The dilemma of task prompt wording in HF validation:

HISTORY, CHALLENGES, AND STRATEGIES FOR SUCCESS

INTRODUCTION

Designing effective task prompts for usability testing is a critical yet challenging aspect of medical device evaluation.

Regulatory guidance and industry best practices emphasize the importance of prompts that reflect real-world scenarios without leading participants toward specific actions. However, the balance between avoiding leading language and maintaining clarity can be difficult to achieve.

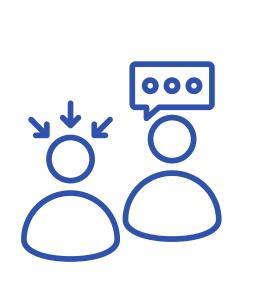
This presentation will explore the history, challenges, and best practices for task prompt phrasing, highlighting the implications for medical device safety and usability.



HISTORY

CHALLENGES

STRATEGIES FOR SUCCESS



The FDA has identified overly leading task prompts as a recurring issue with manufactures.

Manufacturers either:

- Go straight into validation, don't discuss this with FDA ahead of time, and get comments in the submission period.
 or
- 2. They follow FDA strict guidance and end up with overly vague task prompts.

Overly leading task wording results in an unrealistic task for participants in which they are directed to a specific feature or function to address the simulated scenario.

Using exact FDA language may be overly vague.

Overly vague task wording results in participants being tested on **medical knowledge**,

rather than on

specific features or functions of the device.

Determine the sweet spot to ensure adequate real-life context & applicability to the device

Clearly articulate the scenario that the participant is walking into with enough granularity or detail to ensure that a specific feature or function is required to address it and/or is being evaluated. Example: "I'd like you to imagine that..."

- Negotiate & collaborate with regulatory authorities
 - 2a: Propose language with rationale for specific task prompt phrasing.
 - 2b: Negotiate final task prompt phrasing to address regulatory concerns.
 - **2c: Set expectations** for results regarding artifacts and/or other suboptimal outcomes.
- 3 Detailed HFE report
 - 3a: Include a detailed discussion of the development of task prompt wording.
 - 3b: Analyze and discuss the extent to which the study results match the expectations from 2c.

Note: These strategies do not account for internal FDA initiatives in respect to consistency among similar products. (First to file sets precedent. Then, the FDA mandates it for all others in that space.)

Too leading **Too Vague** Balanced "Imagine your friend is having a severe allergic reaction and needs your help to take their medicine. "You encounter someone having an allergic Case Study 1: "Demonstrate how to administer the Please proceed as you would in real life to help them." reaction. Show what you would do." medication using the autoinjector." Rescue Autoinjector (Provides context without being overly directive, (Assumes the correct action.) (Scenario not tied to device.) allows natural decision-making.) "Imagine you need to suspend insulin "Imagine you will have increased physical "Imagine you are going to a 2-hour exercise class." delivery for 2 hours. Please show how activity for the next two hours. Please show Please show on this pump how you would account Case Study 2: Insulin Pump you would do that." for your increased activity level." what you would do in this situation." (Not tied to the device, could lead to (Lacks real-world context, (Provides relevant context while focusing on unrelated responses.) overly directive.) device interaction.) "Demonstrate how to review and "A patient has been admitted from another facility." Case Study 3: Upon reviewing the chart, you notice potential update a patient's medication list "A patient has been admitted. Show Electronic Health discrepancies in their medications. Show how you in the EHR system." what you would do in the EHR." Record (EHR) would proceed in the EHR system." (Too task-specific, assumes (Lacks real-world context, overly broad.) System (Scenario-driven, supports usability focus.) correct action.)