

The Day Experience Method: A Resource Kit

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Introduction

The Day Experience Method was inspired by social and behavioural science methodologies including the Experience Sampling Method (Hektner et al, 2006, Intille et al, 2003), the Day Reconstruction Method (Kahneman et al, 2004) and work on Cultural Probes (Gaver et al, 1999, Arnold, 2004). These methods are all useful ways of providing a detailed view of people's daily lives. We successfully adapted the methods for use on the Learning Landscape Project at the University of Cambridge during Easter and Michaelmas terms, 2007.

The method is attempts to reduce recall distortion and the ideological biases of other sampling methods such as interviews, surveys and focus groups. It can record temporal and situational information in qualitative and quantitative detail, and may be extended to a longer period if needed. This Resource Kit focuses on the practicalities of the method, and offers useful tips and hints to anyone who is interested in using it in their own setting. It is particularly suited to those who wish to use a novel qualitative method to examine every day life situations.

Description of the Method

The method requires participants to record answers to specific questions at irregular intervals (say, each 30 - 90 minutes) during a day. The participant's mobile phone is used to prompt them to make a record of their activity at the time of the message, and they use a notebook, a camera and (if desired) a voice recorder to record answers to each of the questions. These records constitute the data, and participants are informed that they need to be appropriately detailed.

A short time after the day experience, all of those participating in the method are brought together for an informal focus group, where selected participants show their photographs and describe their day. A member of the research team facilitates the discussion, which is taped using a video camera. Selective transcriptions of the recordings constitute further data for analysis.

This method casts participants in the role of co-researchers, rather than as relatively passive sources of un-processed data. It sets out to enthuse and engage the participants in stimulating and amusing ways in order to make maximum use of their experience, intelligence and insight.

The Day Experience Method works well to complement other methods such as surveys, interviews and focus groups and may provide a useful comparison with the accepted wisdom or the institutional perspective.

Ethics

In developing the methodology described in this document, we referred to the guidelines for ethical research from the British Educational Research Association (2004) and guidelines for practitioner research published on the Becta (2007) website. While these guidelines clearly include research that may involve younger students, the principles of the guidelines still apply to a higher education setting. The BERA guidelines partly overlap with these, and emphasise informed consent, the right of participants to withdraw, possible detriment arising from participation in research, privacy, and disclosure. We recommend that educational researchers consult their institution's human research ethics committee as well as industry sources such as these for guidance. In particular, we suggest a well thought out informed consent process, and careful briefing and debriefing of participants on the methods.

Planning the work

The Day Experience method incorporates the use of a notebook with instructions for diarised entries, as used in the Experience Sampling Method (Hektner et al, 2006) a disposable camera as used with Cultural Probes (Gavner et al, 1999 and Arnold, 2004), and optionally a small MP3 voice recording device. The experience sampling takes place over a 24-hour period (although we excluded the hours between 10pm and 8am to allow participants to sleep). Once the day experience has been completed, we invite participants together in a focus group where they show each other the photographs they took.

There are certain practicalities of this method to consider when developing a work plan. The nature of the Day Experience method requires that participants are adequately briefed and debriefed. Briefing sessions need to be planned, equipment assembled, and plain language statements and consent forms assembled prior to the briefing. For this reason, we suggest beginning and ending the day experience in the middle of the day.

It may also be important to plan time for data to be processed prior to the focus group. When using disposable cameras, this may take 24 hours or more. If you plan to run more than once cohort within a week, or are using any equipment with other methods, you may also need to take particular care to leave time for data to be copied and equipment reset. For example, you will need some time for data to be copied off digital voice recorders, audio data to be checked and cleared from the device, and for batteries to be replaced if necessary. We allowed a day for all data processing to take place. Planning the focus group a few days later than the day experience allows for this processing to take place. The following is a sample that may help to plan the work.

Sample work plan

Develop plan, design instruments	
Acquire and test equipment	
Preliminary survey	
Week 1	
Day Experience 1	Monday - Tuesday
Process data	Wednesday
Focus Group 1	Thursday
Week 2	
Day Experience 2	Tuesday - Wednesday
Process data	Thursday
Focus Group 2	Friday
Week 3	
Day Experience 3	Monday - Tuesday
Process data	Wednesday
Focus Group 3	Thursday
Initial analysis	
Follow up methods	
Final report	

Tools and techniques

Signalling devices

Researchers using the Experience Sampling Method typically use a signalling device to prompt respondents. Many different technologies are used, including pagers, programmable watches and PDAs. Each of these technologies has its advantages and disadvantages in terms of cost and utility (see Hektner et al, 2006: 35-40). We chose mobile phones and SMS text messages for the Day Experience, mainly due to cost savings and convenience (see *Tips and Hints*).

Automated SMS Messaging

If you choose to use SMS messaging, and you want to be able to signal all respondents at the same time, there is a range of technologies available to automate this process. For example, the VOIP software Skype now supports SMS text messaging, and allows for multiple SMS messages to be sent at one time. We also use SMSMac, a scriptable text messaging application, combined with the calendaring application iCal. (See *Software* and *Sample Documents*).

Notebooks

Ordinary spiral-bound A6 notebooks are used for the diary entries. A very brief instruction sheet is affixed to the inside cover of the notebook. Respondents use a series of questions to prompt a written diary entry in the notebook. Experience Sampling Methods usually involve some form of written response, often using forms. In one of our studies we used a response form taped into the first page of the notebooks in order to collect overview data including during the hours between signals (see *Sample Documents*).

Cameras

Photographs provide an immense amount of contextual research data, and are relatively easy to use. Disposable cameras are cheap and easy to use, and have the great advantage that there is little risk of ruining your project budget if they get damaged. They do have the disadvantage that they tend to produce low quality results in indoor environments, so a flash is necessary. Developing the images to digital format can be reasonably expensive, and may take up to 2 or 3 days. Cheap digital cameras are probably preferable if your project budget can afford it, but take care that the image quality is up to the task.

Voice Recorders

Inexpensive voice recorders may be provided to participants. The idea is that they may increase response rates in certain circumstances, and may allow a quick recording while on the move that may otherwise be missed. Perhaps even more importantly, some participants may prefer voice recorders or may find it more difficult to write if they have a disability. Flash based MP3 players with voice recording capabilities are becoming more common and are ideally suited to the Day Experience Method because they are light and easy to use, and data can be processed quickly.

Software

Various software packages are useful for conducting the day experience, and for processing and analysing the data.

Direct Mail is useful for recruiting and contacting large numbers of respondents.

<http://ethreesoftware.com/directmail/>

Skype and *SMSMac* allow SMS messaging to multiple contacts at once from a PC.

<http://www.skype.com/>

<http://www.smsmac.com/en/>

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iCal with *Applescript* allows scripts to be attached to dates and times, allowing fully automated signalling when used with *SMSMac*.

<http://www.apple.com/>

Inqscribe is a transcription tool for video and audio material.

<http://www.inqscribe.com/>

Pixelmator and *Automator* together allow the automatic processing of images from Jpeg to PDF format.

<http://www.pixelmator.com/>

TAMS Analyzer is a transcription and qualitative analysis tool available in a multi-user version which is particularly suited to coding within a workgroup.

<http://tamsys.sourceforge.net/osxtams/>

Tips and hints

- Allow adequate time for planning, including developing the work plan, ethics approval, acquisition and testing of equipment, and development of necessary documents.
- If you run the day experience over a few weeks, you can vary the day of the week and avoid bias introduced by only sampling on one day.
- A preliminary survey is extremely useful to focus the methods on certain questions or issues, and to collect detailed demographic data. This also serves as a good way to recruit participants into the day experience.
- Equipment can be a limiting factor when planning cohort size. If you decide to use voice recorders or digital cameras, be aware that you may be faced with a choice about expense for a large number of devices if you plan a large cohort, and that data may need to be dealt with quite rapidly in order to be available for the focus group.
- Consider the appropriate signalling device for your setting. We chose to ask participants to provide their own mobile phones and used text messages to reduce costs, and to be able to quickly remind participants of the questions. We knew from our initial survey that almost all of the participants in our target group already own mobile phones, however it would also be possible to supply mobile phones for the purpose.
- Voice recorders have the advantage that they encourage participants to make entries 'on the hoof'. They may also allow participation by those with certain disabilities, and can arguably increase engagement because of their novelty. A down side is that you will probably still want participants to make diarised notebook entries, and in our experience there is often little difference between the content of voice recordings and diary entries.

Analysis

Quantitative and qualitative analysis of data resulting from the Day Experience Method can be undertaken using a wide variety of methodologies. It is worth noting that you will have quite a large number of data points to analyse even with a relatively small cohort. Once transcriptions of the audio and the notebooks are available, the first step is coding the data. Photos can be processed to CD format and then processed into PDF documents using *Automator* and *Pixelmator* (see Software). It is helpful to also scan the notebooks into PDF in order to see responses in participants' own handwriting if necessary. Because of the large volume of data, we wanted to be able to share the coding task and among a workgroup, and then allow exploration of the coded data. We chose *TAMS Analyzer* (multi-user) for the coding task because it uses an online MySQL database to allow data to be easily coded and compared by multiple researchers. Further analytic methods are discussed in detail by Hektner et al (2006).

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Appendix A: Sample Documents

Plain Language statement

<p>My University Logo</p>
<p>My Project Title</p>
<p>Principal Investigators:</p>
<p>[name], [title] [email] [name], [title] [email]</p>
<hr/>
<p>This project is being conducted by researchers from [department name] at the [institution name]. The purpose of the project is to better understand how students use Information and Communications Technologies (ICTs) in the course of their studies.</p>
<p>The project will collect data through the use of voice recorders, photographs, diaries, structured discussion groups and unstructured conversation. The collected data will then be analyzed to provide an understanding of how students at the University are supported or could be supported with ICTs. This understanding will then be used to help the University develop ideas and policies to improve teaching and learning at the University.</p>
<p>We are keen that you participate in the study on the basis of your responses to the Student ICT Survey conducted in March.</p>
<p>Should you agree to participate in the study, we will ask you to record your activities at irregular intervals through a single day, when prompted to do so by a mobile phone text message. You will be provided with a voice recorder and a disposable camera for this purpose, as well as a mobile phone if you don't already own one. You will also be invited to attend a "slide night" later in the same week, at which selected participants will show their photographs to other participants, and describe their day, in an informal setting. The slide night will be video recorded and will also constitute data for analysis. More detail on this method is to found on the accompanying sheet – "The Day Experience Method".</p>

Guide to participants

My University Logo

The Day Experience Method

The day experience method attempts to reduce recall distortion and the ideological biases of other sampling methods, such as interviews, surveys and focus groups.

In essence it asks you to answer certain questions at irregular intervals through the day (each 30 - 90 minutes). The questions are:

- What time is it?
- Where are you?
- Who are you with? (College friends, department friends, colleagues, family members, or no one)
- What are you doing?
- How do you feel about it?

Your mobile phone will be used to prompt you to make a record of your current activity, and you will use a diary (or voice recorder if you prefer) and a camera to record data relating to each of the three questions. If this is not appropriate at the time, you should prioritise your work and make the entry as soon as possible thereafter. If a voice recording is not appropriate use your diary. These records constitute the data, and need to be appropriately detailed.

Later in the week, we will bring all of the participants together for a slide presentation. Refreshments will be provided, and in an informal setting, selected participants will show their pictures and describe their day. Discussion about the trials and tribulations of student life will be recorded using a video recorder, which also constitutes data for later analysis.

Consent Form

My University Logo

Consent form for persons participating in research projects

PROJECT TITLE: My Project Title

Name of participant (please print):

Name of investigator(s): [name]

1. I consent to participate in the project named above, the particulars of which — including details of voice recordings, diary entries and focus groups — have been explained to me. A written copy of the information has been given to me to keep.
2. I authorise the researcher or his or her assistant to use the audio recordings and diary entries created by me and audio or video recordings of focus group exercises for the purposes of this study. This may include use with groups of other staff and students within the University.
3. I acknowledge that:
 - (a) I have been informed that I am free to withdraw from the project at any time without explanation or prejudice and to withdraw any unprocessed data previously supplied or recorded;
 - (b) It is my responsibility to ensure that my participation in this research project is not detrimental to my work;
 - (c) The project is for the purpose of research;
 - (d) I have been informed that the confidentiality of the information I provide will be safeguarded subject to any legal requirements;
 - (e) I consent to any focus groups that I participate in as part of this research being video and audio-taped;
 - (f) I will be referred to by pseudonym in any publications arising from the research.
 - (g) Video and audio recordings made for purposes of this project will not be publicly broadcast or made available on the Internet.

Signature

Date

(Participant)

Instruction Sheet

The Day Experience Method	
<p>When prompted</p> <ol style="list-style-type: none"> 1. Where are you? 2. What are doing? 3. What are you using? 4. How do you feel about this? <ul style="list-style-type: none"> • Use the camera! • Use the voice recorder! • Use the diary! <p>The richer and more detailed each account is, the better.</p>	

Response Form

Tick all that apply in each time slot				
	Alone	With someone	Work	Leisure
12pm				
1pm				
2pm				
3pm				
4pm				
5pm				
6pm				
7pm				
8pm				
9pm				
10pm				
10pm		Night		
8am				
9am				
10am				
11am				
12pm				

Invitation Message

Dear [full name],

Thank you for agreeing to participate in the Day Experience study.

We would like to invite you to take part in the study on [inviteddate].

At 12pm on [inviteddate], please come to:
[full address]

Please give your name and say that you are here for the Day Experience study. Attending on this date is important, because we need to ask you to sign a consent form and to brief you more fully on the study. You will also receive a notebook, and a disposable camera which you must return to us in person the following day at 12pm. If you cannot attend the briefing at 12pm, just come as close to 12pm as possible on the day and we will brief you individually.

The idea is that you will be taking part in the study over one day from midday to midday. You will be prompted by SMS text message at irregular intervals during a 24 hour period (although not between 10pm and 8am). We will hopefully be able to answer any further questions you have at the briefing on [inviteddate], but please don't hesitate to get in touch by email to: [your email address]

You are also invited to a special "Slide Night" at our department (with food provided!) at [slidenight] where participants will get chance to talk to each other about their day experience while viewing photos.

Kind regards,
[your name]

AppleScript Script to send SMS Messages

```
tell application "SMS Mac Scripting"
    set report email to "*****@***.caret.ac.uk"
    set m to make new outgoing sms with properties {flash:false}
    tell m
        set message to "Hello! Please answer these questions now:
        * What time is it?
        * Where are you?
        * Who are you with?
        * What are you doing?
        * How do you feel about it?"
        set recipients to {"+44*****", "+44*****"}
        set sender to "+44*****"
        set email receipt to true
    try
        send
    on error errMsg number errNum
        display dialog "Error: " & errNum & ". " & errMsg
    end try
end tell
```