

DEFINING THE TEST PLAN ELABORATION



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Evaluation Techniques And Usability Testing

Joel Aumedes
Alejandro Clavera
Carlos Isaac
Jordi Lazo

The purpose of the test

CampManager is an app focused in the environment of summer camps. The system helps leisure organisations manage their activities' management tasks. The app joins together all functionalities that this type of organisations need for their day-to-day activities. Even though it might not look like it, preparing a summer camp is not an easy task and requires a lot of effort, preparation and organisation, specially if it is a camp that spans various days in which campers spend the night in the camp. Therefore, it's necessary that the team of counsellors have their activities and timetables planned.

The app joins together all aspects related with an organisation's management, so it has a broad set of functionalities divided between the different pages of the platform. During all the development of the app, the developers detected some points in which a user could maybe get lost due to the large amount of actions taken while navigating through the pages in a nested way.

For this reason the main objective of this usability test is certificating if this hypothesis is really true. For that the second option has been chosen, in which there will be questions asked that will be focused in confirming if the possible confusion points exist or if the user is capable of solving them.

The main points in which a user could have any problem and the questions to evaluate them are:

Concern	Description	Question
The system to create tables might be confusing	Being able to access the tables page and realize the action is not a trivial task	Can the user create a table starting on the main page?
The user might not know how to add an organisation while being in another organisation's space	The app lets the users be part of different organisations. If a user is in an organisation's page and wants to include a new one, it might not know how to do it or finding the button to do it.	Can the user add a new organisation without taking too long starting on another organisation's main page and without logging out and logging back in?
The tables system is not instantaneous	The system does not instantly generate the tables, so the user might think there is an error and get nervous if the system's message is not effective.	How did the user feel when creating a table?

Eye-tracking technology

Eye-tracking technology can be a useful tool in semi-formal usability testing, as it allows researchers to gather objective data on where participants are looking on a webpage or interface. This information can provide valuable insights into how users interact with the design and can help identify areas for improvement. It is based on the use of a specialized device that follows the movements of the eyes as they interact with the application. The device uses infrared technology to measure the position of the pupils and determine where the user's eyes are centered on the screen.

With this information, data can be collected on which parts of the screen are being watched, how much time is spent on each element, which elements are ignored, and what are the reading or visual exploration patterns that users follow. However, it is important to keep in mind that eye-tracking technology can be expensive and time-consuming to set up, and the data gathered may need to be interpreted carefully to avoid misinterpretation. Additionally, it may not be necessary for all types of usability testing, particularly if the goals of the study can be achieved through other methods such as user testing or expert evaluation. Ultimately, the decision to use eye-tracking technology should be based on the specific research question and the resources available for the study.

Information obtained with eye-tracking might be used to better the app's usability in many ways. For example, if it is detected that users spend little time in an important part of the interface, this might signal that this section is not clear or visible enough, which lets developers upgrade the disposition and design of the elements in the screen. Eye-tracking might also help with finding possible navigation problems.

In summary, eye-tracking is a very useful technique for usability evaluation because it provides detailed information about how users interact with the interface and allow us to make upgrades to make the app easier to use and with better user experience. However, it cannot be considered a definitive tool, because the limitations in the technology might affect results.

For this usability evaluation, it might be useful to compile information about where the user is putting their attention at every moment, this way we can see how the user reacts in the previously mentioned conflict points. It also will be useful to test if the users are able to see key elements such as buttons to access specific pages.

It will also allow to recollect information to better the following points:

- With the information that this technology provides, we can compile data of the parts of the app being observed. Also, we can define interest areas in the app to analyse in detail the time the user spends in each element, which elements are being ignored and which reading patterns are being used.
- We can validate the app's design with the used iconography, the way the menus are shown, such as the main page or the navigation bar. Analysing the data, we can understand how should we show the elements of most importance, giving them a higher or lower priority in the screen or finding different ways to show them.

Test plan objectives

As observed previously, the main objectives of this evaluation is putting the users to the situations where the developers detected confusing situations, this way it will be able to apply upgrades thanks to this information.

The aspects under test are based on the user's capability of a certain action, such as assessing the precision with which the users can find their objectives using their system and how good the system is at providing the user's with the services to obtain their goals, so the first key property is Effectiveness. For that there will be a series of scenarios based in the previously formulated questions, in which the user will try to realize the chosen answer based on the initial conditions that the developers detected as possible confusion points.

At the same time, on top of validating that the user can complete the actions in a precise way, it is also important to evaluate that the actions can be done in an optimal time, so the key property Efficiency. This refers to the effort spent in reaching the goals while satisfying expectative. For this application, it is important because if it does not speed up and simplify the management, organisations will stick to their original management.

Finally, it is important to take into account user experience. For this, evaluating the Engaging property will be useful because it raises user satisfiability, helps with product adaptation and reduces frustration. For this study case it is vital that user experience is satisfactory, which means, they find the app easy to use and that it satisfies their needs. The app can be used by different profiles so it needs to have satisfactory experiences for all user profiles, or else the app won't be useful to organisations. If the users don't like the app, it will be a bad investment for organisations.