

# Comparative Usability Task Measurement (CUE-8) Instructions

## Workshop Abstract

This workshop compares practical approaches to usability task measurement. Participants will carry out independent, simultaneous measurements of a website ahead of the workshop. At the workshop we will compare results.

As usability specialists start working professionally with measurements they quickly find that measuring usability is more than buying a stopwatch and computing average task times using a spreadsheet. Recent discussions in usability discussion forums have shown that there is little knowledge and agreement on what constitutes best practice in usability task measurement.

The key goals of CUE-8 are:

- To allow participants to compare their measurement and evaluation skills to those of their peers and learn from the differences.
- To get an impression of the methods and techniques used by practitioners to measure usability.
- To discuss and identify best practices in the area.
- To investigate whether usability measurements are reproducible.

## 1. Scenario

The car rental company Budget is planning a major revision of their website, [www.Budget.com](http://www.Budget.com).

They have signed a contract with an external provider to create the new website. Budget wants to make sure that the usability of the new website is at least as good as the usability of the old one. They want you to provide an independent set of usability measurements for the current website. These measurements will provide a baseline against which the new website could be measured by another provider.

Your measurements must be made in such a way that it will later be possible to verify with reasonable certainty that the new website is at least as good as the old one. The verification, which is not part of CUE-8, will be carried later out by you or by some other contractor.

Budget wants you to measure time on task and satisfaction for the five key tasks listed in section 2. Budget has clearly indicated that they are open to additional measurements of parameters that you consider important.

Budget recently has received a number of calls from journalists questioning the statement “Rent a car in just 60 seconds”, which is prominently displayed on their home page. Consequently, they also want you to provide adequate data to confirm or disconfirm this statement. If you disconfirm the statement, please suggest the optimal alternative that your data supports and justify it.

## 2. Tasks for Measurement

Budget wants you to measure the following five tasks:

### 1. Rent a car

Rent a car at Logan Airport in Boston, Massachusetts.

The car size must be Intermediate (do not rent an SUV).

Rental start Thursday 11 June 2009 at 09.00 am.

You plan to return the car four days later on Monday 15 June at 3.00 pm.

Use the "Budget.com" rate. Do not select the "Pay Now & Save up to 40%!" option.

Include Loss Damage Waiver (LDW) protection. Do not include any other protections.

If asked for a name, use John Smith, who is a US resident.

If asked for an email address, use john112233@hotmail.com

Stop when you are ready to submit the reservation. Do not submit the reservation.

### 2. Rental price

Find out how much it costs to rent a car in Myrtle Beach, South Carolina.

The car size must be economy.

Rental start Friday 19 June 2009 at 3.00 pm.

You plan to return the car two days later on Sunday 21 June at 7.00 pm.

Use the "Budget.com" rate. Do not select the "Pay Now & Save up to 40%!" option.

Include Loss Damage Waiver (LDW) protection. Do not include any other protections.

### 3. Opening hours

What are the opening hours of the Budget office in Great Falls, Montana, on a Tuesday?

### 4. Damage insurance coverage

Let's assume that you have rented an intermediate size car from Budget in Orlando International Airport, Florida. Your rental includes LDW (Loss Damage Waiver). An unknown person has scratched the car seriously in several places, probably with a knife. A mechanic has roughly estimated that the repair will cost around 2,000 USD. Are you liable for the repair costs? If so, approximately how much are you liable for?

### 5. Rental location

Let's assume that you are staying at the Hilton Hotel in downtown Portland, Oregon, USA. Find the address of the nearest Budget rental office.

The Hilton Hotel address is 921 SW Sixth Avenue, Portland, Oregon, United States 97204

### 3. Comments on Tasks for Measurement

#### General comments

1. Please give all tasks to participants exactly as they appear in the previous section. Otherwise we are unable to compare the results. If you have comments on any of the tasks, please send them to Rolf Molich as soon as possible.
2. Please ask participants to start each task from the Budget.com home page (the page with the header *Rent a car in just 60 seconds*).
3. The interaction may vary depending on the residency of the renter. Please ask your participants to carry out all tasks as if they were US residents (“Residency=US”).
4. If you feel that an important task is missing, feel free to add it to the task set. We shall be happy to inform other participants of your suggested, optional task, if you wish. Even if you add additional tasks, please measure all five tasks in section 2.
5. It's OK to randomize the tasks. If you do so, please note it in your methodology description, and please pay attention to whether it makes a difference.
6. There are no restrictions on the size of your team. At most two people from a team can participate in the UPA 2009 conference workshop.

#### Task 1 - Rent a car

7. To verify that the participant has carried out the reservation correctly, you may want to verify the rental price, which is 333,29\$. The price may vary slightly from day to day. The suggested answer was obtained on 20 April 2009. It consists of: 134,95\$ (car) + 134,95\$ (5 days LDW @ 26,99\$) + 63,39\$ (taxes)
8. If a participant accidentally submits a reservation, make sure that either you or the participant cancels it.
9. It appears that step 3 in the reservation process causes problems in some countries, for example Denmark. At this time no problems have been reported for the US, Canada and the UK.  
  
The problem is: In step 3, *choose your options*, the orange buttons labeled + *add* apparently do not work. If you click them, a page error results. It appears that the buttons and the whole page works correctly if you attempt to carry out the task in the US, including Budget's main service desk. We are currently investigating this problem.
10. Step 3 in the reservation process (*choose your options*) apparently appears differently on weekends. During certain periods in weekends, the orange buttons labeled + *add* are replaced by checkboxes. This should not significantly influence our measurements.

#### Task 2 - Rental price

11. It is OK to add the line “How much does it cost to rent the car?” at the end of this task. Otherwise, participants may think that this task is similar to task 1.
12. Suggested answer: The answer may vary from day to day.  
The suggested answer on 20 April 2009 was 230,53\$ = 107,97\$ (car) + 77,97\$ (3 days LDW @ 25,99\$) + 44,59\$ (taxes).

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The suggested answer on 6 May 2009 was 192,04\$ = 77,97\$ (car) + 77,97\$ (3 days LDW @ 25,99\$) + 36,10\$ (taxes).

13. For your information, it appears that the price can be reduced to 172,78\$ using the path: Specials menu > weekend > US > airport locations > economy, rent now > step1 with U111800 code displayed > (continue as above). This discount code does not influence the price in task 1.

### Task 3 - Opening hours

14. Suggested answer: 8am to 6pm. The answer “8am” is of course also acceptable.

### Task 4 - Damage insurance coverage

15. Suggested answer: You are not liable for any repair costs. LDW relieves the renter of financial responsibility if the rental vehicle is damaged (or stolen) during the rental. This unconditional statement can be found in several places on the website, most prominently on the page *step 3 of 4: choose your options > Loss Damage Waiver (LDW) > more info*. The statement can also be found in the FAQ under *What insurances do you offer while I'm renting > Optional Loss Damage Waiver (LDW)*

### Task 5 - Rental location

16. Suggested answer: 2033 Southwest 4th Avenue, Portland.
17. The simplest way to solve this task is probably to enter the zip code of the hotel (97204) in the *pick-up location* textbox.  
The most intuitive way to solve the task is probably Locations menu > United States > Oregon > Find your nearest Budget location > Enter Hilton Hotel address.

## 4. Disclaimer

The entire above scenario is realistic but fictitious. The workshop organizers at this time have no contact with Budget.com, and we have no information that they are actually planning a revision of their website.

## 5. Reporting Requirements

You must submit the following materials for the workshop.

1. An official report that you would submit to Budget. For details see section 6.
2. An addendum containing supplementary information of interest for this workshop only. For details see section 7.
3. An Excel spreadsheet with your measurement results. Please use the attached template named *Results team X*. Add additional worksheets if you are reporting other parameters than Time on Task, Success, and Satisfaction.

Please specify all results from time measurements in seconds.

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The spreadsheet has columns for 43 participants. You are of course completely free to select any other number of participants.

If your method permits, please also submit

4. Raw videos of two or three measurement sessions. The videos must show the participant's screen and they must contain the conversation between the participant and the facilitator. A video of the participant's face is not required.
5. The videos must be accompanied by a copy of your release form and an email statement from you that all participants on the submitted videos have signed the form. The release form must allow you to distribute the video. Copies of the signed forms are not required.

Please observe the following requirements for your official report, your addendum and your results spreadsheet:

6. They must be completely anonymous except for the team code letter, which you will get from the instructor. Please check the properties of the submitted reports as they sometimes contain hidden clues about the author.
7. They must be cleared for general publication. By submitting your official report, your addendum, and your videos to Rolf Molich (cue8@dialogdesign.dk) you grant the workshop organizers permission to make them publicly available.
8. They must be in Word, PowerPoint or PDF format.

Please submit all your materials to Rolf Molich only. Rolf should be the only person who knows the identity of the team behind each code letter.

### 6. Your Report

We suggest that you hand in a report that is as close as possible to the usability measurement reports you normally write. You are not required to include any of the following information if you do not normally report it.

There are no specific formatting requirements for the report except that your team code letter should appear in the header of each page, and that pages should be numbered. Both the usability evaluation report and the addendum must be completely anonymous except for the team code letter, which you will get from Rolf Molich.

Suggested order of information in report:

#### 1. **Executive summary.**

The workshop organizers have no detailed requirements for the executive summary.

#### 2. **Time measurement and task success results**

The results of the time measurements you have carried out: One time measurement per task per participant. Include any derived results, for example averages. Please include a discussion of how reliable your results are.

State how you measure success. If possible, report success as a percentage without a percentage sign.

Report the detailed results in the *Results team X* spreadsheet. Include key results in your report.

**3. Satisfaction measurement results**

The results of the satisfaction measurements you have carried out.

State how you measure Satisfaction:

- Name of questionnaire used; if a standard questionnaire is used, with reference to where the version you are using can be found
- If you use a non-standard, or customised questionnaire include it in the addendum
- Provide details of the method used if not a questionnaire method (eg heart rate variance)

Provide any formula used to compute satisfaction metrics from the raw data, even if simply "sum of items". Please also provide the theoretical minimum and the theoretical maximum. If you measure satisfaction at task level, include the formula used for overall satisfaction, even if simply "sum of task satisfactions."

Report the detailed results in the *Results team X* spreadsheet. Include key results in your report.

**4. Other quantitative measurement results (optional)**

The results of any other additional measurements or evaluations that you have carried out.

Please give at least as much detail about these as is requested for satisfaction. Add in more worksheets if needed for more metrics.

Report the detailed results in the *Results team X* spreadsheet. Include key results in your report.

**5. Qualitative results (optional)**

Important qualitative observations of interest to Budget.

**6. Recommendations for *Rent a car in just 60 seconds***

Based on your measurements, is this header defensible? If no, what would you suggest that Budget should write instead? Please justify your recommendations.

**7. Method**

A description of the measurement method you have chosen for this usability study.

You are free to choose any measurement method that you consider appropriate for the study as long as Budget's requirements are met. The method you choose should be one that you would typically use to conduct a professional usability measurement.

Please also describe

- your deliberations regarding the number of participants,
- your participant selection process,
- the participant profiles.

**8. Other (optional)**

Any other information that you consider relevant for Budget.

## 7. Your Addendum

In addition to the evaluation report, please submit a separate addendum with the following information. If some of this information appears in your usability evaluation report, please repeat it in the addendum.

### 1. Resources used for the evaluation (person hours).

Provide a day-by-day timesheet for the period where you carried out your evaluation. Include information about resources spent by each team member and colleagues. Do not include information about participant resources. Do not include team member names or initials. If you have team members that do not participate in the workshop, send an email to [cue8@dialogdesign.dk](mailto:cue8@dialogdesign.dk) with the full names and affiliations of all team members.

### 2. Comments on the evaluation

Comments on how realistic this measurement has been compared to the professional measurements you normally carry out.

### 3. Evaluation dates

The dates the evaluations were carried out. This information will be useful in case of unexpected changes to the web site.

### 4. Comments on the tasks

Any comments that you might have on the five prescribed tasks in section 2. Are these the tasks that you would have used for the given scenario?

### 5. Other

Any other information that you consider of interest for the workshop, and which does not fit into your official report.

Your addendum must be completely anonymous except for the team code letter, which you will get from Rolf Molich.



## **8. Schedule**

Your team code letter was sent to you by email on May 6.

We recommend that you carry out your measurements in the period Monday 27 April to Friday 15 May 2009.

Your deliverables are

- 1. Your report**
- 2. Your addendum**
- 3. Your results spreadsheet.**

These deliverables are described in section 6 and 7. They must be emailed to [cue8@dialogdesign.dk](mailto:cue8@dialogdesign.dk) no later than

**Monday 25 May 2009**

Your deliverables must be anonymous and suitable for general publication. Please make sure that your name and affiliation does not appear anywhere in your reports. Check the properties of your submitted reports carefully; sometimes Microsoft Office hides author information there. The instructor will assign a code letter to your team; this letter may appear in your report in places where you would normally put the name of your company or organization.

## **9. Questions**

Please direct any questions that you might have about these instructions and the CUE deliverables to Rolf Molich at [cue8@dialogdesign.dk](mailto:cue8@dialogdesign.dk)

Please send questions that you want to ask Budget or the Budget.com team to Rolf Molich. Telephone conversations or personal meetings with the Budget.com team are not possible.

## **10. Have fun!**

- and please don't hesitate to contact Rolf Molich by email — [cue8@dialogdesign.dk](mailto:cue8@dialogdesign.dk) — if you run into problems. You should normally receive an answer within 24 hours.