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PD methods table: Data, Design, and Society

This table presents a SMALL NUMBER of the PD methods documented in the literature. It divides methods into those for **idea generation** versus **reflection on, or evaluation of** a more complete idea, prototype, or artefact. It is meant to provide a very preliminary overview, to help groups identify which methods might be worth further investigation for their project.

All of these methods are qualitative. This means that they are a way to ask exploratory "how" questions. They are about understanding processes, accounts, explanations, experiences, and meaning-making. They are not about producing numbers, testing relationships, or making predictions.

🚫 = A method that is commonly used and that you may encounter in your reading, but that you are **strongly advised not to use for Data, Design, and Society.** It can be VERY hard to plan and interpret them well.

Methods for generating ideas, exploring problem spaces: *Can have quite general topics, can be very open.*

Method name	How many people?	Event or over time?	Talking making, writing?	Brief description	Why might use? *(very general)*	Capturing session information?	Starter paper or book
Focus group	Small group	event	Talking	A small group discussion around specific questions, moderated by a researcher. They allow a range of viewpoints/feedback. Participant interactions (agree, challenge, comment, expand...) are an important source of information.	Have discussion to elicit information, ideas around set of related topics/issues that are not too sensitive or personal. Participant interaction with each other (agree, challenge, explain, negotiate...) is key part of data.	Notes PLUS audio or video	DDS focus groups guidance; Qualitative Research Practice [book] ed. Finch & Lewis
Workshop: idea generation (creative)	Small group, or subsets within a larger group	event	All	Generate many ideas very quickly using mixture of discussion and making with creative materials. Usually not about evaluating ideas (i.e. feasibility). This is a very	Very open-ended, brief, explore problem space.	Notes, photos, sketches, artefacts MAY ADD audio or video	No specific paper, try looking up PD more generally, or PD +

Method name	How many people?	Event or over time?	Talking, making, writing?	Brief description	Why might use?	Capturing session information?	Starter paper or book
				flexible method—what do you need?		of session	workshop
Informants document and interpret own experiences	Small group OR multiple individuals	Over time, may capture multiple events	Making, writing	Participants document lives, communities, events, processes in some way. For example, photography album, video, written diary. Participants have control over interpreting/presenting the materials they produce.	Gain information about informants' lives (without researchers physically intruding). See what they think is important—or permissible—to share about own experiences.	Notes, artefacts, images produced by informants	See Crabtree et al. (2003) as an example
Semi-structured interview 🚫	Multiple individuals	event	Talking	An individual interview that begins with a list of questions and planned order, but has the flexibility to follow up on information or add questions during the interview.	Elicit in-depth information about a particular person and their thoughts, feelings, experiences, or professional knowledge. Good format for personal or sensitive topics (that may not be OK to discuss in a group).	Notes PLUS audio or video	Qualitative Research Practice [book] ed. Finch & Lewis; other qual. methods books

Methods for responding to specific ideas, design briefs, prototypes: *need a more specific idea, question, situation, or prototype as their starting point.*

Method name	How many people?	Event or over time?	Talking, making, writing?	Brief description	Why might use? *(very general)*	Capturing session information?	Starter paper or book
Focus group	Small group	event	Talking	A small group discussion around specific questions, moderated by a researcher.	Have a reflective or evaluative discussion around particular ideas, artefacts, etc. May deliberately choose participants with different experience, viewpoints.	Notes PLUS audio or video	See above
Design critique	Small group OR multiple individuals	event	Talking	Goal of constructive criticism through discussion, with reference to project goals. Evaluation of existing ideas, usually structured around sketches, mock-ups,	Many reasons, here are a few: Discussion around a particular design (plan, prototype) in a particular context. Explore the nature and effects of the design.	Notes PLUS audio or video	See Frauenberger et al. (2013) as an example, plus hundreds of

				prototype objects (etc). Can be structured around specific questions, or open.	Promote designer reflection on a design. Place design in local and historical contexts, invite comparisons.		design blogs
HCI-type usability testing *Advised to use WITH design critique*	Small group OR multiple individuals	Event or over time	Talking (usually)	Ask user to explore a technology in an open way, or to try to complete certain tasks. May ask user to "think aloud" as they go, explain why they are doing things. May use standard HCI usability instruments.	Find out about how comprehensible or easily-usable a technology prototype is. Can people actually navigate it and use it for a task? Do they understand it? **May combine with design critique** to also get more open-ended reflection, evaluation, sense of participant meaning-making.	Researcher notes, and some kind of additional capture—screen capture, log files,	See any HCI textbook, e.g. Dix et al, Preece et al.
Workshop: storyboard or narrative	Small group	event	All	Given a prompt or question, people create a series of pictures that communicate a story or process (e.g. through drawing, magazine collage). These may also include words, like a comic. When finished, people then explain their completed artefacts. OR Designers create the storyboards, and participants discuss and or annotate them (post-its, draw on top, etc.)	A way to explore current or possible practices, situations, experiences, or interactions such as decision-making. A way to elicit tacit (implicit) knowledge. Storytelling may be more concrete, personal than discussing in the abstract. Visual artefacts as a basis for explanation, discussion. Storyboard annotation gives participants a chance to respond to something—agree, challenge, etc.	Notes, storyboards or written/ recorded narratives, MAY ADD photos, audio or video of session	Annotated board: Duysburgh et al. (2012)
Workshop: Group elicitation	Small group	event	Making and writing	"In the BrainDraw, each participant starts a drawing in one sheet of paper (considering a defined interaction situation) and after a short time (for about a minute) every participant circulates the paper among the other participants. The short time to draw guarantees that no one will be able to finish a complete idea in their sketches, so that the final arti-	Create artefacts that are a mixture of multiple participants' ideas and viewpoints, in response to particular prompt/situation/idea. Create concrete basis for further group discussion. Interaction through writing may be less scary than discussion, for some participants.	Notes, group writings, MAY ADD photos of process, audio or video of discussion	See Almeida et al. (2009) as an example

				facts will be a mixture of ideas of everyone." Almeida et al (2009)			
Workshop: Brain Draw	Small group	event	Primarily make	"Within the GEM, participants write a design idea on paper and circulate to the next participant of the group. Upon receiving the ideas of another participant, each one has a short time (for about two minutes) to agree, disagree or put a new point of view. This phase continues until all participants have seen the ideas of the other participants at least once." Almeida et al (2009)	Explore ideas visually. May be less scary than discussion for some people. Create artefacts that are a mixture of multiple participants' ideas and viewpoints, in response to particular prompt/situation/idea. Create concrete basis for further group discussion.	Notes, group drawings, MAY ADD photos of process, audio or video of discussion	See Almeida et al. (2009) as an example
Survey 🚫	Multiple individuals, who are part of a sample of specific group	event	Talking or writing	Series of questions to collect information. May be open-ended, or offer discrete options. Related to interviews but less in-depth. Every respondent usually will answer the same questions.	Understand something about the behaviour or opinions of a group (e.g. "UoE undergraduates"), by administering questionnaire to a sample of individuals.	Notes, PLUS written or recorded responses	See qualitative social science methods books, or books specifically on survey/question -naire design
Semi-structured interview 🚫	Multiple individuals	event	Talking	An individual interview that begins with a list of questions and planned order, but has the flexibility to follow up on information or add questions during the interview.	In-depth information about how a particular person views a situation, idea, prototype. May *reflect on* or *evaluate* something.	Notes PLUS audio or video	Qualitative Research Practice [book] ed. Finch & Lewis; other qual. methods books

"Seed papers" for various methods: These are not intended to be the very best possible papers, but papers that are clear enough to communicate what the researchers did and why they uses a reference. These papers will help you get additional keywords, authors, and references for further library database/Google Scholar searches. These do skew toward human-computer interaction, because there is lots of PD material on HCI and it is my own area of expertise.

Group elicitation and Brain Draw: Almeida, L. D. A., de Almeida Neris, V. P., de Miranda, L. C., Hayashi, E. C. S., & Baranauskas, M. C. C. (2009). Designing inclusive social networks: a participatory approach. In *Online Communities and Social Computing* (pp. 653-662). Springer Berlin Heidelberg.

Group elicitation: Boy, G. A. (1997). The group elicitation method for participatory design and usability testing. *Interactions*, *4*(2), 27-33.
May have more details/steps than you actually need, or can feasibly do.

Design critique: Frauenberger, C., Good, J., Alcorn, A., & Pain, H. (2013). Conversing through and about technologies: Design critique as an opportunity to engage children with autism and broaden research (er) perspectives. *International Journal of Child-Computer Interaction*, *1*(2), 38-49.
No, I did not pick this paper because it is mine. It gives a fairly specific description of what design critique is and exactly how it was done—many papers just assume that the reader knows what this means, and lots of detail not needed. Is about a special user group, but can still get general information about design critique.

Storyboard (annotation on researchers' boards): Duysburgh, P., Slegers, K., & Jacobs, A. (2012, June). Interactive applications for children with hearing impairments: a process of inspiration, ideation, and conceptualization. In *Proceedings of the 11th International Conference on Interaction Design and Children* (pp. 240-243). ACM.

Diary or album methods (informants capture own experiences): Crabtree, A., Hemmings, T., Rodden, T., Cheverst, K., Clarke, K., Dewsbury, G., ... & Rouncefield, M. (2003, November). Designing with care: Adapting cultural probes to inform design in sensitive settings. In *Proceedings of the 2004 Australasian Conference on Computer-Human Interaction (OZCHI2004)* (pp. 4-13).

SEE ALSO: Iacucci, G., Kuutti, K., & Ranta, M. (2000, August). On the move with a magic thing: role playing in concept design of mobile services and devices. In *Proceedings of the 3rd conference on Designing interactive systems: processes, practices, methods, and techniques* (pp. 193-202). ACM.
*Re: use of **role-playing** in participatory design, specifically around mobile devices.*

General PD references: There are surprisingly few general references in this field, and some of those are very expensive and inaccessible edited books. This makes teaching PD much harder! Try the following:

Muller, M. J. (2003). Participatory Design: The Third Space in HCI.
Is focused on PD for HCI, but still one of the most general resources that isn't an expensive and inaccessible book.
NB: there are many versions of this online in varying formatting, some of which list Allison Druin as a co-author. I think it was written as a stand-alone report, then later reproduced in several different books? Unclear. The content is substantially the same, so just pick one.

Spinuzzi, Clay. "The methodology of participatory design." Technical communication 52, no. 2 (2005): 163-174.
Much shorter than Muller, and less specific to HCI. Includes bits on PD as research, PD history, PD in different project stages.

Druin, A. (2002). The role of children in the design of new technology. Behaviour and information technology, 21(1), 1-25.
This paper discusses different ways that stakeholders can be involved in PD (levels or types of involvement), and how this can impact theoretical and concrete outputs. It gives a useful way to think about how stakeholders can be involved, and why. This paper is focused on children and tech, but has much broader lessons. Many of the participation issues are the same for adults, and non-technical design.