



Online, Unmoderated User Testing

Benefits and Limitations

February 2010



Table of Contents

1	EXECUTIVE SUMMARY	3
2	INTRODUCTION	4
3	BENEFITS OF ONLINE, UNMODERATED USER TESTING	5
4	IDEAL USES OF ONLINE, UNMODERATED USER TESTING	6
4.1	TO SUPPORT FINDINGS FROM THE MODERATED TESTS	6
4.2	TO DETECT ISSUES WITH THE INFORMATION ARCHITECTURE (IA).....	6
4.3	TO COMPARE ALTERNATIVE DESIGNS	6
4.4	TO PERFORM BENCHMARKING STUDIES.....	6
4.5	TESTING WITH HARD TO REACH AUDIENCES	6
5	LIMITATIONS OF ONLINE, UNMODERATED USER TESTING.....	7
5.1	IT IS NOT POSSIBLE TO PROBE USERS’ BEHAVIOUR.....	7
5.2	IT IS DIFFICULT TO TEST COMPLEX PROCESSES	7
5.3	EVALUATION MAY REQUIRE A DEDICATED TEST SITE.....	7
5.4	IT IS NOT POSSIBLE TO CHECK WHETHER PARTICIPANTS HAVE UNDERSTOOD TASKS.....	7
5.5	IT CAN BE DIFFICULT TO TEST PROTOTYPES (OR WIREFRAMES)	8
5.6	SAMPLE QUALITY	8
6	CONSIDERATIONS FOR MAKING THE MOST OF ONLINE, UNMODERATED USER TESTING.....	9
6.1	ENSURE THAT THE PROJECT GOALS CAN BE MET VIA ONLINE, UNMODERATED USER TESTING	9
6.2	WHERE APPROPRIATE COUPLE ONLINE TESTING WITH MODERATED TESTING	9
6.3	WRITE TASKS CLEARLY	9
6.4	INCLUDING QUESTIONS TO SUPPLEMENT TASKS.....	10
6.5	ALWAYS RUN PILOT TESTS	10
7	CONCLUSIONS AND RECOMMENDATIONS.....	10
8	ABOUT USABILITYONE	11
8.1	SO WHY USABILITYONE?	11

1 Executive Summary

Online, unmoderated user testing is becoming more prevalent within the usability and development community. It is a usability testing approach that uses a software platform to administer user testing in which users are presented with tasks on screen and their behaviour is recorded. Tests can be conducted at the user's convenience from their own computer, at work, home or anywhere else they access the web. It offers a number of obvious benefits; in particular, fast turnaround and low cost. UsabilityOne has been undertaking online, unmoderated user testing for some time and has decided to share our learning's.

Online, unmoderated user testing can be a **very effective** tool when attempting to achieve the following:

- Seeking further evidence to support qualitative usability findings (such as from moderated tests).
- Validating the information architecture of a website or application.
- Comparing the usability of alternative designs.
- Carrying out benchmarking studies (i.e. compare the usability of a website with the competitors' website or new to old).
- Testing with hard to reach audiences.

To gain the most from online, unmoderated user testing it is important to be aware of the **limitations**. These include:

- There is no moderator present to probe users' behaviours on the fly.
- It can be difficult to test complex processes and gain detailed feedback.
- A project may require a dedicated test site which can increase the project cost and timeline.
- It is not possible to check whether participants have understood tasks.
- It can be difficult to test prototypes; wireframes may look foreign to users.
- Studies which use a sample gathered from a panel can suffer from issues with obtaining quality results.

In order to **make the most of online, unmoderated user testing** the following is recommended:

- Ensure that the project goals are clearly defined by all parties and can be met via online, unmoderated user testing.
- Where appropriate couple online, unmoderated user testing with moderated user testing sessions.
- Write tasks that are precise, clear, realistic, not too complicated and independent of each other.
- Including questions to supplement tasks.
- Always run pilot tests before launching online tests.

2 Introduction

One-on-one user testing involves measuring the ease with which users can complete common tasks via an interface. Traditionally user testing has been carried out in person with the involvement of a moderator and a participant. In recent years the advent of user testing softwares has made online, unmoderated user testing an option and over time the cost of these tools has come down dramatically.

This report shares some of the benefits, ideal applications and limitations of online, unmoderated user testing based on UsabilityOne's experiences with the technique over the past 12 months. Moderated user testing is used as a benchmark for comparing online, unmoderated user testing because it is an accepted and proven approach for eliciting usability feedback for interfaces.

The more traditional approach, **moderated user testing** (also known as one-on-one user testing or usability testing), involves a lab-based environment where the user performs specific tasks on a website. A facilitator sits in the same room as the participant, observing how they interact with the website and taking notes. Often the lab is equipped with microphones, a camera and a one-way mirror, so that extra observers can watch the session without being a distraction to the user. Recording equipment is also used to monitor the process.

Online, unmoderated user testing, as discussed in this report, allows users to interact with a website from their home or office, without a moderator present. This helps to simulate a real-life scenario and reduces the cost of user testing. As with moderated user testing, participants are asked to perform specific tasks on a website and provide their feedback. The experience is essentially a hybrid of a traditional online survey and moderated user testing. Task completion, common paths, number of clicks, time spent on each task and other data is captured for analysis. UsabilityOne has been using [Loop¹¹ online using testing software](#).

3 Benefits of Online, unmoderated user testing

Online, unmoderated user testing offers a number of benefits making it a valuable methodology for usability and design professionals.

The most substantial benefit gained from online, unmoderated user testing has been practical access to large sample sizes which provides reliable and robust results. Samples can provide statistically significant findings which can be necessary when making important decisions. As such it can be an invaluable tool for building business cases.

The big appeal for many will be the **lower cost** of online, unmoderated user testing which makes locating participants more accessible for smaller, lower budget projects. Finding participants (the 'sample') for testing can make up a large portion of the cost associated with testing and in the majority of cases, paying participants is a necessity. For online, unmoderated user testing, the per participant cost is substantially lower than for moderated testing.

Typical sample costs are roughly \$1,500 for 100 participants online (or \$15 per person) compared to \$2,000 for moderated testing with 12 participants (or \$166 per person). It should be noted that in some cases sample can be obtained without cost, particularly for organisations which have highly engaged customers. For example if you are Twitter it may be possible to get people involved in user testing without any paid incentive. The ease of undertaking online, moderated user testing (at home and for a short period of time) makes 'free' sample more practical than with moderated user testing. Further, cost reductions can also be seen in reduced project time.

A further benefit of online, unmoderated user testing is fast turnaround which makes it more practical to fit into a tight project timeline. Moderation time for moderated user testing is about 12-18 hours. Given that there is no moderation time during an online project this equates to a saving of up to 18 hours. Further is it practical for a high number of users to complete tests simultaneously. In practical terms this means that online, unmoderated user testing can be completed in hours opposed to days required for moderated testing.

Time can also be saved during the reporting phase of online, unmoderated user testing, with more efficient data collection during testing. The software packages used for online, unmoderated user testing calculates task success/fail rates, most common success and fail pages, path analysis, time per task and most common first click. This information can be collected during moderated using testing, however it needs to be entered manually or requires a session observer. Online testing software also presents this information in chart format which can be directly imported into reports.

4 Ideal Uses of Online, unmoderated user testing

Online, unmoderated user testing can be a very effective testing method. It is suggested that there are five key situations where running online tests can be particularly valuable, these are outlined below.

4.1 To support findings from the moderated tests

Online, unmoderated user testing typically involves a large number of users, which can provide quantitative results to support the qualitative findings of moderated user testing. Greater numbers assist in identifying which issues will be problematic for the broader audience opposed to outliers from moderated testing. That is, being able to identify that an issue occurred in 38 out of 100 tests is more likely to reflect actual usage than 3 out of 8.

Supporting moderated user testing with online is particularly useful when usability testing is run with the purpose of gaining evidence to support making changes to a website. Results which are statistically reliable can be gathered using an online approach; while this can be obtained from moderated user testing it is typically prohibitively expensive in all but the largest of projects.

4.2 To detect issues with the information architecture (IA)

Online, unmoderated user testing can be a valuable tool to check the usability of an interface's information architecture. That is, to what extent can users navigate a site and locate content.

Moreover, questions can be used to gather feedback on existing link and navigation labels, as well as assess alternatives which may have been considered during development. If there is the suspicion that one or more labels are not intuitive, running online user tests is a simple and cost effective way to get verification.

4.3 To compare alternative designs

Online, unmoderated user testing has proven to be an ideal mechanism for evaluating the usability of alternative designs. Two groups of users can be given a standard set of tasks for 2 different designs and the results can be analysed to assess which is superior. Again, a large sample size will provide the confidence that one design outperforms the other in a statistically reliable fashion.

4.4 To perform benchmarking studies

Along the lines of comparing alternative designs, benchmarking can be exceptionally valuable for understanding how your website performs in comparison to your competitors. Again, a standard set of tasks for multiple groups is the ideal approach for this kind of evaluation. Online, unmoderated user testing is an ideal approach of understanding how your website performs in relation to others. It also assists in identifying why one of the sites is performing better.

4.5 Testing with hard to reach audiences

Online, unmoderated user testing is ideal for reaching audiences which are physically difficult to access, such as those living in remote areas, as well as people with limited spare time. For example a doctor may be happy to give 12 minutes for an online user test but couldn't afford the time required to travel to labs for a 60 minute moderated session.

5 Limitations of Online, unmoderated user testing

Although running online user tests can be very valuable, it is important to be aware of the limitations of this method of testing.

5.1 It is not possible to probe users' behaviour

Although online participants can be invited to provide feedback on tasks and to describe any difficulties they experience, sometimes this is not enough to really understand their behaviour. During moderated testing there is always the opportunity to ask users extra questions in order to investigate their actions, especially when unexpected issues arise. For example, when a user does not realise they navigated to the wrong page to complete a task they may struggle to articulate the issues they experienced. In a moderated test it may be possible to explore the user's thinking to understand the issues.

A potential mechanism for overcoming this challenge is to pre-empt any issues which may arise during testing and set-up questions regarding these areas. Even with the most thorough planning, it is unlikely that all issues will be identified; after all, one of the reasons for undertaking user testing is that users don't always behave as we expect.

5.2 It is difficult to test complex processes

Trying to discover the usability issues of complex processes, such as registration or purchase processes, can be challenging using online, unmoderated user testing. Four factors contribute to this:

1. Processes with multiple steps are likely to result in user drop out. That is, not all users will make it to the final stages of the process; resulting in less feedback for these pages.
2. Some registration or purchase processes require users to leave the website and then return. For instance, they may have to click a link on a confirmation email. In doing so a number of participants, especially the less savvy internet users, may accidentally close the window containing the online test or get too confused and quit the online activity.
3. Online testing makes it possible to identify the page of a site where an issue has occurred but not necessarily the specific location on that page. The complexity of forms makes it challenging to understand where the issue has arisen within a form, particularly when there are many fields.
4. If online participants are not suitably incentivised, the motivation to properly complete an online study can be much lower. As a result, the dropout rate for complex and long studies can be high.

5.3 Evaluation may require a dedicated test site

To be able to effectively test a site via online, unmoderated user testing it may require a dedicated test environment/site. This can be the necessary when reviewing ecommerce sites and sites that require a login. For example we may want to test part of the website without test participants having to register or we may not want end users altering settings or performing tasks in their own accounts.

5.4 It is not possible to check whether participants have understood tasks

While it is imperative that in both moderated and online, unmoderated user testing, participants are given tasks that are specific and clear, there will always be some users

who do not fully comprehend either a task or what is being asked of them in general. During moderated tests the facilitator can check that the user understands what is required of them and further explain tasks as necessary.

During online testing clarifying tasks is not possible. As a result, at times it can be difficult when reviewing the results; was it that the users did not attempt the task because they found it too hard, or because they did not understand what they were required to do.

5.5 It can be difficult to test prototypes (or wireframes)

It may be harder to test prototypes (or wireframes) through online testing than via moderated testing. Most participants are not familiar with prototypes and find interacting with them quite confusing. In moderated sessions the facilitator plays an important role in overcoming any challenges that users may encounter. This is likely to include explaining the unfamiliar visual look or unexpected behaviour of the wireframes (such as pre-populated information or links not working).

In online, unmoderated user testing an explanation about the format of the testing website is typically provided at the beginning however some may not understand what to expect from the prototype.

5.6 Sample quality

In online testing, ensuring the quality of respondents is much harder. It can be difficult to identify which users have genuinely attempted tasks and those who aren't taking the activity seriously. In order to ensure high standards of data quality UsabilityOne has employed logic rules to remove users who have not spent sufficient time on tasks based on what we consider to be a 'reasonable amount of time'.

The quality of participants can also be an issue with moderated user testing however the presence of a moderator encourages participants to be more engaged with the activity. In person there is also an opportunity to be able to definitively identify an inappropriate participant and remove them from the study.

6 Considerations for making the most of online, unmoderated user testing

Based on our past experience, we believe that the following considerations should be taken into account when planning to run online tests.

6.1 Ensure that the project goals can be met via online, unmoderated user testing

Clearly understanding the objectives of a project is fundamental to identifying whether online, unmoderated user testing is appropriate. Making sure that the project requirements can be met and the information sought can be obtained from online, unmoderated user testing should always be the first stage of any project. It doesn't matter how much time or money is saved, if the information sought cannot be obtained then the project has been a waste of time and money. As it was highlighted in section 5 of this report, there are a number of situations where online, unmoderated user testing is ideal and in contrast, the limitations of online, unmoderated user testing were discussed in section 6. These should provide some insight into the kinds of project objectives that can be met using online, unmoderated user testing.

6.2 Where appropriate couple online testing with moderated testing

UsabilityOne is a strong advocate of using online, unmoderated testing in conjunction with moderated testing. We have found that together they provide complimentary information contributing to a more thorough understanding of the user experience. The moderated sessions provide comprehensive feedback into areas of an interface which need improvement, why they need improvement and into the response of the user. In contrast the online sessions provide evidence as to how likely users are to experience an issue and the confidence that the results are reflective of the actual audience.

Running the online, unmoderated user testing sessions prior to moderated sessions has yielded considerable insights. This approach uses online to identify the areas of the interface which need probing during the moderated sessions and informs the creation of a moderation guide. That is, identifying where the issues are online and why they have occurred in person.

6.3 Write tasks clearly

Getting the tasks 'right' is pivotal to a successful online, unmoderated user testing project. Obviously during online, unmoderated user testing there is no opportunity to give users any ad hoc verbal clarification. The following are guidelines for writing clear tasks:

- Ensure that a clear overview of user testing is provided at the beginning; most participants will be unfamiliar with the concept of completing 'tasks'. Consider using examples to assist in this process.
- Word tasks as specifically and clearly as possible. Ensure that users can clearly identify what is being asked of them.
- Provide participants with realistic tasks, so that they will be more likely to interact with the website in a natural way. This includes taking into consideration the workflow that most users would follow on the website being tested. For example, when testing an accommodation website, ask participants to find information on

the different accommodation options before asking them to go through the booking process.

- Keep tasks simple and quick. Remember, that unlike participants in moderated tests, most users in online tests are not keen to spend a long time completing tasks and can skip tasks very easily.
- Do not write tasks that rely on participants having completed previous tasks. It should be possible to successfully complete a task even if all previous tasks have been failed.

6.4 Including questions to supplement tasks

Online, unmoderated user testing offers an opportunity to include questions for users in addition to the tasks. These can be exceptionally valuable for exploring the user experience and understanding whether tasks have been completed successfully. For example, if a user has been asked to locate a price for an airline ticket within a task, a follow-up question could be used to verify that the user found the 'right' price. This can be a fantastic means for evaluating the effectiveness of content to communicate with users. Further, questions can be used to gain important insights into user expectations, workflow and content requirements.

6.5 Always run pilot tests

Finally, do not forget to run a number of pilot tests before launching the online test. Unlike moderated testing, once the testing is launched there is no opportunity to make any changes to the tasks or the website without invalidating the results. Therefore, it is extremely important to ensure that all tasks are written appropriately and there are no technical issues with the website.

7 Conclusions and Recommendations

Through first hand experience UsabilityOne has identified that online, unmoderated user testing is exceptionally valuable however as with all forms of testing it does have its limitations. As with any project the key to using online testing is ensuring that you have the 'right' tool for the job.

8 About UsabilityOne

UsabilityOne is a leading Australian usability consultancy, delivering custom solutions to a breadth of industry. Our unique and flexible approach allows us to tailor solutions to any need.

Our offices are located in Melbourne and Sydney and including fully equipped testing labs and resources, providing UsabilityOne and our clients with complete control over all projects.

Over the last eight years we have delivered solutions to all levels of government, large corporate, community based and not for profit organisations.

UsabilityOne prides itself on being committed to the research industry, keeping ahead of the latest trends and technology to ensure our clients receive the best possible results. Most recently UsabilityOne presented at the ARK Group Conference on Strategically Managing Intranet Developments, and was awarded Authorised Consultant for Google Optimiser by Google.

8.1 So why UsabilityOne?

UsabilityOne presents clients with unique benefits, some of which include:

- Delivering actionable insights and recommendations to support decision making
- Specialise in turning research into design recommendations
- We partner with clients and expert designers to deliver optimal results
- Research is facilitated independently of the design team to provide an objective and independent perspective
- A track record of assisting clients maximise their return on investment

For more information contact UsabilityOne on 1300 783 103 or visit www.UsabilityOne.com.