A Stakeholder Engagement Method Navigator Webtool for Clinical and Translational Science

Jenna E. Reno, PhD, Kate Ytell, MPH, Bethany M. Kwan, PhD, Marilyn Coors, PhD, Matthew DeCamp, MD, Brad Morse, PhD, Julie Ressalam, MPH, Meleah Himber, M.Ed, Julie Maertens, PhD, Robyn Wearner, MA, Kaylee Rivera, MPH, Matthew K. Wynia, MD

Data Science to Patient Value (D2V)
UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS

School of Medicine
UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS

WHO WE ARE

The Data Science to Patient Value Program's Dissemination, Implementation, Communication, & Engagement Core (DICE) at the University of Colorado Anschutz Medical Campus.

BACKGROUND

- Stakeholder engagement is increasingly expected by funders and valued by researchers in clinical and translational science.

- Many researchers lack access to expert consultation or training in selecting appropriate stakeholder engagement methods.

- We undertook an iterative process of design, development, and testing of an interactive web-based tool to guide researchers in learning about, selecting, and using a variety of methods for stakeholder-engaged research for their grant writing, protocol planning, implementation, and evidence dissemination.

SETTING/POPULATION

We engaged those interested in using stakeholder engagement methods for research:
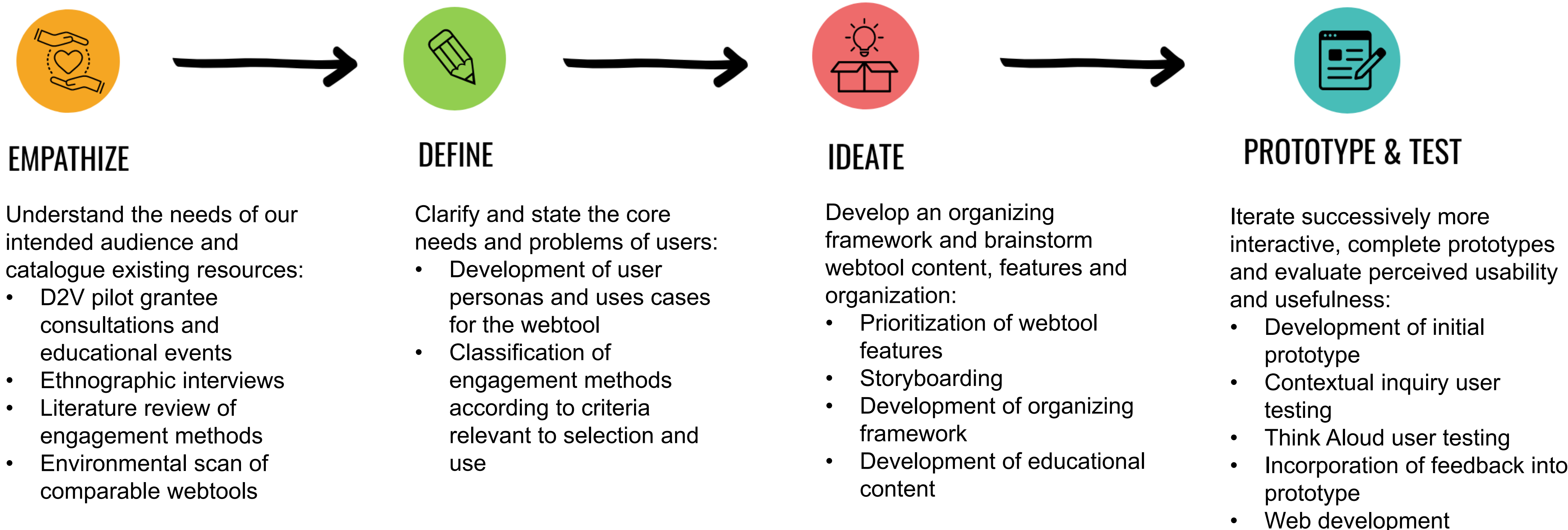
- Investigators from the Anschutz Medical campus

- Investigators from the Colorado Clinical and Translational Sciences Institute (CCTSI)

METHODS

- The design and development of the engagement methods webtool was guided by user-centered design processes: Empathize, Define, Ideate, Prototype, and Test.

- We conducted an environmental scan and literature review, along with investigator interviews, surveys, and engagement-expert facilitated group discussion. We formally reviewed and catalogued 29 distinct engagement methods.

- We included a contextual inquiry approach (low fidelity prototype user testing) and a 'Think Aloud' approach (high fidelity webtool prototype user testing) to produce webtool V1.0.

FIGURES

Design Thinking Process

EMPATHIZE

Understand the needs of our intended audience and catalogue existing resources:
- D2V pilot grantee consultations and educational events
- Ethnographic interviews
- Literature review of engagement methods
- Environmental scan of comparable webtools

DEFINE

Clarify and state the core needs and problems of users:
- Development of user personas and uses cases for the webtool
- Classification of engagement methods according to criteria relevant to selection and use

IDEATE

Develop an organizing framework and brainstorm webtool content, features and organization:
- Prioritization of webtool features
- Storyboarding
- Development of organizing framework
- Development of educational content

PROTOTYPE & TEST

Iterate successively more interactive, complete prototypes and evaluate perceived usability and usefulness:
- Development of initial prototype
- Contextual inquiry user testing
- Think Aloud user testing
- Incorporation of feedback into prototype
- Web development

Selected screenshots from the Stakeholder Engagement Navigator

Top left: Home page; Top right: Stakeholder engagement education hub;
Bottom left: Stakeholder engagement selection tool results page; Bottom right: Strategy fact sheet (first half shown)

RESULTS

The Stakeholder Engagement Navigator webtool both educates and guides investigators in selecting an engagement method based on key criteria. Below are key insights from the design thinking process.

- **Empathize stage**: Researchers need an efficient means to learn how to conduct stakeholder engagement and to include engagement methods in grant proposals. The V1.0 webtool includes two main sections, an "Education Hub" and a "Find Engagement Strategies" section.

- **Define stage**: A feature prioritization survey found that 62% of users chose "purpose of engagement" as the highest priority criteria. Based on findings from this survey, the V1.0 webtool filters methods first by purpose of engagement then by budget, time per stakeholder interaction, and total interactions.

- **Ideate stage:** For each method and tool, we developed "strategy fact sheets" that describe information on budget, time frame, workload, appropriate applications, materials and personnel needed, and a "how-to" section.

- From team sensemaking following the **Empathize, Define, and Ideate stage** activities, we determined that engagement strategies should be distinguished as either approaches, methods, or tools.

- **Prototype and Test:** Based on the environmental scan of comparable tools during the Empathize stage, we developed a modification of an interactive "bubble" feature that displayed results. This feature was refined during the Prototype and Test stages.

The webtool is available at **DICEMethods.org**.

CONCLUSIONS

The Stakeholder Engagement Navigator webtool is a user-centered, interactive webtool suitable for use by researchers seeking guidance on appropriate stakeholder engagement methods for clinical and translational research projects.

STAKEHOLDER ENGAGEMENT NAVIGATOR: DICEmethods.org
Dissemination, **I**mplementation, **C**ommunication, and **E**ngagement
A guide for health researchers

DICEmethods.org