

COMPOSITION BOOK

this research survival guide
belongs to:

OH, HI THERE.

What's up? I'm Ginny, and you are currently reading the very last part of my independent study. (Yay!/Thank God.) I spent this semester investigating design research – what makes it good, what makes it difficult, and what would make it easier.

This 15-week study culminated in a chatbot named Virgil, several documents on various research methods, and a *lot* of opinions on how research should be done. Since they're formed by lots of research and a fair amount of experience, I think they're well worth sharing, so I've compiled them into this guide.

So let's start by making a list of assumptions. I'm assuming that you have something to learn, and that I have something to teach. If you're down to participate, let's run with this test and see where it goes.

good research

Good research isn't easy. It usually takes either time, experience, money, or some combination of those three. This is especially bad for us students, as we usually have none of those. So, we either spend way too much time on research, getting bogged down in documents that will never see the light of day. Or, we put it off until the very end, and the project (plus our sanity) suffers.

But it doesn't have to be like this. Let's start with what good research even looks like.

THE KEYS TO GOOD RESEARCH

1. **It's implementable.** Good research is based on a single objective (at a time) that you need to answer to continue with your project.
2. **It's efficient.** Take the time you need to answer that question, and then move on.
3. **It's well-planned.** This will make the other two parts easier, but can be hard to do. That's where this guide comes in.



planning your research

FOUR EASY STEPS

1. List all of the things your project depends on that you don't know yet. Examples might include who your users are, or what the difficulties are in the process you're trying to improve.
2. Find the riskiest thing on that list that you can't answer with an internet search. This is the thing we'll test. If you're struggling with this, check out the page titled "impact-effort matrix".
3. Under the riskiest thing, write down three questions that you have about it. These are the questions your test will seek to answer.
4. Decide on the best way to answer these questions. I've described a few methods in the following pages, but here are a few things to think about when choosing:
 - Who do you want to ask?
 - Where are they?
 - Who else has problems like theirs?
 - What kind of an answer do you need?
 - Would a prototype help yet?

ethnographic study

INGREDIENTS

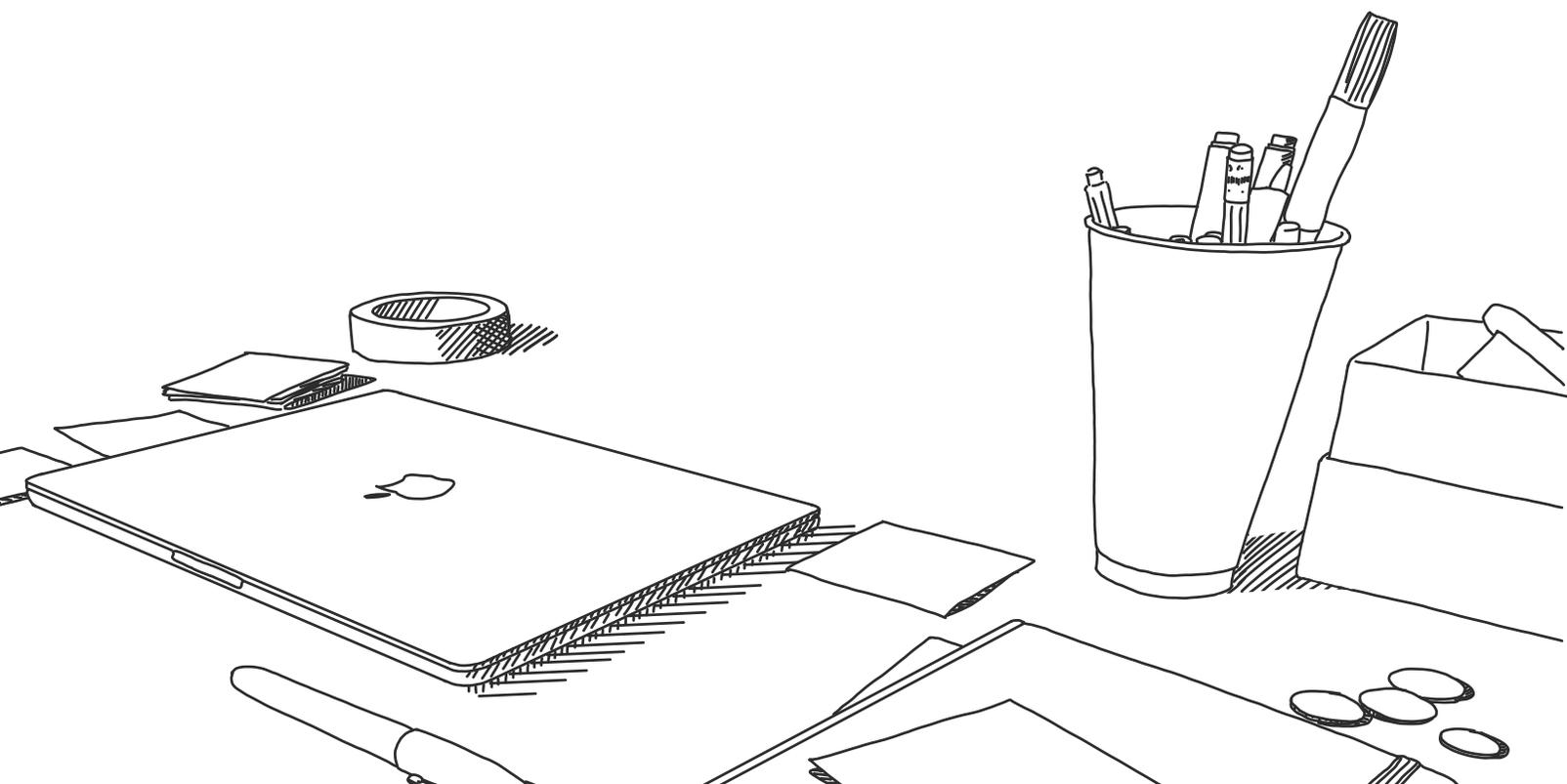
- Willing participants
- A location you have access to
- Three key questions
- A process or routine you want to see

YIELDS

- Journey Map
- Feature ideas
- Persona fodder

METHODS

1. Go and follow your participant while they do their usual activities.
2. This activity works best when you ask as few questions as possible, so their usual process can be uninterrupted.
3. Focus mostly on taking notes, so you can document the process. Be sure to look for interesting quirks. Improvised tools and shortcuts are usually great indicators of needs.
4. Listen to what they say, but really focus on what they do.



how to interview

INGREDIENTS

- A research plan, including a learning objective and key questions that everything else ladders up to.

YIELDS

- Good answers

METHODS

1. Either record the interview or have someone else take notes. Being free to actually carry on a conversation is important here.
2. On that note, it helps to be human. React genuinely to what they say. But that will be a bit of a balancing act – you don't want to lead their answers by saying “great point” or “good idea” too often. People genuinely want to help you, which means giving the “right” answers.
3. Start by asking them to tell a related story – it puts them at ease, and a “storytelling” mode is more likely to yield rich responses.
4. Ask plenty of follow-up questions, especially if you sense there's more to a story. When in doubt, a great one to ask is “Why?”.
5. Set clear expectations of time and tasks involved, and leave room for them to ask you questions. (Their questions will probably be all about why you're asking them questions, so best save that for the end.)



asking good questions

INGREDIENTS

- A learning objective that your questions will help answer

YIELDS

- Good answers

METHODS

1. Avoid closed, yes/no questions.
2. Think about what you're trying to understand: someone's thoughts, or someone's habits. If you want *habits*, then ask very concrete questions.

Ex: Imagine you're interviewing me about my meal prep habits.

You: "How often do you cook at home?"

Me: "Oh, all the time! I love cooking!"

The truth: I have only cooked a regular meal for myself about three times in the past month and a half.

You: "When is the last time you cooked?"

Me: "Ummmmm, last Sunday, I think. I've been super busy with the end of my semester!"

The concrete question gets a more specific and helpful answer, even though I was being honest both times.

4. If you want to get at someone's thoughts, then ask for them. But don't lead them towards the answers you're looking for.



interactive testing

INGREDIENTS

- A learning goal or concise topic
- Willing participants
- Planning
- Creativity

YIELDS

- Solution ideas
- Concept Map
- Journey Map
- User perspective

METHODS

1. Once you have a specific user group for your product, invite them into your design process.
2. Depending on what you need to know, design an activity that will invite them to create something that tells their story. Common examples would be writing their own journey map, or doing a card sort to put items into categories.
3. These instructions are intentionally left vague, because creativity is the best asset here. Everything depends on what questions you want answered, and what context you think will be best for providing those.
4. Take some notes during the session, and keep or photograph the artifacts created. This is also a great activity to involve the rest of your team in, if you haven't already.

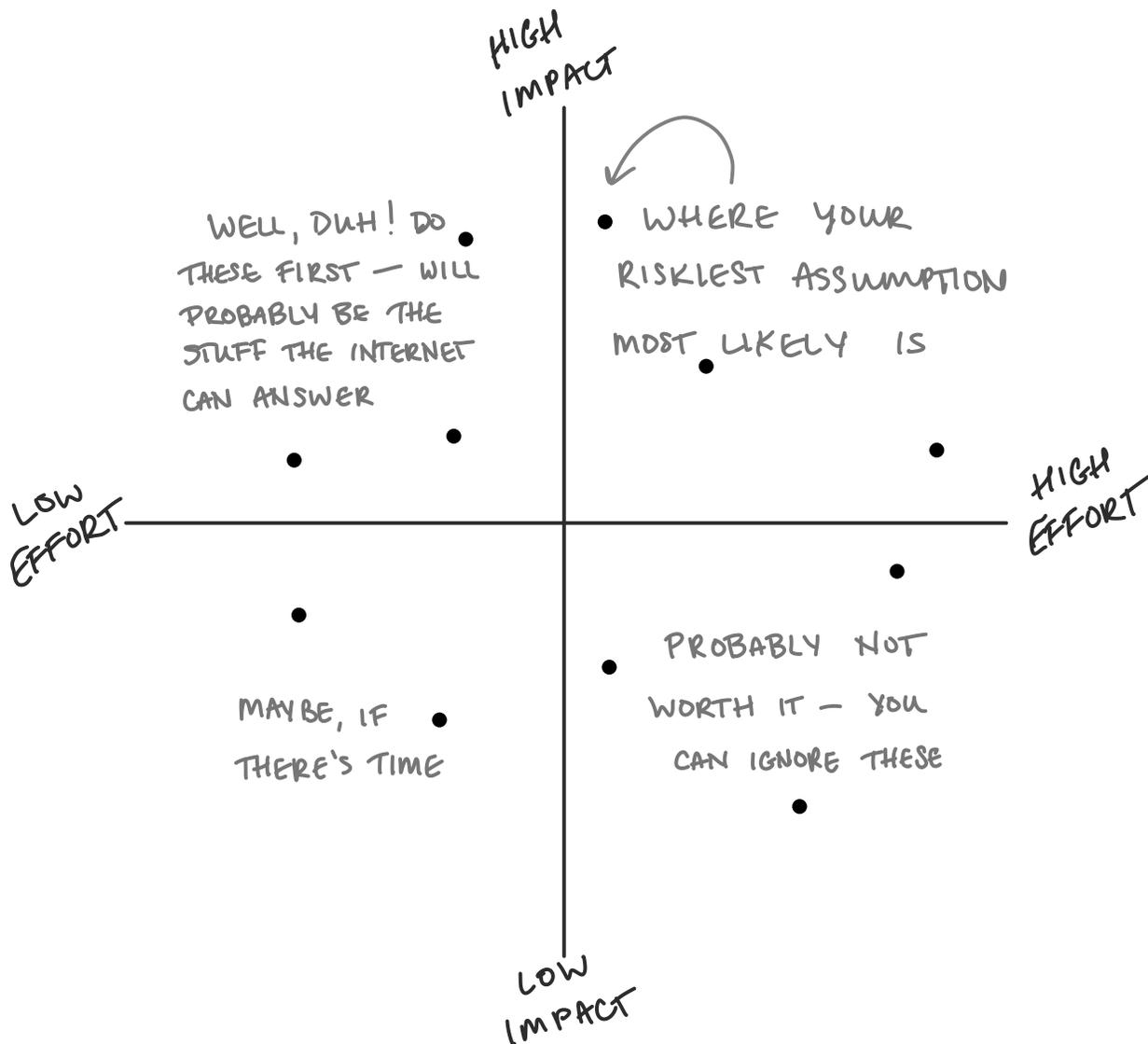
impact-effort matrix

INGREDIENTS

- Several assumptions to check

METHODS

1. On a chart like the one below, rank your assumptions according to their importance to the project, and how difficult it will be to validate them. **Bonus:** this is also useful for prioritizing features or solutions.



screening participants

INGREDIENTS

- A research plan, including a learning objective and key questions that everything else ladders up to.

YIELDS

- Helpful participants
- **Rough** quantitative data (from survey)

METHODS

1. First, decide on the best number of participants. For qualitative interviews, three or so might be sufficient. For a usability study, five is widely regarded as the magic number. More quantitative or unmoderated sessions should have at least 10-20 participants, since you're going for breadth over depth.
2. Look for people who will represent your target user group, or get as close as possible. If you can't find them, look for people with similar problems.
3. An open call on social networks, or asking friends of team members is helpful if you have no recruiting resources, but beware of only talking to people who are very similar to you.
4. If you want to be picky in your recruiting, a very quick survey could be helpful to create a pool of possible participants.



usability testing

INGREDIENTS

- A research plan, including a learning objective and key questions that everything else ladders up to.

YIELDS

- Design feedback
- Feature ideas

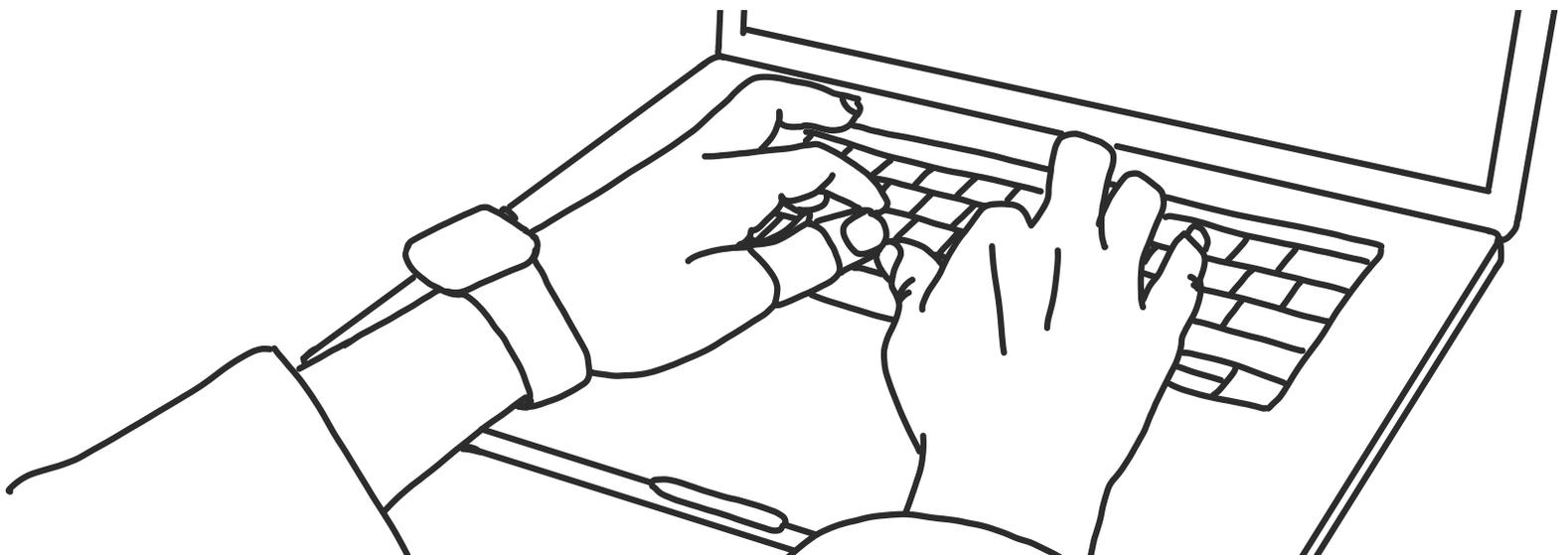
METHODS

1. Usability testing only needs about five people. Less, and you might not find all the problems. More, and you will probably hear nothing but repeated themes.

2. Watch their eyebrows! If you aren't doing a purely quantitative test, like seeing which button they're more likely to click on, then being in person really helps get richer data on their reactions.

3. Choose the participants and context that is right for your design. If you need to make sure it's very usable in a tough environment, do an ethnographic study. If you just need a quick gut check, showing it to random people in a coffee shop or your office works well.

4. Asking for feedback can be useful, especially as it pertains to content, but a pure usability test is best by setting a simple task, and seeing how easy it is for different users to complete.



synthesize results

INGREDIENTS

- Notes from a completed test

METHODS

1. Other than just answering your original learning objective, compiling your notes can be a good way to form new hypotheses, find new trends, or compile more information about your users. Here are some ways to do that.

1. HIGHLIGHT THEMES

- GOOD FOR INTERVIEW NOTES

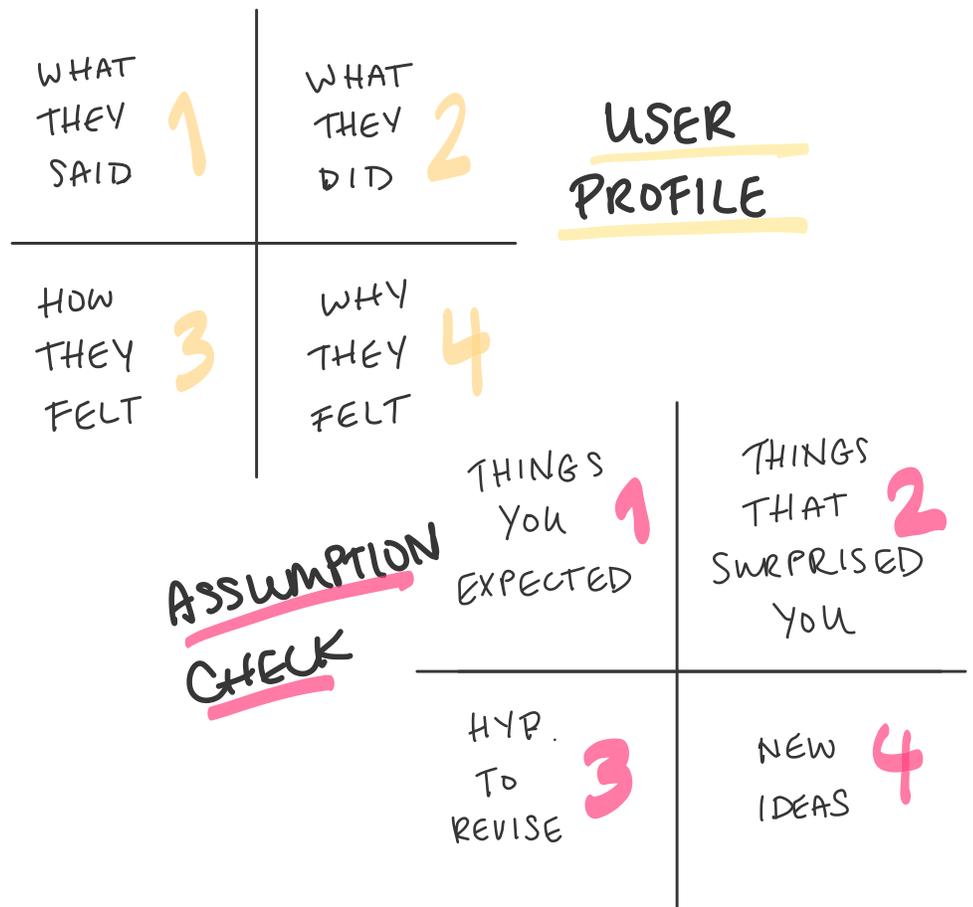
Q: ~~~~~
A: ~~~~~
A: ~~~~~
A: ~~~~~
A: ~~~~~

THEME 1

THEME 2

THEME 3

2. ORGANIZE YOUR THOUGHTS



survey building

INGREDIENTS

- A singular learning objective

YIELDS

- Information on users
- Very rough quantitative data
- Leads on things to interview about

METHODS

1. Don't.
2. Just kidding. Kind of. Surveys are too easy to overuse, for not much yield. Remember the part about asking good questions? The honest answers are so much harder to get when someone is behind their computer or phone screen.
3. Make only one survey for one purpose at a time. Any more, and it just becomes more confusing. This will also limit the amount of data you have to comb through to find your answers.
4. Test your survey before you send it out. The more iterations you make, the better information you get. This ensures that your time (and that of your participants) isn't wasted.
5. Make sure you're getting a variety of survey takers by using a variety of channels to send it.
6. When in doubt, just talk to people! Three interviews can get you more (and better) information than thirty surveys.

