

Appendix D UW ALACRITY Center Required Measures

The UW ALACRITY Center (UWAC) has several measures to be collected by grantees. Some are required across all projects, while others are suggested and optional. Several of them may need to be edited to fit the needs of each specific project. The table below outlines the measures and describes which are required for each stage of the Discover, Design, Build, Test (DDBT) process. If your project is not doing a specific phase, then collection of the measures listed for that phase will not be required. Note that the R01s and R34s being conducted by UWAC team members have different requirements than the R03s submitting proposals to UWAC. Cells that read “yes” are required by all grantees conducting projects in those phases, otherwise, measures are described as optional.

| Construct | Measure / Activity | Notes | Required to collect in Phase? | | | | Estimated time burden |
|---|---------------------------|---|-------------------------------|--------------|------|----------------|---------------------------------|
| | | | Discover | Design/Build | Test | End of project | |
| Demographics | Demographics | Participant demographics. Required and reported to National Institute of Mental Health (NIMH). | Yes | Yes | Yes | n/a | 5 minutes; ~ 8 questions |
| Investigator satisfaction with the support they receive from the center | UWAC satisfaction measure | UWAC-developed measure of the satisfaction of grantee investigators about support received. UWAC will administer this measure to grantee teams | n/a | n/a | n/a | Yes | 5-10 minutes; ~ 10 questions |
| Adherence to DDBT process (DDBT fidelity and cost measure) | Survey | Survey data collected from each project’s redesign team about their application of HCD techniques during each DDBT phase will be collected at the conclusion of the phase and summarized. | Yes | Yes | Yes | n/a | In development |

| Construct | Measure / Activity | Notes | Required to collect in Phase? | | | | Estimated time burden |
|---------------------------------------|---|--|--|--|--|----------------|-----------------------------------|
| | | | Discover | Design/Build | Test | End of project | |
| Team collaboration, trust and respect | Transdisciplinary Tobacco Use Research Center (TTURC) satisfaction measure of team collaboration and transdisciplinary integration (productivity and satisfaction sections only/process quality and outcomes) | Administered to redesign team members along with participation measure (below). Assesses satisfaction with the collaboration, impact of collaboration, trust, and respect. This ongoing review of outcomes will allow for critical assessment and course correction as needed and recommended by these bodies. | R01, R34s Optional: R03s | R01, R34s Optional: R03s | R01, R34s Optional: R03 | n/a | 5-10 minutes; 18 questions |
| Community participation in research | Modified Ladder of Participation Measure | Administered to design team members along with collaboration measure (above). This measure has been modified to target design of CI/IS across 6 dimensions: identification of design issues, design activities, use of resources, design methods, indicators of success, and sustainability. | Yes—teams complete near or immediately after Discover Optional for R03s | Yes – Redesign teams will complete near or immediately after Design/Build Optional for R03s | Yes—Teams complete immediately after project ends Optional for R03s | n/a | 20 minutes; 6 items and interview |
| User Needs & Experience | User interviews | User interviews are applied across UWAC to identify key challenges end users might face when applying clinical interventions/implementation | At least one of these activities, as appropriate for project | At least one of these activities, as appropriate for project | At least one of these activities, as appropriate for project | n/a | Varies based on approach chosen |

| Construct | Measure / Activity | Notes | Required to collect in Phase? | | | | Estimated time burden |
|-----------|---|--|-------------------------------|--------------|------|----------------|-----------------------|
| | | | Discover | Design/Build | Test | End of project | |
| | | strategies (CI/IS). Interviews consist of questions derived from HCD principles such as organizational and stakeholder culture, values, and challenges in applying CIs or ISs. | | | | | |
| | User-centered design activities | Various activities as appropriate for the project, including contextual observation, reactions to design sketches, co-design activities, design activities in Asynchronous Remote Communities , etc. | | | | | |
| | Other methods for understanding and probing user needs. | This could include observations, focus groups, etc. | | | | | |

| Construct | Measure / Activity | Notes | Required to collect in Phase? | | | | Estimated time burden |
|------------|---|---|---|--|--|----------------|---------------------------------|
| | | | Discover | Design/Build | Test | End of project | |
| Usability | Usability issues grounded in participant data and reported using UWAC's standard structure | Usability issues will be collected by the research team and reported to the UWAC in a measure administered by UWAC. This could be informed by the identification of user needs as well as usability evaluation methods, such as <ul style="list-style-type: none"> • heuristic evaluation, • cognitive walkthroughs, • usability testing, etc. | At least one activity required, <i>if</i> the discover phase investigates an existing intervention or implementation strategy | At least one activity required, <i>if</i> the design phase identifies further usability issues with either the existing CI/IS or the redesigned one. | At least one activity required, <i>if</i> the design phase identifies further usability issues with the redesigned CI/IS. Also follow up about whether existing issues have been resolved by redesign. | n/a | Varies based on activity chosen |
| | System/ Intervention/ Implementation Strategy Usability Scale (SUS/IUS/ISUS) | Collect the most appropriate one of these measures from participants, based on what the project is redesigning | Yes – of existing CI/IS | Yes – of redesigned CI/IS | Yes – of redesigned CI/IS | n/a | 5 minutes; 10 items |
| Engagement | User Responsiveness Scale | Measures the level of engagement by participants. Likely needs to be adapted to the specific study—UWAC staff can help with this. | Yes – of existing CI/IS (if it exists and if possible) | Maybe – of redesigned CI/IS | Yes – of redesigned CI/IS | n/a | 5 minutes; 10 items |
| | Coding of qualitative interactions | Quantitative scores of engagement, which as | Yes – of existing CI/IS | Maybe – of redesigned CI/IS | Yes – of redesigned CI/IS | n/a | Varies based on approach taken |



| Construct | Measure / Activity | Notes | Required to collect in Phase? | | | | Estimated time burden |
|-----------------|--|---|---|---|---|----------------|-----------------------|
| | | | Discover | Design/Build | Test | End of project | |
| | | <p>appropriate for the CI/IS could be based on:</p> <ul style="list-style-type: none"> • observations of user interactions, • Self-report, • Telemetry from applications, e.g., information about time spent in app, screens viewed, participating in responding to prompts, etc | | | | | |
| Appropriateness | Intervention Appropriateness Measure (IAM) | Four item measure of the appropriateness of an intervention or implementation strategy. | <p>Yes – of existing CI/IS</p> <p>Could be based on existing literature</p> | Maybe – of redesigned CI/IS | Yes – of redesigned CI/IS | n/a | |
| | Revised Goodness of fit interview | Probes areas of CI/IS alignment and misalignment on goals and expectations, roles, etc. | <p>Yes – of existing CI/IS</p> <p>Optional for R03s</p> | <p>Maybe – of redesigned CI/IS</p> <p>Optional for R03s</p> | <p>Yes – of redesigned CI/IS</p> <p>Optional for R03s</p> | n/a | |

| Construct | Measure / Activity | Notes | Required to collect in Phase? | | | | Estimated time burden |
|---|---|--|---|--------------|---------------------------------|----------------|-----------------------|
| | | | Discover | Design/Build | Test | End of project | |
| Adoption and reach | User report | Study-specific measure of the adoption or use of the intervention or implementation strategy | Yes – of existing CI/IS, if feasible Could be based on existing literature | No | Yes | n/a | Varies |
| Intervention and implementation strategy fidelity | Fidelity of practice | Should be specific to whatever intervention or strategy is being studied | Yes – of existing CI/IS, if feasible Could be based on existing literature | No | Yes | n/a | Varies |
| Adaptations (i.e., redesign solutions) | Framework for Reporting Adaptations and Modifications to Evidence-based Implementation Strategies (FRAME/-IS) | Checklist of possible redesign solutions and adaptations. This measure will be administered by the UWAC and completed by PIs | No | Yes | Reactive/ unplanned adaptations | n/a | 30 minutes |
| Client outcomes | Quality of Life in Neurological Disorders (Neuro-QOL) | Neuro-QOL Satisfaction with Social Roles for adults and the Neuro-QOL Social Relations Scale for youth assessment tools | No | No | Yes | n/a | 8 items; 5 minutes |



| Construct | Measure / Activity | Notes | Required to collect in Phase? | | | | Estimated time burden |
|-----------|---|---|-------------------------------|-------------------|------|----------------|--|
| | | | Discover | Design/Build | Test | End of project | |
| | Top Problems Assessment | Measure of the client/patient-reported major problems and severity | No | No | Yes | n/a | 3 items; 5 minutes |
| | DSM-5 Level 1 Cross-Cutting Symptom Measure | DSM-5 Level 1 Cross-Cutting Symptom Measure (Youth) DSM-5 Level 1 Cross-Cutting Symptom Measure (Adults) DSM-5 Level 1 Cross-Cutting Symptom Measure (Parent/Caregiver Report Form for Youth) | No | No | Yes | n/a | 25 for youth and caregiver; 23 items for adults |
| | Revised Children's Anxiety and Depression Scale-25 (RCADS-25) | Revised Children's Anxiety and Depression Scale-25 (Youth) Revised Children's Anxiety and Depression Scale-25 (Parent/Caregiver Report Form for Youth) | No | No | Yes | n/a | 25 items for youth and caregivers |
| | Patient Health Questionnaire - 9 (PHQ-9) | Patient Health Questionnaire – 9 (ADULTS ONLY) | No | No | Yes | n/a | 9 items |
| | General Anxiety Disorder-7 (GAD-7) | General Anxiety Disorder-7 (ADULTS ONLY) | No | No | Yes | n/a | 7 items |
| | WHO Disability Assessment Schedule (WHODAS 2.0) | WHO Disability Assessment Schedule (ADULTS ONLY) | No | No | Yes | n/a | 12 items |
| Costs | Time diary, budget | Measure of the costs of redesign | No | Optional for R03s | Yes | n/a | Varies |



| Construct | Measure / Activity | Notes | Required to collect in Phase? | | | | Estimated time burden |
|---|--|---|-------------------------------|--------------|------|----------------|-----------------------|
| | | | Discover | Design/Build | Test | End of project | |
| Participant research burden, incentive appropriateness, and research satisfaction | Three study-specific items borrowed from CREATIV's ADAPT study pilot trial | Measures the burden of participation in the study which can be useful as a pilot tool to guide research modifications | No | No | Yes | n/a | 3 items; 2 minutes |

User Interviews: Understanding User Needs

Interviews are one of the most common methods to collect data in HCD (including among ALACRITY teams). Interviewing is used in HCD to understand perspectives and experiences of respondents. Well-designed interviews in HCD aim to gather data that drives the design process and helps make better design decisions (Beyer & Holtzblatt, 1998, 417).¹ We provide guidance on conducting interviews and specific tips on interviewing as part of assessing usability, accessibility, and appropriateness. An example from UWAC 1.0 is available at <https://docs.google.com/document/d/1AJwfyBxG78kHFIAyffwr3VMr7Gubqy0s/edit?usp=sharing&oid=117884759419095647223&rtpof=true&sd=true>.

Interviews may be used at all phases of the DDBT process, with different goals:

- Discover (formative): Understand who users are and their current ways of doing things, including things that work well and things that could be improved.
- Design/build: Show participants prototypes and elicit reactions. It is also not uncommon to need to do some additional “discover” work when the team realizes it needs to know more to make an informed design decision.
- Test (summative): Assess whether the (re)designed intervention and/or implementation strategies are achieving its design goals and understand people’s lived experiences with them.

Planning

Aligning Interviews and Other Methods with Research Questions

Any research method selected should align with your research questions, data needed, timeline, and available resources. One challenge researchers familiar with interviews may encounter when first using interviews to support design processes is ensuring that information generated from interviews will inform resulting design decisions. There are a great many things researchers are curious about, but when used in a design process you must prioritize the questions that will help make decisions. This includes:

¹ Beyer, H., & Holtzblatt, K. (1998). *Contextual design: defining customer-centered systems*. Elsevier Science.

- Who are your users? (This may include primary users, e.g., people directly interacting with your product, artifact, or service, as well as secondary users who interact with the product, artifact, or service through the actions of another party. For example, when designing a worksheet for an interventionist to use in a session, you may still need to engage with patients as well.)
- What do your users know?
- What do they want to do?
- How do they do things? (and where? In what conditions?)
 - What successes do they experience?
 - What barriers do they face?

Note that interviews may be used fluidly with other methods. You might, for example, present a scale and then decide where to focus an interview based on responses to individual items on the scale or overall scores. Many interviews also intermix other activities, such as asking participants to demo a part of their work, give a tour of their workspace, or some other context relevant to the design challenge. They might also ask participants to engage with a prototype to complete tasks, before and/or after interview parts of a session. We will discuss this in more detail below.

A caution about focus groups. Many research teams are tempted to use focus groups in place of interviews to reduce time and expenses. This may not be a good idea, as expenses such as participant compensation remain fixed, yet you are getting much less depth from any one participant. Focus groups can also further confound results due to effects such as a group think and social desirability bias. We also know that people from marginalized backgrounds are more likely to be further marginalized in focus groups. If you find yourself considering focus groups only for efficiency, we strongly urge you to reconsider and potentially instead invest in interviews.

Where focus groups *can* shine is when you want participants to build on each other or to elicit, e.g., workflow details that live between different roles. Careful attention to power dynamics among potential participants when forming groups and to facilitation techniques that elicit attitudes

and experiences from all participants while avoiding group think (e.g., by having participants write down notes about a prompt individually before sharing) is important.

Identifying and Prioritizing Participants

To recruit the right participants for your study, your team must come to a consensus on users and interested parties. This is necessary to determine appropriate recruitment criteria. With your team, brainstorm users and interested parties. Use existing data such as literature and other surveys to gather preliminary research. Often it is helpful begin with a broad and overly-inclusive preliminary user list and then narrow your focus (see [Table 1 in Lyon et al., 2020 for an overview of this process](#)). Once you have identified a set of potential users and interested parties, you can prioritize participants by considering which groups:

- has the most diverse set of tasks?
- is the largest?
- is most important to help achieve intervention and/or product goals?
- has the most needs?/seems to be having the most trouble with the product?
- has the most to lose of the intervention and/or product does not work for them?

Another recommendation is to recruit participants based on behavioral criteria followed by demographic attributes important to your design (Goodman et al., 2012, 97).² Behavioral criteria includes people that currently do (or would be interested in doing) what your product or service can provide. For example, with a mobile application for adolescent use, while adolescents may be the intended user, a caretaker that gives permission or phone time for an adolescent to download an application may be important to capture. When planning recruitment, you may also want to consider segmenting respondents by traits that could influence their response to a design solution. This could include traits like level of experience with competing/similar products or services. Finally, consider characteristics that you may want to avoid during recruitment

² Goodman, E., Kuniavsky, M., & Moed, A. (2012). *Observing the User Experience: A Practitioner's Guide to User Research*. Elsevier Science.

(Goodman et al., 2012, 102).³ This could include those that strongly oppose an implementation strategy or within your existing contacts. Participant eligibility and segmentation can be facilitated using a short screening survey that exclusively includes questions that will determine participant eligibility, ask for specific quantities related to behaviors, and are neutral in tone. Including some open-ended questions in screeners may help give a sense of whether an individual will give more detailed feedback during an interview or usability test (Goodman et al., 2012, 108).⁴

Interview Types

Individual vs. contextual: Individual interviews are “traditional” interviews where an interviewer asks questions and probes a single respondent.⁵ These types of interviews can be relatively straightforward to administer and conducted in-person or remotely. Contextual interviews are conducted in a respondent’s own environment and are a combination of observation and interviewing.⁶ A key advantage of contextual interviews is that it places a user in their own environment, which may create a more authentic depiction of a user’s everyday experiences. You may want to conduct interviews within an environment where you foresee a product or service to be used can both help improve participant recall and accuracy of relevant details during an interview since individuals aren’t always cognizant of their behavior (Beyer & Holtzblatt, 1998, 43).⁷ The interviewer asks questions based on a respondent’s behavior completing their own tasks. During usability studies, contextual interviews can be combined with assigned task scenarios.

Structured vs. unstructured: Interviews can be structured, unstructured, or semi-structured. Structured interviews have a set script that is followed and may be easier for comparability and analysis. Unstructured interviews may be more conversational and increase comfort for participants but must be moderated well so that priority information is collected within the interview time (Hanington & Martin, 2019, 138).⁸

³ ibid

⁴ ibid

⁵ "Individual Interviews | Usability.gov." <https://www.usability.gov/how-to-and-tools/methods/individual-interviews.html>. Accessed 24 Aug. 2023.

⁶ "Contextual Interview - Usability.gov." <https://www.usability.gov/how-to-and-tools/methods/contextual-interview.html>. Accessed 24 Aug. 2023.

⁷ Beyer, H., & Holtzblatt, K. (1998). *Contextual design : defining customer-centered systems*. Elsevier Science.

⁸ Hanington, B., & Martin, B. (2019). *Universal Methods of Design Expanded and Revised: 125 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*. Rockport Publishers.

Interviews with both structured and unstructured sections give you the opportunity to ask some questions exactly the same for everyone, but space to follow up on topics of interest.

Interview Guide

For structured and unstructured interviews, an interview guide helps ensure that you ask questions that will answer your research questions. Your interview guide should primarily be open-ended questions, which will give you more of an opportunity to probe and generate richer data. While you should focus on creating open-ended questions, don't develop questions that are too general or framed around what respondents "usually do" (an alternative to this would be asking about behavior during a specific reference period). As a starting point, brainstorm interview questions and map them to each research question they address. One resource to help write questions is Nikki Anderson's Taxonomy of Cognitive Domain chart, which lists question verbs aligned with what you'd like to learn.⁹

Iterate your initial list with an eye for questions that generate duplicate and/or unrelated information and reword questions that are leading or could be made more open-ended. Your interview guide should start with easier warmup questions, such as "tell me about yourself," as you build rapport with the participant. More sensitive questions typically work better later in an interview. Sequence questions in a logical order and share your interview guide with colleagues for feedback.

Conducting interviews

We recommend the following considerations when conducting interviews:

- Be prepared
- Express gratitude for respondent participation

⁹ "70+ Great User Testing Questions To Ask Before, During, & After" 4 May. 2023, <https://www.userinterviews.com/blog/user-testing-questions>. Accessed 26 Aug. 2023.

- Remind the participant that the intervention or implementation strategy is being evaluated, not them. There are no right or wrong answers.
- Practice active listening, don't interrupt respondent and use body language or subtle prompts (nodding, taking notes, to say more)
- At the end of each interview, ask yourself if you understand what the respondent shared. Are there things you need clarification on?
- Following interviews, interviewers and/or research team should reflect on each interview, how things went, and additional questions to consider: Is the data collected meeting research goals?
- Review recordings and/or transcripts as data is collected. Leave enough time to analyze data.

Usability Interviews & Task-based Usability Testing

Usability is a fundamental HCD outcome and is commonly assessed using interviews coupled with other methods for usability studies to gather insight on both ability to perform tasks and experience. International Organization for Standardization (ISO) 9241-11 definition of usability is the “extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use.” A *formative* usability study aims to identify opportunities for design improvements and aligns with the “discover” phase of DDBT. A *summative* usability study aims to evaluate how well a product or service meets its objectives and aligns with the “test” phase of DDBT.

Critical Incident Technique Interviews

Sometimes, teams may be most interested in learning about usability issues that emerge only in complex, real-world situations, and that are hard to reproduce in usability evaluations, in the lab, or other contexts. For this, interviews that elicit details of past events can be most effective, despite being limited by people’s ability to recall information.

Example questions ask respondents to recall a time when they did a certain behavior. For example, “tell me about a time you used an app in your job.” This question prompt is slightly different than “tell me about the last time you used an app in your job.” A critical incident question variation could be “tell me about a particular time you used an app in your job where it did not help you accomplish your work.”¹⁰

Sessions that combine interviews with other methods

Using interviews alone to gather data may be limiting because of issues with recall and/or challenges with describing behavior. Interviews can be particularly insightful if they incorporate observation or demonstrations, as people’s ability to recall and articulate details of their use of a product or system is limited. Observation can involve you asking a respondent to complete or demonstrate tasks, and you ask the respondent questions based on what you see (see Figure 1). Observation during interviews focuses on monitoring and recording people, behavior, artifacts,

¹⁰ “The Critical Incident Technique in UX - Nielsen Norman Group.” 26 Jan. 2020, <https://www.nngroup.com/articles/critical-incident-technique/>. Accessed 26 Aug. 2023.

and environments. When environments or behaviors are defined, structured observation (such as using checklists to record behavior observed) is a good option (Hanington & Martin, 2019, 158).¹¹ Unstructured observations can be more exploratory and leave the researcher open to seeing what you may not anticipate.

1. Introduce purpose of study, what you're hoping to observe and learn, and obtain consent
2. Pre-observation interview to ask questions about first impressions or respondent's typical day
3. Observe respondent and take note of respondent's behavior
4. Post-observation interview to ask questions about what you observed

Figure 1. Sample sequence of interview and observation

Observation can be similar to a cognitive walkthrough, which is a **usability** assessment method to systematically walk through sequential steps of a system or process from a user's perspective to identify potential usability issues. Cognitive walkthroughs are usually conducted by domain experts, who may be part of the design team, and can be conducted one-on-one or in groups.

Task-based usability testing

Usability evaluations often involve asking participants to complete one or more tasks using a product or according to a service. This could be using the baseline intervention/implementation strategy/app, using partial or complete prototypes of the redesign, or using the newly redesigned intervention, implementation strategy, or supporting artifacts. After each task, researchers might present them with a scale or ask follow-up questions, though if this interrupts the flow, you may save this until after all tasks are completed. An example of task-based usability testing protocol from a UWAC project is available at

¹¹ Hanington, B., & Martin, B. (2019). *Universal Methods of Design Expanded and Revised: 125 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*. Rockport Publishers.

https://docs.google.com/document/d/1Vk0ySlvtMK_SlsJMumJHXEplz50cSREb/edit?usp=sharing&oid=117884759419095647223&rtpof=true&sd=true.

For tasks that involve collaboration (e.g., a session between a clinician and a patient), it may be necessary to have a researcher take on one of the roles. This increases internal reliability but decreases external validity.

Task design. Designing appropriate tasks requires practice and iteration. If a task is too unclear, you may instead uncover usability issues with your task design, not what you are studying! However, if the task design mirrors the language of what a participant must do too closely (e.g., if you tell them to click the button labeled “search”), the task is leading, and you may not uncover key usability issues.

Think aloud protocol. As we cannot read people’s minds, participants are often asked to think aloud while working toward tasks to help researchers learn as much as possible. This can help researchers learn what a participant is considering doing next and why, better understand their in-the-moment goals, and identify misconceptions. To incorporate think aloud in your interview guide, include instructions for the facilitator to give to the participant about the think aloud process. The facilitator should then demonstrate the technique with an unrelated task so that respondents understand it as best as possible. The participant may still forget (especially when concentrating hard on a task!), and it is often necessary for the facilitator to encouragingly remind participants to think aloud. Even with reminders, some respondents may find it distracting or it might not be contextually appropriate to speak before fully processing behavior. In these cases, it is not worth pushing to use the technique, and instead probe respondents on their task experience after they’ve completed their tasks. For example, you can ask a respondent to walk you through how they accomplished their task.¹²

Additionally, think aloud protocol is not well suited to tasks that require speaking (e.g., talk therapy; interacting with a voice assistant, etc). In these situations, an alternative is to record the task (e.g., video, screen recording, audio) and then play it back to participants, asking them to

¹² Rubin, J., & Chisnell, D. (2008). *Handbook of usability testing: How to plan, design, and conduct effective tests*. John Wiley & Sons.

describe what they were thinking at the time. This retrospective think aloud is less reliable than in-the-moment think aloud, but sometimes it is the best compromise we can make.

Facilitation. Participants asked to complete tasks may feel like they are being evaluated, and this is especially the case if those tasks parallel anything they might have to do for certification in a therapy or related to their professional expertise. As a result, it is even more important for facilitators to remind participants that the intervention/implementation strategy/artifact is being evaluated, not them.

When testing new designs (or existing designs with significant usability issues), it is also not uncommon for participants to have interactions that frustrate them. To an extent, it is valuable to allow this frustration to continue so you learn how the participant would navigate the barriers. If participants ask for help, the facilitator might at first turn it back around to them and ask “what would you do if I were not here?” However, the facilitator should use their discretion in offering assists that keep the session moving or that help prevent frustration levels from becoming so great that the rest of the session is lost.

Although much task-based usability testing has historically been applied to digital technologies, the approach is quite relevant to complex psychosocial interventions such as client-facing interventions and implementation strategies. As one example, the [Usability Evaluation for Evidence-Based Psychosocial Interventions \(USE-EBPI\)](#) method specifies how “lab-based” user testing (one of the array of sub-methods specified within USE-EBPI) can be completed for interventions such as psychotherapies.

1. Introduce purpose of study, what you're hoping to observe and learn, and obtain consent
2. Pre-test interview to ask questions about first impressions, demographics, experience with similar products
3. Describe task 1
4. Respondent performs task 1
5. Describe subtask 1a
6. Respondent performs subtask 1a
7. Describe subtask 1b
8. Respondent performs subtask 1b
9. Post-task interview to debrief on what was observed during task and subtasks (and reduce cognitive load of recall)
10. Describe task 2
11. Respondent performs task 2
12. Describe subtask 2a
13. Respondent performs subtask 2a
14. Describe subtask 2b
15. Respondent performs subtask 2b
16. Post-task interview to debrief on what was observed during task and subtasks (and reduce cognitive load of recall)
17. Administer Acceptability of Intervention Measure (AIM), Feasibility of Intervention Measure (FIM), and Intervention Appropriateness Measure (IAM)
18. Debrief interview including probing on AIM, FIM, IAM ratings



Figure 3. Sample sequence for usability test

Sample Usability Questions

- *Following a task:* How would you describe your experience completing this task?
- What is one thing you would change about this intervention or product? Why?
- How did your experience compare to (a different intervention or product)?
- What are features that would encourage you to use this intervention or product?

Cognitive Walkthroughs for Implementation Strategies: A hybrid of usability evaluation and interviews

Lyon et al. developed the Cognitive Walkthrough for Implementation Strategies (CWIS) to assess implementation strategy usability.¹³ CWIS has six steps; interviews can be conducted during step five as part of task testing (see Figure 2). As part of task testing, a facilitator presents a scenario and subtasks, respondents are invited to ask clarifying questions, and rate for each task the extent to which they personally expect successful at: 1) discovering the correction action as an option; 2) performing the correction action or response; and 3) receiving sufficient feedback receiving sufficient feedback to understand that you have performed the right action or that the task was successfully completed (see Figure 3). The facilitator subsequently asks respondents to explain their ratings, what might promote success, and what impedes accomplishing the task. This information can then be used to specify usability issues.



Figure 2. [The Cognitive Walkthrough for Implementation Strategies \(CWIS\): a pragmatic method for assessing implementation strategy usability](#)

¹³ Lyon, A. R., Coifman, J., Cook, H., McRee, E., Liu, F. F., Ludwig, K., ... & McCauley, E. (2021). The Cognitive Walkthrough for Implementation Strategies (CWIS): a pragmatic method for assessing implementation strategy usability. *Implementation Science Communications*, 2, 1-16.

Usability Issues

Teams will be asked to report usability issues using the [ALACRITY Center usability issue format](#), which includes:

- A descriptive name
- A description of the issue
- Issue severity
- Issue scope
- Issue complexity
- Categorizing the issue (if possible)

Usability issues should be reported at the end of the Discover phase, and then additionally identified issues should be reported at the end of discover/build and test phases.

Implementation/Intervention/System Usability Scale

When to use the Implementation Usability Scale, Intervention Usability Scale, or System Usability Scale?

Overall, our guidance parallels the name of each scale. If your goal is to assess the usability of the intervention (including any associated supporting tools), then use the Intervention Usability Scale (IUS). If your goal is to assess the usability of a system or artifact, use the System Usability Scale (SUS). SUS was developed primarily for digital systems but may work for other kinds of artifacts such as worksheets.

There may be times when you need to assess two or all three. However, in these instances, we recommend against using SUS and IUS in the same session with the same participants, as the similarities may lead to fatigue or confusion.

Further, because UWAC projects are often investigating the usability of an intervention and usability of a system, it is important for the object or target of the survey to be clear.

Consider the following example: a team is developing a technological tool, PST Aid, to support the delivery of PST.

- When the team uses the SUS to evaluate the tool, they should introduce it by saying, “Next we would like to ask you some questions specifically about the software tool, PST-Aid” and use the tool’s name, or “the tool”, in each question.
- When they are asking about PST, they may be comparing IUS scores for clinicians using PST with PST Aid and clinicians using PST with workbooks.
 - If this is the same group of participants and they are, for example, first completing the IUS about the intervention (PST) without use of the tool, are then introduced to the tool, and then completing the IUS about the intervention with the tool, the first time, introduce the questions as “Next we would like to ask you some questions about PST,” and use “PST” in the questions. When asking the IUS again after introducing the tool, introduce the questions as “Next we would like to ask you some questions about PST, as supported by PST-Aid” and use “PST, as supported by PST-Aid” in the questions.



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- If these are two different groups of participants, they might ask the PST-as-usual group “Next we would like to ask you some questions about PST,” and use “PST” in the questions, while introducing the questions to the PST-with-tool group “Next we would like to ask you some questions about PST, as supported by PST-Aid” and use “PST, as supported by PST-Aid” in the questions. If, however, each group only knows PST as trained for this study (i.e., with or without the tool), then it may be possible to just ask the questions as being about PST.

System Usability Scale

Response scale: 0 = Strongly disagree, 1=Disagree, 2=Neutral, 3=Agree, 4=Strongly agree

1. I think that I would like to use [system] frequently
2. I found [system] unnecessarily complex
3. I thought [system] is easy to use
4. I think that I would need the support of an expert consultant to be able to use [system]
5. I find the various functions in [system] are well integrated
6. I thought there was too much inconsistency in [system]
7. I would imagine that most people would learn to use [system] very quickly
8. I found [system] very cumbersome to use
9. I felt very confident using [system]
10. I needed to learn a lot of things before I could get going on [system]

Scoring guidelines included [here](#).

Intervention/Implementation Strategy Usability Scale

1. I like to use [intervention/implementation strategy] frequently
2. I find [intervention/implementation strategy] unnecessarily complex
3. I think [intervention/implementation strategy] is easy to use
4. I need the support of an expert consultant to be able to use [intervention/implementation strategy]
5. I find the various components of [intervention/implementation strategy] are well integrated
6. I think there is too much inconsistency in [intervention/implementation strategy]
7. I would imagine that most people would learn to use [intervention/implementation strategy] very quickly
8. I find [intervention/implementation strategy] very cumbersome to use
9. I felt very confident using [intervention/implementation strategy]
10. I needed to learn a lot of things before I could get going on [intervention/implementation strategy]

Scoring guidelines included [here](#).

Engagement (qualitative coding of user interactions)

A concept complementary to usability is **engagement**.¹⁴ Specifically with mobile mental health applications, measuring engagement has been challenging with inconsistency in methodology due to lack of consensus of what is engagement. Similarly, there are inconsistent definitions of engagement within HCI, however, engagement generally represents user connection to an intervention and/or product and the ability to engage and sustain engagement.¹⁵ O'Brien describes engagement as "the depth of the actor's investment in the interaction" and has affective, behavioral, and cognitive aspects.¹⁶ There are two different approaches to measuring engagement: subjectivity-oriented and objectivity-oriented.¹⁷ Subjectivity-oriented measures are self-reported and include (in order of most documentation of use): questionnaires, behavior logging, observation, task outcomes, and interviews.¹⁸ Objectivity-oriented measures are devoid of researcher involvement such as behavior logging, psychophysiological measurements, or telemetry. In industry, objectivity-oriented telemetry measures like user data—logs, time, number of interactions, and frequency of logins—are commonly used. Other examples of telemetry data could be behavior data captured in an app or data generated from devices that track health metrics.

To measure engagement, UWAC's proposed approach includes both quantitative and qualitative measures. UWAC requires that all projects use the User Responsiveness Scale to quantitatively measure engagement. The User Responsiveness Scale is an adapted version of a patient responsiveness scale, developed by Moullin et al.¹⁹ We developed the User Responsiveness Scale based on considering responsiveness as a proxy for service effectiveness. The scale includes 10 items, which will likely need to be adapted based on study. UWAC requires all R01 and R34s to include qualitative measures of engagement (see included scale below). Qualitative measurements of engagement may vary by project,

¹⁴ Ng, M. M., Firth, J., Minen, M., & Torous, J. (2019). User engagement in mental health apps: a review of measurement, reporting, and validity. *Psychiatric Services, 70*(7), 538-544.

¹⁵ Doherty, K., & Doherty, G. (2018). Engagement in HCI: conception, theory and measurement. *ACM Computing Surveys (CSUR), 51*(5), 1-39.

¹⁶ O'Brien, H. (2016). Theoretical perspectives on user engagement. *Why engagement matters: Cross-disciplinary perspectives of user engagement in digital media*, 1-26.

¹⁷ Doherty, K., & Doherty, G. (2018). Engagement in HCI: conception, theory and measurement. *ACM Computing Surveys (CSUR), 51*(5), 1-39.

¹⁸ *ibid*

¹⁹ Moullin JC, Sabater-Hernández D, García-Corpas JP, Kenny P, Benrimoj SI. Development and testing of two implementation tools to measure components of professional pharmacy service fidelity. *Journal of evaluation in clinical practice.* 2016 Jun;22(3):369-77.

but could include subjectivity-oriented (observation, self-report) and objectivity-oriented (telemetry) approaches. UWAC proposed approach of contextual observations stems from using observation to assess teacher delivery of an anti-bullying program and corresponding student responsiveness.²⁰ This study defined student responsiveness as student engagement and following rules, which researchers measured by rating two items during observations. Observers rated the following two items on a scale of 1 = not at all, 2 = somewhat, and 3 = extensively; UWAC staff can advise on adapting the items for your project:

- “Students were actively engaged in meeting [i.e., on tasks; participating actively by responding and asking questions; and looking at teacher]”
 - Suggested adaptation for UWAC projects: “Users were actively engaged in [intervention/strategy]”
- “Students followed classroom meeting rules”
 - Suggested adaptation for UWAC projects: “Users adhere to expected activities and modifications to [intervention/strategy]”

It is especially challenging to assess engagement during intermittent activities that are conducted between researcher contact points. For example, during the first phase of UWAC, critical components of interventions were to happen between sessions (e.g., follow a plan & track how it went, practice skills, track behaviors and moods). It is not practical to rely on observation to assess these behaviors, and even if a researcher watched for this behavior, the behavior may be subject to social desirability bias. To assess fidelity of paper-based interventions, you could use subjectivity-oriented measures (paper logs, surveys) at different time intervals with follow-up interviews, although this approach is not perfect:

1. You could collect paper logs that respondents must fill out. However, these may be unreliable since respondents may fill out a week’s worth of logs right before turning them in.
2. You could administer a daily survey or integrate a diary-study approach by submitting a picture, voice recording, or some other type of documentation. However, the process of collecting these measures is its own intervention, which could bias your results.

²⁰ Goncy, E. A., Sutherland, K. S., Farrell, A. D., Sullivan, T. N., & Doyle, S. T. (2015). Measuring teacher implementation in delivery of a bullying prevention program: The impact of instructional and procedural adherence and competence on student responsiveness. *Prevention science, 16*, 440-450.



To assess fidelity of digital-based interventions, objectivity-oriented measures may be possible such as app logs to see user activities. This can simulate observation and can be done without adding extra reminders. Comparing engagement between a paper-based and digital-based intervention is difficult given measuring engagement for a paper-based intervention is imperfect. Likely the best option would be to interview both respondents that receive the paper-based intervention and digital-based intervention to compare responses, but interpret the results with caution given respondents receiving the digital-based intervention may be more truthful with themselves compared to the respondents receiving the paper-based intervention.

Engagement (User Responsiveness Scale)

Adapted from the Patient Responsiveness Scale (Moullin, J. C., Sabater-Hernández, D., García-Corpas, J. P., Kenny, P., & Benrimoj, S. I. (2016). Development and testing of two implementation tools to measure components of professional pharmacy service fidelity. Journal of evaluation in clinical practice, 22(3), 369–377. <https://doi.org/10.1111/jep.12496>

| Note to researcher: your project may need to modify the wording of this measure to be appropriate for your study. Please reach out to the methods core for consultation. | | | | | | |
|---|---|--------------|---------------|------------------|--------------|---------------|
| | | Never [1] | Rarely [2] | Sometimes [3] | Often [4] | Always [5] |
| 1 | Users will request the [intervention/strategy]. | | | | | |
| 2 | Users will be proactive in asking questions about the [intervention/strategy]. | | | | | |
| 3 | Users will readily provide information relevant to the [intervention/strategy]. | | | | | |
| 4 | Users will actively participate during meetings about the [intervention/strategy]. | | | | | |
| 5 | Users will collaborate in decisions about the [intervention/strategy]. | | | | | |
| 6 | Users will do the expected activities of the [intervention/strategy]. | | | | | |
| 7 | When the plans for the [intervention/strategy] are modified, users will adhere to them. | | | | | |
| 8 | When education is provided, users will adhere to the [intervention/strategy]. | | | | | |



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| | | | | | | |
|----|--|--|--|--|--|--|
| 9 | When the [intervention/strategy] is active, users will come to scheduled meetings. | | | | | |
| 10 | Through other people (e.g., colleagues, friends), users will speak positively about the [intervention/strategy]. | | | | | |

Implementation Appropriateness Measure

1 = Completely disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Completely agree

- 1) [Intervention or implementation strategy] seems fitting.
- 2) [Intervention or implementation strategy] seems suitable.
- 3) [Intervention or implementation strategy] seems applicable.
- 4) [Intervention or implementation strategy] seems like a good match.

Revised Goodness of Fit Interview

Scale:

1= Not at all

2= A little

3= Somewhat

4= Very strong

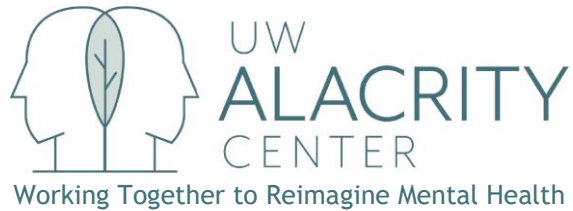
5= Overwhelming

| | | | | | | |
|---|------------|----------|----------|-------------|----------------|------------|
| How enthusiastic are you about the [INTERVENTION/IS] | Not at all | A little | Somewhat | A lot | Overwhelmingly | Don't know |
| How much would you actively participate in the [INTERVENTION/IS] | Not at all | A little | Somewhat | Very | Completely | Don't know |
| After hearing about the [INTERVENTION/IS], how successful do you think this strategy will be at: | | | | | | |
| Increasing [PARTICIPANT'S] enthusiasm of the [INTERVENTION/IS] | Not at all | A little | Somewhat | Very | Completely | Don't know |
| Increasing [PARTICIPANT'S] knowledge of how to use the [INTERVENTION/IS] | Not at all | A little | Somewhat | Very | Completely | Don't know |
| Increasing [PARTICIPANT'S] skill at using [INTERVENTION/IS] | Not at all | A little | Somewhat | Very | Completely | Don't know |
| For people who take part in the [IMPLEMENTATION STRATEGY], what is the... | | | | | | |
| Likelihood of [PARTICIPANTS] trying the [intervention] at least once | Not at all | A little | Somewhat | Very strong | Overwhelming | Don't know |

| | | | | | | |
|---|------------|----------|----------|-------------|--------------|------------|
| Likelihood of [PARTICIPANTS] integrating the [intervention] into regular practice | Not at all | A little | Somewhat | Very strong | Overwhelming | Don't know |
| Likelihood of [PARTICIPANT'S] using the [intervention] for more than a year | Not at all | A little | Somewhat | Very strong | Overwhelming | Don't know |
| Likelihood of increasing equity | Not at all | A little | Somewhat | Very strong | Overwhelming | Don't know |

[Note that the questions below are just a template for the types of questions you may want to ask to inform your design.]

1. The questions above asked your opinions on how people would respond to [CI/IS], whether [CI/IS] is appropriate and a good fit, and how easy it would be to use [CI/IS]. Why did you provide the scores you provided?
2. What aspects of [CI/IS] are a good fit for your setting?
3. What aspects of [CI/IS] are a poor fit for your setting?
4. What could feasibly be changed to improve the fit of [CI/IS] for your setting? (if needed, probe about organizational, personnel, and student/client factors)
5. If you had a magic wand, what would help you learn the [CI/IS]?
6. What would help motivate you to integrate the [CI/IS] into your [WORK/TREATMENT DELIVERY/ETC] philosophy and practice?



Framework for Reporting Adaptations and Modifications to Evidence-based Implementation Strategies (FRAME/IS)

Project teams will receive a survey with adaptations described in FRAME/IS and asked which changes they made, as well as whether these adaptations were made proactively (e.g., as part of the design process) or reactively (e.g., after deployment or during the test, including top-down changes as well as changes made bottom-up, e.g., by clinicians).

Quality of Life in Neurological Disorders (Neuro-QOL) Satisfaction with Social Roles for adults

Please respond to each question or statement by marking one box per row.

In the past 7 days... Not at all [5] A little bit [4] Somewhat [3] Quite a bit [2] Very much [1]

1. I am bothered by my limitations in regular family activities
2. I am disappointed in my ability to socialize with my family
3. I am bothered by limitations in my regular activities with friends
4. I am disappointed in my ability to meet the needs of my friends

In the past 7 days... Not at all [1] A little bit [2] Somewhat [3] Quite a bit [4] Very much [5]

5. I am satisfied with my ability to do things for fun outside my home
6. I am satisfied with the amount of time I spend doing leisure activities
7. I am satisfied with how much of my work I can do (include work at home)
8. I am satisfied with my ability to do household chores or tasks

Neuro-QOL Social Relations Scale for youth

Please respond to each question or statement by marking one box per row.

In the past 7 days... Never [1] Almost never [2] Sometimes [3] Often [4] Almost always [5]

1. I felt close to my friends.
2. I was able to count on my friends.
3. I felt comfortable with others my age.
4. I was happy with the friends I had.
5. I felt comfortable talking with my friends.
6. I spent time with my friends.
7. My friends and I helped each other out.
8. I had fun with my friends.

Top Problems Assessment

Administered to client and/or caregiver

For client: What are the most important problems you think you need help with in treatment (*or “counseling” or whatever name is appropriate for the service*)? What are the behaviors or emotions you’re having difficulty with? You can name up to three top problems.
 For caregiver: What are the most important problems you think your child needs help with in treatment (*or “counseling” or whatever name is appropriate for the service*)? What are the behaviors or emotions they’re having difficulty with? You can name up to three top problems.

Top Problem #1: _____
 Top Problem #2: _____
 Top Problem #3: _____

Now, please rate each of these problems on a scale from 0 to 4, where 0 means not a problem at all and 4 means a very big problem.

| | | | | | |
|-----------------|---|---|---|---|---|
| [TOP PROBLEM 1] | 0 | 1 | 2 | 3 | 4 |
| [TOP PROBLEM 2] | 0 | 1 | 2 | 3 | 4 |
| [TOP PROBLEM 3] | 0 | 1 | 2 | 3 | 4 |

Adherence to DDBT Process and Cost Measure

DDBT Fidelity and Cost Measure

The purpose of this survey is to gather details related to how your team has used the DDBT framework to guide redesign of clinical interventions and/or implementation strategies. There are core goals that can be completed in each DDBT phase. We will ask you to report which goals your team completed, and then to detail design activities that contributed to those goals.

You are reporting on the Discover phase. We estimate that it will take teams about one to two hours to complete the survey, depending on how many activities you conducted. We suggest you complete this form as a team or, at minimum, with all Principal Investigators. We have provided a PDF of a complete example so you can see the depth of responses we are looking for and preview the questions before filling out this REDCap measure. REDCap will guide you through the steps, and you can pause and resume at any time using your unique survey link. You can also return to earlier survey pages as needed for clarification or modification.

For naming the design activities that you used, some resources that may be helpful include:

- Dopp, A.R., Parisi, K.E., Munson, S.A. and Lyon, A.R., 2019. [A glossary of user-centered design strategies for implementation experts](#). *Translational behavioral medicine*, 9(6), pp.1057-1064.
- Hanington, B. and Martin, B., 2019. *Universal methods of design expanded and revised: 125 Ways to research complex problems, develop innovative ideas, and design effective solutions*. Rockport publishers. [Preview here through Google Books](#).
- Kumar, V., 2012. *101 design methods: A structured approach for driving innovation in your organization*. John Wiley & Sons. [Preview here through Google Books](#).
- Creative Reaction Lab., 2018. *Equity-centered community design field guide*. [Available here](#).

When ready, click here to begin. **Brief project name/description:**

People who completed this form:

| DISCOVER PHASE |
|--|
| <p>Goals Completed</p> <p>To begin, please check off all goals completed for your project during the Discover phase. The purpose of the Discover phase is to gather information about (a) the context of implementation and (b) the clinical intervention and/or implementation strategy, to identify needs and priorities for redesign in later phases.</p> <p>By “direct users” (also known as “primary users”), we are referring to people who <i>directly interact</i> with the intervention or strategy. By “indirect users” (also known as “secondary users”), we are referring to people <i>affected</i> by the intervention or strategy. For example, if a clinician uses a system in their interactions with a patient, the clinician would be the direct user and the patient would be the indirect user.</p> |
| <p><input type="checkbox"/> Understand needs and perspectives of direct users</p> <p><input type="checkbox"/> Understand needs and perspectives of indirect users</p> <p><input type="checkbox"/> Understand the context of the clinical intervention and/or implementation strategy</p> <p><input type="checkbox"/> Understand the appropriateness of the original clinical intervention and/or implementation strategy</p> |

- Understand the usability of the original clinical intervention and/or implementation strategy
- Understand user engagement with the original clinical intervention and/or implementation strategy
- Understand the original clinical intervention and/or implementation strategy from an equity lens (including how/why/for whom it works and potential sources of disparities)
- Other goals [describe]:

When finished, click [here](#) to continue.

Design Activities that Contributed to Goals

Think about the full range of design activities that your team used to complete the Discover Phase. For each discrete design activity, please specify all details requested below. These details will help us understand the activities involved in completing the Discover phase.

By “design activity,” we mean activities focused on understanding and maximizing the usability of the clinical intervention and/or implementation strategy of interest. (Hover your cursor [HERE](#) for resources that may be helpful in identifying activities.)

By “discrete,” we mean you can clearly describe how many times the activity occurred, who was involved, and what resources and costs were involved. Discrete design activities may have multiple steps or components involved, if you can still provide the requested details for the entire activity; you can present activities in whatever way makes the most sense for your project.

Once you have specified one activity, you can choose to specify another activity; after all design activities are specified, you can continue to the next page.

| |
|--|
| Name of activity |
| |
| Please briefly describe how the activity was completed and its purpose or rationale |
| |
| Which goal(s) in the Discover phase did this activity contribute to? Check all that apply. |
| <input type="checkbox"/> Understand needs and perspectives of direct users <input type="checkbox"/> Understand needs and perspectives of indirect users <input type="checkbox"/> Understand the context of the clinical intervention and/or implementation strategy <input type="checkbox"/> Understand the appropriateness of the original clinical intervention and/or implementation strategy <input type="checkbox"/> Understand the usability of the original clinical intervention and/or implementation strategy <input type="checkbox"/> Understand engagement with the original clinical intervention and/or implementation strategy <input type="checkbox"/> Understand the original clinical intervention and/or implementation strategy from an equity lens (including how/why/for whom it works and potential sources of disparities) <input type="checkbox"/> Other goals |
| Did you make any major modifications to the design activity in response to challenges or barriers that emerged when you tried to conduct the design activity as originally planned? |
| <input type="checkbox"/> Yes |

No

If yes, what were the modifications and why did they occur?

How many times total did this activity happen during the Discover phase?

(In the total, count every instance the activity was done, including repeat activities with the same participants/users [such as a series of interviews or sessions])

In a typical single instance of this activity for the Discover phase, who organized and executed the activity?

(If this varied, please list the average, median, or otherwise most typical value)

| <i>Role or personnel type involved in activity</i> <small><i>(provide details for all roles/personnel, adding extra rows as needed)</i></small> | <i># of individuals involved per instance</i> | <i>Estimated # hours spent per person, per instance (include prep and follow-up)</i> |
|---|--|---|
| | | |
| | | |

In addition to specific instances of the activity, who spent time during the Discover phase creating and completing the activity? This refers to time spent preparing the activity before it was used, analyzing data collected, etc.

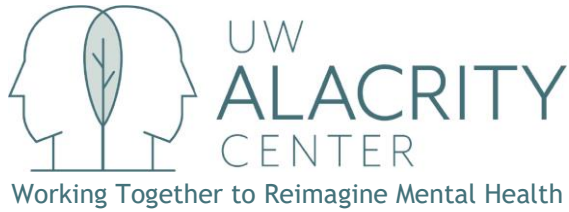
| <i>Role or personnel type involved in activity</i> <small><i>(provide details for all roles/personnel, adding extra rows as needed)</i></small> | <i># of individuals</i> | <i>Estimated total hours spent per person for the activity</i> |
|---|--------------------------------|---|
| | | |

| | | |
|---|--|--|
| <p>In a typical single instance of this activity for the Discover phase, who spent time and effort completing the activity as a participant? (If this varied, please list the average, median, or otherwise most typical value)</p> | | |
| <p>Participant or user type <i>(provide details for all participant and user types, adding extra rows as needed)</i></p> | <p># of participants/users who completed activity</p> | <p>Estimated total \$ payment received, across all instances of the activity per participant OR Estimated total hours spent per participant/user, across all instances of the activity (If per-person total varied, please list the average, median, or otherwise most typical value)</p> |
| | | |
| <p>What other resources or costs were involved in completing the activity during the Discover phase? (This could include materials, software, travel, or any other resources or expenses needed to complete the design activity. Only include direct, measurable project expenses)</p> | | |
| <p>Resource or expense <i>(please provide a description)</i></p> | <p>Unit of resource/expense</p> | <p>Estimated \$ amount for unit of resource/expense OR information about cost, if \$ amount not known</p> |
| | | |

| | | |
|---|--|---|
| | | (If per-instance cost varied, please list the average, median, or otherwise most typical value) |
| | <input type="checkbox"/> Per-instance: Resource incurred once for each instance of the activity <input type="checkbox"/> Overall: resource incurred once for the entire activity (not specific to # of instances) | |
| | <input type="checkbox"/> Per-instance <input type="checkbox"/> Overall | |
| <p>Please share any other information you think is helpful for understanding this design activity and/or interpreting the information you reported in this form. This can include details of how certain or uncertain you were about the time and cost estimates provided.</p> | | |
| | | |

Were there any other design activities you completed during this phase?

- Yes
- No



Thank you for completing the DDBT Fidelity and Cost Measure!

NOTE: This is the final page to complete before submitting your responses. The survey will remain active / in progress until you click “Click Here to Submit the Survey” below.

We appreciate your taking the time to provide this information. It will be very useful for understanding how the DDBT framework is being used in your project.

As a reminder, a member of the Methods Core team will arrange a follow-up meeting with you to review and clarify your responses. These are typically scheduled 1-2 weeks in advance. If you wish, you can provide details below to assist in scheduling that meeting; however, you can feel free to leave these questions blank and we will follow up with you directly.

| | |
|---|----------------------|
| Who from your team should participate in the follow-up meeting? Please limit to 3 people max, and please provide both names and email addresses. | |
| Name | Email Address |
| | |
| | |
| Are there any times that work well for these team members to meet in the next 1-2 weeks? If yes, please note dates and times, being as specific as you can. | |
| | |
| Is there anyone else we should work with for scheduling the meeting? | |

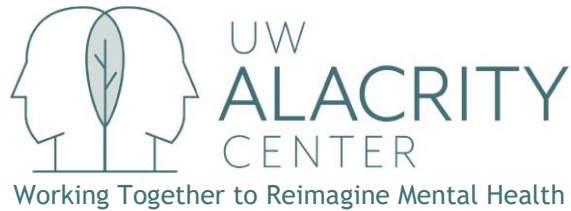


If yes, please provide name(s) and email address(es).

| |
|--|
| |
|--|

If you prefer to follow up directly about this survey for any reason, please contact Brittany Mosser (bmosser@uw.edu) and Alex Dopp (adopp@rand.org), and they will be happy to assist.

CLICK HERE TO SUBMIT THE SURVEY



Collaboration and Participation Measures

Thank you for your participation in the UW ALACRITY Center's end-of-phase survey.

This survey features two measures of the levels of collaboration participation among your team. Your participation is confidential. Please recognize that your team will receive a simple report of the number of participants and average scores for each item. We will not provide any quotes to your team from your open-ended item responses, but we will summarize comments from all team members. We encourage your team to have a conversation about these results in order to improve your project. Please keep this in mind when responding and use the "choose not to respond" option or leave open ended items blank if you are concerned about this sharing of summary information.

Which project are you reporting on?

- RUBIES-IS
- BRISC
- TF-CBT
- PST-AID
- Other (describe):

Which DDBT phase are you reporting on? This will be the phase your project team recently completed.

- Discover
- Design/Build
- Test

Please evaluate the collaboration within your project by indicating if the collaboration is (1) inadequate, (2) poor, (3) satisfactory, (4) good, or (5) excellent (or -999 choose not to respond).

1. Acceptance of new ideas

2. Communication among collaborators
3. Ability to capitalize on the strengths of different researchers
4. Organization or structure of collaborative teams
5. Resolution of conflicts among collaborators
6. Ability to accommodate different working styles of collaborators
7. Involvement of collaborators from outside the center
8. Involvement of collaborators from diverse disciplines
9. Productivity of collaboration meetings
10. Productivity in developing new products (e.g., papers, proposals, courses)
11. Overall productivity of collaboration

Please rate your views about collaboration with respect to your project by indicating if you (1) strongly disagree, (2) somewhat agree, (3) not sure, (4) somewhat agree, or (5) strongly agree with the statement, or (-999) choose not to respond.

12. In general, collaboration has improved your productivity.
13. In general, collaboration has improved the quality of your work.
14. Collaboration has posed a significant time burden in your work.
15. You are comfortable showing limits or gaps in your knowledge to those with whom you collaborate.
16. In general, you feel that you can trust the colleagues with whom you collaborate.
17. In general, you find that your collaborators are open to criticism.
18. In general, you respect your collaborators.

In the question below, “academic researchers” refers to the academic study team while “community partners” refers to service providers and clients who were study participants and/or design team members (including therapists, supervisors, teachers, patients, clients, students, caregivers/parents).

What is your role on the project?

- Academic researcher
- Community partner

Please rate the extent to which community partners and academic researchers were involved in design team decision making in this phase of the project. *[INCLUDE -999 "Choose not to answer" in all options below]*. Remember that your individual responses will be kept confidential. Reports back to your team will only include mean scores for the overall team.

| | 0 | 1 | 2 | 3 | 4 |
|---|---|--|--|---|--|
| How were decisions made about identification of design and usability issues? | Community partners were not involved in decisions about design and usability issues | Academic researchers presented pre-identified design and usability issues, community partner input sought only once or twice | Community partners offered advice and ongoing advisory input on identifying design and usability issues, but decision-making rests with academic researchers | Equal decision making on identification of design and usability issues by academic researchers and community partners | Community partners controlled decision making about design and usability issues, academic researchers advise |
| Please provide a specific example that influenced your rating | | | | | |
| How were decisions made about | Community partners were not involved in decisions | Academic researchers determined design goals | Community partners offered advice and ongoing | Equal decision making on determining design goals | Community partners controlled decision |

| | | | | | |
|--|--|--|--|---|--|
| design goals and activities? | about design goals and activities | and activities, community input on design activities sought only once to “sell” program | advisory input when determining design goals and activities, but decision-making rests with academic researchers | and activities by academic researchers and community partners | making on determining design goals and activities, academic researchers advise |
| Please provide a specific example that influenced your rating | | | | | |
| Who developed the design methods? | Design methods (cognitive walkthroughs, user design sessions) developed by researchers, conducted using academic researchers | Design methods (cognitive walkthroughs, user design sessions) developed by researchers and conducted on community partners | Design methods developed by academic researchers, conducted by community partners | Partnership in design and conduct using multi-methods of data collection in natural context | Advice from academic researchers sought on design, 100% conducted by community partners using multi-methods in natural context |
| Please provide a specific example that influenced your rating | | | | | |

| | | | | | |
|--|---|---|---|---|---|
| <p>What indicators were used to determine the success of the design efforts during this phase?</p> | <p>No indicators were used, success of the design efforts was not evaluated</p> | <p>Improved health or educational outcomes</p> | <p>Improved health or educational outcomes; community relevant redesign</p> | <p>Improved health or educational outcomes; community relevant redesign; enhanced capabilities for participants</p> | <p>Improved health or educational outcomes; community-relevant redesign; enhanced capabilities for participants; fully empowered participants</p> |
| <p>Please provide a specific example that influenced your rating</p> | | | | | |
| <p>How sustainable do you believe these program design efforts will be after ALACRITY funding ends?</p> | <p>Design efforts were incomplete</p> | <p>The program will die at completion of ALACRITY funding</p> | <p>A few residual spin-offs from the program will continue after ALACRITY funding</p> | <p>The program will continue when ALACRITY research funding ceases</p> | <p>Initiation of new programs, community partners apply for further research \$\$</p> |
| <p>Please provide a specific example that influenced your rating</p> | | | | | |



Investigator satisfaction with the support received from the center

Adapted from a survey used by the [IMPACT Center](#)

| | Strongly disagree | Disagree | Neutral | Agree | Strongly Agree |
|---|-------------------|----------|---------|-------|----------------|
| I am satisfied with the support I received through the UW ALACRITY center | | | | | |
| I would recommend the experience I had via UW ALACRITY to a colleague | | | | | |
| ALACRITY faculty provided me with helpful guidance and feedback | | | | | |
| ALACRITY faculty were available to meet with me in a timely manner | | | | | |
| ALACRITY faculty responded to my emails and communications in a timely manner | | | | | |

Please provide any specific feedback:

Participant research burden, incentive appropriateness, and research satisfaction

| | | | | | |
|---|-----------------------|---------------------|---------------------|-------------------|------------------|
| 1. How satisfied were you with your experience in this study overall? | Very unsatisfied | Satisfied | Neutral | Unsatisfied | Very unsatisfied |
| 2. How burdensome did you find completing the surveys? | Not at all burdensome | A little burdensome | Somewhat burdensome | Burdensome | Very burdensome |
| 3. Do you have any suggestions for reducing the burden of completing surveys? Are there any types of questions that you feel should be removed? | OPEN ENDED | | | | |
| 4. It is typical in the US to pay research participants for completing surveys. Did you feel the amount you were compensated for participation to be... | Too low | Low but fair | The right amount | Too much but fair | Too much |
| 5. Before the study began, did you feel prepared for what to expect during the study based on the informed consent form or other materials? | No | Yes | | | |
| 6. What could we do to improve future participants' satisfaction with this study? | OPEN ENDED | | | | |