

Tracklines Testing Methodology: Overview

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Introduction

Participant testing for *Tracklines* is based on a critical ethnographic model, whereby the researcher seeks to create a transparent testing process with the participant(s) (subject(s)). Participants will be explained the reason for the research, will have an active role describing /assessing their experience and finally, will be invited to comment back on researchers' findings, to ensure that the researcher has gathered "data" that is valid and relevant to the subject's interpretation of her/his experience.

Overarching themes of the research are as follows: the process should be as transparent as possible to ensure participant trust and an understanding of the participant's rights in the testing process. The research process seeks to absorb as much information from participants in their own words and context as possible; it avoids subjecting participants to any paradigm or context that melds or constrains her/his response or experience. The research process assumes that participants need to understand the parameters of the experience prior to use in order to mirror the actual experience of participants who will eventually experience the finished product. As such, researchers will explain the test in terms of the final end product (the game) and the day's testing plan; researchers will withhold only that data that will influence the participant's experience to be tested that day. In this way, the data becomes contextualized in the actual game, participants feel safe, empowered and aware of their rights, and, yet, the test can be performed in order that researchers obtain desired data.

Testing Process Overview

The testing process consists of various stages: participant recruitment, introduction to the field test, questionnaires, field-testing, and debrief (personal interview format). Subsequently researchers will transcribe and interpret data, and vet the data among the key researchers and pass the interpretations to participants interested in reviewing and commenting on researcher findings.

Participant Recruitment Process

Participants will be recruited with thought given to which populations should be tested—i.e. whether testing groups should be diverse or share some common features (i.e. age, familiarity with mobile technology, moderate to heavy media use, park walkers and hikers, etc.) Because *Tracklines* seeks to provide a complete trailwalk experience for the Hoodoo trail in Banff Park, participants will be recruited who are likely to walk the trail and are not adverse to an mobile-augmented walk experience. It is likely that some participants will use the experience individually and some will use it in pairs and possibly small groups, so the experience should be tested on all three groupings. Early polling of a range of populations in Banff will be done to determine which populations might be willing to try out this new experience.

Information to provide participants in recruitment stage

In the recruiting process, researchers should fully explain the participant's commitment and outline generally the experience; this outline should simply explain that participants will have an introduction, walk for 1 ½ hours on a trail using a phone as a guide to the experience, and then debrief with researchers (via conversational mode) for 30 minutes. Researchers will avoid qualifying how the participant might experience the game. Researchers will outline the steps in the experience without qualifying the quality or aesthetic of the sounds or narrative. Researchers will avoid providing participants qualifying data –i.e. impressions of participants that are to be tested that day. For example, researchers will be interested in a set of questions regarding how users experience the game, in relation to other participants, aesthetically, technologically, etc. Researchers will not share such questions with participants prior to or during the trial; instead, participants will be told more generally that researchers are interested in how they experience the game.

Overview of Trial Process

Ideally, two researchers will be present at each test, one to demonstrate the iteration and to answer participant's (technical) questions, and the second to take field notes and record comments and questions on a small hand-held tape recorder. Additionally, one research assistant will come to the field to videotape from afar. Participants will be brought out singly or in pairs or groups, depending on the plan for the day. Participants (individuals or teams) should not overlap on the trail while testing the experience.

Because *Tracklines* assumes participants will have a quiet or meditative experience for the first geology iteration, the test team will avoid crowding the subject. For the geology track two tests will occur. One trial will test a single participant while a second trial will test two and a third will test participants. If one participant is to be tested one researcher can accompany the participant from a distance and be readily available to answer questions. The second researcher will be present to take field notes; it is possible that a single researcher can vet questions and take field notes. In addition an assistant will tape with a video camera and an engineer will accompany the group to assure that technology works; both will remain at a distance from the participant in order to allow for a personal or (semi-private) experience.

Participants will be advised to address their substantive questions to the two core researchers, and avoid asking questions of the camera operator, engineer or research assistants; this assures that all questions and concerns will be recorded by researchers as data. To ensure flexibility and fluid testing, simple questions—i.e. whether a button can be pushed or whether the technology is acting as it should—could be asked of research assistants, who should record those questions on a notepad and present the list to the researchers at the end of the trial.

Field Trial Steps

1. Introducing Participants to the Field Testing Process

Participants are invited to meet at the Mobile Lab prior to the test, at an appointment time. Introduction to the test should last no longer than 30 minutes, including completion of the questionnaire. It is important to maintain momentum in the testing process, so that participants remains active and feel as though they have some agency and power in the testing process.

Researchers will:

- a) Explain the general project of MDCN (briefly)- i.e. to provide experiences and games on cellphones for participants in parks.
- b) Explain the general themes of the *Tracklines* project
- c) Explain, in general, the experience to be tested that day. Researchers will let participants know broadly what they will experience (a geology narrative) and whether they (s/he) will walk alone or in pairs. Researchers will also provide the length of the experience and time allotted to each piece of the trial. (It is a good idea to hand out phones at this point for participants to hold; and leave details describing the phone operation for the field.) Researchers will avoid telling participants the exact structure and gameplay required; instead researchers will tell participants to stay on the trail at all times and that the phone will help to guide them down the trail and through the experience. Participants will be told that they don't need to push buttons on the phone and should avoid doing so, but can adjust volume on the phone to assist their hearing.
- d) Explain that the purpose of the day in general terms: to get participant feedback on what has been designed thus far for this geology *Trackline*.
- e) Explain to participants what they are expected to do and avoid doing on the trail; Researchers will explain that each test begins in appointed spot, that participants will carry a phone, to stay on major (obviously marked) paths, to move down path until first story is told and then meet up with researchers again. Researchers will avoid lengthy descriptions of MDCN project or *Tracklines* and will avoid descriptions of responses participants might have to the experience. etc. Finally, researchers will alert participants to possible dangers such as bears, snakes, and etc. and be told how to keep themselves safe (i.e. make noise while walking, stomp/clap/talk loudly.)
- f) Explain the participant's right to leave at any time, to see results of data and comment on those results/interpretations, if they like. Researchers will ask to collect information on a questionnaire to help better understand the data (10 minutes commitment); and to videotape the user's experience on the trail; to audiotape questions and responses. Explain that participants' names will not be used in the dissemination of data and will be coded and kept in a file stored by lead researcher. Researchers will provide a Consent Form to users listing their risks (no harm is expected), rights (to leave, to confidentiality, etc) and responsibilities and detailing the participant's consent to be audiotaped and videotaped; participants will sign and date the form.

2. Field Testing Steps

- a) Researchers will demonstrate how participants will use the phone interface, and explain (simply) that audio is the primary guide. Researchers will explain that

participants will be guided by the phone, will have various experiences on the trail, and will then discuss their experiences with researchers at various points on the trail (when researcher approaches), and at the end. Participants will be told they can ask practical questions at any time, but to try to avoid asking questions regarding the structure or strategies for moving through the experience. (Note: a different trial could include more information—telling users that there are narrative moments and audio moments.)

b) Researchers will answer any practical participant questions about operating the phone. Researchers will avoid providing participants information about GPS points or other technological aspects of the iteration until after the trial is completed. Researchers will take care to avoid providing information that would alter the participant's personal/aesthetic/ etc experience of the game. Participants will not be given any information that other game users wouldn't have access to when they use the finished product.

c) Participants take phones and begin experience.

d) Researchers will observe participants interacting with/ playing the experience, keeping a distance of a few yards. One researcher will take field notes while the other observes and answers participants' questions. Notes will include participant engagement, verbal and body language, and interaction with others (i.e. passers by, other participants) and the environment, and anything else of note, such as weather conditions or unexpected behaviors.

e) Researchers will allow participants to engage with the legs of the experience (i.e. up through the narrative) and through the whole experience until they feel they are finished.

f) After each narrative moment is experienced in completion, if participants are amenable, researchers will take a short time (no longer than 5 minutes) to query the participant's responses to the audio codes (i.e. the audio "navigation") and the narrative experience (see Interview Questions). Questions and answer exchanges will be recorded on a small hand-held tape recorder. Researchers will take care to keep this debrief short, and to hold the discussion in the same space in the location of the narrative story, to jog participant memories.

g) Participants will move through the experience, with quick debriefs at the complete of each narrative point in the experience.

Debrief Process for Focus Groups or Extended Interviews

Because users will have walked 2-3 km into the Hoodoo trail, researchers will hold the final debrief on the trail, to avoid participant's losing memory and because participants are likely to discuss the experience even if the debrief isn't held. Researchers will walk or sit with participants (depending on participant desire), and record answers to questions on a hand-held recorder. Note: if the experience tested brings participants back to the trailhead near the lab, participants can be taped on route to lab as they discuss and have a full debrief at the lab, 5 minutes from the trailhead.

The context of questioning

Researchers will query participants with an open-ended list of questions, encouraging the participant to discuss the experience as a narrative. Researchers will take care to not force ideas or experiences into the narrative, avoiding for example contextualizing or qualifying language. When participants provide a contextualized response, researchers

can then probe that remark, with open-ended questions, to fully understand the participant's remark. Researchers will seek to obtain permission to audiotape this conversation. Research questions will differ somewhat for "layer" or iteration of *Tracklines* (i.e. Geology vs. Ghost Stories). A list of research questions for the geology layer follows.

Note: It is preferable that new participants be employed to test other *Tracklines* iterations, as, given the critical method employed, participants engaged in testing will be availed (at the end of the trial) to much knowledge of the game strategy and technology. However, if subsequent *Tracklines* are developed for use by participants with experience of simpler iterations, it would be preferable to test on this knowledgeable (already tested) population.

Trackline Questions for Interviews of Participants

Note that researchers, at this early stage of testing the Geology layer, are interested in how little information regarding the game architecture and technological logic can be provided users but still allow them to experience the game. Specifically, researchers are interested in whether the sound navigation cues actually cue the users, whether users experience them as useful, extraneous, enhancing, related to the geography of the space or to the narrative story or other, etc. More broadly, researchers are interested in how users experience the trackline—whether it is enjoyable, in what ways, whether it enhances the walk and in what manners, and problems or unenjoyable features, and finally what users wanted and what they can imagine for the experience. Researchers will keep broad questions in mind as they interview participants to ensure that all possible data/answers are explored and to avoid pushing subjects to answer through a constrained lens of the experience set up by the researcher

Quick Debrief Questions to ask after each Narrative Point

- Explain your experience of that section of *Tracklines*.
- What parts did you like most? Least? Why? (*If more probing needed: did you like the audio that was introduced on the trail? Tell me about when you first hear it. Did it have a purpose; What was it? (If more probing needed: Did you experience it as unrelated or relating to something else?) Did you like it? Did you need it? Why was it there?*)
- Did you like story? In what ways; did you dislike any parts of it? (*if more probing needed: tell me about the narrator's voice and any other sounds you heard*)

General Open Ended Questions for all Tracklines Iterations

Researchers will ask the following open-ended questions and probe responses that participants provide, using participant's terms, again taking care not to "lead" the answers. Questioning will move from broad queries addressing general experience (and capturing the user's most prominent experiences,) to more narrow questions that can address eventually specific research questions (i.e. whether sound navigation worked, whether users liked the audio sound design or the narrative story.)

During the discussion, researchers will, ideally, share reflections with participants to be sure that the researcher is understanding and interpreting in a valid manner. Researchers will offer to forward the written interpretation to the participant's at a later date, to collect feedback, again to be assured that the researcher is accurately representing the participant's experience.

Interview Questions

Note that if more than one participant engaged in the experience, it is advisable to sit in a group to discuss these interview questions in focus group format.

- Explain your experience of the Geology trackline. (*if more probing needed:*, What did you do, why did you do it, how would you explain the experience? How did it feel? What was pleasure? What was less pleasurable?)
- How did you approach the experience?
- When playing the game, did you have a goal, aim or particular expectation? If so, please explain? (*If the participant doesn't understand-* Did you seek enjoyment, the end, or perhaps to investigate the experience's design? Something else?)
- Were there specific things you did/steps you took to engaged in the experience? Did you wonder what you were meant to do? If so, Why? How did that feel? (*if more probing needed:* Did you like feel like you knew or discovered the rules or structure of the experience; please describe that.
- After initial attempts to use the experience, did you change the way you engaged with the experience (*If more probing needed,* with the phone, with the trail, with the environment?)
- Were there parts of the experience that were better or more enjoyable than others? Why? Explain.
- How would you describe your feelings regarding your personal safety?
- Will you describe your experience of the trail and park environment during this walk? (*if more probing needed:* Did you feel more involved or engaged with anything around you during the experience? At what point in the experience?)
- Would you describe this as a complete experience or were there distinct elements or moments that you experienced? (*If more probing:* were there different moments of the experience that you recall?
 - How would you describe your role, if any, in the experience—What did you need to do? What experiences required little action on your part? Which required more engagement or decision-making or action? Did you like one situation/"role" better (i.e. the receiving roles or the active roles better)? Why?
- How would you describe your experience with the phone during the walk? (If no response, give multiple examples, i.e. did you find it clear, confusing, difficult, easy, etc?)
- Explain your attention to or interaction with other people (participants, people on the trail, research team) while using the experience. How did you feel about this? Did you want more or less interaction with others?
- Did you wish you had more information about the experience prior to playing it or was the information sufficient? Please explain.
- Did this experience remind you of other experiences you have had? (*if more probing needed:* hikes? media experiences? Etc.)

- What was the best part of the experience? The worst?
- How would you “term” the experience itself? (If participant confused, -- would you describe this as a game, something else?)
- Would you use this experience again? Would you want to use a different *Trackline* story/experience? If so, can you explain the *Trackline* and how you would like to experience it?
- What did you hopes or expectations did you have for the experience? Were these hopes fulfilled?
- Did you want anything else from the game experience? If so, please describe.
- In your wildest dreams, what would this game allow a participant/participants to do?

Tracklines Pre-Test Questionnaire

Name (will be kept confidential) _____

Age _____

Gender _____

Ethnic background _____

Career/Job _____

Marital Status _____

How many children do you have? _____

Do you enjoy hiking in the mountains?

If so, Why do you hike?

How often do you hike?

Do you prefer to hike alone or with others? With anyone in particular?

What are three things you like most about hiking?

What three things could most disturb your hike?

When you hike, do you engage in other activities? Name the activities; for example, snow shoeing, insect collection, etc.

I use/consume the following at least 10 hours per week: (please check all that apply)

	Up to 10 hours per week	up to 20 hours per week	More than 20 hrs per week
Walkman	_____		
I-pod	_____		
Cellphone	_____		
Palmpilot	_____		
Email	_____		
Computer games	_____		
Computer websurfing (for fun/entertainment)	_____		
Streamed audio on computer	_____		
Portable DVD player	_____		
Gameboy (portable)	_____		
Games at Video arcades			
Radio (music)	_____		
Radio (news/documentary)	_____		
Television	_____		
Films in home theatre			
Films at theatre	_____		
Novels/fiction books	_____		
Non-fiction books	_____		
Magazines	_____		
Other (please name)			

Do you own a cell phone? (if so, what type)

What features of your cell phone do you regularly use?

Do you consider yourself a “gamer” (that you for example like to play digital/video games?) What does that mean to you?

Please name any game genre or aesthetic experiences that are disturbing or unattractive to you. (i.e. horror, very fast editing, loud sounds, etc)
