Creativity By Design:
Boys as Makers

Brad Droke, The Browning School, New York, NY

The Research Question

How might collaboratively designing and making a model of a New York City subway platform for the year 2035 develop Form II boys' creative confidence and problem-finding skills in Technology?

The Action

Empathy

Empathy is the heart of the philosophy and the first step in the process. Design thinkers must discover people's expressed and latent needs in order to devise the right solutions. "Crazy curious" problem-solvers gather this information through observation, interviews and other research.

Synthesis

Synthesis makes sense of the disparate information gathered during the empathy phase, working step-by-step to group or "bucket" individual insights into opportunities for action. Related ideas are distilled into "how might we" questions key to the central challenge. "How might we" questions lead to many potential solutions in the next phase, ideation.
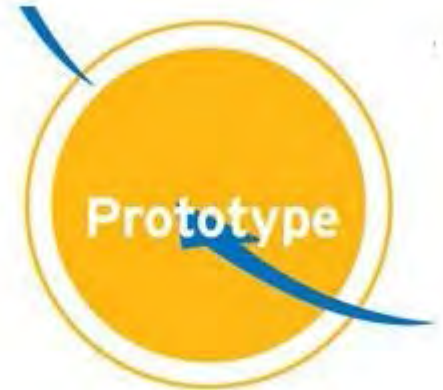
Ideation

Ideation means generating ideas to inspire concept development. Teams brainstorm around a "how might we" question, going for quantity, encouraging whimsical, wild ideas and deferring judgment. Ideas are expressed visually, in quick sketches and action-oriented headlines. Those deemed the most promising advance to the next stage, prototyping.

Prototype

Prototyping makes ideas tangible and testable. Design thinkers devise meaningful experiments through "rough and rapid" prototypes that reflect DT's bias toward action. Prototypes can be physical objects, or experiences expressed through role-playing. Design thinkers don't "pitch" a prototype; they simply present it for user feedback and revise and rebuild as necessary. This phase loops (build, test, revise) until a prototype meets the user's needs.

Storytelling

Storytelling brings concepts to life. Engaging storytelling rallies people through emotion, uncovers gaps in the underlying solution and is a catchy way to spread great ideas. Design thinkers create memorable characters that transform audiences and expand the reach of their design solutions.

Key Findings

- The development of creative confidence

At the beginning of the project

"No, I am not a creative person. I prefer having a clear plan when engaging in a task and then strictly following that plan. I don't like to be creative since that has to do with my imagination. And when I freely use my imagination, I don't operate via any type of plan. I think that is always good to stay structured and work efficiently with a plan"

By the end of the project

"Thinking of solutions for the problem required me to think beyond simple ideas. I had to really think in depth about my problems and then come up with effective and creative solutions"

- The development of problem-finding and problem-solving techniques

"I would spend more time understanding the needs of the user of the subway, rather than coming up with unrealistic ideas. We spent a lot time coming up with crazy ideas that would never work"

"The mistakes my group made were because we didn't really understand the problems. We made the subway cooler, but didn't fix it"

"My group did not have a plan to solve the subway's problems, instead we had a lot of ideas that didn't really work together"

- The development of collaboration skills

"It was great to encounter these problems with my group because we had more ideas as a whole then I would have had by myself"

"I learned that you need some other people to really solve a big idea like redesigning the subway. I realized that if you have other partners that you are motivated to work, you can make something great"