

## Project Accelerator Methodology: DESIGN SPRINT

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### Abstract

This article highlights the benefits of the Design Sprint methodology applied to the achievement of projects in a short period of time. It has also been concluded that the application of this methodology enhances certain qualities of teamwork so demanded today in the new society.

It has been experimentally proven by applying the Design Sprint to a case study carried out at the CEU San Pablo University with an acceptance rate among students of 91%. The figure of the mentor has been shown to be essential to lead the different teams so that they can reach the achievement of the final project.

Sprinting offers a way to solve big problems, to test new ideas, to do more work and to do it faster. It allows for greater integration and more fun processes as the group feels more integrated and valued.

**Keywords:** Design Sprint, challenges, teamwork, sprint, sprint, efficiency, education

## **Introduction**

The Design Sprint is an intensive work methodology that has a short duration of three to five days, and combines activities that together attempt to respond to a problem or need with a range of creative ideas and a tested prototype as the final result (8,9,12,15).

The objectives are:

- Agility in the corporate environment.
- Innovation and fostering user-centered thinking.
- Improve and adapt or create products/services in a few days.
- Achieve a tangible prototype.
- Reach monetary and time efficiency

The methodology originated with Jake Knapp who started executing it at Google in 2010. Two years later, he took the concept to Google Ventures, a venture capital company, where another part of the team was in charge of finishing and refining the project. In 2016, Google Ventures was responsible for sponsoring the launch of the book "Sprint: the method for solving problems and testing new ideas in just five days" written by Jake Knapp co-authored with John Zeratsky and Braden Kowitz. Google Ventures' initial goal was to foster the development of new solutions in fields as diverse as healthcare, artificial intelligence, robotics, transportation, information security and agriculture. To this end, it seeks rapid prototyping and user testing by shortening discussion cycles and compressing months of work into a single week.

Knapp tells us, 'We find that the magic happens when we use large whiteboards for problem solving. The room or workroom itself becomes a kind of shared brain. By asking people for feedback early in the process, they feel invested in the outcome. Today, almost all large companies use design sprints (examples: Google and Logo). In a society where the use of ICT is presented as absolutely necessary, more and more progress is being made in the introduction of new teaching methodologies to promote student learning with revolutionary systems. The methodology presented in this paper is one of them, used to favor the achievement of projects in very short periods of time (2,3,4,5).

## **Differentiating characteristics**

The SD process can be considered as a temporary immersion or challenge in innovation for a minimum of four days of full dedication. The first day is used for the whole team to understand the challenge and the purpose of the work, and the last day is dedicated to validate the solution with the end users.

Features that make it different from other similar methodologies:

- It is very useful when you have the idea but have not yet built the product.
- It serves to prototype and validate ideas with end users quickly.
- It summarizes the strategies of 'User research' and 'Design Thinking'.

- It saves costs by compressing the learning process, also allowing testing.
- It works with the figure of a facilitator/mentor who prepares and guides the process, in addition to a 'product owner' who makes the main decisions.
- Multidisciplinary team with a variety of profiles, including those closest to the client.

Design Sprint should not be confused with Design Thinking, the former provides the practice, while the latter provides the theory.

### **The role of the mentor**

The mentor is the connection that makes it possible to clarify and align the objectives in the work group, that is, he/she must accompany the team and guide it to the achievement of the Project.

Among its most important functions are

- Commitment to the work team
- Ability to help, guide and advise
- To be an example of values and qualities
- Reflective attitude
- Ability to be open to oneself and others
- Stock of experiences (positive and negative)
- Good personal skills (for communication, empathy, confidence, listening, problem solving, decision making...)

### **How does the Design Sprint work?**

It allows to materialize an idea in just five days working with a small group of people led by a facilitator/mentor. The Sprint is carried out in five days from Monday to Friday, i.e. in a full work week (40h) and is dedicated to test and validate ideas and prototypes to achieve a Project (18,26).

Each day a different phase is addressed in which the group progresses to develop a prototype of the initial challenge. Before starting, four key points are defined:

- The challenge: it must be clear and concise.
- The team: it must be multidisciplinary and consist of about seven people.
- Time: the group must dedicate itself exclusively to the sprint for five consecutive days.
- The space: a room for the whole week with two whiteboards where the team feels comfortable and can maintain fluid communication.

On Monday, the first phase begins and it is one of the most important, we work on knowing who the user is, what their needs, motivations and dreams are. Knowing the context of the product and the organization. We map what we want to achieve and how to get there. The team reviews the questions and votes silently. The most popular ideas appear on the map (11,16,17,18).

On Tuesday the second phase takes place through brainstorming. The project and the steps to realize it will be defined. Each member will create sketches, which at the end of the day, will be shared to start defining how the test with the client will be on Friday, the last day of the sprint (19,20,22).

On Wednesday morning, the ideas that emerge in the definition phase are reviewed. In the afternoon, the idea to be developed and tested is defined. By the end of the day, the team should have a 'storyboard' with the step-by-step development of the prototype.

On Thursday morning, the roles of each team member and their contribution to the development of the prototype are defined. In the afternoon, they work on building the prototype according to the storyboard, and by the end of the day, it must be ready. In addition, the real users who will test it and the survey to be conducted to validate the product must be defined (23,24,25).

On Friday, the last day of the sprint, the prototype is tested with the selected users to observe the interaction and survey the product. At the end of the day, the team should meet to decide whether the product is viable or not, and define the next steps to continue and/or improve the prototype.

## **Practical Case**

As a follow-up of previous experiences based on advanced didactic methodologies, such as the use of virtual, augmented and mixed reality implementation (21), CEU San Pablo University advances in the incorporation of agile methodologies focused on classroom learning and teacher training (1,6,7,10,13,14).

At San Pablo CEU University, Design Sprint has been used as a working methodology in the Leadership Degree (TPL), so that students can solve challenges related to the 17 Sustainable Development Goals (27).

With practical sessions through TEAMS, students have solved one of the Challenges in groups. The TEAMS communication and collaboration platform has been used as it is the most suitable because it combines chat in the same workplace, video meetings, file storage and application integration. In order to solve the different challenges, a total of 20 Teams channels were set up with an average of 12 to 15 students from different degrees of the second year of the TPL.

Each channel has been assigned a mentor, who has carried out 5 sessions with the students, corresponding to the different phases of the methodology.

The main problem was that the students do not have a full day for each of the phases of the DS and it was difficult to set a time to hold meetings by Teams due to the diversity of students, schedules and availability, therefore, it was decided to do the Sprint in 10 days and before starting a schedule accepted by all students with all phases of the Design Sprint was set. In addition, the sessions were complemented by working synchronously or asynchronously to find the best solution to the challenge.

The results proposed to the challenges were presented in video format, and all groups achieved a solution for them.

91% of the students are satisfied with the Design Sprint work methodology as it has allowed them to work in teams formed by students from different degrees, and also, by being able to choose the challenge to work on, the whole team is aligned around the same problem, which encourages the work to culminate successfully, and all team members are involved.

## Conclusions

There are several conclusions that can be drawn from working with this methodology:

- Productivity: the result of each phase is realized in a deliverable, so each phase requires progress.
- Team building: you learn to work in teams that provide a diversity of possible solutions.
- Joint decisions: at the end, a solution is chosen by all the members of the team facing the challenge.
- Focus block: students focus on the sessions, forgetting the usual distractions.

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