

**[Zonnestelsel]**

## **Usability Test Plan / results**

**Version 5**

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## Test resultaten

### Persoon 1

Stichting ik wil knop moet iets doen bvb overzicht van al de activiteiten.

Is de terugknop om terug te gaan?

Voelt intuïtief en is duidelijk.

Het doel is behaald.

De terug knop overal terug noemen ipv vorige menu.

### Persoon 2

De kleine bolletjes worden geklikt.

Maak tekst groter en duidelijker.

Maak de agenda een andere vorm zodat deze meer opvalt.

Uit de test zijn de volgende **conclusies** getrokken:

Het doel van de applicatie is duidelijk beiden testpersonen weten dat je de applicatie gebruikt om in te schrijven voor activiteiten.

De terugknop heeft nu de naam van het vorige menu. Het is makkelijker als de knop "Terug" genoemd wordt.

Beiden testpersonen het doel behalen door zich in te schrijven.

Beiden testpersonen kunnen het overzicht van de activiteiten vinden maar er waren wel opmerkingen over. Er werd verwacht dat als je op de stichting ik wil knop klikt dat je dan het overzicht krijgt of dat je dan info krijgt over de stichting. De agenda knop was duidelijk maar viel niet op. Verander de vorm hiervan zodat het duidelijk is dat dit iets anders doet.

De tekst van het informatie kopje moet groter. Dit maakt het makkelijker voor mensen die moeite hebben met de nederlandse taal om het toch te begrijpen. De drempel om de tekst te lezen wordt dan lager.

De kleine bolletjes kunnen beter weg gehaald worden. Deze hebben geen functie en het is onduidelijk dat je hier niet op kan klikken. Ook is het design mooier zonder de kleine bolletjes.

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## Document Overview

This document describes a test plan for conducting a usability test during the development of **zonnestelsel**. The goals of usability testing include establishing a baseline of user performance, establishing and validating user performance measures, and identifying potential design concerns to be addressed in order to improve the efficiency, productivity, end-user satisfaction **and User understanding**.

The usability test objectives are:

- To determine design inconsistencies and usability problem areas within the user interface and content areas. Potential sources of error may include:
  - Navigation errors – failure to locate functions, excessive keystrokes to complete a function, failure to follow recommended screen flow.
  - Presentation errors – failure to locate and properly act upon desired information in screens, selection errors due to labeling ambiguities.
  - Control usage problems – improper toolbar or entry field usage.
- Exercise the application or web site under controlled test conditions with representative users. Data will be used to assess whether usability goals regarding an effective, efficient, and well-received user interface have been achieved.
- Establish baseline user performance and user-satisfaction levels of the user interface for future usability evaluations.

## Executive Summary

The test will evaluate if the participants understand what the goal is of the application and if they can navigate to the end goal, which is signing up for an activity.

## Methodology

The version of the prototype will be tested with a minimal of 1 participant. The setting of the test is in the living room of Stichting ik wil. During this session the participant will use the prototype on a laptop as an in-browser Adobe XD file navigating it with a mouse. The test will be recorded with OBS. The goal of the test is to sign up for an activity. If this goal is reached the test is successful. [Describe briefly the number of participants, the setting of the usability test sessions, the tools used to facilitate the participant's interaction with the application (ex., browser), and the measures to be collected, such as demographic information, satisfaction assessment, and suggestions for improvement.]

## Participants

People who are active members of Stichting ik wil.

The participants' responsibilities will be to attempt to complete a set of representative task scenarios presented to them in as efficient and timely a manner as possible, and to provide feedback regarding the usability and acceptability of the user interface. The participants will be directed to provide

honest opinions regarding the usability of the application, and to participate in post-session subjective questionnaires and debriefing.

The participants will be selected in the living room of stichting ik wil. People who are there will suffice.

### **Training**

The participants will not receive any training and or explanation.

### **Procedure**

#### **[Usability Lab Testing]**

Participants will take part in the usability test at [Stichting ik wil]. A Laptop with the prototype will be used in a typical office environment. The participant's interaction with the Web site/Web application will be monitored by the facilitator seated in the same office. The test sessions will be videotaped.

The facilitator will brief the participants on the Web site/Web application and instruct the participant that they are evaluating the application, rather than the facilitator evaluating the participant. The participation can cease at any time.

Participants will complete a pretest demographic and background information questionnaire. The facilitator will explain that the amount of time taken to complete the test task will be measured and that exploratory behavior outside the task flow should not occur until after task completion. At the start of each task, the participant will read aloud the task description from the printed copy and begin the task. Time-on-task measurement begins when the participant starts the task.

The facilitator will instruct the participant to 'think aloud' so that a verbal record exists of their interaction with the Web site/Web application. The facilitator will observe and enter user behavior, user comments, and system actions in the data logging application. The system actions will be logged in the following way. The goal of the test is to sign in to an activity, is this goal achieved then the test is successful. Further will the amount of understanding by the participant be classed in the following three classes. No understanding, medium understanding and full understanding of the prototype. This including an explanation for the chosen class.

After each task, the participant will complete the post-task questionnaire and elaborate on the task session with the facilitator. After all task scenarios are attempted, the participant will complete the post-test satisfaction questionnaire.

The facilitator will brief the participant and instruct that he or she is evaluating the Web site/Web application, rather than the facilitator evaluating the participant. Participants will complete a pretest demographic and background information questionnaire. Sessions will begin when all participant questions are answered by the facilitator. The facilitator will inform the participant that time-on-task will be measured and that exploratory behavior outside the task flow should not occur until after task completion.

The facilitator will instruct the participant to read aloud the task description from the printed copy and begin the task. Time-on-task measure will begin. The facilitator will encourage the participants to 'think aloud' and that a verbal record will exist of the task-system interaction. The facilitator will observe and enter user behavior and comments, and system interaction in a data logging application.

After each task, the participant will complete the post-task questionnaire and elaborate on the task session. After all tasks have been attempted, the participant will complete a post-test satisfaction questionnaire.

## **Roles**

Facilitator:

Participant

### **Trainer**

- No training required

### **Facilitator**

- Provides overview of study to participants
- Defines usability and purpose of usability testing to participants
- Assists in conduct of participant and observer debriefing sessions
- Responds to participant's requests for assistance

### **Data Logger**

- Will consist out of notes taken by the facilitator.

### **Test Observers**

- There will be no test observers.

### **Test Participants**

- Provides overview of study to participants
- Defines usability and purpose of usability testing to participants
- Assists in conduct of participant and observer debriefing sessions
- Responds to participant's requests for assistance

### **Ethics**

All persons involved with the usability test are required to adhere to the following ethical guidelines:

- The performance of any test participant must not be individually attributable. Individual participant's name should not be used in reference outside the testing session.
- A description of the participant's performance should not be reported to his or her manager.

## Usability Tasks

The usability tasks were derived with assistance of a subject-matter expert. The goals of this usability test is to test if this concept prototype is sufficient for further development. If the test is successful (a participant has signed up for an activity) then the prototype will further developed.

The test setup is as followed: The adobe XD prototype is running on a laptop. The user can then use the mouse to navigate the prototype. The application is only clickable, no other ways of input are implemented.

### Scenario's

1. Deze applicatie staat op een grote touchscreen monitor hier in de huiskamer. Wat denk je wat jij hier mee kan doen?
2. Het doel van deze applicatie is om een overzicht te geven van de verschillende activiteiten en om de mogelijkheid te geven om je in te schrijven voor verschillende activiteiten.  
Jij wilt je nu inschrijven voor een activiteit waar jij nu aan deelneemt binnen de stichting.
3. Je wilt nu een overzicht zien van al de activiteiten.

## Usability Metrics

Usability metrics refers to user performance measured against specific performance goals necessary to satisfy usability requirements. Scenario completion success rates, error rates and subjective evaluations will be used. Time-to-completion of scenarios will also be collected.

### Scenario Completion

Each scenario will require, or request, that the participant obtains or inputs specific data that would be used in course of a typical task. The scenario is completed when the participant indicates the scenario's goal has been obtained (whether successfully or unsuccessfully) or the participant requests and receives sufficient guidance as to warrant scoring the scenario as a critical error.

### Critical Errors

Critical errors are deviations at completion from the targets of the scenario. Obtaining or otherwise reporting of the wrong data value due to participant workflow is a critical error. Participants may or may not be aware that the task goal is incorrect or incomplete.

Independent completion of the scenario is a universal goal; help obtained from the other usability test roles is cause to score the scenario a critical error. Critical errors can also be assigned when the participant initiates (or attempts to initiate) an action that will result in the goal state becoming unobtainable. In general, critical errors are unresolved errors during the process of completing the task or errors that produce an incorrect outcome.

### Non-critical Errors

Non-critical errors are errors that are recovered from by the participant or, if not detected, do not result in processing problems or unexpected results. Although non-critical errors can be undetected by the participant, when they are detected they are generally frustrating to the participant.

These errors may be procedural, in which the participant does not complete a scenario in the most optimal means (e.g., excessive steps and keystrokes). These errors may also be errors of confusion (ex., initially selecting the wrong function, using a user-interface control incorrectly such as attempting to edit an un-editable field).

Noncritical errors can always be recovered from during the process of completing the scenario. Exploratory behavior, such as opening the wrong menu while searching for a function, **will** be coded as a non-critical error.

### Subjective Evaluations

Subjective evaluations regarding ease of use and satisfaction will be collected via questionnaires, and during debriefing at the conclusion of the session. The questionnaires will utilize free-form responses and rating scales.

### Scenario Completion Time (time on task)

The time to complete each scenario, not including subjective evaluation durations, will be recorded.

## Usability Goals

The next section describes the usability goals for  
**The participant understands what the goal is of the application,**  
**The participant is drawn towards the application (call to action)**  
**The participant is able to sign up for an activity**

### Completion Rate

Completion rate is the percentage of test participants who successfully complete the task without critical errors. A critical error is defined as an error that results in an incorrect or incomplete outcome. In other words, the completion rate represents the percentage of participants who, when they are finished with the specified task, have an "output" that is correct. Note: If a participant requires assistance in order to achieve a correct output then the task will be scored as a critical error and the overall completion rate for the task will be affected.

**A completion rate of [100%/enter completion rate] is the goal for each task in this usability test.**

### Error-free rate

Error-free rate is the percentage of test participants who complete the task without any errors (critical **or** non-critical errors). A non-critical error is an error that would not have an impact on the final output of the task but would result in the task being completed less efficiently.

**An error-free rate of [80%/enter error-free rate] is the goal for each task in this usability test.**



### **Time on Task (TOT)**

The time to complete a scenario is referred to as "time on task". It is measured from the time the person begins the scenario to the time he/she signals completion.

### **Subjective Measures**

Subjective opinions about specific tasks, time to perform each task, features, and functionality will be surveyed. At the end of the test, participants will rate their satisfaction with the overall system. Combined with the interview/debriefing session, these data are used to assess attitudes of the participants.

### **Problem Severity**

To prioritize recommendations, a method of problem severity classification will be used in the analysis of the data collected during evaluation activities. The approach treats problem severity as a combination of two factors - the impact of the problem and the frequency of users experiencing the problem during the evaluation.

#### **Impact**

Impact is the ranking of the consequences of the problem by defining the level of impact that the problem has on successful task completion. There are three levels of impact:

- High - prevents the user from completing the task (critical error)
- Moderate - causes user difficulty but the task can be completed (non-critical error)
- Low - minor problems that do not significantly affect the task completion (non-critical error)

#### **Frequency**

Frequency is the percentage of participants who experience the problem when working on a task.

- High: 30% or more of the participants experience the problem
- Moderate: 11% - 29% of participants experience the problem
- Low: 10% or fewer of the participants experience the problem

[For studies with less than ten participants in a group, the percentages may to be adjusted. For example, for a study with 8 participants the low frequency should be 12.5% ( $1/8 = .1250$ )]

### **Problem Severity Classification**

The identified severity for each problem implies a general reward for resolving it, and a general risk for not addressing it, in the current release.

**Severity 1** - High impact problems that often prevent a user from correctly completing a task. They occur in varying frequency and are characteristic of calls to the Help Desk. Reward for resolution is typically exhibited in fewer Help Desk calls and reduced redevelopment costs.

**Severity 2** - Moderate to high frequency problems with moderate to low impact are typical of erroneous actions that the participant recognizes needs to be undone. Reward for resolution is typically exhibited in reduced time on task and decreased training costs.

**Severity 3** - Either moderate problems with low frequency or low problems with moderate frequency; these are minor annoyance problems faced by a number of participants. Reward for resolution is typically exhibited in reduced time on task and increased data integrity.

**Severity 4** - Low impact problems faced by few participants; there is low risk to not resolving these problems. Reward for resolution is typically exhibited in increased user satisfaction.

## **Reporting Results**

The Usability Test Report will be provided at the conclusion of the usability test. It will consist of a report and/or a presentation of the results; evaluate the usability metrics against the pre-approved goals, subjective evaluations, and specific usability problems and recommendations for resolution. The recommendations will be categorically sized by development to aid in implementation strategy. The report is anticipated to be delivered to the Project UCD Contact by [\[10-03-2020\]](#).