

Using Design-Thinking to Support Content Delivery in Project-Based Learning

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Design impacts our daily lives whether we acknowledge it or not. We know when something is designed poorly—it is unfortunately noticeable. We also can tell when something is designed well. Better still, when we encounter great design, we sense it and feel its effects, but it goes almost unnoticed. In many schools that still adhere to a factory-model for education, youth are more and more able to identify the weaknesses in educational design. They hear hours of lecture; they see worksheets, workbooks, and tests; and they feel confined and uninspired by the opportunities that education promises.

The education field can look to Out-of-School Time (OST) programs for inspiration, especially those in the OST system funded by the City of Philadelphia Department of Human Services (DHS). The system's more than 200 programs design and implement content-filled projects tailored to the youths' needs and interests. Their work makes clear how to successfully incorporate specific content: OST providers must use best practices in design thinking to invest and engage youth so that they become seekers and generators of content.

Design thinking can be broadly defined as a discipline that uses an educator's sensibilities and methods to help youth solve meaningful problems. In the context of OST programs, these practices include establishing a clear vision and goals for projects, investing youth in solutions-oriented tasks, conducting co-investigation with youth, experimentation, and prototyping.

There is a broad line between well-designed contextual projects that organically incorporate content and standardized content forced into poorly designed theme-based activities. In systems that stress standards and improved high-stakes test scores, it is easy take the latter approach. However, core design principles make for highly effective projects, and educators can ensure project quality and achieved standards by adhering to them. According to the Institute of Design at Stanford University (D.School), design thinkers must uphold seven core mindsets for success. These include:

- Show, Don't Tell
- Craft Clarity
- Radical Collaboration
- Embrace Experimentation
- Bias Toward Action
- Focus on Human Values
- Be Mindful of the Process

The above mindsets apply to educators who design projects and facilitators who implement them (if they are

not the same). Let us examine how these principles might look in action when developing content rich projects that are highly engaging and contextual.

Show, Don't Tell

Beyond being leaders, educators must be coaches who motivate youth to invest time and energy in their education. They must show youth clear goals and picturesque vision for the project through meaningful experiences, engaging visuals, and inspirational stories. The mindset "Show, Don't Tell" lays the foundation for seamless content integration throughout projects. In OST programs, provider agencies engage youth in field trips, discuss personal stories, and brainstorm possible solutions to relevant issues and problems. These are a selection of methods project designers and facilitators use to set-up potential content while showing youth lofty goals for projects.

Craft Clarity

Similar to "Show, Don't Tell," this principle seeks to organize large, complex problems into their constituent pieces. This allows youth to have a clear idea of what topics they can and should address. Crafting clarity is where content begins to flow into projects. Practically, OST providers work with youth to create task lists that break down a project into major step-by-step benchmarks. Once youth are invested in relevant, real-

world topics, OST providers begin a push-and-pull process where they provide digestible amounts of content to youth, and the youth apply their own experiences, new content, and content derived from activities to move the project further along. OST providers keep content delivery fresh by inviting and involving content-area experts, conducting co-investigations with youth through critical thinking questions, and ensuring activities take place in, and relate to, relevant real-world contexts.

Radical Collaboration

Well-designed projects effectively incorporate collaboration and communication skills to promote content delivery. Projects are more dynamic and dive deeper into content when collaboration and communication involve diverse viewpoints. This is the purpose of radical collaboration. More than placing youth in groups, this mindset encourages collaboration with content experts, communities, and individuals with varied mindsets within real-world contexts. These groups support content delivery and skill acquisition through shared experiences that engage deeper-level thought processes. In the OST system, this has included industry professionals from music, sports, sciences and fine arts participating in projects with youth. Instead of OST providers driving the content, youth learn to pull each other and the project forward. Ultimately, content develops innately among the youth.

Embrace Experimentation and Bias Toward Action

Content delivery does not always have to come from prepared activities. These two very active mindsets support youth content generation that they can share with each other and build on throughout projects. When youth embrace experimentation, OST providers promote youth-generated content in the project through creativity and risk-taking skills. Recently, OST programs have explored marketing, fundraising, environmental sciences, and more using experimental principals. Continued experimentation through creative solutions invites content into the project both from the youth and from the staff members. Youth continue to pull the project along with newly developed data, trials and errors, and reimagined ways to reach solutions. This process can teach resiliency skills by teaching young people that mistakes are not failures, but learning opportunities. OST providers can leverage humility and co-investigation skills to demonstrate content and skills as they guide youth and assure quality project delivery.

Experimentation works in concert with bias toward action. This principle encourages OST providers to minimize lectures and meetings in favor of trying new approaches and fosters rapid prototyping for new models and tools, reformatting methods, and learning in context as much as possible. These two mindsets call for OST providers to

incorporate sketching ideas, using everyday items to develop 3-D models, and visualizing methods that work toward desired goals. Through action and experimentation, youth develop new content and incorporate facilitator directed content smoothly into projects.

Focus on Human Values and Be Mindful of the Process

These two mindsets ensure projects stay geared toward youths' developmental needs and interests throughout their duration. A focus on human values assures project designers develop project content and content delivery with the youth in mind. It also requires that youth have a regular opportunity provide feedback that will be received openly and incorporated into activities regularly. OST providers have had success with this principle through co-investigation with youth, assuming a beginner's mindset when studying a problem or topic area, using debriefing forms during and after projects, and exercising humility relative to youth input.

Assuring empathetic project design and implementation requires that OST providers outline the project and intended goals as best as possible. Staff and youth also follow intentionally designed project documentation to support and guide content and skill acquisition. Task lists, project calendars, and rubrics support an awareness of design and project cycles, as well as the other design

principles. When OST providers and youth understand the components of the project, skill development and content delivery occur organically.

Educators are designers. They are responsible for the daily routines that make programs operate smoothly and for the content and skills youth develop during projects. In order to deliver content to youth in a fresh, satisfying way that leaves everyone feeling empowered and energized, educators must adhere to design thinking principles. The OST system has supported educators and youth-serving providers with project development that capitalizes on design thinking. Providers leverage design thinking mindsets and strategies to deliver meaningful content that develops skills and fosters improved outcomes for youth. Their work is on the leading edge of youth development best practices and has much to offer the broader education system.

References:

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