

POWDERHOUSE  STUDIOS

# CURRICULUM & STAFFING

# OVERVIEW

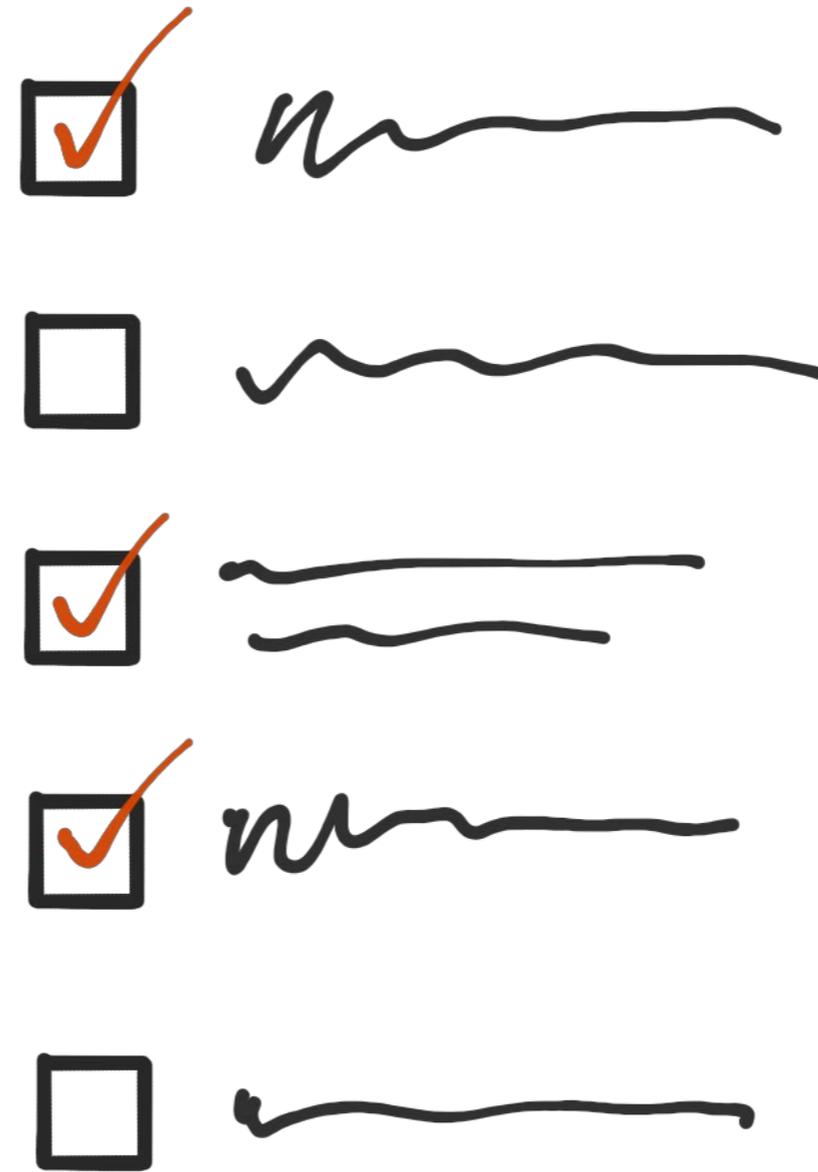
This presentation is meant to zoom in from the higher level of past presentations, focusing on curriculum and staffing in particular.

At Powderhouse, progress toward graduation is defined by (a) project timescale, (b) Common Core/MA Curriculum Framework-aligned coverage, (c) satisfying state standardized test requirements for graduation, (d) securing admission to a postsecondary institution or job.

People pursue this in an individualized way, covering much more than those requirements, with different people covering and learning different things beyond those requirements.

This level of individualization requires new curricular and staffing structures. These differences center on Powderhouse's small cohort model and its Individualized Learning Plans.

This allows us flexibility in prospective v. retrospective mapping of work, collective v. individual coverage, formative v. summative critique and evaluation, all overseen by a case management team structure.



Individualized Learning Plan manages competency-based progression toward graduation

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Small youth cohorts stick with small staff teams year-over-year in case-management style

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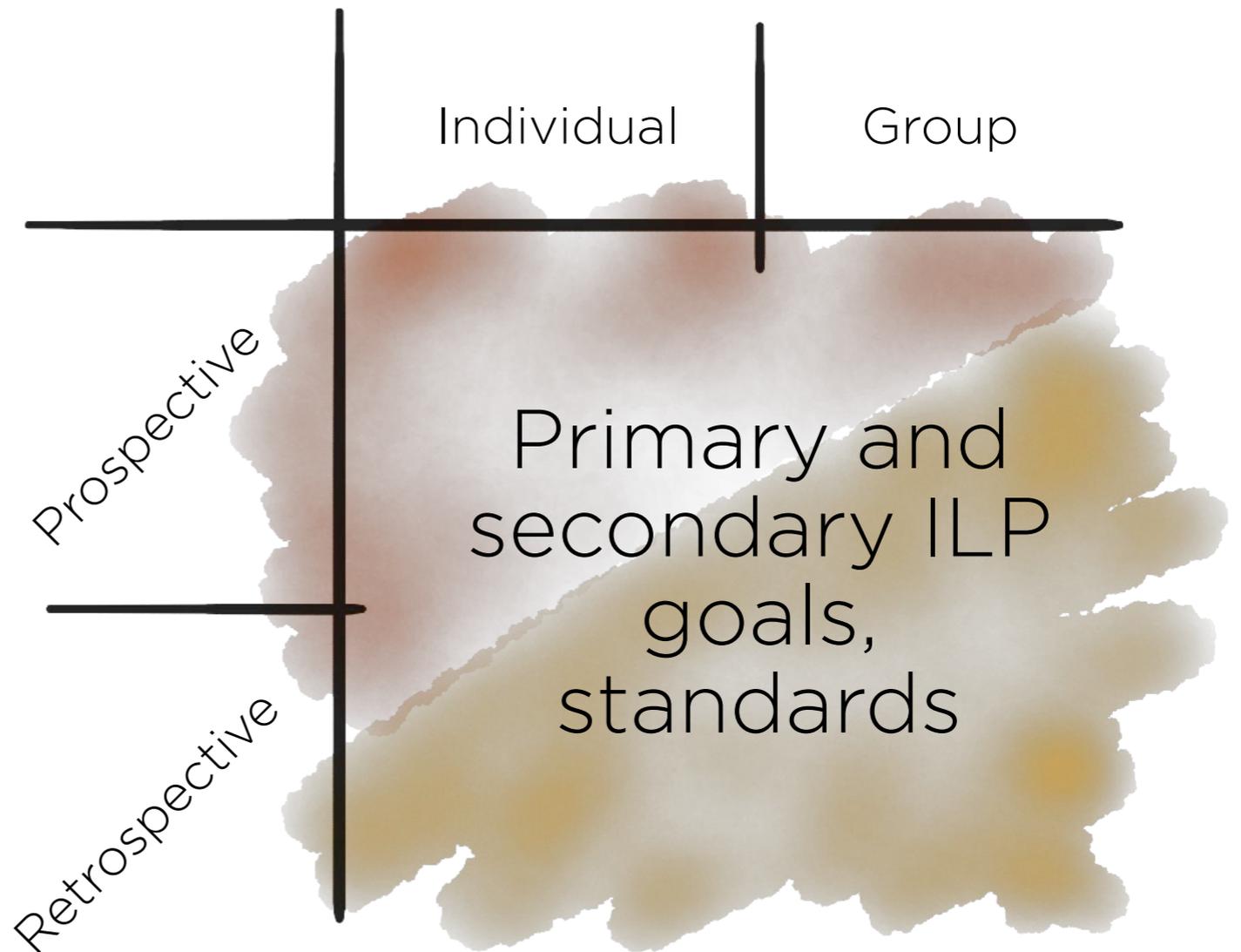
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Combinations of individualized and shared Individualized Learning plan goals both planned prospectively and mapped retrospectively

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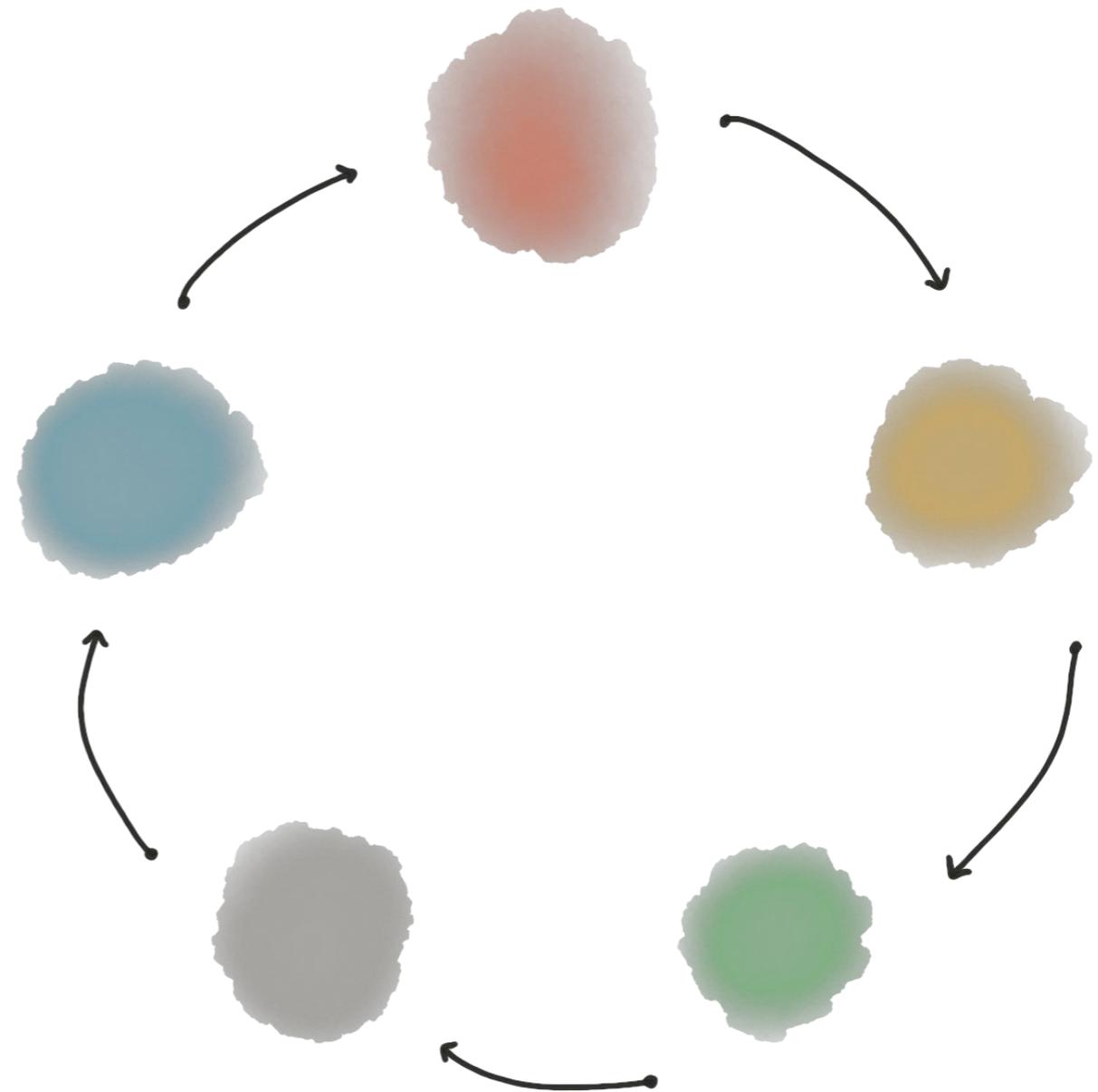
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Iterative, reflective project process coupled with formative and summative assessments based on student progress in ILP

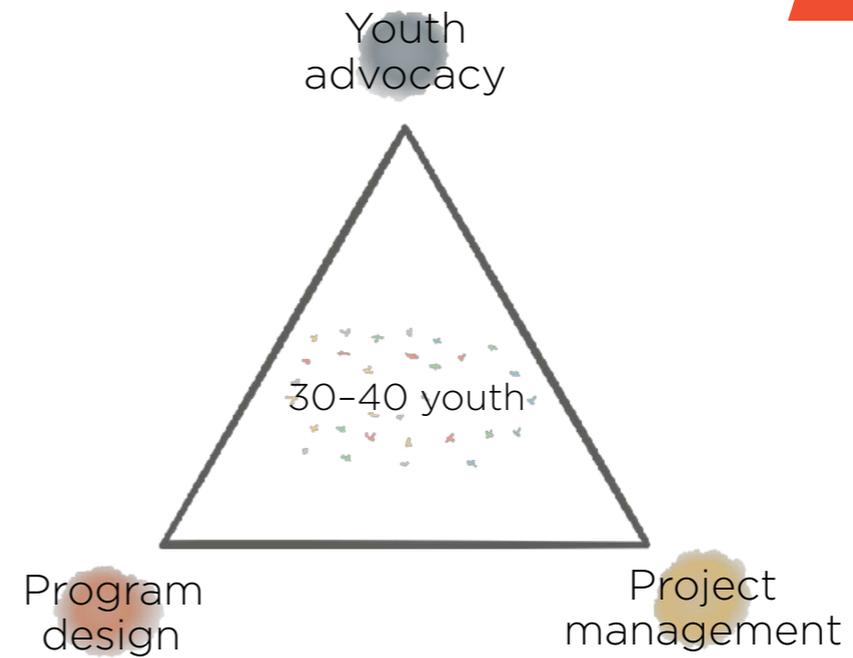
# SMALL, INTENTIONAL SANDBOX AND CASE MANAGEMENT

This level of individualization requires a different approach to staffing. We'll review the precise staffing structure later in this presentation.

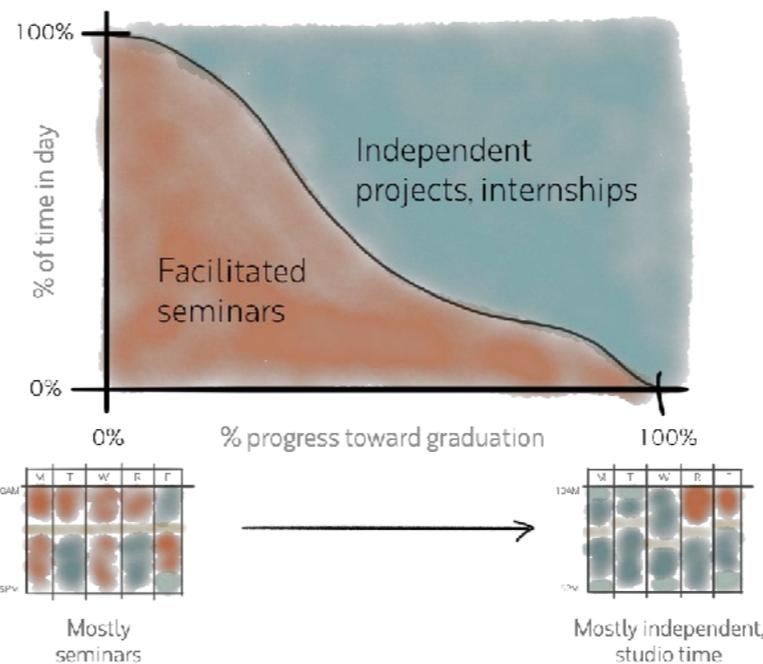
But two, important things to know are that (1) this would be beginning small and intentional, the equivalent of one or two classrooms, and (2) staff will be working closely together, as a team, in a case management style. This means they will be reviewing the work each person is doing, what they need, and how things are going individually on a daily and weekly and monthly basis.

Day-by-day, staff will be making course corrections in the work they do and the work they support youth in doing to achieve the goals captured in their Individualized Learning Plans.

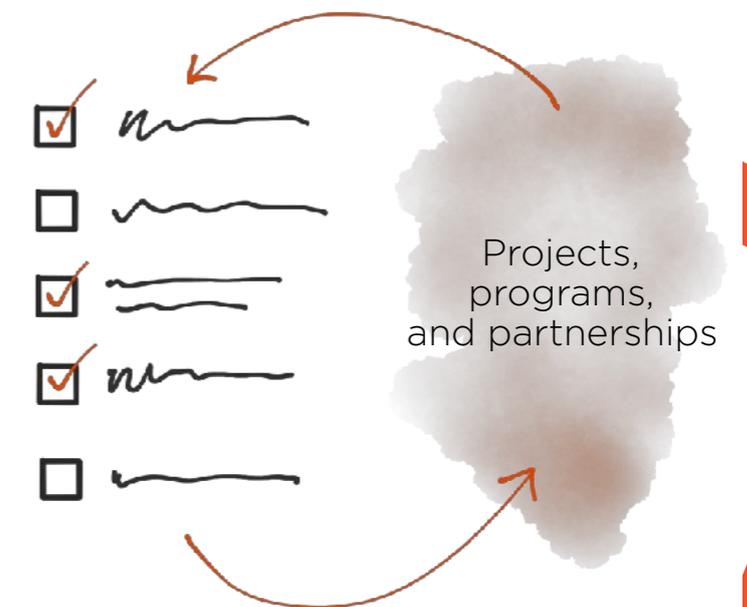
Powderhouse would be using the flexibility of this staffing model (and its autonomies) to both work differently with youth, and prototype solutions to design questions with Central Office and others over time.



Small, tightly-knit, team-taught cohorts



Emphasis on self-management



Competency-based progression

# WHY PROJECTS?

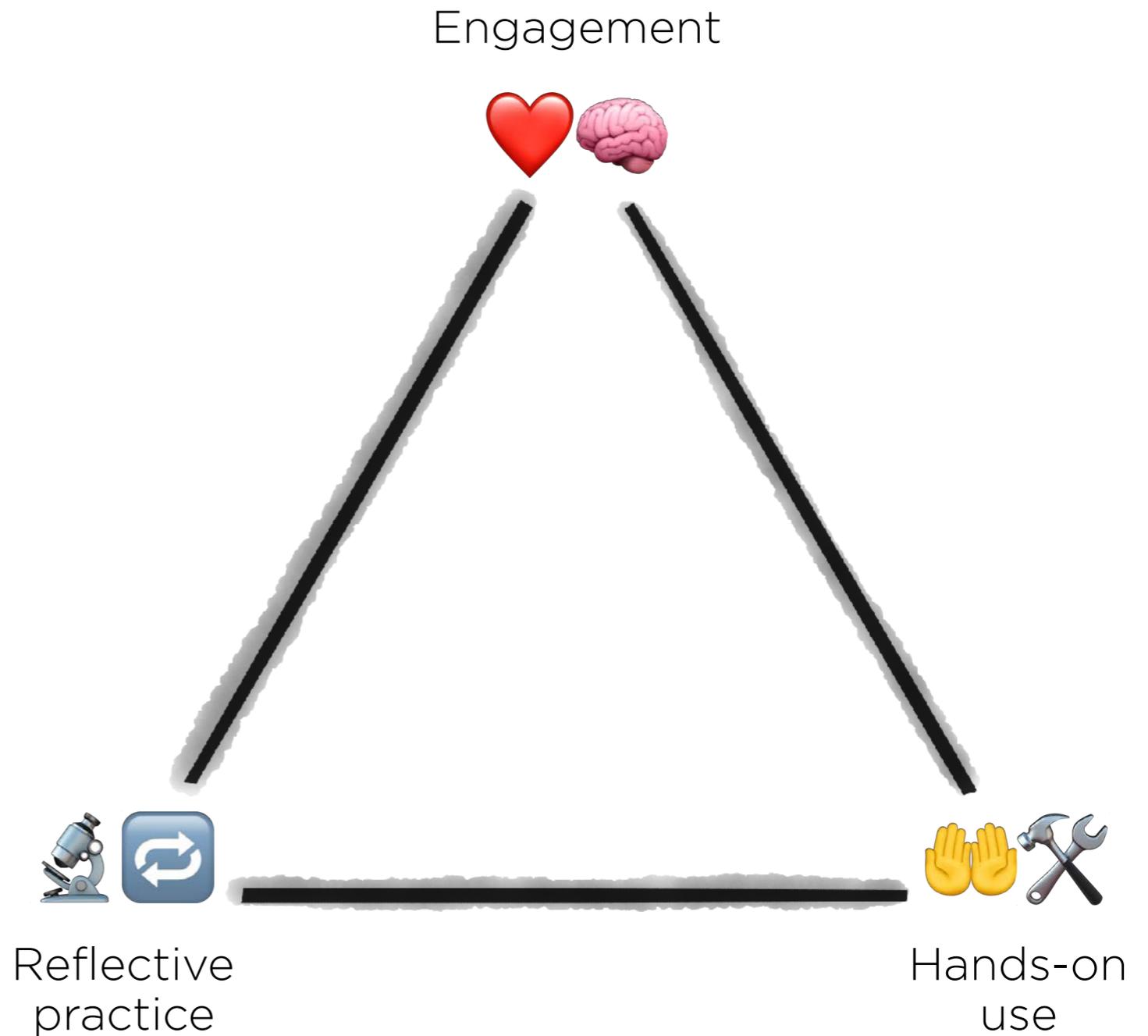
There are three, big principles behind Powderhouse's focus on projects. Each of these are drawn from the intersection of decades of research into how people learn and the best practices and designs of highly functional, creative workplaces inspiring Powderhouse Studios's design.



People work and learn best when they care about what they are doing — Attention and engagement are key ingredients in learning and problem-solving.

People learn best when the work they do requires they use what they've learned in real, hands-on ways — One of the bigger challenges educational research has faced has been how to identify fragile understanding, where individual facts might be known but their connection or use not.

Meta-skills (e.g. metacognitive, collaborative, social, and emotional skills) matter a lot — Essential critical thinking and collaborative skills, those which cut across disciplines and will outlast any industry, have been repeatedly identified as essential, and we believe need explicit design and discussion.



# INCUBATING AT THE HEALEY

We've seen these principles work firsthand in our programs, and more recently in the pilot work we've done at the Healey School.

In our first year at the Healey, we had the opportunity to work with the entire 7th and 8th grade team, running three week programs in 80-minute blocks.

Even with those schedule and time constraints, we were able to learn a lot about Powderhouse's principles, including team teaching, project documentation and critique, what kind of staff and youth support are required to make individualized work possible, and so on.

As an example, we want to talk about two, concrete projects at the Healey. In a program where people were building things which moved, a group came up with the idea to create a magnetic, levitating train and another the idea to create a turntable-driven drawing machine.

We think a lot of the challenges and opportunities which Powderhouse can address can begin to be understood by looking at these projects.



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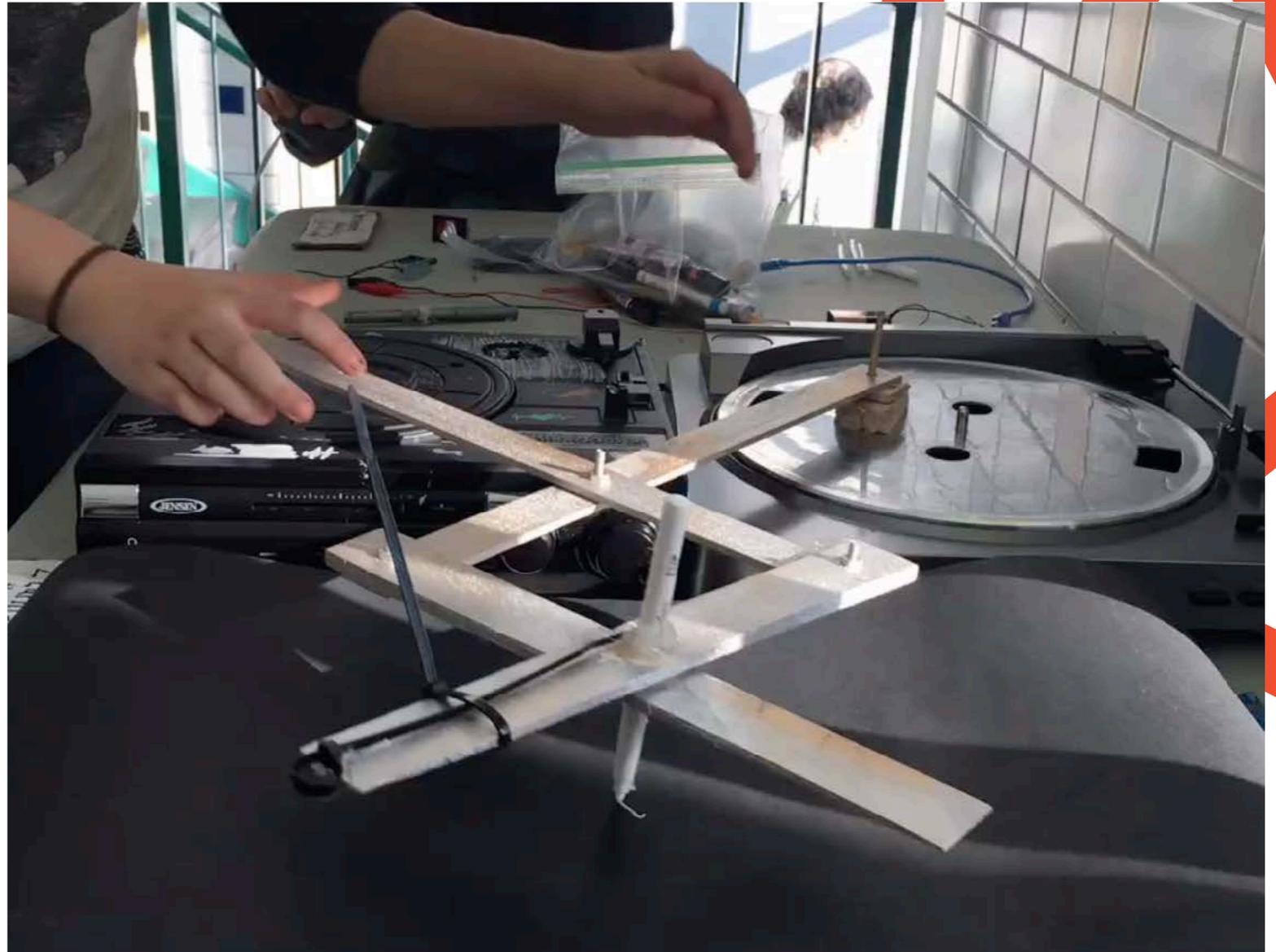
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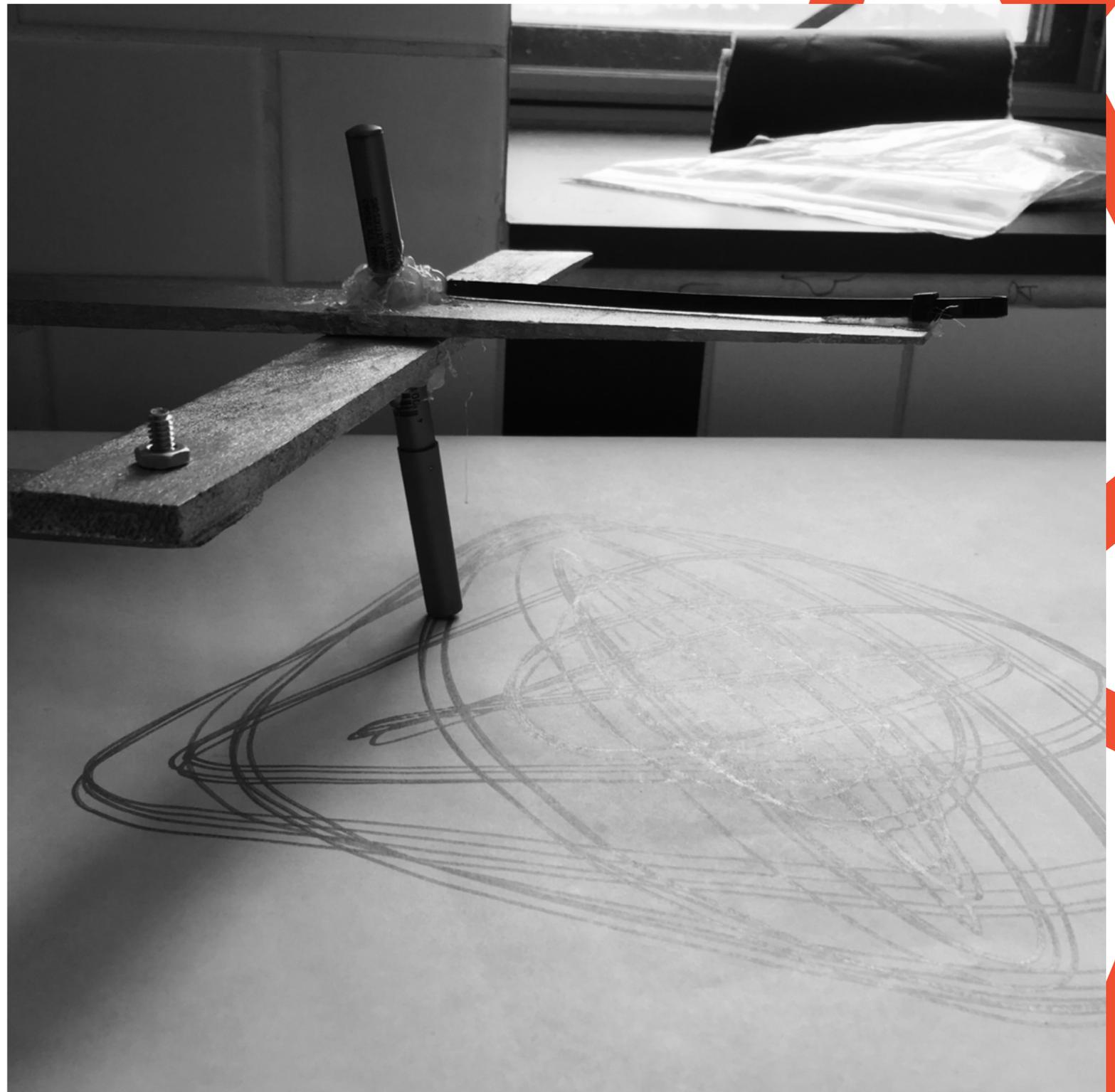
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# PROJECTS AREN'T ENOUGH

Three big things are often missing from project-based work and environments.

**Breadth of exposure** — In project-based environments which only start with youth's interests, you face the problem of ensuring youth are exposed to the full range of things they could or should be engaging. At Powderhouse, this is one of the primary roles of staff mentorship and the programs and workshops they run.

**Iterative critique and evaluation** — Because projects can take many forms, with each person pursuing something different, they also pose unique challenges for critique and evaluation. At Powderhouse, the project cycle and Individualized Learning Plan help to scaffold this.

**Support for rigorous understanding, self-management** — One of the paradoxes of projects which research and practice have grappled with is that the more carefully someone else designs a project, the less someone learns from it. At Powderhouse, there is time explicitly devoted to naming and developing self-efficacy and self-management skills.



Youth must be exposed to a wide range of tools, topics, and skills, specifically things outside what they are already interested in and passionate about.

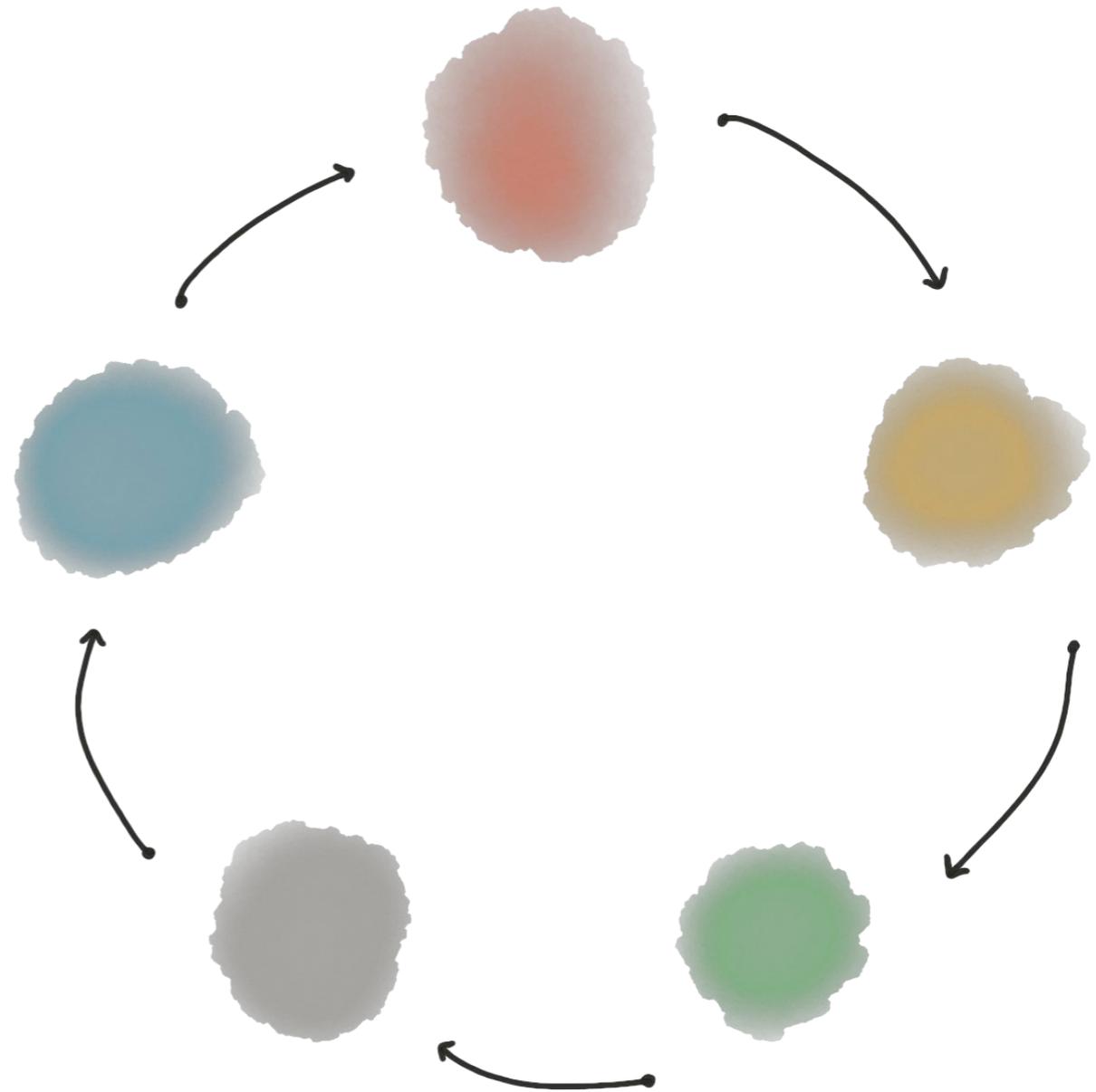
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Simply doing a project doesn't ensure learning is done deeply or rigorously; iterative critique and evaluation throughout the project cycle is necessary to ensure this.

# INDIVIDUALIZED LEARNING PLAN (ILP)

At Powderhouse, the Individualized Learning Plan (ILP) is a tool for ensuring that the work youth do is aligned with appropriate developmental, personal, professional, and academic goals.

The ILP helps staff ensure people learn what they want and need to while allowing for individualization of path and pace.

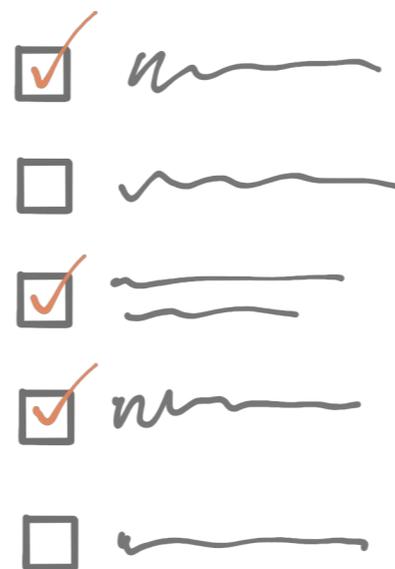
Staff teams come together around the ILP to: (a) help youth design and manage the work they do, and (b) document and reflect on what youth have learned through their work.

Imagine the ILP as a big checklist. Some of the items on that checklist everyone has (like MA Curriculum Frameworks-aligned standards or civics projects). Some are individualized: programming languages to learn, instruments to master, IEP goals to focus on, career paths to explore. Staff work with youth and families to add to, edit, and revise the ILP over time.

Projects are both designed forward from youth's ILP goals and retrospectively mapped back onto their ILP. Coverage of youth's ILP allows staff to manage youth's progress toward graduation.



Traditional academic standards



Personal and professional goals



IEP, 504 goals



Meta-cognitive, self-efficacy goals

# WHERE DOES WORK COME FROM?

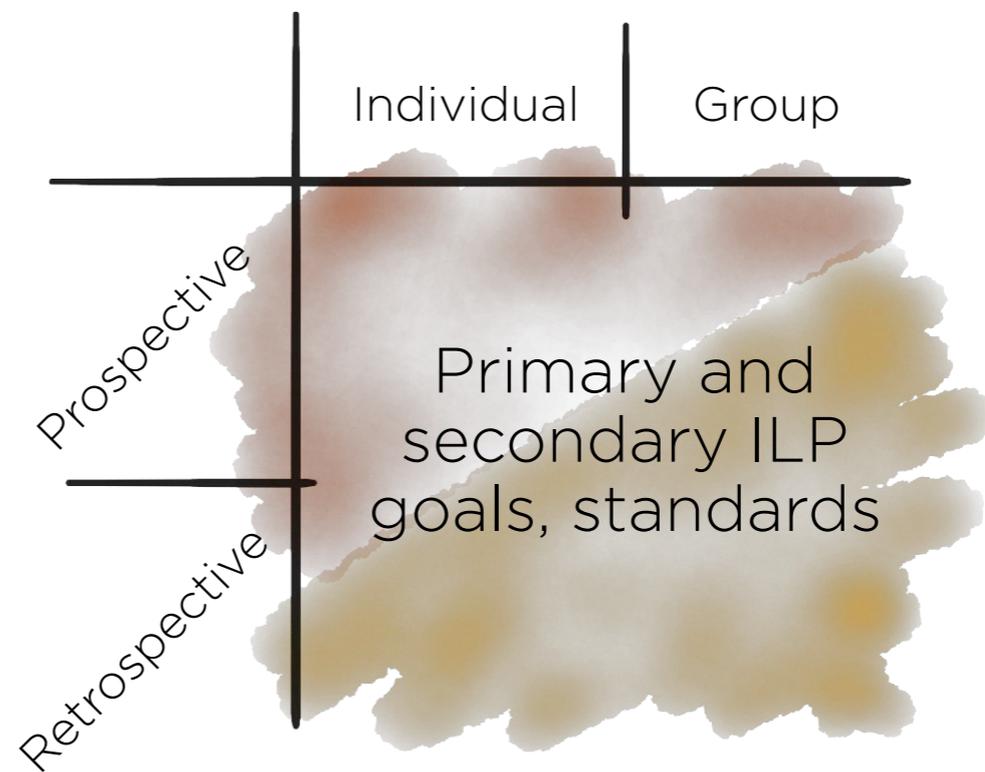
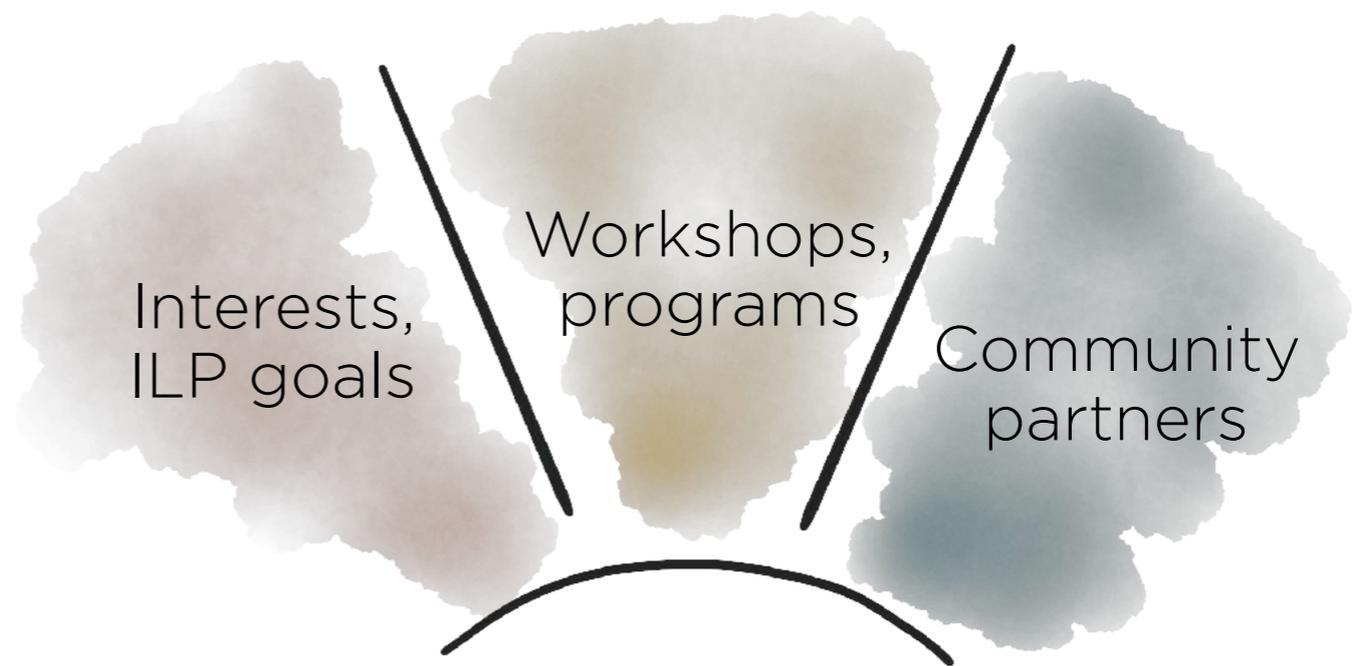
The work youth do will mostly come from:  
(a) Personal interests and priorities identified through staff, family advisory, (b) workshops run by staff focused on a particular topic or skill, and (c) interdisciplinary programs run by staff.

There are always primary ILP goals and standards which everyone engages. People will also cover individualized secondary ILP goals and standards.

e.g. Everyone will tackle civics projects. Primary goals might include standards like "the development of skills to access, analyze and evaluate written and digital media as it relates to history and civics" or "identify and debate issues relative to power, economic status and the common good in democracy". But depending on the particular topic of their civics project, different youth would engage different, additional, secondary goals and standards.

For some experiences, youth may go out of Powderhouse for internship, co-op, or cross-registration experiences.

No matter what, staff are always helping (1) align work with their ILP, and (2) document coverage of their ILP.



# HOW IS WORK EVALUATED?

One of the unique challenges of individualized, project-based work is evaluation. Because staff don't know exactly what projects will emerge from workshops and programs, Powderhouse needs new and different tools to combine with traditional methods of formative and summative assessment.

At Powderhouse, there are four primary ways work and progress are evaluated (both formatively and summatively): (1) on a project-by-project basis, youth work with staff to define standards of performance for that project, (2) by reference to youth's ILP, (3) traditional, standardized assessments like the MCAS and SAT Suite, and (4) social, emotional, and metacognitive evaluation instruments developed in partnership with CREDO.

Powderhouse will be assembling a curriculum advisory group to work with the Assistant Superintendent (and potentially other schools throughout SPS) to document and develop these assessments, prototyping them first at Powderhouse.

	Project	ILP	MCAS, SAT	SEL
Formative	✓	✓	✓	✓
Summative	✓	✓	✓	✓

Formative and summative evaluation and critique at multiple timescales

# SOCIAL, EMOTIONAL LEARNING & META-SKILLS

Many of the most important skills which contribute to long-term outcomes (including postsecondary persistence and career success) have been found to be “meta” skills involving the ability to manage oneself and one’s emotions, the ability to communicate and collaborate, capacity for reflective practice, and so on.

At Powderhouse Studios, significant time and structure will be set aside to explore and develop these skills directly.

As youth work with staff to document and reflect on their work, staff will also develop experiences explicitly supporting the development of collaborative, reflective, and social and emotional skills.

Identifying and developing these skills will be an important category of goal within youths’ Individualized Learning Plans.

Alongside the Student Performance Framework (SPF) developed by CREDO, Powderhouse will be developing frameworks for documenting and evaluating self-efficacy in partnership with the District and academic partners.



# CAPACITIES OF STAFF

All staff at Powderhouse will complete an approved Educator Preparation Program targeting Digital Literacy and Computer Science. Aligned with our emphasis on computation, narrative, and design, we are working with the Woodrow Wilson Academy for Teaching and Learning and Lesley University to develop this program.

The computation and narrative specialists in particular will over time add to this Mathematics and ELA licensure.

In addition to this, there will be licensed and appropriately qualified counselors (i.e. clinical social work or adjustment counselors), Special Education (SPED) and English Language Learning (ELL) staff at Powderhouse, who will also be responsible for creating professional and curriculum development for their colleagues.

Powderhouse's project-based, deeply collaborative model also requires staff who have significant experience pursuing creative projects of their own and/or supporting youth in project-based work.

These backgrounds will be paired with specific professional, curriculum development, licensure backgrounds in our positions.



For every staff member

→ DLCS credentials

Experience doing creative projects of their own and facilitating project-based environments

For all of Powderhouse

→ SPED, ELL credentials

→ Mathematics, ELA credentials

Powderhouse staff are organized in small, interdisciplinary teams working with the same cohort over many years, all supported by district staff.

# ORGANIZING STAFF

Each staff member will bring their own creative and professional background to bear on developing and designing programs and projects with youth. There are several specialized roles beyond this:

**Program design** — Developing colleagues' capacity to design rigorous, divergent projects and programs for youth and facilitate them effectively.

**Project management** — Developing youth and colleagues' capacity to scope and manage time, projects, resources, and documentation (including for the ILP) effectively.

**Youth advocate** — Bring all the social, emotional, and non-project elements of youth experience into the awareness and management of the team.

**Computation, narrative specialists** — Build youth, colleague, and project depth in and connections to their respective toolsets.

**SPED, ELL specialists** — Provide appropriate services and supports to youth, along with professional and curriculum development support for staff.



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THANK YOU!