Getting Your Evaluation Project Off the Ground:
A Practical Guide

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Agenda

- Introduction and overview
- Philosophy
- Some basic questions to help you start your research and do it well
- What your research project will look like
- An overview of some of the core data gathering methods or tools
- Focus Groups
- Interviews
- Observations
- Surveys
- Summary and next steps
Some core assumptions

• Most of you don’t do evaluation for a living
• Most of you have little training in evaluation setting
  – especially in an applied setting
  – and especially as applied to technology use
• Most of you can think of things you’d rather be doing than reading an extensive treatise on survey research methods
• Most of you do not have a lot of staff to help you do your evaluation
Given these assumption, in this seminar

- Ways for you to start thinking about your problem in ways that make evaluation doable given your limited resources
- Lightweight ways to design a project to collect heavyweight data and show real evidence of impact
- Practical examples of research protocols to get you started in designing your own and collecting data
For each topic

- Practical
- Lots of examples
- Differing degrees of rigor depending on the needs of the project and the resources at your disposal
- Some basic rules of thumb for each project
- Mistakes to avoid
Some things to bear in mind

- Your problem is not as unique as you think
- You may have more data than you think
- You may need less data than you think
- An adequate amount of new data is more accessible than you think

Hubbard 2010: 32
Which, translated into practical terms, means

• Look and see how others have evaluated similar things
• Think about what data you already have or already collect and what light it might shed on your current issue
• Don’t be overwhelmed – we will have you up and collecting data in no time
Starting to think about your research project

Think about the research question → Think about the scope and scale of the research question → Think about what data you need to answer your research question

Design your research protocols ← Choose a method or methods ← Think about what data you are able to collect

Gather data → Analyze and report the data → Fame and fortune!

Must manage GROUP DYNAMICS (speaking apprehension, conformity, etc.)

Somewhat EASIER TO IMPLEMENT (You are having a chat rather than “facilitating”)

Think about the research question

Think about the scope and scale of the research question

Think about what data you need to answer your research question

Think about what data you are able to collect

Choose a method or methods

Design your research protocols

Gather data

Analyze and report the data

Fame and fortune!
• Why do you need to do this research or evaluation?
• Is there a decision that your evaluation needs to inform?
• What is the definition of the thing you need to evaluate in terms of observable consequences?
• How much information do you have now?
• How much difference will additional information provide?

Adapted from Hubbard 2010: 32
Sharpening your research question will direct your measurement

“I want to measure the impact we have on students.”

“....probably as more students getting fewer detentions, decreased absenteeism, and a better attitude toward school generally”

“How are you defining student impact?”

“And you feel like your program will change these things?”

“That is the hope”.

“OK then lets focus the question around decreased detentions, absenteeism, and attitude toward their teacher specifically and school generally.
## Thinking about the scale of your evaluation project

<table>
<thead>
<tr>
<th>Audience</th>
<th>Resources</th>
<th>Rigor/Effort</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Best</td>
<td>Publications or Grant Funded</td>
<td>Totally &quot;Bulletproof&quot;</td>
<td>More extensive data collection</td>
</tr>
<tr>
<td>Better</td>
<td>Institution or conference presentation</td>
<td></td>
<td>Limited Test/Limited data collection</td>
</tr>
<tr>
<td>Good</td>
<td>Department or Internal planning</td>
<td></td>
<td>Examination of data you already have</td>
</tr>
<tr>
<td>Basic</td>
<td>Internal Use (limited Audience)</td>
<td>Limited and Few –maybe just you.</td>
<td>Examination of data that has already been collected/published</td>
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</tbody>
</table>

### Some things to bear in mind
- Your problem is not as unique as you think
- You have more data than you think
- You need less data than you think
- An adequate amount of new data is more accessible than you think
Things that are going to help you get the research done

- Time spent planning is well spent and will save you time later?
- Don’t over-estimate how much data you need – for either qualitative or quantitative studies?
- Record data as soon as possible and watch out for data integrity?
Questions or Comments
Focus Groups
Is a focus group really what you need / want?

"It's really hard to design products by focus groups. A lot of times, people don't know what they want until you show it to them." -- Steve Jobs, May 25 1998
Is a focus group really what you need / want?

**INTERVIEWS**
- Takes MORE TIME --- talking to several individuals rather than one group
- Great for DEEP EXPLORATION and CLARIFICATION
- Somewhat EASIER TO IMPLEMENT (You are having a chat rather than “facilitating”)

**FOCUS GROUPS**
- EFFICIENT --- You can talk to a group of people all at once
- Great for CREATION/INNOVATION ---- Less effective for deep EXPLORATION
- Must manage GROUP DYNAMICS (speaking apprehension, conformity, etc.)

**Interviews vs Focus Groups**
The 6-questions to consider when developing a focus group

1. **Who** should you talk to?
2. **The Protocol:** What should you ask?
3. **How/Where** should you...?
4. To pay or not to pay ($)...?
5. To tape or not to tape...?
6. How do I go from transcripts to conclusions?

Joshua H. Morrill, PhD
Morrill Solutions Research
Who should you talk to?

• Remember a set of focus groups do not necessarily need to be representative. Think about your goals. You need a group that will produce some information you can use.

• Sometimes focusing your group can provide a much clearer interpretation of what was said (and the group will “gel” more quickly).

• Volvo has found that if they meet the expectations of women they exceed the expectations of men.

• A city in upstate New York got very different perceptions of the city when they did segregated focus groups of young and old residents.

• Your goal is to create a “mini-team” that will talk to you ---and who feel free to talk with each other. Generally, 7 -8 people is an upward limit for my focus groups.
The Protocol: What should you ask?

Four -often forgotten- rules of thumb for making an focus group protocol

• Try to keep the group/ interview to 1-1.5 hours at the most. If you need more than that you probably need to sharpen your goals.

• Write out questions and follow-ups, but be flexible enough to go where the conversation takes you.

• Start by getting people talking about something easy. Build rapport-- get them comfortable talking.

• Remember you are having people give up a chunk of time. Make sure you are doing something that CANNOT be done in a survey.

Your flexibility will depend largely on the goals of your study. However, it is still good idea to account for enough time that allows people to diverge. You could stumble on something important!
Survey Mode

Last Option – Internet Interviews/ Voice Over IP
Internet interviews are increasing options availability and sophistication. However, currently there are technical issues that make this from being easy. But the ease of recording and flexibility could make this a strong future contender.

Second Choice – Classroom or Office
A free option of a private/available space. Make sure nobody will disturb you. Recording you are on your own. This is my most frequent situation.

Third Choice – Telephone
Harder to build a rapport and manage a conversation on the telephone. Not sure how engaged people are. Use this when absolutely necessary.

First Choice – Focus Group Centers
Offsite can create a nice neutral atmosphere. Good facilities for viewing and recording. But this option costs money.
To Pay....? To Tape....?

**Paying Participants**
- distorts findings.
- It ingratiates participants. It can be expensive. And you recruit people who value the payment.

**Taping Participants**
- heightens anxiety and will lead people to contribute less.

**Paying Participants is the right thing to do.**
- Payment (even token payment) shows participants this is a job. This seriousness can only help the quality of your results.

**Taping is necessary and your only record of the event.**
- Buy a good recorder that is unobtrusive.
- Give participants an “off the record” option.
How do I go from transcripts to conclusions?

A key for working with qualitative data is to draw out consistent themes or patterns across individuals or across focus groups.
Questions or Comments
Interviews
Is an interview really what you need / want?

The Protocol: What should you ask, and how?

To tape or not to tape...

Different kinds of interviews?

How / Where should you...?

How do I go from transcripts / notes to conclusions?

KEY CONSIDERATION:
This presentation assumes that you have already refined and settled on a research question.
Interviews: Advantages vs Disadvantages

**ADVANTAGES**
- Great for DEEP EXPLORATION and CLARIFICATION
- PRIVATE so can be a good way to hear sensitive information

**DISADVANTAGES**
- Takes MORE TIME---talking to several individuals rather than one group
- DIFFICULT to do WELL
- ANALYSIS of data can be DIFFICULT and TIME INTENSIVE

Is an interview really what you need / want?
Different kinds of interviews

**Structured Interviews**
This is done using a fixed set of questions in a particular order, from which the interviewer does not deviate. It is useful for interviewing very large groups, for seeing how people react to the same issue and if you have limited time. Less useful if you are trying to get a grasp on a fuzzy topic.

**Semi-Structured Interviews**
This will likely be the type of interview you do most often. It combines some of the flexibility of unstructured interviews with more guidance. You use an interview protocol which includes some follow-ups and space to probe.

**Unstructured Interviews**
You actually sit down to have an interview and you have a plan but the interviewer exerts a minimum of control with the idea being that the interviewee opens up.

**Informal Interviews**
What you might think of as normal conversations but you take good notes. Heavily used by anthropologists in the field. Limited applicability in ed/tech settings.
The Protocol: What should you ask, and how?

Four -often forgotten- rules of thumb for making an interview protocol

• Don’t make the questions over-complicated – you need to be able to deliver them easily and fluently
• Look at several examples, as you’re drawing up your protocol. And constantly refer back to your research question.
• Write out questions and follow-ups, but be flexible enough to go where the conversation takes you. Think about probes you might use in particular situations
• Do a pilot test of the protocol on people similar in characteristics to your target population.

Your flexibility will depend largely on the goals of your study. However, it is still good idea to account for enough time that allows people to diverge. You could stumble on something important!
How / Where should you...?

Priority 1: A quiet place away from noise and interruption
This can be difficult to manage. There is often the temptation to meet at a coffee shop or some other public place but these places present challenges with sound, interruptions and distractions. Rather try to ensure that you have access to an office or empty conference room or classroom.

Priority 2: A place where the interviewee is comfortable
Wherever possible I try to schedule interviews close to the “natural habitat” of the interviewee or in a neutral setting eg faculty offices or a breakout room. Even if this is a bit inconvenient for you.

Priority 3: Make sure there is a table handy
This may seem obvious but I have frequently found myself balancing notepad on knee. This doesn’t work well.

Priority 4: Take along an assistant
Even if you are only interviewing one person, having an additional set of notes, or someone to help cope with unexpected events is very helpful.
To Tape or Not to Tape....?

**Taping:**
This means you have full transcripts which allow for more rigorous analysis.

**Taking Notes:**
Means you listen better and have a backup if all else fails.

**But With Taping:**
Cost
Time
Permissions
Things Can Go Wrong.

**However, Notes**
Can be difficult to do while also conducting the interview.
How do I go from transcripts and notes to conclusions?

1. Dive up your note page eg two thirds for notes, one third to write down emerging themes.

2. The color coded method - Letter codes or thematic codes –

3. Excel or a matrix

- thing about simulations is that they are interactive and so students can experiment.
QUESTIONS OR COMMENTS
SURVEYS
Giving Life to a Survey: Controlled Chaos

1. Define Topic, Mode, Audience --- What you NEED to accomplish.
2. Review question file of interest/past reports, etc. ------- What you WANT to accomplish.
3. Write Survey. *Ideally not in isolation*
4. CUT SURVEY DOWN.
5. Test Survey

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2. This point is constricted a bit by length. But it is still good to flesh out what you want---then cut back later.
3. The loop between 3 & 4 is often constrained by time. This process will always take longer than you think it will.
4. Soft Test vs. Hard Test. The most important thing is to do some kind of test *before* going live.
Survey Modes: Pros and Cons

Up and Comers – Facebook and Cell Optimized Surveys
Two survey delivery modes in early stages of use are surveys released on Facebook and surveys that show up in your cell phone screen. While both technologies are promising—currently tests of each make participants very angry.

Second Choice – Mail/ Paper
Many places like Gallop are going back to paper surveys. People look at as something serious—and response rates are on the rise. DOWN: Can be expensive and slow

Third Choice – Telephone
Was state of the art until 5 years ago in terms of balancing quality and speed. Unfortunately, cell phone adoption has systematically distorted representativeness of phone surveys

First Choice – Online Surveys
Relatively inexpensive. Fast. Dynamic data entry. Allow for more sophisticated questioning than ever before. DOWN: People are starting to not complete web surveys at higher rates. Junk filters increasingly an issue.
**Initial Questions**

1. These should be non-threatening, easy to answer, quick. Get people in the door. People use these initial questions as a heuristic of whether or not to do the survey.

**Key Interest Questions**

2. This is where you are asking questions that are central to what you want to know. The raison d'être for the survey.

**Interesting/Varied questions can energize participants.**

**Demographics**

3. End with the most controversial demographics. Also remember the farther in you go to a survey the fewer people will take a survey.
Bad Question

The length of time I spent in the Emergency room was...
- Excellent
- Good
- Fair
- Poor

Agree/Disagree: The content on the site was easy to find.
- Strongly Agree
- Agree
- Indifferent
- Disagree

Better Question

The length of time I spent waiting in the Emergency room before seeing a physician was...
- Longer than I expected
- About what I expected
- Faster than I expected

Agree/Disagree: The content on the site was easy to find.
- Strongly Agree
- Somewhat Agree
- Somewhat Disagree
- Strongly Disagree
- I did not notice if the content was easy to find
Survey Length: Attrition

Response rates higher for motivated groups. Groups who feel a connection or guilt.

Money (and to a lesser degree raffles) will decrease attrition. But, you need to be careful it is motivating the RIGHT people you want.

Having prestige or name recognition will help increase start rates (but not necessarily completion rates)

Survey Length & Response Rate

- Started Survey 75%
- Completed Survey Among Qualified Respondents 68%
- Money (and to a lesser degree raffles) will decrease attrition
- But, you need to be careful it is motivating the RIGHT people you want.
- Having prestige or name recognition will help increase start rates (but not necessarily completion rates)

Source: Public Opinion Quarterly, Vol. 73, No. 2, Summer 2009
Survey Length: By Mode (Some Rules of Thumb)

**Mail/ Paper Surveys**
Take rates here are low, but those that do you can generally do a survey that takes participants about 10 minutes. The bigger issue is being sure return postage is paid and envelopes fit.

**Online Surveys**
Want to stay in the 15min to complete range. You can do more if you pay participants. You can also do a little more if you have a group of motivated people.

**Telephone**
A good interviewer can keep a low-motivated individual answering a survey for 15min. Interestingly, interviews can be significantly longer. But, for closed surveys most people stop paying attention after 20 minutes.
Survey Length: Venn diagrams as a visualization technique

A venn diagram of your survey can give you a visual sense of length and also help you start to lay out analysis plans. Look at overlapping areas and ask what that tells you.

This survey may be too long... or maybe not

A busy Venn does not mean you abandon long surveys but it does give you a nice visual cue to perhaps reassess the length.
Analysis: Comparisons are Key!

Surveys are At Their Best When Results Can be Contrasted or compared

- Look for groups within your data to contrast with each other. Resist “un-tethered” reporting!

- Borrow / steal then assimilate questions from other sources into what your are examining.

- Look for new, unexpected sources for data/ questions (PEW, MacArthur Foundation reports, etc.). Create an interesting question file.

“I have been an unabashed fan of NPR for many years, and have stolen untold excellent ideas from its programming” - Ted Koppel
Analysis: Comparisons are Key!

Surveys are At Their Best When Results Can be Contrasted or compared

Educational Attainment – No Comparison

- Bachelors: 49%
- Masters: 28%
- Doctorate: 23%
Analysis: Comparisons are Key!

Surveys are At Their Best When Results Can be Contrasted or compared

Educational Attainment – Comparison to U.S. Census Data

<table>
<thead>
<tr>
<th></th>
<th>Survey</th>
<th>U.S. Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors</td>
<td>49%</td>
<td>69%</td>
</tr>
<tr>
<td>Masters</td>
<td>28%</td>
<td>26%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>23%</td>
<td>5%</td>
</tr>
</tbody>
</table>
par·si·mo·ny  /ˈpærəˌmənə/  The idea that the simplest explanation of a phenomenon is the best one

Making a point with simple statistics is infinitely more powerful than the same conclusion reached through more complicated means. Save the complicated analysis and process for when it is needed.

No need to crack a walnut with a jackhammer!
QUESTIONS OR COMMENTS
Observations
The 6-questions to consider when planning observations

1. Are observations what you really need/want?
2. What kinds of observations?
3. The Protocol: What should you observe, and how?
4. How/Where could you observe...
5. What could possibly go wrong...
6. How do I go from transcripts/notes to conclusions?

KEY CONSIDERATION:
This presentation assumes that you have already refined and settled on a research question.

Joshua H. Morrill, PhD
Morrill Solutions Research
Are observations what you really want?

**ADVANTAGES**

- Very good at getting a sense of REAL usage or behavioral patterns
- Helps get you out of the self-report & opinion trap and survey exhaustion
- Can provide very RICH information

**DISADVANTAGES**

- Can be very TIME intensive
- Analysis can be tricky
- Can be difficult to standardize – depending on the type

Advantages vs Disadvantages of Observational Methods
What kinds of observations?

<table>
<thead>
<tr>
<th>Type of Observation</th>
<th>To collect...</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maps</td>
<td>Movements of people or positions of objects</td>
<td>Student mapping project</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="http://tinyurl.com/oevt77">http://tinyurl.com/oevt77</a></td>
</tr>
<tr>
<td>Ethnography</td>
<td>Cultures or patterns of use</td>
<td>Studies of IR or library use</td>
</tr>
<tr>
<td>Spot sampling or continuous</td>
<td>A sample of a broad range of uses or behaviors</td>
<td>Flexible classroom studies</td>
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<tr>
<td>monitoring</td>
<td></td>
<td><a href="http://tinyurl.com/3hz38uf">http://tinyurl.com/3hz38uf</a></td>
</tr>
<tr>
<td>Time allocation</td>
<td>To get a realistic sense of user behavior</td>
<td>Teaching time</td>
</tr>
<tr>
<td></td>
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<td><a href="http://tinyurl.com/638l4so">http://tinyurl.com/638l4so</a></td>
</tr>
<tr>
<td>Artifact collection</td>
<td>Uses, behaviors or outcomes based on survey of</td>
<td>Photos, contents of backpacks etc</td>
</tr>
<tr>
<td></td>
<td>objects</td>
<td><a href="http://tinyurl.com/oevt77">http://tinyurl.com/oevt77</a></td>
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Some guidelines for developing an observation protocol

• Yes you really should have a protocol or rubric laying out what you will observe, how often.

• Use this protocol to record your observations.

• If multiple people are doing the observing take steps to establish inter-rater reliability.

• Pilot the protocol just like you would any research tool.

• Beg, borrow, steal and learn from other project’s protocols

Be aware of and avoid making the protocol too complex and collecting too much data or data that could be misleading!
How / Where should you observe?

but also bear in mind.....

• A lot will depend on what you are observing

• Think about what kind of data you can get -- and what data would really supply the evidence of impact you seek

• Here can be some tricky ethical questions

• Your presence or the act of data collection can skew the results
How do I go from transcripts/notes to conclusions?

<table>
<thead>
<tr>
<th>Type of Observation</th>
<th>Type of analysis</th>
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<tbody>
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<td>Maps</td>
<td>Identifying themes – building a rubric based on those themes (and/or hypotheses) and doing closer analysis</td>
</tr>
<tr>
<td>Ethnography</td>
<td>Analysis of field notes based on themes or codes</td>
</tr>
<tr>
<td>Spot sampling or continuous monitoring</td>
<td>Breakdown of time by activity type</td>
</tr>
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QUESTIONS OR COMMENTS
QUESTIONS OR COMMENTS
Providing good research-based evidence of impact depends on

- A strong research question
- A solid research design
- Good overall organization
- Decent sampling
- Prompt analysis avoiding over-reaching
Asking the Right Question

Seek universal answers (comparative teaching effectiveness and cost of technology).

If you’re headed in the wrong direction, technology isn't going to help you get to the right place.

Seeks to show technology superior or inferior to other methods regardless of quality of methods, (bad pedagogy is bad).

It’s not all about technology (ignoring the context).

Ehrmann 1995
http://www.tltgroup.org/resources/Flashlight/AskingRightQuestion.htm
Some things to be aware of and avoid

• Beware of collecting too much data

• Don’t fall in love with one method and over-use it

• Beware of over-kill and applying too much fire-power to collect your data. We have tried to show that you can collect evidence of impact in light-weight and scalable ways.

• Even though you may not have a formal research and evaluation unit on campus or a staff to help you, there are people on campus who might be willing to help or collaborate. Find them and use them