

PROTOTYPE



This Citizen Engagement Technique is part of a series that Cities of Service has created to help city leaders work with citizens to solve problems. To learn more and access additional techniques, visit citiesofservice.org.

A prototype¹ is a model used for demonstration and testing. Cities can use prototypes to get citizen feedback and test ideas. The city uses citizen input to create a new service or initiative (the prototype) and allows citizens to interact with it. Citizen feedback is used to refine the prototype, and the process is repeated.

BEFORE YOU BEGIN:

Prior to implementing any citizen engagement technique, it is important to set goals and expectations, identify stakeholders, and more. For a checklist of steps you should take before you begin, please visit citiesofservice.org/techniques.

HOW TO CREATE A PROTOTYPE:

1. Collect solution ideas and determine which to prototype. For example, perhaps citizens suggest new bus ticketing booths that make it easier to buy bus passes. Whatever idea you choose, the prototype should be something that citizens can see and touch.

2. After deciding what to prototype, take some time to discover the assumptions citizens have about the service or initiative. Learn more about these assumptions by having conversations with colleagues who interact with the citizens who use the service or participate in the initiative. You can also reach out to citizens directly to gain firsthand insights into their assumptions.

3. Select your prototype approach and create the prototype. There are several quick and low cost ways to prototype a service or initiative:

a. **Storyboard** – This is a graphic visualization of the steps a citizen would take to use this service or participate in the initiative. Present the storyboard and ask the citizens to jot down their thoughts. Afterward, you could ask a few follow-up questions to further understand the citizen experience.

b. **Role play** – This approach uses actors to make your prototype come to life. For example, the city may wish to test a new registration process for a youth program that allows youth to register themselves. Citizens will most likely act as themselves going through the steps you have designed. If necessary, leaders or volunteers can act in different roles. Assign a staff member or a citizen to observe and record citizen interactions with the prototype.



¹Adapted from "Design Thinking Bootleg" by Scott Doorley, Sarah Holcomb, Perry Klebahn, Kathryn Segovia, and Jeremy Utley. dschool.stanford.edu/resources/design-thinking-bootleg, card #19-26. Accessed September 18, 2019.

- c. **Mock-up** – This is a physical construction of a tangible item that citizens can interact with. For example, you may turn a cardboard box into a bus ticketing booth to test out button placement and height. Assign an observer to record citizen interactions.
4. Prepare to prototype
 - a. Identify citizens to interact with the prototype. These should be the intended recipients of the service or initiative that is being prototyped.
 - b. Schedule a meeting with the citizens at a convenient time and location.
 5. Test the prototype
 - a. Give citizens only basic instructions — enough to be able to participate. For example, if you want to prototype a mock-up of a ticket booth with new lighting and text options, simply instruct citizens to get their ticket from the booth. Do not explain the design changes you are considering. This creates a more realistic scenario (because other citizens will not get detailed instructions if the new ticket booth is implemented).
 - b. Observe citizens as they interact with the prototype. Observe how they use or misuse it.
 - c. In addition to your written observations, record specific quotes and reactions from citizens.
 6. Refine the prototype
 - a. Synthesize the feedback and observation notes. Adjust the prototype and repeat the process. You may involve the same group of citizens or welcome a new group.
 - b. Continue refining and prototyping until citizens and city staff are satisfied with the observations and feedback.
 7. Thank citizens for their participation and remind them how they can stay up to date on the project's development.
 8. Capture the lessons from citizen input and integrate them into the final design.
 9. Report what you've learned to citizens and explain how their input will be used by the city.

EXAMPLE:

In Helsinki, 25% of young immigrants are not employed or enrolled in school, and immigrant youth have a higher risk of mental health problems and loneliness. Helsinki created a program called Migrant Youth Helsinki to prototype new programs that better integrate migrant youth. City staff assembled a 30-person co-design team of professionals and activists who worked with immigrants and could implement pilot projects. They also formed a group of 10 young immigrants to share their perspectives.

The city spent a year working with these teams to gather experience data and project ideas from immigrant communities through interviews with residents and community leaders.

One of the programs tested ultimately came to be called Buddyschool. During a co-design team meeting, a member proposed a cafe where students could teach one another. Others liked the idea, so the design team created some concept drawings. These simple drawings showed students teaching one another. Young people who were part of the design group then explained the program using these drawings to their friends and solicited feedback. The drawings ensured that everyone included the most important elements of the program in their explanation while gathering feedback.

After four months of gathering data about residents' experiences, the two teams chose 30 ideas to test, including Buddyschool. The tests were designed to last anywhere from two weeks to two months, and the prototypes were continually monitored and improved. Several teachers tested Buddyschool in their classroom and refined the program. For example, some found that making Buddyschool an afterschool program required a larger time commitment from the teachers, so they made it part of the school day.

After prototyping a range of ideas, the co-design team evaluated the 30 projects and made recommendations to scale Buddyschool and four other projects. Buddyschool now involves more than 100 classroom teachers and almost 1,500 students a week in 22 schools.

For guidance on using this and other citizen engagement techniques, or to learn more about customizing solutions for your city, contact Cities of Service at info@citiesofservice.org.