

The starting point is an honest assessment of a teaching team’s capacity to drive change within their school. This is framed not in terms of the ability the teaching team has to deliver on any specific pedagogical model. Rather, we need to look at the team’s ability to identify, develop and evolve the practices that allow their students to gain the skills, knowledge and working

relationships to take on more complex and challenging work, e.g. through a product development lens.

Teaching Team Maturity Model

Level	Characteristics	Focus	Indicators
Level 1: Reactive Builders	Teams respond to immediate instructional demands with little time for intentional design. Practices are highly variable and dependent on individual teacher energy.	Surviving the work.	Teaching is isolated; few shared artifacts; minimal feedback loops; weak knowledge capture.
Level 2: Responsive Integrators	Teams begin to coordinate efforts, adapting known practices for local use. They respond to problems quickly, but often reinvent solutions.	Sharing and adapting.	Growing use of shared tools (e.g. protocols, task designs), but still limited experimentation or feedback-driven iteration.
Level 3: Learning Designers	Teams intentionally design experiences with students' varied needs and developmental paths in mind. They test, learn, and adapt quickly.	Design and feedback.	Prototypes tested in real classrooms, cross-team critique, increasing focus on learning from failure.
Level 4: System Navigators	Teams understand how their efforts interact with broader school systems, community contexts, and learner pathways. They optimize for learning velocity, not compliance.	Knowledge flow and decision economics.	Rich feedback systems; time deliberately allocated for experiments; clear strategy for what learning to prioritize.
Level 5: Learning Portfolio Managers	Teams manage a portfolio of learning experiences, balancing exploration with exploitation. They contribute to the school's adaptive capacity and mentor other teams.	Strategic innovation.	High alignment between student passions, community assets, and instructional design. Documentation and reflection are shared widely.

The ability of a teaching team to drive change is as much a reflection of the system they operate within as the skill or motivation of individual members to do so. Teams operating with limited time, permission, or support to evolve practices will have a difficult time doing so.

Practices Indicative of Maturity

- **Work in Progress (WIP) Limits for Initiatives:** Teaching teams control how many "new practices" they take on at once to avoid overload.
- **Experiment Canvases:** Short cycles for testing instructional prototypes (new routines, project frameworks, student roles).
- **Feedback Ecology:** Regular, low-stakes feedback from students, peers, and community partners.
- **Cost of Delay Awareness:** Teams prioritize based on which needs—social-emotional, academic, access—can't wait.
- **Cognitive Load Management:** Team norms focus on reducing unnecessary mental load for both students and staff.
- **Portfolio Thinking:** Over a term or year, what mix of experiences do students need? What risks are worth taking now?

Student Capabilities

When we ask students to take on responsibility not just for completing their work, but to become active participants in directing both what they take on and what comes out of that process, we engage them in a product development role as well. We ask them to become co-designers in a process that identifies the challenges they will take on, what they might develop as a solution or response, and the systems that allow them to do so.

Here too, we need an honest assessment of where students are, not in terms of specific skills or knowledge, but in terms of their ability to build the skills and knowledge to take on complex work. Again, we do so through a product development lens.

Student Capability Maturity Model

Level 1 – Compliance Learners (Task Followers)

- **Characteristics:**
 - Students focus on completing teacher-assigned tasks for grade
 - Work is largely individual and rule-based.

- Collaboration is superficial (“divide and conquer” rather than co-creation).
- Agency is minimal — students ask, “*What do you want me to do?*”
- **Analogous to:** workforce with basic labor skills, limited adaptability.

Level 2 – Emerging Explorers (Guided Collaborators)

- **Characteristics:**
 - Students can engage in small projects with structured guidance.
 - Begin experimenting with roles in group work, though trust is shallow.
 - Some choice in methods or topics, but still within narrow boundaries.
 - Success depends heavily on scaffolding by teachers.
- **Analogous to:** workforce that can operate standardized processes with some teamwork.

Level 3 – Active Problem-Solvers (Adaptive Learners)

- **Characteristics:**
 - Students apply knowledge across subjects to tackle authentic challenges.
 - Collaboration skills include negotiation, division of roles, and peer feedback. Increasing comfort with uncertainty and iteration (not just “one right answer”). Agency is growing — students begin asking, “*What problem are we solving?*”
- **Analogous to:** skilled technicians or professionals who can work in project teams.

Level 4 – Collaborative Designers (System Thinkers)

- **Characteristics:**
 - Students can initiate and manage substantial, cross-disciplinary projects.
 - Show resilience and adaptability in the face of failure or feedback.
 - Trust and collaboration extend beyond classmates (mentors, partners, experts).
 - Students begin to manage complexity — balancing multiple constraints, stakeholders, and perspectives.
- **Analogous to:** design or engineering teams in complex organizations.

Level 5 – Entrepreneurial Changemakers (Self-Directed Innovators)

- **Characteristics:**
 - Students co-create enterprises, services, or research with lasting value.
 - Exhibit entrepreneurial mindset: opportunity recognition, risk management, iteration.
 - Collaboration networks extend beyond school into community, industry, and global partners.
 - Agency is deeply internalized — students ask, “*What impact can we make?*”
- **Analogous to:** innovators/entrepreneurs at the frontier of complex product and service creation.

Student Work Product-- Complexity & Collaboration

It's not enough to have a teaching team capable of driving change and students capable of rising to a challenge if we don't give them the opportunity to do so. In fact, without giving them that opportunity, we don't really know what they are capable of.

The work products of students are the best reflection of:

- The knowledge, skills, abilities, and dispositions they have developed
- The relationships their school has developed both inside and beyond school walls
- The vitality of the educational ecosystem that supports them

An assessment of the work students are asked to take on is the third leg of the stool. It tells us whether or not we have really tested what they are capable of, and what we might reasonably challenge them with next.

Student Work Product-- Complexity & Collaboration Maturity Model

Level 1 – Compliance Outputs (Reactive Learners)

- **Typical work product:** Worksheets, quizzes, and tests focused on recall.
- **Characteristics:**
 - Teacher-designed, student-performed individually.
 - Products rarely used beyond the classroom.
 - Minimal collaboration among students or between students and external audiences.
- **Analogy to production economy:** Subsistence farming — possible with minimal shared knowledge, skill, trust.

Level 2 – Structured but Isolated Projects (Responsive Integrators)

- **Typical work product:** Posters, essays, science fair tri-boards, classroom presentations.
- **Characteristics:**
 - Some student choice in format, but still teacher-directed in topic and process.
 - Limited integration of real-world constraints or external feedback.
 - Collaboration is minimal and often within a small, closed peer group.
- **Analogy:** Basic manufacturing — standardized outputs that many schools can produce with moderate coordination.

Level 3 – Authentic, Audience-Facing Projects (Learning Designers)

- **Typical work product:**

- Published writing, recorded performances, digital media, prototypes tested with external audiences.
- **Characteristics:**
 - Students engage with authentic problems or audiences beyond the school.
 - Projects may require applying multiple subject areas.
 - Teachers still scaffold most logistics and production, but student agency is growing.
- **Analogy:** Specialized crafts — requiring higher skill, trust, and planning.

Level 4 – Integrated, Cross-Disciplinary Solutions (System Navigators)

- **Typical work product:**
 - Multi-disciplinary design challenges, community research reports, functional products or services adopted by real users.
- **Characteristics:**
 - Students manage significant parts of the project lifecycle (planning, roles, quality control).
 - Work draws on networks beyond the school — experts, community partners, other student groups.
 - Projects often integrate business, social impact, and technical elements.
- **Analogy:** Advanced manufacturing — products that require specialized knowledge, collaboration, and trust.

Level 5 – Sustained, Student-Led Enterprises & Innovations (Learning Portfolio Managers)

- **Typical work product:**
 - Ongoing student-led organizations, start-ups, research teams, or social enterprises addressing complex challenges.
 - Products and services that function and persist beyond the school year.
- **Characteristics:**
 - Students demonstrate entrepreneurial thinking, system-level problem solving, and adaptive iteration.
 - Teachers act as advisors/mentors rather than directors.
 - Trust and collaboration networks extend far into the community and sometimes globally.

Analogy: Cutting-edge technology production — requiring the highest levels of knowledge, skill, trust, and coordinated effort.

The Big Picture

The Teaching Team, Student Capability, and Student Work Product Maturity Models form a unified framework to look at schools through a product development lens:

- Teachers as product developers — building the environment and practices.
- Students as developing producers — building the capacity to take on increasingly complex work.
- Student work as the physical embodiment of the knowledge, skills, and relationships a school is able to develop.

Understanding where a school is on each of these axes can highlight mismatches. When the teaching team operates at a higher level than students, they risk overdesigning beyond student readiness. When students are capable of working at a higher level on the scale than teachers, schools miss opportunities to have a greater impact. When teaching teams and students are assessed at higher levels than student work, then at best we have missed opportunities to further challenge students, and at worst, are kidding ourselves about where teachers or students are.

Moving up the Scale

Learn Deep's efforts are focused on helping teaching teams move up the scale from Level 2 or higher. We help teachers identify, develop and implement opportunities for Community-Engaged Learning Experiences at Levels 3 & 4. We focus on projects that can grow to include multiple schools, so for those teachers just wanting to dip their toes in, we can also offer opportunities to participate in ongoing projects at whatever level is right for them.

Community-Engaged Learning Experiences are central to our approach. It's not possible to effectively engage at Level 3 as Learning Designers if the work products of students are aimed at isolated projects. It is the work to engage students in higher level projects that provides the opportunity for teaching teams to develop higher level practices.

We help teaching teams identify the goals they have for community-engaged projects, the practices that can support that work, and how to leverage community-engaged projects not just as a learning opportunity for their students, but as a product development exercise in their own right. We support teaching teams in this journey by building in feedback, coaching, and access to expertise to the projects we develop and support.

Curious where your school is? We have a short self-assessment tool [here](#).