
Usability Testing

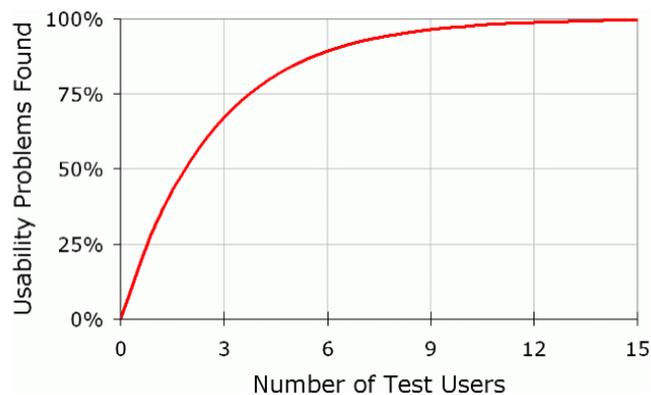
A look at how users interact with the previous design.

Background

A usability test is performed in order to evaluate how a product is used. It is excellent at finding design problems that make a product difficult or impossible for a user to use for the intended functions. For this project a usability test was performed on the previous design in order to find out where it can be improved. Since the majority of the functions of the bike are already being redesigned, the usability test will provide feedback on how the new designs should interact with the users.

Method

The testing method used was a Hallway style test. Four users were selected (asked) at random to perform the test. According to the Nielsen/Landauer Graph, five testers represent the most efficient use of testers to errors found. Based on this, four was determined to be acceptable.



The tester were then given the current Instruction Manual and asked to perform a task.

The task was:

1. Read the instruction manual.
2. Using the manual, set up the bike for a patient to ride.
 - a. Including tilt resistance
 - b. Pedal resistance
 - c. Safety ropes

The display was left off of the usability test because its usability was limited due to malfunction.

Results

The results of this test are a qualitative assessment of the testers' ease of use in each area of the bike based on observation of the testers as well as a questionnaire the testers were asked to fill out after performing their task. The areas that were problems for all or most of the testers were focused on in the review.

In no particular order, the major complaints were:

1. The instruction manual was confusing and/or non-informative.
2. The pictures did not help explain the process.
3. The resistance bands were extremely difficult to alter due to the manual stretching of the bands in order to fit in place.
4. The safety ropes were very hard to take on and off, with two testers locking them in the incorrect places.