Participatory Design

By Richard Neves

WHAT IS IT?

Participatory design is a design approach that emerged in the late 1960s/early 1970s in Scandinavia as a result of the desire for producers to communicate complex systems to their end users. Over the years its role has been increasingly important in the development of systems for *vulnerable* groups, including children, disabled, aged and limited domain expertise groups.

Compared with traditional design processes, in participatory design:

- The stakeholders not only provide the requirements, they also provide creative ideas, problem-solving and contribute to the design.
- The designer, rather than only adding their design expertise, creativity and problem-solving skills, acts as a facilitator: empowering and enabling stakeholders to design the solution.

A stakeholder can be almost anyone who has a role to play in the operation of a system, e.g. managers, funders, end users, administrators, maintenance, even carers of the vulnerable groups.

As the facilitator, you have to make best use of the stakeholder skills, mitigate any limiting factors to the design process. You need to be able to use a range of design methods to suit the group culture. It is also important that you are not a *rock star* designer but rather be a team player, a good listener and communicator. You must not act as a judge, doing this would change the group dynamics and inevitably lead to reduced group motivation and engagement.

WHY DO YOU NEED IT?

There are problems using the traditional design process that can be improved by participatory design:

- The goals are poorly understood.
- Solution building involves many requirement changes.
- Prior expectations may lead to focus on issues that the users (and stakeholders) don't care about.
- Stakeholders can be unhappy about changes to their ideas.

WHEN DO YOU NEED IT?

Participatory design contributes to the whole life cycle of the system and its design, from choosing the process, identifying the requirements, generating, evaluating and accepting the designs through to the installation, delivery and maintenance of the solution.

HOW DO YOU DO IT?

1. Participant Recruitment

It's always good to set-up an initial visit with the organisation, where you can talk about the design process and the outputs of the exercise. This session will give you some insights into the basic group dynamics, the working environment and culture. You could also include a short design group exercise to further help you see how the group collaborates.

Choosing the groups is crucial to the success of the process. The groups can be homogenous (all participants the same in role, experience, knowledge etc.) or heterogeneous (a mix of participants). In practice you find that even if you start with a heterogeneous group it becomes homogenous.

Homogenous Groups

Speak a common language, no concerns over supervision or power relationships between, e.g. a contributor and their manager. They are also aware of their knowledge gaps.

However, this formation can suffer from group thinking and be quite uncreative – no new ideas.

Heterogeneous Groups

Wider views are more likely to surface new ideas, or suggestions that would not have been considered. The broader view may also raise or provide views on issues.

However, there may be misunderstandings in the language used to communicate, conformance with existing – hierarchical – relationships, difficult to get the group together at the same time. There is also the chance that agreement is difficult to achieve.

When creating the groups, consider the working culture of the organisation as this can affect when participants are available, what they can contribute (role conformance) and how they communicate, i.e. how you reach out to them, is it by letter, email or a meeting? It is your role to neutralise these cultural limitations. If you or a colleague has worked with the organisation before, get recommendations on whom to reach out to, pay attention to affinity groups: who talks positively about others. Be a little wary of those who volunteer, it may simply be because they are extreme extroverts, or they are just trying to get out of their routine work for a bit of fun.

2. Gathering Requirements

It's always a good idea to run multiple groups (each focusing on specific areas); this avoids overload and fatigue, varies mix and diminishes the chances of dominance by a few and captures the widest range of requirements.

The participants brainstorm the requirements and can even help the organisation prioritise these.

The designer assists the group in identifying their own requirements, prompting them, perhaps by walking through typical/anticipated journeys? The designer can isolate the non-requirements and plays a major role in documenting the decisions and keeping the group thinking at the right level, steering it as required.

3. Designing

As with the traditional design process, you begin with the concepts before moving on to the detailed design.

<u>Conceptual Design</u>

Designers can assist the process by giving a few starting points including sticking common components and basic example pages to the walls – a blank page is scary. But ensure you're not leading the design. Use really simple tools, no tech, just pens, paper, sticky notes and/or whiteboards. It's always good to show some very simple, non-artistic sketches to show how easy it is to draw. If you can assign a drawer per group, that will help the design process.

<u>Detailed Design</u>

Before you get to the detailed design phase, ensure you have managed the design output as several issues can arise:

- Copy of an existing design.
- Pie in the sky ideas that are impossible to implement in a usable way.

It is important to recognise and praise good ideas, be positive and encourage out of the box, risky designs but also remember to *stretch* the design, ask *what if* questions.

- Ensure you capture any narrative on how the design works, take notes, photos or record the explanation.
- Paper prototyping can be a good exercise but ensure you have a big enough workspace so all can contribute.

4. Evaluation

This is a major phase for the facilitator and their skills in the role really come into play. Here management will want to overrule; funders/sponsors may also get nervous and vocal if they don't think they'll get their money's worth.

- Ask each group to evaluate another group's work (not their own), but be aware that this could have political consequences for you to manage.
- Remix groups to avoid inter-group rivalry – remove any strong links to a design.
- Slowly reduce the number of running designs and encourage the adoption of any good ideas on the designs that lose out to better ones. Encourage the cross-pollination of ideas.

5. Finishing Off

Use traditional evaluation methods for the design, but ensure that the goals and priorities are agreed with the participating design team first. *In situ* (the working environment and surrounding impact factors) prototypes can uncover vital details that are missed in the lab. Where possible try to present interactive prototypes of more than one of the designs for live evaluations.

Ensure that all participants involved in the design process are recognised for their contributions – the goal is to make these participants feel that they own the solution.

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