

DESIGN BASICS FOR STARTUPS

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What's a startup?	2	Start with the Problem	12	Screening & Interview	
Opportunity	3	Qualitative vs. Quantitative	13	Do's and Don'ts	18
Market Research	4	Conducting User Interviews	14	Synthesis	24
Interviews	5	Recruiting	15	Quantitative	26
What's Lacking	6	Screening Basics	16		
Conclusions	8	Format	17		
Forecasts	10				
Break	11				

WHAT'S A STARTUP?

A startup is an organization formed to search for a repeatable and scalable business model.

— Steve Blank

OPPORTUNITY

- ...→ Design is a differentiator
- ...→ Investors recognize the value of design
- ...→ “A stunningly short supply of designers”

MARKET RESEARCH

Searched [Indeed](#) and [Angel.co](#) for “Designer” job opportunities

- WTF is a UX Designer?
- Interaction Designer (1), Visual/Interaction Designer (1), UX Designer (2), UI/UX Designer (2), Product Designer (11)
- Nearly all required Interaction Design (IxD) and UI skills
- Nearly all were looking for experience in either UX Research (Qualitative & Quantitative) or Front-End Dev

INTERVIEWS

- 18 companies—from seed stage to recent IPOs
- Design/Product leads, CEOs, GMs
 - 3 agencies
 - 3 acquired
 - 4 public/IPO
- 10 of the non-public companies have closed at least a \$1mil seed round backed by VCs that include Betaworks, Collaborative Fund, USV, OATV, Spark Capital, a16z, KPCB and angels that include David Tisch, Joanne Wilson, Alexis Ohanian, Joshua Schachter, Joi Ito

WHAT'S LACKING

- Contextual experience “Have they shipped anything?”
- Ability to deeply understand technical possibilities and tradeoffs. “Respect the science.”
- Too specialized; prefer “an M-shaped designer” instead of T-shaped
- UX designers with good aesthetic sense
- Ability to conduct research, analyze findings, translate into actionable plan, then execute and repeat.

WHAT'S LACKING (cont'd)

- Strong presentation skills; Lack ability to cogently communicate and defend design decisions to a product/business/technical team (though this is related to all the points above) “I hired [designers] because of their ability to articulate ideas, critique, and critically think through challenging problems.”

CONCLUSIONS

- **Product Design** is the new unicorn. “The term UX makes my skin crawl and it’s why I stay away from it”
- Organizations that have a need for Product Designers tend to have a Lean approach applied to early- or growth-stage products
- Product is design-driven, not engineering-driven. This is typically visible through reporting structures and leadership of the product teams.

CONCLUSIONS (cont'd)

- Designers are organized to work on product in parallel, not serially. Think several short-distance sprints, not a single, long-distance relay race.
- Those who have extended offers and/or hired designers from bootcamps have infrastructure for mentoring and training junior designers

FORECASTS

- Designers will be expected to have fluency in mobile dev
- Growth in connected devices and smart objects means product designers will need to be able to traverse hardware-software with mobile as the connective tissue

BREAK

START WITH THE PROBLEM

- A problem is the difference between things that are desired and things that are perceived.
- Research is the process by which we understand problems. Design is the process for which we solve problems.
- *Are Your Lights On?* Gerald M. Weinberg

QUALITATIVE VS. QUANTITATIVE

- Qualitative: Better suited for answering why or how to fix a problem
- Quantitative: Best for answering how many and how much
- Do you have sufficient sample size for a quantitative study?
- Are you interested in innovating (generative) or optimizing (refining)?
- Understanding de jure and de facto behavior
- Always have qualitative data: Not everything that matters can be measured. (Also **Campbell's Law**, **Hawthorne Effect**)

CONDUCTING USER INTERVIEWS

- Draft a test plan
 - Goals
 - Rough script
 - Test materials, prototypes?
- Recruiting
- Develop a screener
- Planning template, consent form, other templates

RECRUITING

- ...→ “I showed it to my wife.” Select qualified, unbiased candidates. Craigslist should be your last resort.
- ...→ “Everybody” is not your target market. Test among users you want, not the ones you have. (Also see **Innovation Adoption Curve**)
- ...→ If you’re looking to test for “the average user” within your target market, test for the two extremes
- ...→ If you’re testing a *mature* product, test across different user lifestages
- ...→ **Minimum 5 valid user sessions for usability**; at least 20 for quantitative study; at least 30 for developing personas

SCREENING BASICS

Why use a screener?

- Garbage in, garbage out
- Useful for developing personas and
- Structured data for segmentation analysis

FORMAT

- Typical Research Lab Screener: **Portigal Consulting**
- Simpler Screeners: **Pivotal Labs**, **Google Ventures**
- **Worksheet Template**
- Blind test: avoid using details that could bias the outcome
- Ethnographic (Product/UX) instead of Demographic (Marketing)
- Combine online forms (anonymous, convenient, easiest to distribute) with phone screening (allows you evaluate whether a person would be articulate and extroverted enough for an interview)
- **TypeForm** + **YouCanBook.me** + **Rapportive**, **Refresh**

SCREENING & INTERVIEW DO'S AND DON'TS

- Use indirect inquiry to avoid priming effects
- Avoid using language that would be difficult to own up to (i.e., **IKEA survey**)
- Avoid probabilistic and hypothetical questions. Instead of asking what they might do, find out if they've done something similar in the past.

SCREENING & INTERVIEW

DO'S AND DON'TS (cont'd)

- Avoid self-qualifying questions without a clear, consistent baseline (see **Dunning-Kruger effect**). Grasp their worldview.
- Compare with others
- Ask them to clarify their language (How would you describe that to somebody else?)
- Act like a naive outsider
- Explore changes over time

SCREENING & INTERVIEW

DO'S AND DON'TS (cont'd)

- Interview one person at a time. Don't conduct focus groups. They lead to **groupthink**.
- Don't read a script verbatim. Know your goals ahead of time. Have an outline or a rough script.
- Beware the **Product Death Cycle**. "When people tell you something's wrong or doesn't work for them, they are almost always right. When they tell you exactly what they think is wrong and how to fix it, they are almost always wrong." — Neil Gaiman
- The answer to any question that starts with "do you want" or "are you concerned about" will always be "yes."

SCREENING & INTERVIEW

DO'S AND DON'TS (cont'd)

- Be wary of your body language. Don't make faces, noises, or do anything that can be misinterpreted as judgmental and can interfere with your observations.
- Do not use leading statements. Ask open-ended questions.
Drill into the why.
 - Really? Why?
 - Can you tell me more?
 - Has anything changed since?
 - How did you feel about that?

SCREENING & INTERVIEW

DO'S AND DON'TS (cont'd)

- What features your customers ask for is never as interesting as **why they want them**.
- Do switch the script sequence to control for **anchoring bias**.
- Listen, don't talk. Paraphrase or misstate to confirm.
- Observe. Pay attention to behavior. What they actually do is more informative than what they say they do.
- Don't correct the person you're interviewing...even if they're wrong.
- Whatever people say they will pay for it is wrong. If someone says, "I wouldn't personally use it, but I bet other people would", no one will use it.

SCREENING & INTERVIEW

DO'S AND DON'TS (cont'd)

- Probe on problem areas. When are they most vulnerable?
- If someone says “maybe it’s just me, but...” — it’s not. Especially if it pertains to your product being hard to use or your marketing being unclear.
- If you want to charge money for your product, don’t talk to people who try to get everything for free. (They might eventually be customers, but not until your product goes more mainstream or becomes a de facto standard.)

SYNTHESIS

Combine user interviews with one or more of the following:

- ...> Journey Maps
- ...> Concept Models
- ...> Empathy Maps
- ...> Persona Modeling (why)
- ...> Design Studio
- ...> Affinity Mapping

BREAK

QUANTITATIVE

- **HEART framework**: Happiness, Engagement, Adoption, Retention, Task Success
- **Pirate Metrics**: AARRR! Acquisition, Activation, Retention, Referral, Revenue
- Useful UX/Product Analytics:
 - Segmentation (Demographic, Technology, Device)
 - Conversion Funnels:
 - General traffic: Audience > User Flow
 - Custom: Conversions > Goals
 - Event Tracking: **Tracking custom events**

QUANTITATIVE (cont'd)

- Cohort Analysis: **Hacking a Cohort Analysis with Google Analytics**
- Multivariate (A/B) testing: **A/B Testing w/ Google Analytics**
 - **This happens**
 - Tools: **Optimize.ly, Visual Website Optimizer**
 - **Common Mistakes**
 - Sample size too small: Both Optimizely and VWO use unacceptably low default sample sizes
 - Lack statistical significance
 - Not running test for a full term
 - Tests introduce too many changes from the control.
 - False Positives: **Google's 41 shades of blue**

QUANTITATIVE (cont'd)

Acquisition Drivers: What sources drive the most conversions?

→ **Report: Goals Overview > Full Report screen**

1. Go to Conversions > Goals > Overview.
2. Select Source/Medium.
3. Select view full report.
4. On the full report screen, select what you want to view:
(a) Source (e.g., Google, Twitter, etc.) and (b) select the goal(s) by which you want to filter.

QUANTITATIVE (cont'd)

Conversion path: # of visits before a visitor converts?

→ Path Length

1. Go to Conversions > Multi-channel funnels > Path length.
2. Select the specific goals by which to filter.

→ Events Overview: What do people do on the site?

1. Go to Behavior > Events > Top Events.
2. Optional: Select user segments (mobile users, users who convert, users referred by specific sources/mediums...)
3. Select Event Category, Event Action, or Event Label.

QUANTITATIVE (cont'd)

- Activity Mapping:

 - Behavior > In-Page Analytics

 - Another option: CrazyEgg

- Other Analytics Tools:

 - Remote User Testing: Lots of options for remote usability testing (not great if you want fine-grained ethnography)

 - Eye Tracking: Tobii, EyeGaze

 - Analytics: Intercom.io, Mixpanel, RJ Metrics

→ Surveys & Questionnaires

→ Smart Survey Design

→ You shouldn't use a survey if...

→ Recommended books: Lean Analytics, Naked Statistics