TEACHERS DESIGN FOR EDUCATION

Unleashing the Potential of Teachers as Designers | JUNE 2014
We are TD4Ed.
When we face a problem, we define it as an opportunity for change.
BEFORE DECIDING ON A SOLUTION, WE FIRST EXPLORE WHAT IS REALLY NEEDED.
WE REFLECT ON OUR LEARNINGS TO BROADEN OUR PERSPECTIVE.
WE COLLABORATE, SINCE WORKING AS A TEAM CREATES VALUE TOGETHER THAT CANNOT BE CREATED ALONE.
WE THINK BEYOND CURRENT CONSTRAINTS to imagine WHOLLY NEW POSSIBILITIES.
WE PLAY WITH IDEAS
BY TESTING AND ITERATING ON OUR DESIGNS.
WE USE STORYTELLING TO CONNECT, INSPIRE, PERSONALIZE & PERSUADE.
WE SEEK TO SPREAD OUR SOLUTION IN ORDER TO TRANSFORM OUR CLASSROOMS, SCHOOLS, DISTRICTS AND COMMUNITIES.
WE ARE TD4Ed
AND WE ARE DESIGNING A BETTER EDUCATION FOR OUR STUDENTS.
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EXECUTIVE SUMMARY

What is TD4Ed?
The Business Innovation Factory — with support from the Bill & Melinda Gates Foundation — developed Teachers Design for Education (TD4Ed), an online platform to teach design thinking principles through collaborative teamwork between educators. Using hands-on activities and project-based learning, TD4Ed harnesses the creativity and problem-solving skills educators use everyday, to provide a more rigorous and intentional approach to tackling meaningful challenges within the classroom, school, district, and community.

How TD4Ed was developed
A prototype of the online platform was developed, tested and iterated through a series of pilot programs in Rhode Island, Chicago, Philadelphia, and online. In total, thirteen teams of teachers participated in the pilot program to tackle self-chosen educational challenges, and helped to guide prototype improvements along the way. The most recent iteration of TD4Ed is now open to the public through www.td4ed.com.
What we learned from building and testing the platform

- Teachers want to work together to address problems big and small within our education system. Rather than shying away from difficult and complex issues, they are passionate about designing solutions.
- Teachers embrace a “blended” model of engagement. Through the use of a robust online platform and in-person collaboration, TD4Ed hit a sweet spot for teachers by providing time for individual or team-based work as well as opportunities to connect with others.
- Cross-collaboration fosters cross-pollination. By bringing together educators across grades, positions, schools, districts, and geographic location, TD4Ed has brought down boundaries and enabled the sharing of new ideas across educational communities.
- Teachers thrive when given the space for creative problem-solving. When teachers were brought through the rigorous yet flexible problem-solving approach of design thinking, they generated solutions that were accepted by their students, colleagues, administrators, and even state legislators. The experience also invigorated the teachers’ practices by supporting their agency and autonomy in their work.
Where we see future opportunities

Based on our learnings, we see broad opportunities for continuing to develop and evolve solutions that will support teachers in reaching their full potential.

*How might we develop more engaging, meaningful and personal professional development experiences through design thinking?*

By leveraging the human-centered approach that comes with design thinking together with structured professional development, we can create empowering learning experiences for teachers.

*How might we grow a strong, connected, and collaborative learning community that supports design thinking and teacher-driven innovation?*

By cultivating a connected community to share solutions as well as best practices, we can create a culture of innovation and learning that is much needed within education.

*How might we scale and spread TD4Ed and teacher-driven innovation?*

By facilitating the generation of ideas and showcasing their impact, we can spread powerful and exciting solutions to challenges that many educators, schools, districts, and communities are currently facing.
“We were looking to transform professional development in one quick step. This process taught us that solutions that are meaningful do not happen in one day.”

- Teacher from the Rhode Island pilot
INTRODUCTION TO THE PROJECT

At the Business Innovation Factory, we believe in the power of design thinking. We use these principles of human-centered design to generate and test new business models in complex social systems like healthcare, education, and government.

We used the principles of design thinking to build this project - from beginning with a design challenge and ending with a meaningful solution that is implemented in the real world. To stay true to our TD4Ed curriculum as well as our development process, we have framed our project through the lens of our six-phased design thinking curriculum.

We use this document as a vehicle for sharing our journey and learnings along the way, and also as a case study for how design thinking can be used in a larger organizational context.

What is design thinking?
It is a proven approach for identifying opportunities, creating new ideas, and accelerating change through experimentation. It brings a human-centered, creative, and rigorous approach to problem-solving by tapping into creative competencies that we use everyday.
DEFINE
Reframe a problem as an opportunity for change

EXPLORE
Build a deeper understanding of your challenge

REFLECT
Make sense of what you are learning

IMAGINE
Generate meaningful ideas

PLAY
Develop and test your idea

TRANSFORM
Grow your solution and advance your personal journey
DEFINE

Reframe a problem as an opportunity for change

Choose a topic or problem you have been facing, and reframe it as an opportunity for change. This will be your design challenge. A well-formed design challenge will help set your team up for success. Though you will craft your initial design challenge in this phase, it will evolve as you continue through subsequent phases. Stay flexible and adaptable as you learn more about your challenge, and be open to reframing it.
Framing the Problem

A teacher’s effectiveness has more impact on student learning than any other factor within school systems\(^1\). This effectiveness is being challenged as teachers are asked to adapt at an unaccustomed rate and implement a crush of policies and initiatives into their daily practice. This adaptation increases teacher workloads and requires new levels of commitment and energy just to survive, nevermind thrive. As a result, teachers struggle with disengagement and emotional disconnection from the work they do and the schools they work within. In fact, a 2012 MetLife survey of American teachers reports the lowest rates of job satisfaction in decades\(^2\). **If our teachers aren’t engaged in their work, how can we expect students to be engaged in their learning?**

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To address this growing problem, in 2012, the BIF Student Experience Lab researched feedback that teachers receive, the ways in which that feedback was shared, and the conditions in which the feedback impacted teacher performance — both negatively and positively. The Feedback for Teachers study — commissioned by the Bill & Melinda Gates Foundation — revealed that teachers consistently struggle to:

- Maintain a sense of autonomy and feeling of agency over their classrooms and teaching efforts
- Coordinate teaching and learning in a collaborative way amongst fellow teachers, advisors, and support service providers
- Balance the external factors of students’ lives while providing a stable, safe place for children to learn
- Find outlets of expression and feedback that are tied to self-assessment and growth
- Take control of their own professional growth

“I used to feel like we knew what was happening. A lot of things [are] coming up... I just get the feeling that we’re spinning our wheels in a way. I don’t know if we know what’s right and what’s wrong.”

- Teacher from the Feedback for Teachers study
A qualitative study of how teachers receive, share and make meaning of feedback
Commissioned by the Bill & Melinda Gates Foundation
December 2012
The research pointed to many opportunities for designing new models for effective teaching — including one that would enable teachers to become leaders of change, where they could harness their know-how and expertise to create better learning experiences for their students. By developing a sense of agency and ownership in their own profession, it would also reinvigorate their practice and provide a path to continued growth.

Based on our decade-long history with design-driven innovation, the Business Innovation Factory believe the best route for facilitating this new model lies with design thinking — a proven process for identifying opportunities, generating new ideas, and accelerating change through experimentation. It brings a human-centered, creative, and rigorous approach to problem-solving by tapping into our creative competencies. By putting design thinking in the hands of teachers, we believe it would build their capacity to leverage their expertise and solve problems facing them and their students, increasing their ownership and agency in their work.
This framed our design challenge ahead of us:

**How might we use a design thinking platform to help teachers develop more agency and autonomy, and lead innovation within their classrooms, schools, districts, and communities?**

With the support of the Bill & Melinda Gates Foundation, we began developing and testing this design thinking platform. Over the course of seven months, we would:

1. Establish a model for TD4Ed with a cohort of teachers,
2. Create a curriculum that would teach the principles of design thinking,
3. Establish a digital storytelling platform to share learnings and best practices, and
4. Pilot TD4Ed in three locations with several in-person workshops, along with community engagement support from the Highlander Institute.

**We began our journey in November 2013.**
EXPLORE

Build a deeper understanding of your challenge

Conduct primary research to develop an understanding of how users experience your challenge, and gather inspiration from completely different contexts outside of education. These methods should focus on qualitative approaches, such as interviewing, observing, and shadowing. This is the time to be curious and empathetic to how others experience this challenge. Go deep to learn about their values, beliefs, behaviors, motivations, aspirations, and needs.
Research

BIF set out to deeply understand the context around our design challenge, which would help inform future solutions. Building upon insights from the 2012 Feedback for Teachers study we completed the following activities:

1. Engaged an advisory group of educators in the Rhode Island area to help us design the TD4Ed teacher experience. With them, we developed messaging, gathered insight into how to recruit teachers, and edited a first draft of the curriculum.

2. Interviewed a variety of innovators within the education and design sectors in order to understand the platforms that are currently being used, and trends in the teacher leadership and engagement space.

Karen Brennan, HGSE and ScratchED
Jeff Dunn, DeVry University
Melissa Goodwin, Goodwin & Sommervold Consulting
Alex Hernandez, Charter School Growth Fund
Jack Klett & Natalie Nixon, Philadelphia University
Ben Kutylo & Daniel Rogers, Chicago Public Education Fund
Carlos Moreno, Big Picture Learning
David Sebek, Creativity 2.0
Sheree Speakman, CIE Learning
3. Conducted an audit of current education innovation platforms and resources.

DesignEDU - www.designedulab.org

d.school K-12 Lab - www.k12lab.org

Henry Ford Learning Institute - www.hfli.org

EdCamps - www.edcamp.org

Stack Overflow - www.stackoverflow.com

IDEO Design Thinking for Educators - www.designthinkingforeducators.com

Code Academy - www.codeacademy.com

Skillshare - www.skillshare.com

Working Examples - www.workingexamples.org

4.0 Schools - www.4pt0.org
REFLECT

Make sense of what you are learning

This phase is about making meaning from the Explore phase. You’ll find patterns in what you’ve learned, form overarching insights from those patterns, develop visual frameworks to organize your insights, and identify design principles that will inspire solutions for your challenge. Reflecting on your research enables you to have ‘AHA!’ moments and epiphanies to discover the unmet needs of people at the center of your challenge.
Insights

Based on our exploration, we developed insights about what is currently lacking in learning platforms for education & design. This helped us frame how we might position TD4Ed as a new offering to fill those gaps.

What is currently lacking:

- **Hands-on training**: We heard from many educators that professional development is typically encouraged through a presentation or lecture, which often don’t enable hands-on learning. Because of this, they aren’t able to practice what they learned until they are back in their classroom, on their own time. They struggled to ground the learning in the current context of their practice — making it less likely that they will find the training meaningful and valuable.

- **Collaborative learning**: Teachers rarely have the time and space provided within school to collaborate together, even though they frequently rely on their peers for help. They crave more moments of collaboration to help solve challenges in their daily practice. Instead, the structure for learning within the educational system tends to be individualized, rather than enabling teachers to work together and build new value alongside their colleagues.
• **Innovating from within**: There has been much progress on building teacher entrepreneurs who take initiative in innovating within education. The potential problem that this causes is that these forward-thinking educators and leaders move their focus from the classroom to other sectors. We need to have teachers that lead, but won’t leave. It’s important for us to support teachers as they innovate within the education system so we aren’t losing their value in the classroom. We want to be able to change the face of education from within, rather than from outside.

• **Integrated platforms**: With a plethora of new platforms that are developed for teacher professional development, the choices are overwhelming. Currently, teachers are mashing together different products and approaches, effectively hacking together their PD strategy. In order to fit their current behavior patterns, we should ensure that we are building in ways to connect to key platforms that teachers use (such as Facebook, Pinterest, or Twitter) to create an integrated platform.
Opportunity Map of Current Learning Offerings

**FORMAL LEARNING OFFERINGS**

- Professional Development Consultants
- Hands-On Workshops
- Professional Learning Communities
- EdCamps
- "Underground" Learning Groups
- Massive Open Online Courses (MOOCs)
- Social Media Platforms (twitter, Facebook)
- Online Collaboration
- Offline Collaboration

**INFORMAL LEARNING OFFERINGS**
Design Principles

From these insights about the current experience, we developed design principles — guiding values or criteria that new solutions must have, rooted in the needs of those at the center. These design principles provide the basis and drive for the development of a solution.

In order to be successful, TD4Ed needs to:

Provide a meaningful experience for educators
The experience must be relevant to them in order to make it meaningful — tackling problems that they are passionate about, and making something real, tangible, and lasting.

Integrate into teachers’ already busy lives
This experience can’t be seen as “one more thing...” for someone with little free time. In order to successfully engage educators from beginning to end, it must be easy to access, quick to understand, and compelling to complete. Otherwise, we risk losing their attention and engagement.

Create value together that can’t be created alone
Collaboration is a key part of creative problem-solving, and it starts by building a team of individuals with different strengths. To foster an active community, we must create the conditions for peers to support, share, and collaborate together.
**Invigorate teachers’ practice**

Even though the approach is called “design thinking,” the experience is about doing rather than thinking. Through a “learning while doing” approach, we can tap into key mindsets that teachers can use within their own practice, such as empathy, experimentation, embracing failure, and visualization. By providing a process for creative problem-solving, it can facilitate the transformation from frustrated teacher to confident and passionate leader of change.

**Use storytelling to highlight change**

Enabling teachers to bring their experience to life through storytelling, inserts their voices into the national conversation about transforming education and improving outcomes. We need to message the value of not just of the solutions, but of the process itself.

**Foster sustained engagement**

Foster continued engagement with the platform, community, and design thinking within education will increase the impact of the TD4Ed platform, community, and design thinking within education. We must find the right motivators to provide teachers with the right value at each moment of engagement.

With these design principles as our guidelines, we were ready to develop a model for delivering this experience to teachers.
IMAGINE

Generate meaningful ideas

Based on what you know about your users, imagine a new experience that is more relevant and meaningful to them. During this phase, you will brainstorm new possibilities, cull them down to a few ideas, and develop them into concepts that you can then test with users in the Play phase.
TD4Ed Concept Summary

With our design principles in hand, we developed a model of the TD4Ed experience.

Teachers Design for Education (TD4Ed) is an online platform that uses a design thinking curriculum and collaborative teamwork between educators to help them tackle challenges within their classrooms, schools, districts, and communities. The platform unlocks teacher potential, empowering them to generate meaningful and valuable solutions to some of the toughest problems within the current educational system.
Teachers who use the platform:

_Tackle a real-world challenge_
A team of three to five teachers can use the TD4Ed program to tackle a challenge they’re facing within their classrooms, departments, schools, districts, or communities using design thinking.

_Collaborate with others_
The TD4Ed journey includes an online curriculum and in-person collaborative teamwork to design a solution to a real world challenge.

_Learn by doing_
The program uses elements of project-based learning to tackle a real-world challenge. The curriculum centers on a series of activities that build upon each other throughout each phase and the whole experience. In addition to the activities, we’ve provided multimedia videos, tips, and resources.

_Share their story_
Along the way, teachers will record their process and learnings to form a story that they can share with others, including their fellow teachers, administrators, and the public.

“I know that this is a process I will use in my own teaching both in and out of the classroom. You’ve all taught me a new, invaluable, skill that I will be using moving forward.”
– Teacher from the Rhode Island pilot
There are two major components of the platform:

1. A multimedia, activity-based design thinking curriculum, through which educators can learn how to use the tools of design thinking

2. Collaborative capabilities that enable communication between team members, tracking their progress as they journey through the curriculum, and sharing their work and learnings with others
PLAY

Develop and test your idea

In this phase, make a prototype of your idea to test and develop based on feedback from your users. A prototype is a small-scale, tangible representation of an idea that people can directly experience. You will test it by putting it in the hands of your users to learn what’s working and what’s not working. By repeating this cycle, your idea can get better — faster. This way, you can understand if your concept is meeting people’s needs as you expected, before you fully implement it.
Goals for the Play Phase

We began this phase of work with the goal of developing and testing our prototype — a collaborative design thinking platform for teachers. This platform would be the foundation of TD4Ed moving forward. This phase of work included the following objectives:

- Develop and refine the online design thinking curriculum based on user testing
- Build and sustain engagement with teachers as pilot participants
- Establish a community of users
- Identify potential partnerships for further development
- Produce a foundation of stories to highlight the process and outcomes from the TD4Ed platform
- Determine a set of future features that would enhance the user experience
Methodology of TD4Ed Prototyping

Recruitment
We developed and tested the TD4Ed curriculum and platform in three pilot locations where we could establish strong networks — Rhode Island, Chicago, and Philadelphia. The rollout of the pilot engagements occurred in six-week staggered cycles to enable an iterative build of the platform, curriculum, and activities. We later added two online pilot teams (one in Rhode Island, one in Massachusetts) to learn how teachers journeyed through the program without in-person facilitation.

Pilot schools were recruited with the help of “on-the-ground” supporters who had deep knowledge of the local educational environments, with the exception of the Warwick team in Rhode Island who reached out to us directly. Public and charter school networks were targeted to gain insight into how the platform works in resource-constrained environments. One exception was made for IIT/Boeing Scholars Academy, an after-school program, in order to test the platform in a non-school setting.

Participating educators within each school were then recruited by their principal or other administrators based on the interest and availability of educators. To ensure that participating teachers would have the support of their administration to test some of their ideas, principals or heads of school were required to sign a Memorandum of Understanding.

In total, we recruited 13 teams of educators — 50 educators in all.
TEACHING EXPERIENCE (YEARS)

- 1-2: 20% (10)
- 3-5: 28% (14)
- 6-10: 22% (11)
- 11-20: 16% (8)
- 20+: 14% (7)

SCHOOL LEVEL
- ELEMENTARY/MIDDLE SCHOOL: 4
- MIDDLE/HIGH SCHOOL: 2
- MIDDLE SCHOOL: 1
- HIGH SCHOOL: 6

SCHOOL TYPE
- TRADITIONAL PUBLIC: 46% (6)
- PUBLIC CHARTER: 38% (5)
- ALTERNATIVE: 8% (1)
- AFTER SCHOOL: 8% (1)

SUBJECT TAUGHT
- GENERAL: 28% (14)
- ENGLISH/LANGUAGE ARTS: 18% (9)
- MATH: 14% (7)
- SCIENCE: 8% (4)
- TECHNOLOGY: 8% (4)
- HISTORY/SOCIAL STUDIES: 6% (3)
- LANGUAGE: 4% (2)
- SPECIAL EDUCATION: 4% (2)
- ADMINISTRATOR: 4% (2)
- OTHER: 6% (3)

GENDER
- F: 74% (37)
- M: 26% (13)

LOCATION
- RHODE ISLAND: 4 TEAMS (17 EDUCATORS)
- CHICAGO: 4 TEAMS (15 EDUCATORS)
- PHILADELPHIA: 3 TEAMS (12 EDUCATORS)
- ONLINE: 2 TEAMS (6 EDUCATORS)
**Methods of Prototype Testing**

We developed the platform prototype iteratively — with each consecutive pilot location having a more robust online experience and less hands-on facilitation. In each city, we used a blended approach of facilitation — a mix of online activities and in-person workshops. The exceptions to the blended approach were the two online teams, which had no in-person facilitation.

Based on our design principles from the Reflect phase, we focused on three key questions to measure the success of the prototype:

1. Did participants stay engaged throughout the process?
2. Did participants generate meaningful, valuable, and actionable solutions to their challenges?
3. Did participants learn the value of TD4Ed and design thinking?
4. Did participants feel invested or inspired about their work as educators as a result of the program?
The Business Innovation Factory’s Student Experience Lab, in collaboration with the Highlander Institute, is recruiting teachers for a pilot program in Philadelphia beginning in early April 2014. Selected teams of teachers will go through a six-week program to learn a creative problem solving process by tackling a current challenge at their school. This program, titled Teachers Design For Education (TD4Ed), seeks to empower teachers with new tools and approaches while improving student outcomes by cultivating an aptitude for lifelong learning.

What’s in it for me? Each pilot participant will receive $500 upon completion of the program, with the opportunity to acquire additional seed money to develop the final solution. Meals will be provided for the workshops and travel expenses to the workshops will be reimbursed. We’ll also provide materials and supplies throughout the training. More importantly, you get the chance to connect with other teachers locally and nationally, and to tackle a challenge in your classroom, school, district, or community that is important to you.

Sounds great! Who do I contact? If you would like to participate in the pilot program or have any questions, please email srubin@highlanderinstitute.org. Visit www.td4ed.businessinnovationfactory.com for more information.

### CALL FOR PARTICIPANTS FOR PILOT PROGRAM

**What kind of teachers are you looking for?**

We are looking for teams of three to four teachers from the same school or district who are seeking a new way of solving problems within their classrooms, school, district and/or community. We are happy to have teachers from different grade levels and departments within the school. We are looking for teachers with the motivation to enact and lead change in their school. We are looking for teachers who are excited to try something new, willing to commit to the time commitment and share their insights in a collaborative environment.

**What will I do?**

Teachers will gain first-hand experience of the design-thinking process to identify opportunities, create new ideas and accelerate change through experimentation. BIF has used this process with many examples of success within the Student Experience Lab. We will take the participants through a six-week design-thinking program that includes two weekend workshops, weekly activities and online check-ins. We expect the activities to be around five hours per week. Pilot participants will take part in a final design workshop with participants from other pilot locations in June, and share their concept at the end of the program with the possibility of receiving funds for implementation at their school.

### THE 6-WEEK LEARNING CURRICULUM

**TD4Ed Pilot Schedule**

- **Define**: Framing a problem as an opportunity for change
- **Explore**: Building deeper understanding of your challenge
- **Reflect**: Making sense of what you are learning
- **Create**: Turning your insights into ideas and solutions
- **Play**: Testing your solution against reality
- **Evolve**: Launching, growing, and further developing your solution
- **Break**: Self-directed progress on developing your solution, or preparing for the culmination workshop
- **Culmination**: Culmination celebration & workshop with all pilot participants - taking place in Providence, RI

**Weekly Activities**

- **30 min weekly readings**
- **3-5 hours of solo work and team work**
- **30 min weekly check-ins with BIF**

* online had no weekly check-ins

* RI had 10 week break
  * Chicago had 2 week break
  * Philadelphia and online had no break
We structured our testing strategy to inform the following goals:

1. **Assessing the content of curriculum:**
   Gaining insight into the clarity and value of the design thinking curriculum

2. **Testing the structure of the platform:**
   Understanding the experience teachers had using the online curriculum and engaging in offline activities

3. **Tracking progress of teams:**
   Discovering the successes and barriers groups of teachers had in tackling challenges, implementing solutions, and sustaining engagement
In order to understand teachers’ experiences with the curriculum and platform, we used a mix of methods:

<table>
<thead>
<tr>
<th>Method</th>
<th>When?</th>
<th>With whom?</th>
<th>What did it assess?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anonymous questionnaires</td>
<td>After each in-person workshop; After the completion of each phase</td>
<td>Rhode Island, Philadelphia, Chicago participants; Online participants</td>
<td>The workshop platform and the curriculum: aspects that were helpful and aspects that were confusing</td>
</tr>
<tr>
<td>Online analytics</td>
<td>Weekly</td>
<td>Pilot participants; Twitter users</td>
<td>Tracking progress of teams; Patterns of platform use; Extent of online engagement</td>
</tr>
<tr>
<td>User testing</td>
<td>In early stages of curriculum &amp; platform development</td>
<td>A mix of educators that were either familiar or new to design thinking</td>
<td>Clarity of content; Ease of use of platform; Flow of user experience</td>
</tr>
<tr>
<td>Informal interviews</td>
<td>During weekly check-ins (via Google Hangout); During in-person workshops</td>
<td>Rhode Island, Philadelphia, Chicago participants</td>
<td>Aspects of the experience that facilitated progress and aspects that hindered progress; Suggestions for improvements</td>
</tr>
<tr>
<td>Ethnographic observations</td>
<td>During in-person workshops</td>
<td>Rhode Island, Philadelphia, Chicago participants</td>
<td>Points of confusion or conflict during workshop, and how it was resolved</td>
</tr>
<tr>
<td>Participative feedback</td>
<td>During final culmination event held in Providence on June 7th, 2014</td>
<td>Rhode Island, Philadelphia, Chicago, online participants</td>
<td>The TD4Ed online experience (curriculum and platform)</td>
</tr>
</tbody>
</table>
## Pilot Development

We developed the TD4Ed platform prototype through an iterative process — starting with a most basic design thinking curriculum and ending with a robust and interactive platform.

<table>
<thead>
<tr>
<th>Location</th>
<th>Rhode Island</th>
<th>Chicago</th>
<th>Philadelphia</th>
<th>Online</th>
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</thead>
<tbody>
<tr>
<td><strong>Number of teams &amp; participants</strong></td>
<td>4 teams with 4-5 members each, Total of 17 participants</td>
<td>4 teams with 3-5 members each, Total of 16 participants</td>
<td>3 teams with 3-5 members each, Total of 12 participants</td>
<td>2 teams, 4 &amp; 2 members, Total of 6 participants</td>
</tr>
<tr>
<td><strong>Curriculum &amp; activities iteration</strong></td>
<td>1st iteration of curriculum: • Included worksheets • Used written vignette as example of design thinking “in action”</td>
<td>2nd iteration of curriculum: • Heavy editing of curriculum • Added in Collaboration &amp; Storytelling to process • Renamed several phases • Included videos that highlighted the “mindset” of each phase</td>
<td>3rd iteration of curriculum: • Rethinking several activities &amp; light editing of most activities</td>
<td>3rd iteration of curriculum</td>
</tr>
<tr>
<td><strong>Platform iteration</strong></td>
<td>Platform included: • Curriculum instructions &amp; tips • Worksheets as individual log-ins incorporated for 2nd workshop</td>
<td>Platform included: • Addition of “mindset” intro videos • New structure &amp; navigation • Form inputs to track work • Groups pages</td>
<td>Platform included: • Addition of animated example videos • Revised structure and navigation • Revised form inputs • Revised Groups pages</td>
<td>Platform included: • Addition of basic onboarding structure</td>
</tr>
<tr>
<td><strong>Workshop facilitation</strong></td>
<td>Heavy facilitation: • Relied on verbal instructions prompts &amp; platform (introduced in 2nd workshop) • Lots of clarification &amp; direction given by BIF during activities</td>
<td>Medium facilitation: • Used a mix of verbal instructions prompts &amp; platform • Some clarification &amp; direction given by BIF during activities</td>
<td>Light facilitation: • Relied on platform with brief prompts of activity • Very little clarification &amp; direction given by BIF during activities</td>
<td>Very little facilitation: • One kickoff meeting to log-in &amp; introduce pilot • Weekly emails to provide that week’s expectations • One debrief meeting at the end of the pilot program</td>
</tr>
</tbody>
</table>
“Over the course of our challenge, we tapped into our own experiences and sought out others who wanted to [be part of developing a solution]. We learned so much, and as we moved through the design thinking process, our passion for our project grew.”

- Teacher from the Chicago pilot
Prototype Iteration

Throughout the pilot program, BIF was continuously and rapidly iterating on the content, structure, and functionality of the platform prototype based on feedback we received from participants. Aside from those smaller changes, there were five distinct rounds of iterations that generally coincided with the ending of one pilot cohort and the beginning of another.

**Round 1 Focus: Development of Platform Foundation**

Implementation: Early February 2014 (Beginning of first pilot in Rhode Island)

This was our “minimum viable product” that we developed for the beginning of the Rhode Island pilot. While it provided the structure for housing the curriculum activities, we found that it did not provide participants with enough direction for navigating within and between activities.
Choosing a Design Challenge

A design challenge stems from a problem you want to tackle, and is what guides and anchors you through the different phases of design thinking. A good design challenge will allow you to look beyond the current paradigm and solutions to wholly new possibilities.

Choosing the right frame and scope for a design challenge can be difficult, though. It's easy to move towards solutions before fully exploring and understanding the problem itself. These next activities will help you craft a design challenge that is open-ended and human-centered.
Round 2 Focus: Platform Development
(Navigation & Content Structure)

Implementation: Mid-March to Mid-April 2014 (Middle of first pilot in Rhode Island to beginning of second pilot in Chicago)

We addressed issues with navigation by developing different iterations of the platform wayfinding and navigation, which we tested with users using paper mock-ups. We also broke down activities into smaller tasks to make the content more manageable and digestible for participants.

“The breakdown of the steps made it easier to see the whole picture.”
- Teacher from the online pilot
Define

In this phase, you will reframe a problem as an opportunity for change

What are you going to do?

To begin the Design Thinking process, you must define a design challenge, which - at a basic level - is a problem that is reframed as an opportunity to change and improve an experience.

Why are you going to do it?

Defining a simple and explicit design challenge brings focus and clarity to a potentially complex problem. This design challenge is the basis of what you will be solving for using Design Thinking.

What are the outcomes of this phase?

1. A clear and concise design challenge that presents your team’s opportunity for change.
2. A list of areas of exploration that will focus your team’s efforts for the next phase of Explore.

How are you going to do it?

ACTIVITY 01 Choose a Design Challenge

ACTIVITY 02 Frame the Design Challenge

Activities Overview

ACTIVITY 01 Choose a Design Challenge

- Select a Problem
- Turn a Problem Into a Design Challenge

ACTIVITY 02 Frame the Design Challenge

- Brainstorm Around the Challenge
- Document Your Knowledge
Define > Framing the Design Challenge

Document Your Thoughts

Group the notes that you just brainstormed into topics, and categorize them into the following areas:

- What you know
- Any potential assumptions or biases
- What you don't know, what you want to learn, and any remaining questions you have
- What success looks like
- What potential constraints or conflicts could get in the way of success

This activity will help give direction to the next phase of the Design Thinking process - Explore. We've provided a worksheet to help organize your thoughts, but feel free to try another way that works best for your team.
Activity Page, v 2.2

Define

**ACTIVITY 01**

**Choose a Design Challenge**

We know there are plenty of problems that you and your team face on a day-to-day basis. This activity helps ensure that you are choosing a challenge that can be solved using the Design Thinking process.

This activity has two steps

<table>
<thead>
<tr>
<th>TASK 1</th>
<th>Select a Problem</th>
<th>2 hours and 45 min</th>
</tr>
</thead>
<tbody>
<tr>
<td>TASK 2</td>
<td>Turn a Problem into a Design Challenge</td>
<td>1 hour and 15 min</td>
</tr>
</tbody>
</table>

From the problems you selected, rewrite each of them into a question beginning with the phrase “How might we...?”

The best design challenges satisfy the following criteria:

**Focused on people and their experiences, rather than a technology, approach, or process.**
For example: “How might we adopt Common Core standards into our curriculum?” (focuses on an approach) vs. “How might we develop a culture of change that emphasizes ownership and autonomy?” (focuses on the human experience)

**Open-ended to allow for a number of different solutions.**
For example: “How might we redesign our classroom to enable better communication?” (only solution is interior design) vs. “How might we enable collaboration between teacher and student?” (allows for multiple types of solutions)

**Feasible and actionable with the time and resources available to you.**
For example: “How might we redesign how professional development is offered in our school?” (great for a yearlong project, but too large of a topic to tackle in 6 weeks)

If your team feels one of your design challenges satisfies the criteria above, congratulations! You’ve found your design challenge!

If not, keep cycling through this activity set to tweak and refine it until your team is satisfied.
Round 3 Focus: User Experience & Platform Enhancements  
(Video Curriculum, Form Entry & Refined Navigation)

Implementation: Early April to Late April 2014 (Beginning of second pilot in Chicago to beginning of third pilot in Philadelphia)

With a more structured way of organizing content, we focused on developing enhancements to the platform that would improve the user experience. This included:

- Two kinds of video content: 1. Live action videos that provided a general overview of each phase and focused on messaging its key mindsets and activities, and 2. an animated case study inspired by the work of our Rhode Island pilot teams, so participants could understand what the phase activities look like “in action”.
- Form entries for team members to input their work for each activity in order to track their progress, view their teammates’ progress to enable better communication, and share their work with other teams on the site
- Refined wayfinding and site navigation
Play
In this phase, you will reframe a problem as an opportunity for change.

What are you going to do?
To begin the Design Thinking process, you must define a design challenge; which, at a basic level, is a problem that is reframed as an opportunity to change and improve an experience.

Why are you going to do it?
Defining a simple and explicit design challenge brings focus and clarity to a potentially complex problem. This design challenge is the basis of what you will be solving for using Design Thinking.

What are the outcomes of this phase?
1. A clear and concise design challenge that presents your team’s opportunity for change
2. A list of areas of exploration that will focus your team’s efforts for the next phase of Explore

How are you going to do it?

**ACTIVITY 12**
Choose a Design Challenge

**ACTIVITY 13**
Frame the Design Challenge

**ACTIVITY 14**
Choose a Design Challenge

**ACTIVITY 15**
Frame the Design Challenge
Define

Choose a Design Challenge

We know there are plenty of problems that you and your team face on a day-to-day basis. This activity helps ensure that you are choosing a challenge that can be solved using the Design Thinking process.

THIS ACTIVITY HAS TWO STEPS

**TASK 1** Select a Problem

To start, take 10 minutes to brainstorm problems that you and your teammates are currently facing. Identify three to five problems that are interesting and important to you and your team.

Complete the following assignment

Type your response here

**TASK 2** Turn a Problem into a Design Challenge

**ESTIMATED TIME NEEDED**
2 hours and 45 min

**WORKSHEET**
Knowledge Map

**TIP**
Consider Brainstorming Questions

**TIP**
Take Note of Assumptions or Biases

**TIP**
Capture Each Individual Thought, Question, or Piece of Information

Activity Page, v 3.1
“It is exciting to reflect back on our first day [of the TD4Ed pilot program]... We realized that design thinking could transform not only classrooms but entire societal systems as well. Although we have a long way to go before the completion of our own design challenge, we believe we have the tools to transform our classrooms, and ultimately, our school.“

- Teacher from the Philadelphia pilot
Round 4 Focus: Onboarding for the Public

Implementation: Early May 2014 (Beginning of last pilot taking place online)

In preparation for our online teams and eventual public launch of the platform, we developed onboarding materials, including a suggested schedule, prep activity guides, and video “how-tos” for navigating the site. This phase of iteration would allow for a “lower touch” experience, with little to no facilitation.
Our hope through this experience is to increase your sense of agency and autonomy, empowering you to make positive, sustained changes for your students and schools.

Through this six-week program that includes in-person workshops, online curriculum, individual work, and collaborative teamwork, you will be provided with the process, guidance, and inspiration to take initiative and promote change from within your classroom, school, and district.

Your team will be in the driver’s seat to use your know-how and expertise to transform everything - from classroom activities and pedagogies to professional development and education policy. Through this program, you will tap into skills you already have and build new competencies to identify challenges, generate new ideas and implement solutions.
New User Onboarding v 4

TD4Ed Timeline

Below is a suggested timeline for teams that wish to go through all six of the TD4Ed phases. This timeline takes into consideration your limited free time during and after school. We recommend dedicating at least eight consecutive weeks to working on TD4Ed activities; however, the scope of your design challenge will help guide your team’s pace. Once you get to Transform, time to implement your idea will vary based on the nature of your solution.

Added suggested timeline
Welcome to TD4Ed!

Our design thinking curriculum takes a creative and human-centered approach to tackling challenges within education — from the classroom to the community.

Developed stepped program overview

There Are Six Phases in the Curriculum

Each phase takes a different angle with which to view your challenge. The activities in each phase have a "learning by doing" approach, and are meant to tap into skills and mindsets that are valuable for educators: empathy, creativity, collaboration, experimentation, embracing failure, and visualization. If this is your first experience with design thinking, we recommend starting at Define.

Phases, Activities and Steps

Each Phase is comprised of a series of activities. Each activity is made up of several steps. At the end of each activity there is a check-in. At the end of each Phase there is a review. The TD4Ed curriculum was designed by teachers for teachers, making it easy to follow along.
**TD4Ed Support**

How does TD4Ed work?

Teachers tackle a challenge by using a six-phase approach to design thinking. Since we built TD4Ed as a collaborative platform, we recommend teams of three to five educators. The journey includes an online curriculum and in-person collaborative teamwork. Activities in each phase will lead you through a series of tasks to complete. In addition to the activities, we've provided tips and resources to help you.

Who can use this?

Anyone! While we've built the program around the experience of teachers, it can be used by administrators, students, parents; anyone who plays a role within education.

What do you want me to do on this site?

**GET IN TOUCH**

Where can I go for help and/or questions about the curriculum? Where can I go for help and/or technical questions about this website?

Please contact the TD4Ed Team.

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**How do I get to my profile page?**

You must sign in to get the profile link and functionality. This link will be located at the top right of the website.

**Where can I change my user information?**

In your profile page, you can change your photo, email, screen name, first and last name and password.
Round 5 Focus: Streamlining and Refocusing

Implementation: Mid-August 2014

During the culminating workshop, we received rich feedback about our pilot teachers’ experiences through a reflection activity. They provided their thoughts on what was helpful and what was confusing — ranging from changes in wording to rethinking whole activities to restructuring the navigation. Knowing that new users would not have the facilitated structure that our pilot teams had, we streamlined the content, layout, and flow of the platform in order to maximize sustained user engagement throughout the entire program.
Results

Based on what we observed from our participants, as well as feedback we received following the pilot, we understood what worked well about the platform in its “final” form & what improvements could be made.

1. Did participants stay engaged throughout the process?

**Positive signs**

- All teams completed the full curriculum
- Each team was represented in every weekly check in and workshop
- Participants continued to stay in touch with each other and the BIF team via Twitter, email, and in person

**Potential challenges**

- One online team struggled to find time to complete the activities in the suggested schedule, though they eventually completed the work
- There were activities/phases that teams consistently struggled to complete (such as activities in the Reflect, Play, and Transform phases)
- Collaboration on platform is currently limited to within teams, rather than between teams
- Many participants struggled to find time to complete the activities - even with professional development time provided from their administration.

**Recommended steps for platform improvement**

- Build in light touch “email reminders” or “weekly tasks” for encouraging completion
- Complete a “site audit” to streamline curriculum and revisit activities that had low completion rate
- Leave more time for certain phases, such as Reflect and Play
- Build an area on platform where teams can collaborate and share with each other
- Extend some phases that were more time-intensive.
- Explore how TD4Ed could be a credentialed offering that teachers could use towards their professional development hours.
- Ensure that the experience is valuable enough to motivate teachers to complete the program.
### Positive signs

- All teams created a concept that they tested and/or presented to their colleagues
- Some teams have recruited additional supporters to continue to develop their solution
- All teams are moving forward with their concepts to further test or implement in the 2014/2015 school year—with the support of their administrators

### Potential challenges

| Difficult to distinguish when participants should shift from Play (developing iterations of prototypes) into Transform (implementing their solution) | Revisit how activities are structured and messaged to encourage rapid prototyping |
| Unclear when the program ends, or how to continue to update on progress | Revise activities and messaging to distinguish between the two phases |
| Leave more time for Play | Define a “stopping point” - for instance, submitting a badge or professional development credits, uploading an overview video of complete project, etc. |

### Recommended steps for platform improvement

### “It was awesome to share our concern, and not a directed concern. We had a chance to improve what we thought needed improving, that is very powerful. It keeps people vested in their work.”

- Teacher from the Rhode Island pilot
3. **Did participants learn the value of TD4Ed and design thinking?**

**Positive signs**

- Great feedback about the program and how it changed participants’ thinking in their own practice — a testament to building transferrable skills
- Many participants felt like “design thinking experts” after completing the TD4Ed curriculum
- Participants had clear next steps for wanting to spread TD4Ed and design thinking approach to colleagues & larger networks

**Potential challenges**

- Capturing evidence of “changes” that program has made — on challenge, teaching practice, and personally — requires a longer testing period
- There were points in the process where participants felt “in the weeds” — confused, lost, and even frustrated
- Unclear when the program ends, or how to continue to update on progress

**Recommended steps for platform improvement**

- Include metrics capture via initial & post-program survey
- Use badging as a way to give credit for work done within each phase and as a whole program
- Message the “fuzziness” of the process — that you will feel lost at points, but trust in the process
- Build in real-time support capabilities, such as weekly check-ins (via Twitter or Google Hangout) so teams that feel lost can receive advice or support from others
- Define a “stopping point” — for instance, submitting completed work for a badge or professional development credits, uploading an overview video of complete project, etc.
4. **Did participants feel invested or inspired about their work as educators as a result of the program?**

**Positive signs**

- Many participants felt the program reinvested them in their practice and career, due to the excitement and passion for education reform that it ignited.

**Potential challenges**

Several participants left their current schools for positions at new schools. While the reasons for the transfers are not known, this may have implications on how they will continue to move their work forward, or whether the program was able to reinvest them in their current positions.

**Recommended steps for platform improvement**

- Track the experiences of pilot teams post-TD4Ed to better understand the long-term implications of the program
- Create a set of stories that show the impact of TD4Ed projects have on teachers’ schools, practices, and lives
- Build a community that can provide advice and/or support to those in need

“We were challenged to focus on people’s needs and NOT solutions.”

- Teacher from the Chicago pilot
TRANSFORM

Grow your solution and advance your personal journey

At this point, you’ve gone through the design thinking journey — from problem to idea to solution. During this journey, you’ve set your sights on a design challenge, uncovered a deep understanding of the needs surrounding that challenge, and developed a viable, meaningful, and exciting solution to impact education. Now what? From here, you can take steps to implement your solution, return to a previous phase to fine tune your idea, or tackle a whole other challenge.
Key Learnings

While much of the work during the pilot phase of TD4Ed was focused on building the design thinking curriculum and platform, BIF has found several overarching learnings about the experience of our pilot participants that can be applied more broadly to teacher-led innovation and professional development. These key learnings also reveal a series of opportunity spaces that signal both potential areas of additional research research, and solutions for prototyping and piloting.
Teachers have bold challenges they want to address together

When we began each pilot program, we started with the Define phase — where participants turn a problem into a design challenge they can tackle. Some participants had already prepared challenge areas (though most of them shifted over the course of the program), while others needed more discussion to get to the challenge that they all wanted to tackle. But all teams chose big, bold problems that many schools and districts are struggling with — from teacher retention to technology rollouts to addressing the “whole child” (which includes both academic and social-emotional factors) in their learning. In spite of challenging conditions and moments of feeling overwhelmed, all continued on their journey. In the span of six weeks, our pilot participants developed solutions that they felt confident about and ownership for, with support from their administration to implement.

The challenges they tackled grouped into four areas:

1. Increasing student achievement,
2. Building school culture,
3. Personalizing professional development, and
4. Collaborating beyond the four walls of the school.

They are not small challenges, nor are they individual to one type of grade level, department, school, city, or community. They are important challenges that every educator faces, and many are ready to solve.
Teachers embrace a “blended” model of engagement

When we began this work, we knew that the success of this program hinged upon the engagement of our participants. As advocates for design thinking and human-centered design, we know there are moments of frustration and confusion. There is a lot of work that goes into the development of meaningful and actionable solutions, and our participants have gone through all of this for the first time on top of their teaching priorities. Therefore, we know that if the program doesn’t keep them engaged and motivated to persevere, then it will fail to gain the traction it needs.

During the pilot, we used a blended model of in-person and online collaboration that was born out of a strategic structure to help us test the TD4Ed platform. We found that teachers loved this model of learning and collaborating, and voiced strong support for keeping the in-person elements. We hit on a sweet spot in terms of facilitating the collaborative experience that teachers often seek. By using the combination of a robust online platform for individual learning, team-based activities, weekly check ins, and periodic in-person gatherings, it provided a balance of structured activities and unstructured collaborative opportunities.

“The freedom to just be able to ‘think freely’ was amazing... strange, but amazing.”
- Teacher from the Philadelphia pilot
Cross-collaboration fosters cross-pollination

Another serendipitous learning moment occurred based on the way we structured the pilot program. By building TD4Ed as a team-based experience, and incorporating hands-on workshops that brought different teams together, teachers capitalized on the opportunities for collaboration and relationship-building across grades, schools, districts, and cities. As teachers from different backgrounds shared what they learned about their design challenge, they realized that their struggles were more similar than they thought, and broke down the barriers between traditional and alternative, public and charter, and neighborhood and district. Ultimately, the cross-collaboration fostered the cross-pollination of challenges, ideas, and best practices outside of the four walls of their school to make not only their project, but also their practice, more effective.

Teachers thrive when given the space for creative problem-solving

While we do not yet have long-term metrics about the lasting impact the TD4Ed platform has had on participants, they ended the pilot program with excitement and enthusiasm about how to bring the TD4Ed experience to others - especially their students, colleagues, and larger education community. They were recognized by their peers, administration, and even state legislators for their innovative solutions as well as renewed sense of agency and autonomy. Because the experience inspired them to lead positive change within education, they felt invested not only in the growth of their solutions, but also the growth of TD4Ed to the larger teaching community.
“Alone we can do so little, together we can do so much.”

– Teacher from the online pilot
Future Opportunities

The learnings above have led us to several opportunity spaces that we feel are most relevant and promising to transform current narratives about public education. Each opportunity space defines an area where multiple ideas for new solutions can be developed. What follows are three opportunity spaces that highlight approaches to support teachers in reaching their full potential and bringing creative problem-solving approaches to scale.

How might we develop more engaging, meaningful and personal professional development experiences through design thinking?

Context
Teachers who have used the TD4Ed platform have reported that it was a great way to grow — both personally and professionally. There are several ways to leverage our human-centered approach to design thinking together through structured professional development.

Approaches
Explore credentialing for design thinking.
To encourage more teachers to engage with design thinking, we can build TD4Ed as a credentialed offering. By partnering with teacher education programs, teachers could devote professional development hours towards their project work, rather than trying to carve out additional time in their day. Newer methods of credentialing are digital badging systems, which do not yet provide formal professional development credit, but have potential as a fun way to recognize accomplishments through gamification techniques.
Create a “train the trainer” model. We’ve heard over and over from teachers that too often they tend to get “talked at” during professional development sessions. Generally, they don’t get to practice what they are learning until they are back in their classroom. Because the TD4Ed platform can be used by anyone and everyone, it makes “design thinking expertise” accessible. In fact, many of our pilot participants are already planning training events within their schools and charter networks. We can leverage this opportunity by unlocking a “training track” to those that go through the entire curriculum, so that they lead others through the TD4Ed platform to further develop their own professional growth.

Develop tailored offerings and touchpoints for different learning preferences. During our pilot, we heard many different preferences for learning styles from teachers. Some wanted more hand-holding, while others wanted just the basics; some preferred remote collaboration, while others preferred in-person. By recognizing the diversity of learning preferences and needs, we can develop different offerings to create more personalized opportunities to engage with TD4Ed, such as a design thinking toolkit, mini-TD4Ed workshops, intensive learning modules, weekly webinars, and monthly brainstorming happy hours.
How might we grow a strong, connected, and collaborative learning community that supports design thinking and teacher-driven innovation?

Context
We developed an engaged base of participants during our pilot. This was possible, at least in part, to the opportunities we provided to connect in-person during workshops. We also built a community that extended beyond teachers current boundaries of their schools, neighborhoods, districts, and cities. By creating a connected community to share their solutions as well as best practices, we created a culture of innovation and learning that is much needed within education. Below are approaches to continue building this community.
Approaches

Building online collaboration capabilities.
Collaboration is a huge part of the TD4Ed experience. To scale the online community, we can build additional capabilities within the platform to facilitate virtual collaboration — such as enabling comments on others’ work and search functionality to reduce the hunt for new ideas. We can also develop partnerships to link to existing online communities, such as MightyBell, Edutopia, and Educurious.

Develop regional chapters.
From our pilots, we’ve already developed cohorts of teachers in Rhode Island, Chicago, and Philadelphia. We can extend the spread of the TD4Ed community by creating localized chapters with representatives who are empowered to grow the community. They can shape the identity of that chapter and organize local events to encourage face-to-face collaboration. Each chapter can strengthen regional partnerships with local education agencies and charter management organizations — thereby increasing the reach of the TD4Ed platform.
How might we scale and spread TD4Ed and teacher-driven innovation?

Context
TD4Ed was developed as a way to learn the principles and tools of design thinking by tackling a real-world challenge. We had originally envisioned the solutions teachers created as a vehicle for learning, but through the process, our participants developed powerful and exciting solutions to their challenges that they brought back to their classrooms and communities. Below are several approaches we can take to facilitating and showcasing the ideas and solutions that come out of the platform.

Approaches
Spread the user base.
There are many other stakeholders in the educational system — including students, administrators, and parents. Why stop at teachers when we can develop additional design thinking offerings for these others user groups to tackle educational challenges? We can develop offshoots of TD4Ed for each of these stakeholders, or leverage the deep experience that each of these stakeholders possess by developing a platforms that cross-pollinates innovative ideas from a variety of these user groups.

Develop national partnerships.
In order to scale and spread the blended model of TD4Ed, we can partner with national education organizations, such as Teach for America and City Year. Through professional development sessions and courses, we can train entire cohorts of teachers with a mix of the online platform and in-person workshops.
Launch national innovation contests.
We know that many schools across the nation are struggling with similar issues, such as how to implement Common Core state standards, or how to introduce new technology into the classroom. Like ChallengePost and OpenIDEO, national contests can be launched that would prompt educators to use the principles of design thinking to solve these problems. Not only can this harness the brilliance of those who understand the education system best, but it can generate a multitude of ideas and potential solutions that could be vetted and tested.

Crowdfund solutions.
When teachers have gone through the TD4Ed curriculum and are ready to implement their solutions into their classroom, school, district, or community, the issue of money and support comes to the foreground. We know that some schools and districts have more resources they can tap than others, which creates an implementation gap. By partnering with crowdfunding platforms, such as DonorsChoose and Launcht, we can level the playing field for those with amazing ideas, but little financial support.

“I love this program so much and am so excited about what comes next.”
- Teacher from the Chicago pilot
CONCLUSION

After six weeks with the TD4Ed platform, we witnessed the tremendous impact the experience has had on our teams of educators. Imagine what it might look like if we could build more meaningful experiences into existing professional development structures... Or enable more collaborative opportunities for innovative teachers to connect with other trailblazing educators... Imagine how this could positively change the face of education.

We’ve built a foundation of teacher-driven innovation with thirteen teams of educators. We intend to continue this work with more educators, more partners, and more opportunities to make lasting impact. We know we can continue to transform the education system — together.

To join our pilot teams of teachers in realizing your creative potential, go to www.td4ed.com and become a leader of change with them.
Mashpee Public Schools

Colleen Terrill, Vinnie Nelson, Heather Johnson, Stephanie Lanoue

SCHOOL TYPE: Public
GRADE LEVEL: K-12
LOCATION: Mashpee, MA

OUR TEAM TACKLED THE FOLLOWING DESIGN CHALLENGE
How can we motivate teachers to comfortably utilize technology in their classrooms daily?

USING THE TD4ED PLATFORM, WE CREATED, PROTOTyped, AND TESTED A SOLUTION TO THIS CHALLENGE
Grade Level Technology Experts. We are creating a team of technology experts that can meet, share ideas, and become experts for their team/grade level, and can provide training as well as support for their colleagues and students.

El Centro de Estudiantes

Andrew Christman, Andrea Fullington, Dan Schimmel, Nina Bilynsky

SCHOOL TYPE: Alternative
GRADE LEVEL: Ages 15-20
LOCATION: Philadelphia, PA

OUR TEAM TACKLED THE FOLLOWING DESIGN CHALLENGE
How can we incorporate student voices into conveying expectations for success at El Centro?

USING THE TD4ED PLATFORM, WE CREATED, PROTOTyped, AND TESTED A SOLUTION TO THIS CHALLENGE
Council of current and alumni students who will collaborate with staff and provide insight on new student readiness during the gateway orientation process. The council will participate in its development and the creation of projects used to convey expectations for new students.
Eastern University Academy Charter School
Leslie Nelson, Brittney DeNeal, Rachel Slaughter, Arnold Ford

**SCHOOL TYPE**
Public Charter

**GRADE LEVEL:**
7-12

**LOCATION:**
Philadelphia, PA

**OUR TEAM TACKLED THE FOLLOWING DESIGN CHALLENGE**
How might we create a way to help middle school students at EUACS become more compassionate and accepting of homeless people through service learning?

**USING THE TD4ED PLATFORM, WE CREATED, PROTOTYPED, AND TESTED A SOLUTION TO THIS CHALLENGE**
Service with Heart Project: 365 is an interdisciplinary curriculum that spans the entire school year. Knowing that we must change their hearts through their habits, the curriculum includes the daily integration of service learning and leveraging students’ engagement through social media outlets.

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New Media Technology Charter School
Michele Cook–Miller, Kyndall Clark, Dena Bassett, Christine Cho

**SCHOOL TYPE**
Public Charter

**GRADE LEVEL:**
6-12

**LOCATION:**
Philadelphia, PA

**OUR TEAM TACKLED THE FOLLOWING DESIGN CHALLENGE**
How might we create a way to engage and motivate scholars to drive their own educations?

**USING THE TD4ED PLATFORM, WE CREATED, PROTOTYPED, AND TESTED A SOLUTION TO THIS CHALLENGE**
A phased process of goal-setting through a set of activities. We decided to first prototype the “orientation” phase where students are introduced to the concept of goal-setting through fun, hands-on activities. Through this model, we hope to guide students through the goal-setting process and ultimately help them accomplish their goals, academic and otherwise.
IIT Boeing Scholars Academy
Ross Ludwig, Renee Albrecht-Mallinger, Jerry Doyle

SCHOOL TYPE: Afterschool Program
GRADE LEVEL: 9-12
LOCATION: Chicago, IL

OUR TEAM TACKLED THE FOLLOWING DESIGN CHALLENGE
How might we help teachers respond to the Chicago Public Schools computer science (CS) mandate — the requirement that in three years, all high schools will offer a computer science course as a part of their core curriculum — so that they feel prepared, confident, and empowered?

USING THE TD4ED PLATFORM, WE CREATED, PROTOTYPED, AND TESTED A SOLUTION TO THIS CHALLENGE
Pop-up CS would be an easily replicable activity requiring minimal resources that could possibly be facilitated by volunteers and set up in a public place where anyone who happens to come by could get just a little taste of CS. This kind of activity would generate interest and excitement about Computer Science for people of all ages and backgrounds. We are currently testing these activities, as well as CS lesson plans, in the classroom.

Wells Preparatory Elementary Academy
Vasilike Belesiotis, Kathy O’Doherty, Dorothy Crawley, Carolyn Conner

SCHOOL TYPE: Public
GRADE LEVEL: K-8
LOCATION: Chicago, IL

OUR TEAM TACKLED THE FOLLOWING DESIGN CHALLENGE
As educators, how do we educate the “whole child”? How do we use qualitative data (personal information) to help in understanding students’ quantitative data (test scores)?

USING THE TD4ED PLATFORM, WE CREATED, PROTOTYPED, AND TESTED A SOLUTION TO THIS CHALLENGE
Our solution is a method of gathering qualitative data from students through surveys and learning-style assessments on the factors that influence them as holistic learners. By developing an organizational system to track qualitative data in a similar way to the way we track quantitative data, we can assess data for the trends, patterns, and surprising findings that will help us teach the whole child and increase academic achievement.
Perspectives Charter Schools

Sydni Franks, Samantha Onder, Erin Carr, Kifaya Naser, Amy Squires

SCHOOL TYPE: Public Charter
GRADE LEVEL: 6-12
LOCATION: Chicago, IL

Our team tackled the following design challenge:

How might we understand and improve the expectations of being a classroom teacher in order to increase teacher retention?

Using the TD4ED platform, we created, prototyped, and tested a solution to this challenge:

PLAnology Journeys: We are providing a space for teachers to communicate authentically their perceived expectations, identify their professional priorities, and set goals for their career trajectories. It’s a process designed to highlight connections and understandings about who we are in our schools as individuals and professionals.

Warwick Public Schools

Dawn Manchester, Deidre Pesola, Amy Dolan, Tracy Mollock

SCHOOL TYPE: Public
GRADE LEVEL: K-12
LOCATION: Warwick, RI

Our team tackled the following design challenge:

How might we offer an improved collaboration infrastructure among teachers to directly impact student learning?

Using the TD4ED platform, we created, prototyped, and tested a solution to this challenge:

Team Warwick developed the Create & Collaborate forum in which teachers can gather, develop, and share ideas. The forum allows teachers to decide on the issues, subjects, or techniques that they want and need, and have a direct impact on students.
**The Nettelhorst School**

Roberto Lopez, Josh Marburger, John Nieciak, Sheree Speakman (honorary member)

**SCHOOL TYPE**  
Public

**GRADE LEVEL:**  
PreK–8

**LOCATION:**  
Chicago, IL

**OUR TEAM TACKLED THE FOLLOWING DESIGN CHALLENGE**

How might we help students, staff, and parents create a community of respect and rapport in order to empower themselves and others?

**USING THE TD4ED PLATFORM, WE CREATED, PROTOTyped, AND TESTED A SOLUTION TO THIS CHALLENGE**

The Nettelhorst School Vision Board is a public-facing board that will enable students, staff, and other members of the school community to contribute their thoughts on “What do you want to be known for?” with the intention of creating understanding and respect.

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**Blackstone Valley Prep Mayoral Academy**

Dori Logiodice, Christina Rossi, Quinn Silva-Braga, Nicole Hayes

**SCHOOL TYPE**  
Public Charter

**GRADE LEVEL:**  
K–8

**LOCATION:**  
Cumberland, RI

**OUR TEAM TACKLED THE FOLLOWING DESIGN CHALLENGE**

How might we foster differentiation and personalized learning by thinking about the whole child?

**USING THE TD4ED PLATFORM, WE CREATED, PROTOTyped, AND TESTED A SOLUTION TO THIS CHALLENGE**

Currently implementing a process where collaborative planning is fostered by the use of an online platform that allows all teachers to access and plan simultaneously when in team meetings together. With this website, teams are talking through objectives, sharing awesome ideas, and writing the plans that fit the needs of the students in their classes while sitting together as a team — TRUE collaboration!
OUR TEAM TACKLED THE FOLLOWING
DESIGN CHALLENGE
How might we reinvigorate project culture at our school?

USING THE TD4ED PLATFORM, WE CREATED, PROTOTYPED, AND TESTED A SOLUTION TO THIS CHALLENGE
Working with our students to develop a common language around projects and use YouTube videos for capture. We are also working with administrators to pinpoint specific areas to improve our prototype and thinking about how these new ideas can fit into changes that are also being considered on a whole-school level.

OUR TEAM TACKLED THE FOLLOWING
DESIGN CHALLENGE
How might we create a model for change that emphasizes ownership and autonomy?

USING THE TD4ED PLATFORM, WE CREATED, PROTOTYPED, AND TESTED A SOLUTION TO THIS CHALLENGE
After learning from teachers, administrators, and people outside of education, our team is focusing its efforts on testing ways to customize teachers’ professional growth. We are testing to see if these protocols help with the roll-out of our school’s 1:1 (a computer for each student) initiative for the 2014-15 academic year. We envision using the protocols we have created within our school’s departments and in other small groups to help give voice to everyone.
OUR TEAM TACKLED THE FOLLOWING DESIGN CHALLENGE
How might we increase 9th grade motivation to read and boost the frequency at which 9th graders read throughout the school day?

USING THE TD4ED PLATFORM, WE CREATED, PROTOTYPED, AND TESTED A SOLUTION TO THIS CHALLENGE
Create a quiet Reading Room with a variety of reading options (fiction, nonfiction, magazines, newspapers) that all students circulate through at least twice per week.
ACKNOWLEDGMENTS

We would like to take a moment to recognize the individuals that played a key role in the body of this work.

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ABOUT BIF

At the Business Innovation Factory, we help leaders design and test transformational business models. We do this in complex social systems like healthcare, education, and government, where the potential and impact for making people’s lives better is the highest. Our approach is human-centered, seeking to understand the job customers need done, and using this insight to design new experiences to better serve them. We experiment in the real world, and rely on storytelling to engage others in the process.