How can we create a cultural change within an organization that both produces desired results and is sustainable over time? From our experience in many types of organizations and under different circumstances, we believe that some form of action learning is required. The late Reg Revans developed action learning as a way to educate people in groups to deal with complexity, change, and uncertainty. He believed that teams learn most effectively when they work on solving real problems within a supportive environment. The interplay among individuals—and the expression of their ideas—often leads to innovations and new ways of working.

Defining Prototyping

A form of action learning called prototyping involves figuring out how to come up with creative solutions by doing small experiments. Because the experiments are small, the risk is low, thus providing more control over possible negative ripple effects. Prototyping also saves time because teams don’t overplan and then find they need to revise plans because conditions have changed or something has been learned that alters how they think about the project.

To be effective, prototyping requires people to work together in a continuous state of ambiguity and complexity while exercising what we might call collaborative creativity. In his book, *Serious Play: How the World’s Best Companies Simulate to Innovate* (Harvard Business School Press, 2000), Michael Schrage states that “innovative prototypes create innovative teams.” Prototyping creates a shared space—a collaborative medium that two or more people share—that supports the process of shared discovery or creation.

In addition, prototyping operates on the paradox of slow down to speed up. The process seems slow in the beginning but has a surprising ability to speed up and cascade as time progresses. People figure something out, develop a prototype, test it in relative safety, modify it based on what they have learned, and then test it again. The testing is done with a group of people who are not necessarily connected with the team or project. The team takes the feedback, redesigns the prototype, and tests it again until the prototype works well enough to go to a broader application.

It is the testing process that creates acceptance of the prototype with a growing audience. The idea is to test it with a new group each time, thus spreading knowledge of the prototype as well as people’s connection to it, and creating cultural change and buy-in.

Prototyping Process

Prototyping is a structured and sequential process that is based on the principles of action learning. The goal is to develop a pilot version of a process, product, or plan. Because it is a trial version, it does not have to be perfect; it just has to be testable. Here is an example of how prototyping works:

1. A project team of 6–15 people gathers to start the process. The more diverse the group is in occupation and position, the better the dynamics are for unleashing collaborative creativity.
2. This project team meets to figure out the scope and timing of the project, how prototyping works, and what they need to know to start the process.
3. The project team meets for 3–4 hours at a time over several days to create the initial prototype. Several times during the course of meeting, the team outlines critical issues, ideas, and actions that shape their understanding of how to move forward. The team then seeks input from others on these key markers. The idea is not to get too far on any one idea or issue before testing the group’s thinking on it.
4. Once the project team has developed a viable prototype to test in a larger application, it launches a pilot project that is small yet representative of the reality in which the finished project needs to work. The group tests this first step as if it were a prototype rather than a finished project, making modifications as needed. Once the initial pilot achieves a certain level of success, learning and actions can be rolled out to more and more people. This is when the process starts to speed up. The key is to continue to roll it out using a prototyping stance, structured yet at the same time open.
5. At a certain moment, a shift occurs from the introduction of new learning to maintenance and continuous improvement. When this happens, there is a noticeable difference in the organizational culture from what was at the beginning of this project. At this point, prototyping as a work process becomes a part of the emerging culture itself.
Three Success Factors
To be successful, prototyping depends on three factors:

• **Psychological Safety:** This involves creating a level of concreteness, relevance, and support so that people feel a sense of stability and, in turn, psychological safety. Psychological safety is important because it allows people to work in ambiguity and uncertainty and to express concerns with the initiative itself. A structured prototyping process creates psychological safety.

• **Engagement and Alignment:** This involves creating a level of continuous improvement and flexibility that lets people contribute ideas and expertise at a local level, while staying aligned with a broader organizational perspective. The shared space that occurs in the testing of the prototype creates engagement and alignment.

• **Meaning and Cultural Change:** This involves creating ways for people to achieve success together and focus on things that really make a difference. It also centers on pulling in diverse stakeholders and creating communities of practice in which ideas, issues, and methods are shared, so that people can learn at a more global level and apply that learning in their organization.

At certain times, some of the members of the project team may change, increasing the team’s ability to stay fresh in its thinking. This shift can be gradual, with one or two members changing at a time. In this way, if the project is complex and spreads over many months, the entire organization can become involved in the process, increasing the chance that people will welcome the cultural change.

**Engagement in Change**
Prototyping is always successful in dealing with limits in the current situation, because it focuses on learning as you go and on designing plans and actions that are doable within a highly constrained environment. In fact, it works best when the constraints are especially acute. Some of these might include:

- Little or no time to spend developing and learning something new
- Few resources available to be allocated to a new project
- Resistance to anything that might be perceived to be of little value or incapable of being implemented

Any prototyping initiative produces change at a number of levels, including the individual level (e.g., knowledge, attitudes, and behaviors), the team level (e.g., ways of working, communicating, and learning), and the organizational level (e.g., corporate culture). Prototyping produces measurable and sustainable results in both metrics (e.g., cost savings, increased production levels) and behaviors. It creates the conditions in which people become engaged in change and willingly embrace accountability.

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