Do's and Don'ts of Using Human-Centered Design Research in Resilience Food Security Activities

Background

Community engagement and locally led approaches are fundamental to the success of USAID Bureau for Humanitarian Assistance (BHA)-funded Resilience Food Security Activities (RFSA). As part of the Refine & Implement approach, RFSA implementers have the opportunity to conduct participatory research during the Refinement phase and continued community engagement throughout the life of the project.

Thoughtful selection of participatory research methods is critical to answer research questions and to design and conduct the research effectively without harm. RFSAs are gaining experience in applying human-centered design (HCD) as a participatory research method (PRO-WASH and Takunda 2022). HCD can also be used to address program or activity design challenges.

This brief was developed based on the Amalima Loko RFSA and USAID Advancing Nutrition experience as well as peer-reviewed and gray literature and reflection from practitioners convened by the HCDExchange in October 2023.

Purpose

This brief provides an overview of HCD as a participatory, user-centered research method and shares do's and don'ts about selecting and using HCD. RFSA implementers and USAID BHA advisors can use these considerations when reviewing information gaps and research protocols or a statement of work to determine whether HCD is the appropriate research method. They can also use these considerations if HCD has been selected. Additional resources on HCD are highlighted for those interested in learning more. The same do's and don'ts could be useful when considering implementation research or collaborative learning and adaptation to address a program or activity challenge.

Human-Centered Design

Considerations When Selecting HCD as a Research and Design Method
HCD may be a useful participatory, user-centered research method when there **is a focused research question with a clear design challenge**. This helps to ensure that useful, practical solutions emerge from the process. HCD is not the right method to answer broader research questions or to solve large-scale, systemic problems. Do not try to solve design challenges for more than one or two priority behaviors.
HCD is especially useful when **there is an identified need and program opportunity to use a tangible material, product, or service.** Program opportunities may range from local design of a latrine or water pump, for example, to a streamlined training or service process.
Consider HCD when **there is no clear evidence base of what works to solve a challenging or sticky issue**, so a new, outside-the-box idea is needed. Also, HCD is useful when a new solution requires many different people's inputs and agreement.
Select HCD only when **the program has dedicated resources** including expertise to manage the process, and dedicated staff with adequate time and commitment to participate in the full process.

Participatory research is action-oriented research conducted in direct collaboration with (not on) those affected by the issue being studied (Vaughn and Jacquez 2020). Participatory research can help to design activities that are meaningful and relevant to the local context and communities and build trust between researchers and community members (Chen et al. 2020). HCD is a way of thinking that places both the people that programs serve and related stakeholders at the center of the design and implementation process (Breakthrough ACTION 2020). It engages program participants in designing a product, material, or service that is intended for them (Vaugh and Jacquez 2020). The approach was first applied to challenges in the private sector and engineering fields but has been increasingly applied to global health challenges (LaFond and Chenery 2021) to help program or service providers think differently about problems and collaboratively generate solutions with intended users or program participants. While there are many HCD processes, all types of HCD use creative problem-solving that integrates human perspectives at all steps; participatory research and design are both part of this process.

There are three core tenets of HCD: 1) multidisciplinary collaboration, 2) centering people in their contexts, and 3) creativity and iteration (LaFond and Cherney 2021). Key differentiators from other types of participatory, user-centered research are rapid cycles of testing that emphasize "failing fast," co-creating tangible solution(s) with intended users (Chen et al. 2020), and engagement of stakeholders in the process from start to finish.

HCD breaks down research into small, focused phases that use real-time user feedback (Chen et al. 2020). The multiple linked phases—from gathering insights with participants, to creating or "ideating" solutions, to testing and refining the solutions—can have different terms such as "discover, define, design, and test" (Design Council 2003) or "hear, create, and deliver" (PRO-WASH and Takunda 2022).

Below are some considerations for selecting HCD as a research and design method and do's and don'ts when conducting an HCD research and design process with high quality.

Do's and Don'ts When Applying HCD

DESIGN CHALLENGE PARAMETERS

✔ **DO focus design challenges with clear parameters.**

- Make the design challenge as specific as possible to ensure there is enough time to develop a realistic number of testable solutions with stakeholders. It is helpful to focus by building on existing evidence of what is needed and what works and by generating local solutions to specific challenges.

✖ **DON'T tackle more design challenges than the team and participants can focus on.**

- Prioritize design challenges. Each design challenge requires deep exploration and therefore time and attention; some practitioners recommend working with no more than one or two behaviors. Trying to solve many at the same time could present issues with feasibility and ideation of specific, actionable solutions. For example, a team in Malawi identified and co-created solutions to six design challenges across a range of behaviors. The wide range of behaviors and related solutions posed feasibility challenges to draft, test, and refine the solutions within a fixed timeframe.

PROGRAM TEAM MINDSETS

✔ **DO stay open to what will be created.**

- Be open to not knowing what solutions will be developed. When applying the HCD process, there can be no predetermined solutions. HCD requires a mindset shift so all teams must be comfortable with iterative learning, pivoting, and adapting when something isn't working (Mani-Kandt and Robinson 2021). This means being comfortable waiting for specific plans for programming and measurement through the rounds of iteration and testing.

✖ **DON'T apply HCD if the program is not comfortable with a flexible, adaptive process.**

- Avoid HCD if all program teams, including research, management, and technical and monitoring and evaluation teams, do not have the time and willingness to deal with ambiguity and many changes along the way.

PROGRAM TEAM MINDSETS

✔ **DO** ensure strong partnerships between program teams and stakeholders.

- Be open and transparent with each other. Alignment is necessary for a collaborative process.

✘ **DON'T** maintain rigid measurement plans.

- It is not possible to know what will be measured from the start. "The focus of measurement is learning that helps define and refine solutions to enhance their relevance to people, communities, workplaces, and systems" (Heller, LaFond, and Murphy 2021, S278). This does not always align with what researchers and global health programmers are accustomed to measuring, or with being comfortable with not necessarily knowing exact indicators ahead of time.

TIME, EXPERTISE, AND RESOURCES

✔ **DO** ensure adequate time to complete the research in a flexible manner.

- Build in more time than anticipated for multiple rounds of revision (called iteration) and potential pivots within the research timeframe. As research progresses, teams may find they need additional insights, to try new solutions (often called prototypes in HCD), or to explore a different question than initially anticipated.

✘ **DON'T** assume HCD can be completed in a short timeframe.

- HCD may require up to a year because of the multiple phases and the need to engage all relevant stakeholders in understanding the challenges and co-creating and testing solutions.

✔ **DO** plan for all types of capacity to execute the HCD process.

- Consider the expertise needed to design the study, facilitate participatory workshops, develop prototypes, and test solutions with communities.

- Plan for using participatory research tools and techniques, such as journaling, conversation starters, storyboarding, and journey mapping that need experienced HCD researchers implement and analyze.

- Be sure staff leading the HCD research have strong participatory facilitation skills. A key element of HCD is in the group process through a series of workshops with a range of stakeholders. These workshops require expert facilitation to ensure a safe, open environment for all participants.

✘ **DON'T** forget about staff and stakeholder capacity.

- Plan and budget adequate capacity strengthening for staff, partners, and stakeholders to implement tools or elements of HCD. For example, a research team in Zimbabwe planned adequate time for the initial research phase, but staff time and budget constraints resulted in reduced resources for solution ideation and iteration. This resulted in missed opportunities to align solutions with the evolving program priorities.

STAKEHOLDER COLLABORATION

✔ DO consider HCD as a research method for challenges that require multiple voices and local ownership.

- HCD can be useful when new solutions need input and buy-in from multiple stakeholders, such as diverse community groups, local leaders, and technical experts. Strong HCD engages diverse perspectives in a participatory process to understand people's wants and needs, and design solutions that fit people's lives. This diverse input can ensure that solutions are desirable for users, feasible in the local context, and viable in the system (PRO-WASH and Takunda 2022).

✗ DON'T leave out key decision-makers.

- Ensure representation from all relevant stakeholders at each step of the process, and as early as possible. Stakeholders should represent a range of lived experiences and perspectives and be inclusive of those who implement a product or service, those who use a product or service, and those who make decisions about the product or service (Mani-Kandt and Robinson 2021).

- Key decision makers can provide input on feasibility of solutions and determine whether the solutions are implemented and sustained. Thus, their commitment and participation are essential.

✔ DO take time to ensure all stakeholders understand the research and their role.

- Plan with stakeholders in advance to manage competing priorities and conflicting availability to ensure all voices remain present through each phase of the research and design process.

- Ensure adequate time to orient all stakeholders to concepts, plans, and tools. This does not mean that every stakeholder needs a deep understanding of HCD, but it does mean that each person involved should understand the research question, how it will be answered, and what each stakeholder's role is within the process. This step also can help with setting expectations and establishing any design parameters among stakeholders. It also helps establish a shared commitment to co-design, revisions, and testing (Mani-Kandt and Robinson 2021).

✗ DON'T ignore the need for transparency and trust with stakeholders.

- Take time to develop a transparent and trusting relationship with all stakeholders. All stakeholders must feel comfortable and safe sharing information, documentation, insights, and experiences throughout research and design. Developing rapport and building trust requires time and might also require iterative approaches to consultation, ideation, and testing. Without trust and transparency, it is unlikely that the HCD process will succeed, and it could cause potential harm to stakeholders.

POWER DYNAMICS

✔ DO consider power dynamics when planning for and implementing HCD.

- Identify and take into account power dynamics as a result of gender, age, education, status, context, or professional role, for example. Mitigate negative impacts of power dynamics during group activities by establishing group norms, revisiting insights, and including reflection questions for facilitators after sessions or during breaks (Chen et al. 2023).

- Adapt the approach and/or participants if power dynamics negatively impact insight generation and design processes. In Niger, for example, a project identified gendered power dynamics during design. The project created one design team made up of men and a second design team made up of women to allow men and women to speak more freely as they brainstormed solutions (PSI 2020).

✗ DON'T Don't make assumptions about or ignore the power dynamics.

- Pay close attention to power dynamics, including insights identified during research and while co-creating or ideating solutions. Working from assumptions and ignoring imbalances can reinforce existing inequities and also limit success in developing desirable, feasible, and viable solutions. In Malawi, for example, a team considered power dynamics early in the research process and identified inequities between the stakeholders and community members. For co-creation workshops, the team purposefully selected facilitators to bridge groups and spent extra time to ensure that everyone felt safe, comfortable, and valued when sharing their perspectives and ideas.

PROGRAM IMPLEMENTATION

✔ **DO** plan for implementing the successful solutions.

- Allocate budget and time to implement successful solutions in consultation with community stakeholders. Include any successful solutions into the social and behavior change strategy and monitoring section of the monitoring and evaluation plan.

- HCD will result in understanding about community needs and wants as well as locally tested solutions that are feasible and viable in the system. As a result of their investments, community members and other stakeholders will often have a strong interest in seeing these implemented.

✗ **DON'T** forget about implementation and learning related to the co-created solutions.

- Consider the investment community stakeholders have made to the co-creation of solutions and potential negative consequences of not seeing that investment appreciated.

- Plan for strengthening needed skills of staff and stakeholders to implement solutions.

- Allocate time and financial resources needed to follow up on the formative and implementation research conducted. The HCD process does not have to stop after a solution is tested and refined. Solutions may continue to adapt as implemented and scaled up to all program areas (Mani-Kandt and Robinson 2021).

Other Resources

Breakthrough ACTION. 2023. *Applying Human-Centered Design to Improve Nutrition Programming E-Course*. Johns Hopkins Center for Communication Programs for the United States Agency for International Development: Washington, DC. https://learning.breakthroughactionandresearch.org/courses/applying-hcd-to-improve-nutrition-programming/

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