

WHERE'S THE *DESIGN*
IN DESIGN RESEARCH?

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Where's the *Design* in Design Research?

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This research and report was completed to satisfy Master of Fine Arts degree requirements in Applied Design Research at the University of North Texas in conjunction with the Design Research Center, an institute of the College of Visual Arts and Design.



For my wife, Amy.
Thank you for believing in me
when I didn't believe in myself.

Acknowledgments

The decision to set out to work toward an advanced degree is actually the culmination of many small decisions instead of a single change of course. In much the same way the act of completing all degree requirements, including a culminating research endeavor, is not the work of one person but is an outcome made only possible by the effort and encouragement of many. My completion of this research and my earning my Master of Fine Arts degree from the University of North Texas was only possible because of the people who have given me their support.

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INTRODUCTION

“Design” is a term that's pretty easy to throw around these days. Life-styles, thinking, communities, denim: all quite different but in some way, designed. So, in the wake of designed chinos, chairs and colonnades, what does it mean and what does it look like to conduct design *research*? It seems that most people I run into are a bit perplexed when I talk about design research. A few have even been so blunt as to share their thoughts that design research is just a ruse concocted to help designers feel more important and that designers should really just focus on making beautiful things for a not so beautiful world.

What does design have to do with research, and if anything, where's the *design* in *design research*? Based on my own research experience as a designer-turned-researcher I hope to shed some light on how designers have the unique personal and professional skills to be effective researchers not to replace their creative abilities but to augment them. Based on my experience in research and design I have learned that design isn't exclusive to research at all. I've found that the fusion of science and design can make futures possible that couldn't otherwise exist and can solve problems that couldn't otherwise be solved without this marriage.

Going Meta: Experience as Opportunity

When I was faced with the opportunity to conduct a research project as the capstone project for my Master of Fine Arts experience at the University of North Texas I was excited to dig into a project I could call my own. While goals for my research were to gain knowledge for myself and to make an impact for the benefit of others, I saw an opportunity to not just stop there. Considering the fact that many of my conversations over the past two years had me explaining design research to others (with varying degrees of success) I set a goal for my research to also serve as a case study that could be used to tell the story of design research in action. Throughout this book I will illustrate what it means to conduct research in, through and for design¹ by telling the story of my own process and what I learned, revealing the key intersections where design and research meet along the way.

Design opens doors
and enables people
to access and engage
with the unknown.

The “Roundel”

We all have knowledge inside of us that's hard to explain or express to others who do not share our expertise. This specialized knowledge can come from reading books, taking classes or other formal learning experiences, but when knowledge meets personal experience it often becomes specialized and nuanced to a point where it becomes very difficult to explain. Everything from riding a bike to quantum physics brings with it a degree of specialized knowledge. The challenge is *sharing* that knowledge in such a way so others can understand and can use that newfound knowledge for their own pursuits.

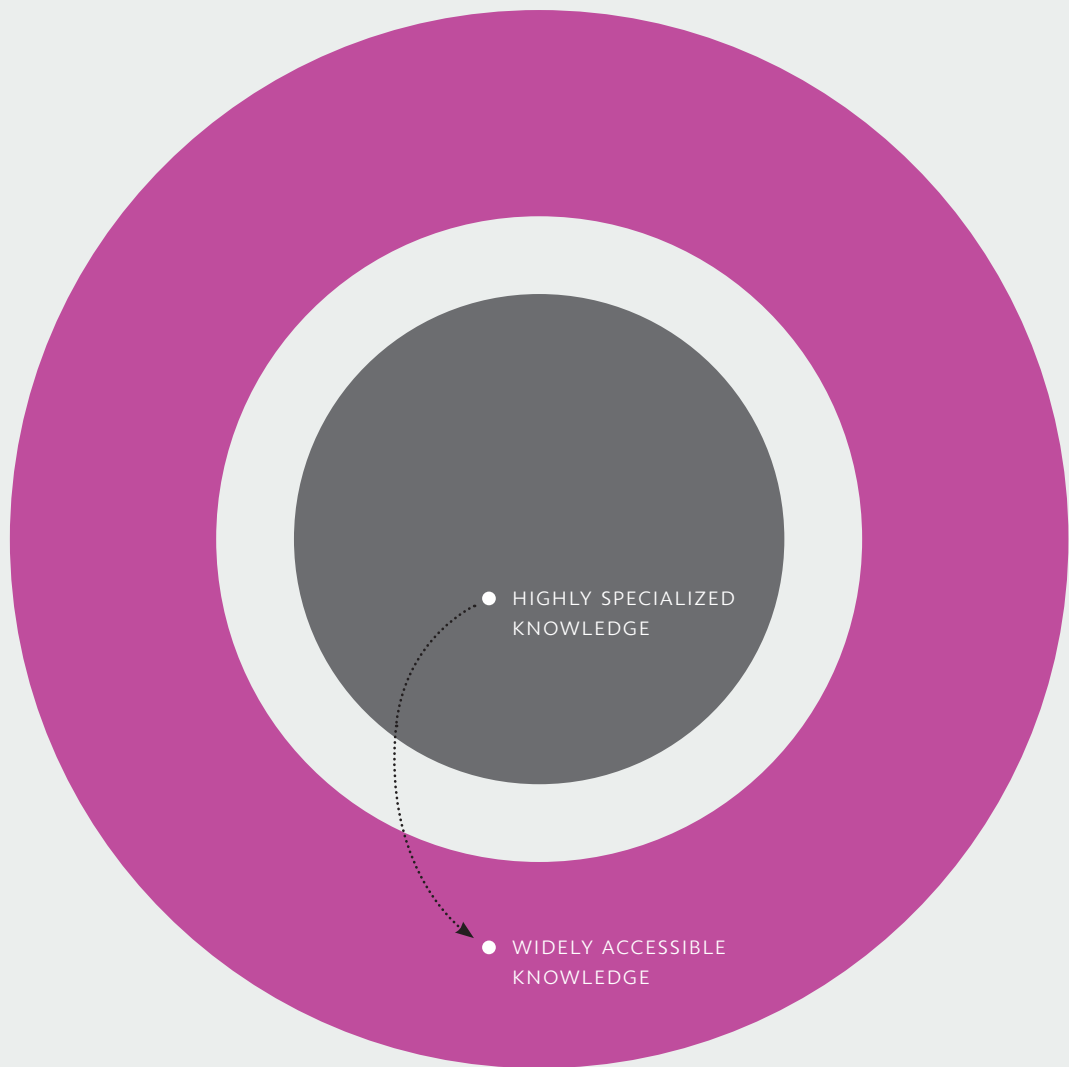
In this book I will do what my mentors coined as “operating the roundel”. This term captures the act of taking very complex, esoteric information and making it easy to understand. Imagine a small circle drawn inside a larger circle, creating a shape that looks like the United Kingdom Royal Air Force logo. In this diagram the center of the roundel represents a collection of complex concepts and thinking steeped in institutional terms and jargon. The outer circle represents that same knowledge translated so it is understandable for those who have limited expertise in that area. Both circles contain the same information, though the outer one contains translated information that's accessible to many.

Learn more about the Royal Air Force at
<http://www.raf.mod.uk>.

The work of “operating the roundel” is what designers do very well, and its something we must do well in order to successfully engage our clients and key stakeholders. In this example designers use visual, verbal and written communication to translate the highly specific information found in the center circle into easy-to-understand information deposited into the outside circle where those who lack that specific expertise, reside. What results is a happy synergy where complex ideas are shared so others can grasp them, regardless of their level of experience. As a designer and communicator, my hope is to take the highly specific information of both the nature of design research and of the research I have completed and convert it (“operate the roundel”) so those who haven't had my same experiences can gain the knowledge I've found, all through writing the information in this thesis in an accessible, unassuming way.

Accessibility

By now, you've probably noticed that this document is quite different from most masters' theses or doctoral dissertations. It's not that I'm swerving from convention to make some kind of point or to “buck the system” (or some other phrase like that) but rather I have chosen to write this doc-



THE ROUNDEL
OPERATING KNOWLEDGE

ument in such a way that it will be more likely to be understood and used. In his recent post at the website *The Chronicle of Higher Education*, William Germano, Dean of the faculty of humanities and social sciences at Cooper Union, writes how most scholarly writing is produced just for *scholars* and ignores a broader scope of *readers*. His post titled *Do We Dare Write for Readers?*² captures the essence of how I've chosen to approach this endeavor—as a book for readers, most specifically non-design researchers.

Scott McClellan, a past colleague of mine and a published author writing on the value of narrative and storytelling, encapsulated this idea quite elegantly during a recent meeting with some in-house design clients. When discussing ways our group of designers and writers could more effectively develop messages that would be taken away by others and shared, he offered a quote by Lippincott Creative Director Connie Birdsall, shared at the 2010 Brand New Conference in New York City³ that captured my endeavor nicely:

Lippincott: Brand Strategy and Design:
www.lippincott.com

*Keep your story simple so other people
can tell your story for you.*

In some way, his sharing that statement was self-prophesying: I'm sharing the story he told because it was easy to remember and share. My hope is to tell a story in such a way that you, too will want to think on it, use it and share it. In this vein, I challenge that, while scholarly writing and debate is necessary for hashing out ideas and innovation, it is just as important for these ideas to be translated in ways that can be understood, shared and *used* (by as many people as possible).

In a blog entry at the design website *Design Observer* titled *The Closed Shop of Design Academia*,⁴ writer, design critic and curator Rick Poynor accosted design scholars for their lack of engagement with design practice. His piece highlights the fact that those conducting research and teaching in design academia are expected to write and share their thinking only with other design academicians in the pursuit of upward advancement in their respective institutions. In the piece he notes that this means that joining the conversation with designers in design practice is seen as counter-productive to the advancement of design educators' careers and as a result, many academics don't bother to engage designers and the design industry.

I believe this stance only means that design educators and researchers as well as those in design industry are both done a disservice because of a

Design translates what's invisible into something visible and accessible (meaning included).

lack of exchange. This position is highlighted in Poynor's statement that "If academics are (or are supposed to be) first-rate thinkers, then their participation in public discussions is vital." *Where's the Design in Design Research* is intended to embody Poynor's charge by bridging the gap between design practice and design research with the hope that this foray honors both sides' unique skills and also calls each side out on the carpet for how we should be working together.

The Research

Throughout this book I will highlight aspects of design research by sharing the process and outcomes of my own research. Between August 2012 and May 2013 I developed and operated research to determine how men in the Dallas/Fort Worth area of Texas perceive the act of attending mental health counseling sessions and what barriers prevented their attending these sessions. Fueled by this research, my plan was to then devise and test design prototypes for overcoming barriers between men and their mental health with hopes that the data gathered from reactions to these design interventions could inform future research and solutions.

My process of determining a research direction hinged on my desire to explore a topic where my work could advocate for others. Another criteria for my research was that I wanted to explore a topic that could help affect change for a population largely undeserved by design research. I call this combination of design practice and social cause, *Advocacy Inspired Innovation* and it served as the focus for my study and the outcomes I produced. Details on this process of problem formulation and how my approach to the research was as much of an experiment as the research itself appears in the *Problems* section of this book.

As in any research project I encountered setbacks, discovered surprises and came to conclusions all of which produced new knowledge. My review of previous research into men and their attitudes on mental health revealed that the issue is much broader than just barriers that prevented men from attending such sessions. I also discovered researchers who were exploring whether some men even identified that they had feelings at all. My data gathering via surveys reinforced prior research that men tend to avoid talking about counseling and that they are a people group who is very difficult to engage using conventional means. The design intervention phase of my research prompted unexpected results that have already sparked thinking for future projects and my desire to push the prototypes further into clinical testing to determine their efficacy.

Learning By Doing

In all, *doing* the research was an effective way for me to discover the strengths and flaws of my own research design while increasing my understanding of the processes and components of design research through its operation. In the following chapters I have divided these findings into discrete sections that help shed light on the value of design research and also on what I found through its application to a challenging problem. By sharing my experiences and exploring the components of the process of research I will reveal how design permeates the research activity and its potential in approaching and solving complex problems.

Through “operating the roundel” of making my discoveries and research processes understandable and usable I wish to stress how practicing designers can combine their skills as creators and thinkers with research methods in order to solve problems in their communities in ways that were previously not possible without research. My hope is that you will learn from what I have learned and that it will fuel your practice, your understanding and your curiosity to explore what’s possible when we as designers extend beyond the application of our craft to the shaping of the environments where our work takes place.

Design Research

Now that I’m at the end of this process I have learned a lot about design research and research in general. In aggregate, my experience rendered three epiphanies:

- Design research is able to spark transformative change
- Design research can solve problems worth solving in ways that only it can
- Design research is not all that easy to share with and define for others

Through this document and the research it reports, I will do the following to help make my epiphanies more concrete, usable and, as Birdsall challenged, “simple” so you can share it with others:

- introduce design research to the uninitiated as a powerful spark for transformative change

- share design research with others to pique their curiosity, and engage them in the act in some way
- explain what I actually do for a living so my family will know what to write in their Christmas card letter
- as a review for myself by activating all I've learned and experienced in a culminating document

Based on my previous research work I had distinct goals for myself that I wanted to test out through its operation. Even before I had defined my question and research process the following elements were key to my process. These proved to serve as the “experiment within the experiment” through my application of processes and methods I had never before tried. For this project I decided I wanted to take an explorative approach to:

- test design thinking's strength as a mechanism to enable transformative change for a population underserved by design
- test rigor of research through addressing a tough population and difficult challenge
- explore what an innovation-driven attitude could produce

In all, I hoped to address a problem in such a way that the data I collected would be valuable on multiple levels, internally and externally, about my subject matter as well as about the process of research, itself.

Defining Design Research

As a hybrid pairing of scientific rigor and reasoning with design invention and iteration, design research can solve problems and reveal concepts that either approach alone can not. Design research combines the evidence-based, “I’ll believe it when I see it” nature of science with the creative and often disruptive makeup of design. This fusion of science and design is carried out with the goal of producing an outcome that makes a tangible impact, whether it be for profit or for not, but with the intent that resulting outcomes will affect change. These outcomes can take the form of knowledge for the design researcher, products and artifacts, systems or processes but the impetus of these outcomes is an impact upon society and those living in it.

A Working Definition

There seem to be as many definitions of design research as there are design researchers. Generally, design research is a fusion of the discovery and experimentation that results from research with the generative and inventive nature of designers and design. Design research grounds its approaches in factual evidence based on case studies and the research of other scholars and designers (often called “secondary research”). Design researchers then use methodologies both inherent in the social sciences and those emerging in design research for gathering specific data about the phenomenon being inspected. After the research endeavor has a firm footing upon which to stand, design researchers then leap from that solid platform into the generation of solutions for implementation and testing then iteration and refinement.

Stronger Together than Apart

In his 2004 paper published in the design journal *Design Issues*, Chris Rust explored the work of chemist and philosopher, Michael Polanyi and responded to Polyani’s position that a “logical gap” exists between what is currently known and what new innovations could be discovered.⁵ In other words, Polanyi was noting how science needed the ability to make inventive leaps in order to produce new and inventive outcomes. Rust captured this symbiotic relationship between short-sighted science and leap-happy design: “A central problem of science is how to recognize and define worthwhile subjects for investigation.”⁶ This seems to suggest that science is far better off with designers as part of the research process because designers, as I will explore later in this book, have the skills necessary to fuel new discoveries and directions for research. Rust continues later in his article:

If the gap between our existing situation and the new world which we wish to inhabit is made wider by our inability to conceive of what that world is like, then, I suggest, that is where designers can help.⁷

Polayni’s observations and Rust’s extension that science needs inventive leaps and that designers may be able to help it get there both allude to the strength of science and design working together. However, they also imply that design and science (in this case, chemistry) are separate so partnerships between the two disciplines are all that is realistic. An examination of the nature of the social sciences reveals that they are largely focused on how humans make sense of the world around them and how they engage

one another. When the nature of design is defined as a series of disciplines that shape exchanges between humans by shaping the environments around them, it is clear that design is a close neighbor to the social sciences because of their shared interest in humankind.

With this in mind, I assert that, while designers as partners with scientists can create powerful results for science, designers practicing social science is a far more powerful and compelling arrangement. While I am not saying that designers can and should become scientists, I am asserting that if we as designers take the time to learn methodologies and theory from the social sciences, we create what Rust asserts would be an arrangement for innovation. What results is designers as researchers who can both employ the gains made by social science research in their endeavors as well as partners who can confidently engage social scientists in collaborative projects.

My Hope

In all, my approach to this book is with the intent that readers will have an opportunity to gain insight into the opportunities design research affords by seeing it in action. I hope that this report will encourage practicing designers and creatives to remember that the ways they think and operate have the potential to make lasting impacts in society. I also hope that by reporting my findings and my processes, others will take what I have learned and will build on my experiences to inform their own endeavors. I firmly believe designers have a responsibility to the communities around us as we act as responsible neighbors. Solving perplexing problems needs new approaches in order to discover untried solutions. In partnering with others and bringing our unique skills and knowledge to solving problems in contextually sensitive ways, designers can shape solutions that will benefit and serve those around us.

RESEARCH PROGRESSION

A Start

In all, my approach to this book is with the intent that readers will have an opportunity to gain insight into the opportunities design research affords by seeing it in action. I hope that this report will encourage practicing designers and creatives to remember that the ways they think and operate have the potential to make lasting impacts in society. I also hope that by reporting my findings and my processes, others will take what I have learned and will build on my experiences to inform their own endeavors. I firmly believe designers have a responsibility to the communities around us as we act as responsible neighbors. Solving perplexing problems needs new approaches in order to discover untried solutions. In partnering with others and bringing our unique skills and knowledge to solving problems in contextually sensitive ways, designers can shape solutions that will benefit and serve those around us.

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DESIGNERS

As problem solvers, designers have skills that enable them to envision future needs and possibilities, to critically evaluate current situations, to develop plans for making the futures they envision possible and then to implement those plans and to test if and how effective they were at reaching the intended goal. Designers are creative and inventive but also disciplined in the ways they execute their work. A closer examination of designers reveals how their combination of idealistic creativity and pragmatic execution make them well-suited for conducting research.

I once heard it said that being a communication designer is a great advantage at parties. The rationale behind it was that designers are called on to know a little bit about everything which means that at a party where conversations are typically short, shallow but diverse, designers are at home pulling from their broad array of experiences that come from researching content for their clients. I'm happy to say that assertion is true. From my own career experience I've had to learn about perfumes, luxury hotels, paint sprayers, on-site nursing, fencing, pool equipment, Egyptian goddesses and micro brewed beer to name a few and what has resulted is a head full of bits and pieces that I often call upon when I design (and when I go to parties).

All party jokes aside, designers are a lot like train stations. Many different experiences, processes, ideas and sets of content flow through designers' lives but they all stop at one place. Much like passengers being dropped off at a destination knowledge is deposited and often transferred to others when designers share what they know with others thanks to their many interactions with stakeholders. The result is a bustling place; a person where intersections take place, often creating new outcomes (routes) that benefit the "cities" or environments around them.

Like train stations, designers are at the center of interactions with many points of view colliding at one point and this is where new ideas can emerge. This fluidity, much like what Steven Johnson addresses, is where

innovations often emerge.¹ Johnson captures the strength of designers as train stations in his idea that “chance favors the connected mind”. When designers are at parties they’re often revered because they’re well-versed in a variety of things. When designers are part of creative teams they’re often revered because they synthesize thinking into new ideas. When designers are part of conducting research they are revolutionaries because they help make leaps to new areas of exploration. All three are a result of a designer’s “connected mind.”

Designers Are Natural Researchers

Designers aren’t designers from the very start. In fact, if you ask a designer what they thought was “good” design when they first started, they’d probably tell you that it has changed a lot over time. While aesthetic skills are a significant component of design (after all designers are *makers*) other qualities are at play that inform the work designers do. From my professional experience in design practice and design education, design aesthetic is the translator of the message designers communicate, but the core qualities of the work is the function, itself.

Six Essential Qualities of Effective Designers

From my own professional design experience and from learning from other designers, six core qualities of designers have emerged as being essential for designers to be effective creators, thinkers and collaborators in their respective disciplines. These qualities enable designers to be creative and pragmatic at the same time. While these qualities are important for design practice, I believe they also contribute to designers as being insightful, effective, and transformative researchers and research team members.

Awareness

One of the most important factors that shape designers’ solutions is context. Because anything a designer develops must exist in a specific environment and because every environment is loaded with physical and non-physical influences, in order for solutions to be successful, designed outcomes must be created with context in mind. Successful and innovative designers absorb the culture around them. They ask probing questions of users and clients to more clearly determine their perceptions, aspirations and history. They “pick up” trends in both their own disciplines as well as what’s popular or “next” in areas outside of their expertise. In something of a cultural peripheral vision, designers take in great amounts of information from the edges of sight and consider these bits of infor-

mation when designing outcomes because they know that, at some point, their own designs will live in that field of vision.

This level of awareness is congruent with what cultural anthropologists activate in their fieldwork when conducting interviews and observations of cultural phenomena. In an interview setting, the physical environment in which the interview takes place, the tone of voice that is used, outward appearances and dress, gesturing and body language, even the promptness of the participant's arrival at the session are all considered integral bits of data that factor into the information being gathered. In the case of the interview, none of these discrete components of the session would exist if the interviewer were not keenly aware of them. In this same way, designers can be ideal researchers because they are experts at carefully considering the contexts in which their designs will exist as well as the ramifications of those contextual factors.

Curiosity

If awareness is a state of being aware of what's around oneself in a chosen context, then curiosity is the "what's that over there?" where designers pick out areas of interest within those contexts. Inherent in both seasoned designers as well as neophyte design students, curiosity manifests itself in individuals with all stages of design experience with varying uses. Designers "stay fresh" and fuel their processes with new ideas and approaches thanks to their pursuit of areas of interest outside of their "normal" design practice. They test out untried solutions in unexplored areas and discover materials, concepts, processes, configurations and then create collisions with all of these to discover new results.

The result of this curious nature is an individual who is skilled in thinking and making design with disparate bits of cultural milieu floating about their heads, ready to seemingly be pulled out of the air and applied or referenced. What emerges from this soup of skill and knowledge is often a multifaceted outcome, reinforced by multiple viewpoints and informed by a variety of disciplinary practices.

The curious nature inherent in designers also means that as researchers, designers are well suited to discovering otherwise under explored areas of interest for inspection. In the landscape of societal "normalcy" designers' curiosity is an inquiry-centric capacity that drives them to expand the scope of their vision and knowledge and by doing so, exposes them

As expert empiricists,
designers are practiced
at using their senses to
gain knowledge on the
way to creating culture.

to both new content to inform their research and opens avenues for the exploration of unique design solutions.

Empathy

Because a designer is a thinker whose job it is to move from thought to action, the designer uses capacities of mind to solve problems for clients in an appropriate and empathic way.²

Design outcomes are others-centered. Interior spaces intended to support office staff work are measured by their ability to encourage collaboration while providing privacy for sensitive discussions. Websites that inhibit users from accessing information across a variety of digital devices are deemed failures because they limit the flow of information. Graphic design that utilizes imagery and verbiage incongruent with cultures for whom they were intended fails to communicate messages clearly and becomes irrelevant. Regardless of the forms design outcomes may take, they can be considered only as successful as how well they serve the needs of humans who use and engage with those designed outcomes.

While designing outcomes for humans seems quite analytical, the most effective designers employ empathy to *feel* what users feel in an effort to better understand their needs and their world views. By seeing the world through others' eyes, needs are considered deeply guiding the creation process not from the designer's desires but from the perspective of those whom designed outcomes will serve. The most effective designers I have met are those who use empathy as part of their process, becoming like others in the work of discovering what it is to grapple with their unique challenges in order to inform solutions.

If Design Research is best suited to address social issues and problems that affect people, then designers' empathic skills are key in this work of sensing where areas of need and interest lie. Empathy for research endeavors also helps designers to identify with stakeholders in an effort to better determine their needs and the challenges they face. Seemingly as an extension of the designer's perception, empathy allows designers as researchers to sense areas for exploration. In other words, empathy enables and encourages personal understanding, and by "walking in someone else's shoes" designers learn the paths others walk and the challenges that must be faced when taking those strolls. By "walking" designers can create (and research) more relevantly instead of resting

on pure perception and assumption which informs their practice as well as their research.

Critical Thinking

If you have a discerning eye for details, you know how difficult it can be to buy a greeting card for a loved one for Valentine's day (or any card-worthy holiday). Written sentiments, card sizes, uses of glitter and typeface choices are among the aspects of a card one must consider when choosing the "right" card for the occasion. While many a designer has scoured the card rack for a pre-made card that would capture their sentiments and found them lacking, those "failed" cards have critical thinking to thank for their being left behind.

Before getting much further it's critical that I clarify that critical *thinking* is very different from the act of being "critical" of something. While being "critical" is to have a negative opinion of an idea, policy, film or some other thing, the core of "critical thinking" can be summed up as the practice of careful, precise and intentional evaluation. *What* critical thinking evaluates can be open to any content (including greeting cards, of course) but the essential quality of critical thinking is its careful examination of details both large and small.

In the 1940's and 1950's in the United States, American designers Charles and Ray Eames, best known for their innovative furniture design embodied the concept of the "connected mind" previously mentioned. Along with their industrial design, the couple produced films, designed museum exhibitions and directed architectural projects all with meticulous attention to detail. Capturing this central role of details and highlighting a need for critical thinking, Charles is known for having said "The details are not the details. They make the design". Eames's statement captures the role of the details as central to design, and in turn elevates critical thinking as an essential characteristic for design success. It seems that according to Charles it can be said that if a designer is not critical and does not pay attention to details, then they are not designing.

The most effective and innovative designers I have met and researched embody Eames's elevation of the importance of details. As critical thinkers, designers evaluate details for how they best support desired outcomes. As evaluative and detail-sensitive individuals, designers bring a dynamic to research that when applied, can reveal obscured and difficult to locate details. These details, if missed can have profound impacts on the direction

of research and its potential outcomes, including skewed data that could negate the accuracy of the research, itself. As critical thinkers, designers are practiced at evaluation and this skill can both illuminate and validate research outcomes.

Responsibility

Designed artifacts, interfaces, systems and structures all have agency,³ meaning they have the potential to affect the environments in which they are placed, including humans. While that may sound a bit like some kind of science fiction folderol, its best exercised when put into motion as an example. For instance, consider a digital interface on a smart phone whose typography is set at a type size that is minuscule and hard to read. The usability of the interface is a direct result of the design decisions that went into creating it and the outcome (really small type) likely would spark responses which could include users squinting really hard to read the type, giving up on trying to complete their work because the type was so small, or maybe even flinging the phone into a swimming pool in disgust. In any of these cases, the interface decisions made by the designer produced a product that had agency and affected users decisions in very direct ways (one recent example of this is the “failed” *Maps* iPhone app when it was shipped with Apple’s iOS 6 on September 19, 2012⁴). Considering designed outcomes have the potential to affect people’s decisions, designers are held responsible for their effects.

Over the last ten years, the most common call for responsible design has been the cause for environmentally sustainable products and processes. Many communication designers, industrial designers and architects have answered that call by employing recycled materials or designing structures or systems whose consumption of natural resources is reduced. While physical resources are one area where designers have focused their efforts, designers across all design disciplines are increasingly examining how designed outcomes affect behavior and can be responsible for serving humans beyond merely the reduction of the use of material. This approach has both highlighted the need for designers to consider the potential effects of their design decisions and to also proactively use their design skills to evaluate and create outcomes that can make an impact in the contexts in which their design outcomes are deployed.

Not unlike design, research is an activity that requires integrity, from the consistency of the methodologies applied in the interest of producing valid data to the ethical treatment of research participants. As individuals

whose outcomes have agency and in turn affect many, designers are accustomed to considering the needs of users and the potential effects that can come from them. In turn, designers as researchers can bring with them skills for both determining responsible research directions as well as a sensitivity for how research should be conducted.

Grit

Advertising campaigns can take months to develop to completion. Testing and refinement of industrial design can be seemingly endless. Garment design requires work day-in and day-out to move from sketches to stitches. Notice a theme? Design takes *time*—and designers who apply constant and consistent pressure to their craft are the ones who continue to prove their worth in their respective disciplines. Because the design process is one that usually starts from rough beginnings then matures through a process of refinement and culminates in the production of a final outcome, designers must have *grit* or else never see their designs reach fruition. With designers' abilities to have vision for their own future project goals comes their propensity for sticking with their work when incremental problems arise in an effort to see the final outcomes become realized.

Not unlike design, research takes time. Through its many phases, especially considering research outcomes have no due dates and projects can often wander in directions the researcher never expected, a great deal of patience and resilience is necessary. Designers as researchers bring with them the practiced skill of sticking with a process over long periods of time to complete the work regardless of the barriers that may present themselves. Whether they are a member of a research team or are the principal investigator on a solo project, designers' endurance is an invaluable asset.

Scientist as the Instrument

These qualities, not entirely exclusive to just designers but certainly present in the makeup of some of the most influential practitioners, create a picture of an individual with a powerful and diverse set of skills. With each project, designers constantly employ and refine these qualities in different measures, based on the project at hand. In the social sciences, especially in the practice of ethnography, collected data and its fidelity hinge on scientists themselves being the main instrument for data collection, meaning the quality of the observational and skills one possesses directly impacts the research outcomes. With this in mind and considering the qualities listed above, designers have the potential to be intensely detailed data collection instruments.

How Designers Reason

While creativity and science are too often seen as exclusive concepts,⁵ the fact that design researchers are comfortable engaging with theory and employing methodologies inherent in both gives them a vast array of skills and tools for research. Design researchers use these tools to discover research interests, to conduct research and to develop solutions. Another way that design researchers are unique from other researchers is their use of inductive reasoning as a process for research. A brief overview of deductive and inductive reasoning reveals that they work in opposite ways.

Deductive reasoning is referred to as a “top-down” approach where broad information informs a process of tightening thinking into a single conclusion for testing. For instance, someone who employs deductive reasoning may observe that in episodes of the 1960’s science fiction show *Star Trek*, most crew members wearing red uniforms (referred to as “Redshirts”) almost always die. This same person could then extrapolate (create a hypothesis) that while watching an episode of *Star Trek*, if Lieutenant Handley wore a red shirt, he would likely die at some point in that episode. This could then be tested by watching the episode to find that Lieutenant Handley would be killed by a Gorn, proving the theory. Of course, the more episodes of *Star Trek* one watches, the more they can test the hypothesis for its validity. In this way, deductive reasoning leads to valid conclusions as long as the initial theory is true.

Inductive reasoning begins with a single observation or instance which sparks research that explores the causes for that single instance. As mentioned earlier, design researchers, as design-skilled investigators, are adept at paying attention to details, which is a reason why inductive reasoning is native to design research. Using the *Star Trek* “Redshirt” example, an individual may watch an episode of the show to notice that Lieutenant Handley, who was wearing a red shirt, was killed by a Gorn. From this observation, the observer could create a theory that all “Redshirts” die. Upon conducting research by watching more episodes of *Star Trek*, the individual could then confirm that “Redshirts” are the unluckiest crew members in *Star Trek* because they are often killed off (but not always by Gorn, of course). In this case, a single observation triggered a process of inquiry that led to knowledge about a larger group.

Both of these forms of reasoning and inspection are used by design researchers, with inductive design being used to form theories and deductive reasoning being used to apply them. Regardless of the approach, both

deductive and inductive reasoning rely on the collection of data in order to inform conclusions. For design research, the data (evidence) that is collected is grounding for conclusions that then inform designed interventions that solve problems. With this in mind, it's a shame that design researchers didn't exist in *Star Trek* to help save some of those poor, hapless "Redshirts."

Applying the Way Designers Reason

Designers are adept at identifying details in the environments around them. Unique uses of color, building materials, fabrication techniques and user interfaces pique designers' interests and are then tucked away in sketchbooks, on digital notepads or as memories to be referenced and applied later. Regardless of the design discipline, designers' awareness enables them to discover instances that are worthy of inspection using inductive reasoning. In this way designers are much like cultural anthropologists who observe what's around them and capture their findings using ethnography. Christina Wasson, a cultural anthropologist and educator, addresses this idea:

Ethnography is an inductive process, not a deductive one. Rather than going out to the field to test predetermined hypotheses, practitioners try to keep an open mind and discover what "the natives" regard as the key issues. Such an approach requires creativity, intuition, self-reflexivity, and the ability to gain rapport with the people being observed.⁶

While designers are detail-oriented and observational, we can still be terribly assumptive. I believe this comes from the solution-centered nature of our discipline. Design processes and tools are largely geared toward creating solutions instead of saving data or inspiring exploration. The tools we use as designers are used for *making* things while the procedures followed and techniques applied are seldom examined because the focus of designers' efforts is the creation of end product to meet the needs of clients and stakeholders.

Many practicing designers spend a very limited amount of time researching users, their perceptions, desires and the ways they make meaning of the world around them. Aside from user experience, interaction design and in some cases, architecture and interior design, practicing designers trust a cursory amount of research, often gathered by someone else and

not requiring direct contact with stakeholders, in order to inform their designed outcomes. The result is a Human-Centered Design approach that omits the *human* and inserts *designer* as the expert on the needs of stakeholders and users.⁷

What is often missing from design practice is human research. Engaging people firsthand in order to learn their thoughts and perceptions allows design outcomes to be informed and evidence-based—not just evidence from another study, but direct evidence from the people whom the design will affect. Without this kind of research, design outcomes are largely based on assumptions. This “at a distance” approach to research has been prevalent in design practice but design researchers have also been guilty of relying on others’ findings instead of conducting their own fact-finding. Design researcher and educator Birger Sevaldson addresses this thinking and presents his observation:

Through lived practice one accesses the deeper layers of interpretation that would be inaccessible to distant observation. In this way, these research practices engage in very fuzzy fields of investigation in an inductive, bottom-up, theory building process. This aspect of ‘traditional sciences’ is often not understood in design research. Perhaps this is a question of not all design researchers having received formal research training from within an established discipline, such as anthropology.⁸

From my own experience can vouch that, as a designer entering the study of design research, I thought I was a detail-oriented savant. However, my study of cultural anthropology challenged me to “see everything through the eyes of a child,” assuming nothing when conducting “arm’s length” instead of “at a distance” research. Designers may be adept at seeing details and connecting ideas but it comes at the possible price of assuming we know everything about the topic of focus. By asking questions regardless of what we think we know, we can avoid the pitfall of missing the details that really matter—detailed discoveries that can reveal and spark transformative solutions.

Finding a Research Topic

Quite different from design practice, a topic for research is selected by the design researcher, often influenced by the environment and the community in which they operate. Design research can be used to inform

Critical thinking
designers discover
details that are critical
for research.

outcomes in traditional design practices, especially seen in user experience design and other “tool making” disciplines, but often, design researchers choose their areas of interest. Quite plainly, design researchers are biased—they choose an area of focus because it matters to them.

From my conversations with mental health professionals and based on my own experiences I had learned that most men are uncomfortable talking about their feelings and emotions. I have also experienced how men who have a difficult time knowing how to resolve their feelings productively often suffer from resulting negative behaviors. This collection of personal experiences combined to create my perception that men and emotions don't mix.

At the outset of my research, I had no evidence to draw from other than my own lived experiences and I wasn't sure if my assumptions had any grounding. Still, as a man who has been comfortable with expressing my feelings openly and has also suffered negative behaviors because I didn't know how to deal with those emotions productively, I had a feeling that there was an issue worth examining regarding men and mental health. While this observation-based *feeling* was a spark for research, I knew I would need to define an actual *problem* before I could test it out to discover if I had a clear, researchable and significant endeavor.

RESEARCH PROGRESSION

A Feeling

My research into bridging barriers between men and their mental health was driven by one overarching goal: to test design research methodologies for their ability to address difficult problems for underserved populations. Applying my training as a designer and my personal experiences, I had a *feeling* that something was preventing men from attending counseling sessions. In order to confirm that feeling, I needed to design a course of action for inspecting my topic more closely.

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DESIGN

If you watch television, listen to radio or pay attention to any kind of media you'll see and hear the word "design" used in all kinds of ways. There are "designer" jeans, celebrity designers, even the idea of intelligent design. Even the word "design" itself can be a verb or a noun and for that reason it often gets tossed around flippantly. With all of these uses (and misuse) it's no wonder there's confusion when it comes to understanding design.

The ubiquity of designed items also makes it difficult to understand or even recognize because design is all around. Cereal boxes, couches, yogurt shops, university curricula, billboards, smart phone apps, highways, bracelets—all of them have been designed and have been influenced by decision making processes that have made them what they are. In a westernized culture doused with technologies from the mechanical to the electronic, interactions are encouraged, limited and shaped by design. However, while design has a very personal role in our daily interactions—where does it intersect with *research*?

I bet the most common picture that comes to mind when the words "design" and "research" are combined is that of designers wading through stacks of carpet samples, stock photographs or color swatches in an effort to find just the right materials for the production of whatever it is they are creating. While research into materials or concepts for design is one significant reason why designers conduct research,¹ it's not the only way. Understanding design research requires expanding one's definition of design across its many forms, with the physical being only one.

Design is Physical

Design is most often thought of as a tangible thing such as a building, brochure or a broach. For this reason, designers are also most often defined by the objects they produce, as evidenced by how most design firm websites give prominence to the presentation of a portfolio of work. Even design schools and design education supports this idea where faculty and employers alike place very little (if any)

value on the quality of student grades but rather they focus on the quality of the work.

From my professional experience and career spanning several different design industries, I have found that the importance placed upon the objects of design is most readily apparent by examining the process of hiring a designer (regardless of the design discipline in which they work). In most job interviews in the graphic design industry, the designer's portfolio goes ahead of the candidate and is reviewed well before the résumé gets much attention. Most of a candidate's focus is placed on creating a portfolio that wows employers and as much time is spent creating the container or mechanism for the portfolio as is the work, itself. In fact, the physical is so important in these cases that *how* work is presented is considered part of the portfolio. In this light, the visual, physical, tangible artifact that must be felt, seen and experienced to be “real.”

As a graphic and interaction designer I have spent most of my career thinking that my discipline was design, and that applications like architecture, interior design or fashion were something else entirely. After all, they didn't primarily use Adobe® products to create their work so how much about design could they actually be? To me, *design* was all graphic and those other practices were actually science or art. The shocking truth; however, is that other design disciplines are as much a part of design as the work I do as a graphic designer. They go through a process of prototyping, iteration and testing to produce outcomes in a way that's not too different from my process that starts at sketching and moves through checking outcomes on press to verify they are matching my intent. This revelation challenged me to explore and accept that design is *outcome agnostic*. Regardless of the physical product, the process of designing was the thread that held all of these disciplines together. While my definition of design had always come with an outcome being the terminus of its process, I hadn't looked terribly close at the *process* and the types of thinking it engaged.

Design is Also Thinking

“Design is a plan for arranging elements in such a way as best to accomplish a particular purpose.” —Charles Eames

A literal definition of “design” can be simply stated as a *plan*. Considering this, design does not have to be a physical thing to still be design, rather it can take the shape of a procedure, a course of action or a direction to be followed. With this in mind, designed plans for anything from how people should flow through an airport to an organization of intangible ideas and concepts take their place next to the physical design outcomes we've all

come to know and to love. This approach has opened doors for experience-centric design disciplines like service design.

The term “design thinking” brings with it a variety of often incongruent definitions. However, most often “design thinking” is used to capture designers’ roles as meaning-makers and also makers of things that have meaning. Rick Poynor captured this idea by stating that designers are “Sense-Makers” and “Strange Makers.” According to Poynor, “Sense-Making” is the work of making the strange, familiar and easier to grasp. “Strange-Making,” Poynor asserts, is when designers make the familiar seem strange or unique.² “Sense-Making” clarifies and enables people to understand complexity and abstract ideas (much like the idea of the roundel noted earlier in this book). “Strange-Making” is best captured in the work of “differencing” as Poynor calls it, which is a traditional approach to design as a discipline that takes a mundane product or idea and makes it “sellable” by presenting it as unique and in turn, sought after, and ideally purchased.

Design as a unique way of *thinking* opens doors for new means of generating knowledge and for finding undiscovered solutions. In other words, design problem solving processes and the unique qualities of designers are effective for developing physically-driven design outcomes *as well as* solutions for problems outside of design. I have found this can be best said by asking the question: “as designers, what could we learn and what undiscovered solutions could we derive if we applied our skills in untried contexts?” This approach challenges designers to explore, experiment and in turn, to expand their definition of design broadly. This expansion of the scope of design hasn’t been widely adopted, evident in the fact that I’m writing this book, but also captured recently by Cameron Tonkinwise, Director of Design Studies at Carnegie Mellon University:

design week, design festival, design shows—all the things that make people who really believe in design despair desperately³

Dr. Tonkinwise’s tweet captures the contemporary state of design through the listing of common measures of design excellence which include design competitions that privilege aesthetic prowess. While his tweet chastises design practice for its shortsightedness it also lauds design as being more than physical outcomes that win trophies. I believe at its core, Tonkinwise’s statement is reminding the reader that design is thinking and

also that design has a bigger role in society than to be used in competitions. When design is applied as *thinking* I believe it can solve the problems that are worth solving and can make an impact to benefit humans. In this way, per Tonkinwise, I am someone who does “believe in design,” which is why my research project developed the way it did—as a service to others and a pursuit of knowledge instead of for show.

Applying Design as Thinking

From the outset, one of my main research goals was to “explore what an innovation-driven attitude could produce.” Leading up to this project I had found that my previous research endeavors and ensuing solutions had produced solutions that were fairly expected and mundane. Often, young designers struggle with the challenge of broadening their thinking to develop unexpected solutions. Graphic design students at this stage of development default to “safe” solutions like designing posters, brochures or websites instead of exploring nontraditional media. In 2012, I was still at a very early point in my research career and many of my design research outcomes were fairly “safe”. With this in mind, I endeavored to break away from expected outcomes, prompting me to explore developing a *disruptive hypothesis* for this research project.

The process of creating a disruptive hypotheses was informed by Luke Williams’s book, *Disrupt: Think the Unthinkable to Spark Transformation in Your Business*.⁴ Through the process of considering areas where design research may affect change, my idea of exploring men’s mental health was selected as a possible focus. I felt this project, whose goal would be to affect behavioral change had great potential to spark non-traditional and experimental design outcomes. Having experienced how traditional approaches to traditional problems often render traditional and often inert results, I developed a disruptive hypothesis for my research into men and mental health care:

What if men regarded the condition of their mental health as highly as they did the condition of their physical health?

I found that, by using a disruptive hypothesis as my ideal outcome, I felt as if I had permission to be more experimental in my approaches to the research. I recognized that the role of the disruptive hypothesis was not a prescriptive one—meaning I didn’t expect to come up with a solution that would get men to go out to the mental gym for an emotional work

out. But just the fact that the *ethos* of my project was a statement that captured an ideal future, meant that the projections for what my research could produce was hopeful, unlimited and full of opportunity.

Futurecasting

Having taken my *feeling* into account that there were barriers preventing men from attending counseling, I took time to explore where the research could progress if I were to move forward. Not too unlike the design process, at this step in my research it was important to articulate the process to quickly test it to see if it had merit, who it could help and what outcomes could be possible. In effect, at this point I began designing the research at a detail level equal to sketching.

In the interest of improving men's mental health by identifying barriers that impede their attending mental health counseling sessions, I projected that this research could be designed to both identify barriers and then to test out potential design interventions that would reduce barriers' potency. My goal for the research was that the knowledge gained through the operation of the study would inform local government, professional and nonprofit entities within the Dallas/Fort Worth area who have a stake in improving men's mental health. I also hoped that my findings could be generalized to support current and future research into the topic in comparable metropolitan areas beyond Dallas/Fort Worth.

At its most base level, I projected that this study and the solutions that could come from it would help lower barriers between men and mental health counseling. My hope for the research was that men could live healthier lives after proactively addressing their emotional needs by attending counseling sessions. From my own personal experience, I felt that men in need of mental health counseling were a largely undeserved group and that the neglect of mental health issues could often lead to reduced quality of physical health and destructive behaviors that have a negative impact on those around the individual. I also saw an opportunity for my research to benefit counselors by giving them data and solutions for more effectively engaging men who could benefit from treatment but who may not be comfortable attending.

RESEARCH PROGRESSION

A Hunch

By examining my “feeling” that barriers between men and their mental health through the lens of design—using design as thinking and exploration, I gained vision for how the research project could develop and whom it could help. Imagining the future research processes provided a clear timeline from which to work in planning for the endeavor. As a result, I confirmed my feeling which transformed into a *hunch* that the topic of men’s mental health was significant and deserved further exploration. The next step was to clearly define the problem I wished to solve.

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PROBLEMS

Every day, people are faced with problems that need solving. Jars of pickles that need opening, protests of dictatorial regimes to be coordinated, rush hour traffic routes to the airport... all examples of problems that have to be solved. Problems pepper our daily lives as human beings and they come in all sizes and degrees of complexity and at their core, the role of designers and design researchers is to solve problems, oftentimes quite creatively. In order to better understand design research we must take a closer look at problems.

Understanding Problems

By the way, while you weren't looking, problems got somewhat problematic. Instead of behaving themselves by staying where they belong in Rubik's® Cubes, leaky toilets and producing nuclear fission, they've gotten messy. While problems can be slippery things, they thankfully can be grouped and organized. A close examination of the characteristics inherent in problems reveals that they come in two flavors: tame problems and wicked problems.

"Tame" problems are problems that are solvable and have only one right answer. Math problems, installing a spark plug, landing a rover on Mars are all problems that only have one "right" answer. Because they have a "correct" answer, once the task of arriving at the answer is found, the problem is solved and done. This may sound a bit pedantic right now but it will make far more sense when we meet the other category of problems—wicked problems.

Wicked problems (no, I'm not referencing how hard it is to get tickets to see the Broadway musical) aren't as tidy as tame problems. As a concept developed by Horst Rittel and Melvin M. Webber in their 1973 paper *Dilemmas in a General Theory of Planning*¹ wicked problems weren't named that way because they're evil but because they're complex, like *wicked* complex. In fact, wicked problems don't even start as a clear problems but they must be defined and shaped so methods of problem solving can be put into place.

These types of problems typically center on social issues where values, perceptions and biases are significant factors which also means that wicked problems have no “correct” answer, only an solution that’s *more* or *less* desirable for those whom they affect. With this in mind, an individual, organization or community could attempt to solve a wicked problem by putting a solution into place but if that solution didn’t resonate with the most or the right people, the solution would be deemed a failure and a more fitting compromise would have to be put into place to be tested. In fact, wicked problem solutions typically get hammered on, refined and sometimes scrapped and redesigned many, many times. With so many stakeholders to “please” and so many changing contextual factors that surround them, wicked problems don’t stay “solved” very long.

But Wicked problems don’t stop when solutions are agreed upon and put into effect. Once solutions to wicked problems are put into place, new problems often arise as a result of the effects of the solution, itself. These problems are so complex, it’s nearly impossible not to create waves when implementing solutions. Like cannonballing onto a water bed were eight cats are sleeping, the initial action creates all kinds of reactions (and probably some frazzled felines). Wicked problems also have a variety of other characteristics that I won’t go into here, but suffice it to say, wicked problems are a sticky wicket.

Solving Problems, Designing Problems

While design has many voices, applications and uses, there is one common thread that holds all design disciplines together: problem solving. Regardless of the area of specialty, design is all about solving problems; specifically, *wicked* problems. Clients trust designers to address issues and then to recommend design solutions for how to best attack those problems to create desired futures. Whatever the design discipline, be it architecture, fashion design, interaction design or service design, the problems to be solved aren’t always clear and there’s always more than one answer (and lots of people who won’t be happy with the solution, anyway).

Considering the complexity of wicked problems, design as both thinking and as doing is activated in the process of solving and research to inform that thinking and doing is in order. But as a wicked problem, the makeup of the problem is ill-defined and fuzzy and the solutions are even more obscure. Hence, the work of designing the problem, and the research itself, begins.²

Designing the Problem

Based on my past experiences as a designer and a human, I had a hunch that there was a problem somewhere regarding men acting out negative behaviors due to the state of their mental health. While the hunch I had was a good spark, it was necessary to define a problem clearly so a solution could be possible and all had to start with defining a question to ask. In the spirit of wicked problems this research project started unformed, which meant that in order to begin my exploration toward a solution, I would need to clearly define the problem itself which included who and what was “within” the problem scope and who and what was outside of its borders (and in turn, not part of my exploration). At this point I only brought my own experiences and assumptions, but it was important for me to form the problem into a viable mass that could be researched for its validity and significance. What resulted from a long process of development was one clear, answerable question.

How do men age 30–40 in affluent Dallas/Fort Worth suburbs perceive the act of attending professional counseling sessions?

Designing my question took weeks of iterative development. Many times I would formulate a question then would do research into what others had found in the area of men and mental health only to realize my question had no firm footing and I would start over. I learned that question formulation is no easy task but it is necessary for fear that the research will answer the wrong question and in turn will have gone awry. Much like a ship setting out to sea on a voyage, if the coordinates for navigation are incorrect at the outset, the “arrival” will be exponentially off course hundreds of miles away. For my process, the design of the question was some of my most important work.

Hypothesis

Concurrently developed with my research question was the drafting of a hypothesis. This hypothesis was created to both test my research question for its relevance and also to serve as another navigation tool to keep my research “on course.” The same process of iterative development took place in creating a hypothesis for this project.

Problems seldom come prepackaged. In order to research, problems must first be designed and defined.

If the nature of barriers preventing men from attending counseling sessions can be determined and defined then relevant design solutions can be developed and tested to help reduce barriers and in turn, enable engagement and improved mental health conditions in men.

The resulting hypothesis was a small narrative that directed my research process to keep it on course. Over the period of eight months of research, my question and hypothesis helped me to choose the proper methods and procedures in the work gathering data and designing solutions to implement and test. Over the course of the research I repeatedly tested my question and hypothesis for their resilience and found in them both strengths and weaknesses.

Significance

While design practice and design research connect in many ways, one way design research differs from work in the design industry is the importance of significance. From my professional experience, clients initiate contact with designers and come with defined needs that must be addressed. Designers don't necessarily walk up to clients' places of business to tell them their goals and how to get there, rather the client determines the significance of their problem and then decides to hire someone to solve it. Quite plainly, because the client has the money to pay for the work, the job gets done.

Though a number of firms around the world do use design research to more effectively inform client work, design researchers often define their own problems. Following problem identification, design researchers must also determine whether those problems have any significance. After all, if design is about the work of serving humans and shaping human interactions, taking the potential for impact into consideration is warranted. At this step of the process, ascertaining problem significance is the use of critical thinking to determine if a specific place and time is the best one in which to solve the problem. In other words, this is when design researchers ask "why here, why now and who does this impact?"

The importance of significance for a research endeavor can be illustrated by my project examining men and mental health. Considering a major goal of my research was to test a design research approach to problem solving by operating it in a challenging and inhospitable envi-

ronment, my project would lack significance if it were run in an area where the act of caring for one's own mental health (an inward-focused practice) was common and accepted. For this reason, my decision to choose the Dallas/Fort Worth area for operating my research was a conscious and targeted one, largely impacted by the area's cultural makeup as being one where men give significant privilege to their outward, physical appearances.

According to a recent study of the Dallas/Fort Worth area by Maria Masters of *Men's Health Magazine* titled "The Most Vain Cities in America"³ two of the top five cities in the study were located in the Dallas/Fort Worth area. Both Dallas and Plano, a suburb nineteen miles to the north of Dallas, were listed in the top five and Fort Worth was listed as number 12. This research took into account the number of cosmetic surgery procedures like Botox injections, hair dying, do-it-yourself procedures like teeth whitening and shape wear purchases. The data collected also included accounting for the number of cosmetic dentistry and plastic surgery procedures as well as men's visits to tanning salons. User check-ins via Foursquare, a location-aware social media smart phone application were also used to determine incidence, type and location of use for these services and products.

A review of how the Dallas/Fort Worth area is presented in popular culture also reflects its residents' attitudes on the importance of outward appearances. Few cities across the United States have been presented in as "showy" a way as the Dallas/Fort Worth area has, possibly fueled by the state's claim that "everything's bigger in Texas." Even compared to other cities within the state of Texas, the character of the Dallas/Fort Worth area includes an overarching attitude that many of its residents' outward appearance is of significant value and is a source of pride.

On American television, this area has been regularly featured as a place of interest. The prime time television soap opera *Dallas* is the best known of all shows to feature the area. The show, which premiered in 1978 and ran until 1991 on the CBS network, contrasted cowboy ranchers with oil-tycoon magnates. These archetypes and the drama that ensued between them were featured among the backdrop of a glistening, mirrored-glass city where beautiful, jeweled, well-to-do women and trim, handsome, chiseled men graced the screen, depicting struggles for power and fortune each week. The show was immensely popular, with one cliffhanger episode in 1980 being one of the most highest-rated telecasts of all time.⁴

The Benefactor, a reality television show on the ABC television network featuring multimillionaire, Dallas Mavericks owner Mark Cuban premiered in 2004 and ran for six episodes. While the show was not widely viewed, the fact that it was featured nationally and tied to a very public, Dallas figure is evidence that his persona and the cultural weight of the city was significant enough to warrant the launch of a television show. It also echoes the attitude of risk, wealth and success inherent in the area's culture, exercising itself through the depiction of mansions, expensive cars and material success.

While short-lived at 10 episodes, *GCB*, originally titled *Good Christian Bitches*, was a comedy television series shown on the ABC network in the United States that took place wholly in Dallas and its suburbs. The series, much like *Dallas* showcased wealthy, materially successful characters and the bickering backstabbing that took place between them. While *GCB* was written to be an over-the-top comedy, its depictions of material success, physically beautiful women and the handsome, well-dressed men who pined after them served as a caricature of truth based on the city's perceived, outwardly-focused culture where inner character is discounted.

Aside from television, several other popular culture phenomena stand as examples of how the Dallas/Fort Worth area is regarded as a place where outward appearance is of significant value. For example, the Dallas Cowboys of the National Football League (American football) are regarded as one of the flagship franchises of the league. Much like what the New York Yankees would be to baseball or Manchester United is to soccer, the Dallas Cowboys are elevated as an "ideal" in the sports world and the franchise has risen to the occasion of taking their place as a figurehead. Several qualities have helped raise the Cowboys to their high level of status of being the self-proclaimed and self-branded "America's Team."

The Cowboys blue star logo which has changed very little since the team's inception, has established the Cowboys brand and consistency and stands as a visual and promotional statement for the team. The architectural features of Texas Stadium (1971) and Cowboys Stadium, built in 2009 stood as iconic venues defined by their features where their forms were as much brand as the Cowboys blue star. The most iconic and memorable feature of each stadium is a prominent opening in each stadium's roof, resembling the opening featured in the ceiling of the Roman Pantheon, but in a more grandiose "everything's bigger in Texas" way. Both the unchanging Cowboys logo and the forms of the teams stadia are examples of how

the team and its leadership privileges the value of outward appearance in establishing its unique identity.

The greatest example of the Cowboys' exemplification of physicality and showy appearance are the Dallas Cowboys Cheerleaders, whose 36 members may cheer at games, but their promotional function serves to highlight the franchise and to add sex appeal to the team's gridiron personality. With trademarked, star-blazoned uniforms that allow each member's busty physique and a generous amount of midriff and leg to show, the organization prides itself on its presentation as a model for physical beauty. The cheerleaders produce swimsuit calendars, travel to visit American soldiers serving in other countries and have a local presence in the Dallas/Fort Worth area through their service to and shows in the area. The Dallas Cowboys Cheerleaders are well known throughout the country as the premiere professional cheerleading squad, spreading the outward identity of the team and the area it represents.⁵

While hardly an exhaustive review of how the Dallas/Fort Worth area's popular culture iconography, this review begins to reveal how its citizens self-identify as visage-focused and also how others outside of the area validate this attitude. Because one of my major goals for the research was to do work that was contextually significant, it was important that the research be conducted in an area where I could find a distinct contrast between the privileging of physical and mental health. Through a review of the area's popular culture alone, just such a contrast emerged and gave significance to my endeavor as an appropriately focused project.

Scope of Limitations

Designing a research project includes deciding what to examine but also what not to address. When beginning my research process I limited my study to men age 30–40 residing in the Dallas/Fort Worth area. This was done in the interest of focusing the research on a range of ages when men experience a time that, based on my own experiences and observations, is something of a crossroads. This assumption was later supported by my review of literature on the topic.

My approach to researching these barriers was framed by studies within psychology on mens resistance to attending counseling sessions. Study of the phenomena was limited to the practice of psychotherapy and counseling because these areas are specific to mental health emotions. For the sake of this study the definition of "counseling" was limited to professional,

certified counselors who conduct psychotherapy sessions with individualism groups or couples as their main source of income.

Tightening Focus

After establishing my research question and hypothesis then confirming that my project had significance within the context of the Dallas/Fort Worth area, I tightened the focus of my research by generating questions. As a practicing designer, I have become accustomed to asking probing questions of clients in an effort to learn of their goals and of any significant challenges that may exist in the process of reaching those goals. In much the same way, a series of questions came to mind for this research project including:

- Are men 30–40 years old in the Dallas/Fort Worth area aware of their emotional health and does it have any agency in their decision making?
- Are men 30–40 years old in the Dallas/Fort Worth area aware of available mental health counseling resources and do they know how to access them?
- How much agency does the cultural makeup of a man's environment have in preventing them from obtaining mental health counseling?
- How do men 30–40 years old in the Dallas/Fort Worth area perceive the experience of participating in a mental health counseling session and does this perception prevent them from actually doing so?
- What is important to men 30–40 years old in the Dallas/Fort Worth area if they were to attend a mental health counseling session?

These secondary questions helped to further refine my project focus and were especially helpful in guiding the development of questions for my research surveys. These questions also helped me to ensure that as I developed the research design I was asking relevant questions of both research participants and of myself, ensuring that the data yield was valid and that my operation of the research project would not swerve it away from the data I hoped to gather.

RESEARCH PROGRESSION

A Problem

The process of refinement and clarification of the *hunch* I had about barriers that prevented men from attending mental health counseling sessions had shaped an actual *problem* for research. Without a clear focus for research, it is impossible to know what questions to ask and what must be answered in order to conduct a thorough investigation. Having defined the research problem I was ready to learn from what other researchers had studied in this area to inform the design of my own research.

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EVIDENCE

Humans do not seem to like the unknown. From scientists wanting to know if and where a meteor will strike the Earth to my kids prognosticating about what's in their wrapped birthday presents, we humans are usually dying to find out so we can make plans. All through history, humans have used science to help make sense of the world and to help us to predict what's on the horizon. Currently there are many things science still hasn't explained but if history holds true, more invisibles will become clear as those who are curious (and uncomfortable with the unknown) continue to explore.

Why Science and Design?

The predictive power of science allows designers to uphold our assertions with evidence. Humans are biased, impatient beings and we have a tendency to think we know exactly is going on no matter what. But this highly assumptive stance is couched in arrogance and ungrounded if evidence isn't presented to back up our claims. By using a scientific and methodical approach to determining what's really going on surrounding a phenomena, humans (and human designers) can move forward with confidence we aren't making things up.

For much of my career as a designer I felt that design and science had no place in the same sentence. I felt that as a Creative, science would only stand to erode my art and my craft. But I've learned that science and reason rewards us with context so we may more clearly understand what *is*, displacing notions and hunches with fact-informed evidence. While design is a generative, procedural and culture-constructing activity, the grounding that comes with scientific rigor more effectively informs design decisions to help increase the likelihood of success and acceptance of our solutions.

Using methods developed and practiced by social scientists, evidence can be gathered to strengthen the relevance and accuracy of an endeavor. The validity and quality of research outcomes relies on the quality of the

research design accounting for bias and other variables that could dilute the quality of the data gathered. In this design-science-design process, taking care to use design skills to design research projects renders a research project that produces strong and clear evidence whose outcomes inform design solutions for lasting impact. Science and design *do* belong in the same sentence, with the result being a rigorous and effective, creatively infused product: design research.

Research Shapes Problems

Society is growing to be more nuanced, complex and globalized, and with it, design problems are also increasing in their complexity. This means that assumptions and “guesstimates” are no longer sufficient when addressing problems. As I explored in the *Problems* portion of this book, problems are problematic, and design problems (or at least, the problems design is called on to solve) require research in order to inform effective and relevant solutions.¹

Designer and author Jens Bernsen eloquently highlights the position of prominence problems have in design through his statement “the problem comes first in design.”² While almost embarrassingly simple and straightforward, the phrase reminds designers that we cannot solve (design) without first having something to solve. But each problem itself has wrinkles and much like paintings by Monet that show the interaction of shadow and light as they change through the day across the facades of cathedrals, a problem placed in a different context (culture, time, place) will have drastically different looks and feels, and in turn, solution spaces and courses for action.³ For this reason, research allows investigators to clearly determine the shapes of contexts and problems alike, preparing the way for design.

Standing on the Shoulders of Giants

At this point in my project timeline, I had started with a *feeling* that a design thinking approach developed into a *hunch*, which was then refined into an actual *problem* with clear boundaries. The next step for the research was to gather evidence from other researchers’ work in an effort to solidify my research design. This review of existing research on men’s mental health issues provided me with both background information on the topic as well as an experienced body of knowledge from which to draw for the refinement of my own research project.

One of the most significant benefits of reviewing literature was the opportunity to gain insight into the relevance of my research design when

compared to the existing body of knowledge. By no means am I a psychologist or psychoanalyst, which means that I needed to learn about the topic from those who *were* experts in these fields. A review of literature is akin to sitting in a room with all of the experts in an area at the same time and by pulling their findings to inform my process, I gained insights that shaped the questions I asked, the goals I set and my expectations for the project's outcomes.

Also, by engaging the research of others on the topic I ensured that my research and solutions were supported by facts instead of being based on my "hunches". Lastly, a review of literature published by other researchers enabled me to "speak the language" of the discipline I was hoping to serve in the interest of fostering collaboration with researchers in the discipline. Thanks to my literature review I discovered weaknesses in my own research design that I was able to remedy as well as holes in the body of knowledge where my research could bring value.

Research in Design Practice

As designers, we are called on to advise and lead projects that can require significant capital: financial, time and energy. For this reason it is essential to base our leadership on facts and the research on previous findings and rationales is essential in building a strong case to justify our design decisions. Our clients and stakeholders want to know with as much certainty as possible, whether what we advise will work and research partners are no different. It is this work that lays the foundation for future exploration, grounded in the evidence that solid exploration and research affords.

Research Findings: Highlights

Following the review of prior research and writing on the state of men's mental health, I began to formulate that generally, men are resistant to talking about their feelings and attending counseling. Research in the past five years has begun to suggest that some men face challenges identifying the meaning of their emotions and there are theories that some don't experience emotions at all. One study reported extremely low rates of men attending mental health counseling sessions, with one such study finding that fewer than $\frac{1}{3}$ of men who said they considered counseling actually attended.⁴

The reporting of men's attitudes on attending counseling were fairly consistent across the literature reviewed. Researchers found that men typically attended counseling only if they were in dire need because they

A-HA!

“I have no data yet. It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts.”⁵

—Sherlock Holmes

were experiencing an issue they could no longer ignore.⁶ The prevailing attitude of men with regards to counseling was that it was only an option if no other means to alleviate the problem had succeeded.⁷ Men were far less likely to seek help for their mental health issues than women⁸ and in turn, viewed counseling as a “remedy” instead of as preventative maintenance or a way of life.

My review of literature also revealed multiple viewpoints on how men were more likely to think they would be stigmatized for attending counseling sessions.⁹ While researchers had written that men had a negative perception of the act of attending counseling, several researchers suggested that the act of just *seeking* help was perceived to be worse than the issues men sought relief from by going to counseling.^{10 11} Other reasons why men indicated they avoided attending counseling sessions included fears of the forms of treatments to which they would be subjected, fear of emotions themselves as well as having to self-disclose those feelings and the state men's own self-esteem.

The aggregate body of research reviewed began to reveal that the act of convincing men to attend counseling was extremely difficult. Oftentimes, men would not attend counseling to get help unless loved ones intervened in an effort to coerce men to start the process of receiving help, largely because men often regarded discussing a behavior or problem as worse than the behavior or problem, itself.¹² What emerged was a personification of men as the “white whale” of counseling practice because of the difficulty involved in getting them to attend counseling sessions. In all, my review of the body of existing research confirmed my hunches, solidified the value of the topic of my research and highlighted areas for inspection.

A Full Review of Literature

The pursuit of collecting evidence through a review of literature is an extensive process that requires critical examination of a broad range of content. In much the same way that final design outcomes are stronger due to the significant number of iterations that led to their development, the more sources and perspectives a researcher reviews, the more complete their sample of findings will be. For this reason, I have included my full review of literature below.

A Holistic Psychology

Considering the fact that people make sense of the worlds around them in very different ways, based on their own perceptions, history and experi-

ences, an integral approach to counseling and psychotherapy is often used by practitioners in the field. This integral approach considers individuals' internal thought processes and perceptions, their outward behaviors and physical/biological makeup, cultural and community factors that have agency in individuals' lives, belief in oneself as well as societal and professional factors.¹³ The result is a holistic approach that considers the multivalency of factors that impact the human condition and in turn, the state of individuals' mental health.

Improperly Handled Emotions Can Lead to Negative Actions

While my research was focused on defining and lowering barriers between men and their mental health, it was sparked by my own observations of the behaviors that often result from men not maintaining healthy mental health lives. These negative actions often present themselves in palpable ways, with alcohol and drug abuse, suicide, aggravated assault, increased incidence of depression, feelings of disconnection and damaged self-esteem being possible outcomes.¹⁴ Each of these areas are examples of how emotions lead to actions,¹⁵ some outward and some inward, though regardless of the place of their genesis, all of them negative and harmful to those who experience them.

The segment of men chosen for this study were done so specifically because of the challenges they face and how those challenges can lead to negative behaviors. Men older than 20 are beyond the period when their youthful identities are no longer being actively formed and men between the ages of 30 and 40 years old are especially an age when feelings of regret often surface because they have had enough life experience to look back on their choices reflexively and to wonder how their lives would be different had they chosen differently. Career missteps, failed relationships, external pressures to succeed in professional and social lives all often arise during this stage in life ^{14 16 17} and in turn, spark the types of emotions in men that can lead to negative behaviors.

Traditional Masculinity Ideology

Prevalent in westernized culture, the image of what it means to be a man includes a toughness and "go-it-alone" attitude that has been reinforced over time. This definition of an "ideal male" has been referred to as *traditional masculinity ideology* and is visible in men across most of the world.¹⁸ Aspects of traditional male ideology include the views that a men are self-sufficient and show weakness when they ask for help. This attitude is ingrained in men by the culture that surrounds them and is

often handed down to following generations from predecessors who have grown up defining an “ideal” man according to these standards.

This “ideal” masculine identity includes a focus on achievement and success in the workplace and the benefits and pride that come from them.¹⁹ Men who adhere to this ideology exhibit behaviors that limit their femininity because it is seen as counter to their being the “ideal” male, in turn, they reduce emotional attachment because it is regarded as a feminine characteristic. A review of advertising, political figures and individuals held in esteemed positions has historically favored an image of the white, heterosexual, able-bodied male who is strong and infallible.²⁰ This myopic perspective reduces the roles of men to a very few broad and blunt generalizations, eradicating any opportunities for men to be multi-faceted emotionally, professionally or personally and holds that an “ideal” man’s role is that of provision, procreation or protection²¹ and not much more.²²

Normative Male Alexithymia

With the development of “traditionally masculine” norms which have developed in westernized culture also comes the phenomena of *Normative Male Alexithymia*, a cognitive disorder where men experience a reduced ability to identify and express emotions. Literally, “alexithymia” translates to mean “without words for emotions”.^{23 24} This condition severely affects men’s ability to achieve and maintain emotional closeness and some studies have found that 14–19% of all people across a general survey population experience its effects.

A set of “cognitive and affective characteristics”²⁵ stem from normative male alexithymia including difficulty in identifying emotions, difficulty describing feelings, a reduced capacity to comprehend and form imagery as well as a propensity for externally oriented thinking.¹⁷ Other features of this condition include a limited capacity for empathy²⁶, difficulty identifying emotions in the facial expressions of others,^{27 28} and a limited ability to assign meaning to their emotions and to use them to regulate stressful situations.^{29 30 17} These characteristics represent a condition that exemplifies a debilitated “emotional intelligence”³¹ which can make engaging men in a counseling session difficult because their emotional vocabulary is underdeveloped.³²

Modern Stressors

Recent shifts in gender roles have dislodged the definition of what it means to be a “man” or a “woman” in westernized culture. In some cases

men are no longer the primary income-winners and tasks that were once gender-specific are shared or even swapped between men and women. This loss of identity as a “man” per the ideals of traditional masculinity identity has challenged some men’s self-esteem and security in their role in a changing society. In some ways it has caused men to distance themselves from feminine-leaning ways of acting and thinking.^{17 33 14}

This significant shift of gender roles has also caused challenges for men as they try to find their new places²¹ in a less-traditional power structure. According to these gender roles, pressures on heterosexual men behave according to “expectations” have never been greater.²¹ In all, a call has been made by the community of scholars for others to deeply research the correlation between changing gender roles and an increasing incidence of avoidance factors that reduce men’s decisions to seek help with their mental health.³⁴

Avoidance Factors and Resistance

The factors above, which contribute to men’s resistance and sometimes inability to share emotions, add difficulty to the work of encouraging them to attend counseling and to receive psychotherapy in addressing their problems. Counseling sessions are self-admittedly personal and intimate^{35 14} and require vulnerability on the part of the participant which adds to the challenge of men actually attending such sessions. Because attending counseling is counter to the strong and self-sufficient qualities held in traditional masculine identity holds, the act is largely stigmatized and in turn often avoided.

An examination of the traditional male role reveals several aspects that stand as barriers to men attending mental health counseling sessions.³⁶ These include men’s difficulty admitting the existence of a problem, difficulty asking for help and depending on others as well as a difficulty identifying and processing emotions and being vulnerable. Some men indicated that the gender of counselors was a concern with female therapist encounters being sexualized and sessions with males revealing homophobic attitudes. The final barrier cited was a view that counseling processes and psychological treatments were not seen as empathetic to men’s unique needs including their struggles and the conflicts they experienced.³⁷

Supportive Networks

A review of the research conducted on the role of supportive networks for encouraging healthy mental health states revealed both their importance and also their recent decline. In 2006, one study found that Ameri-

cans' support networks shrank by one-third over the previous two decades. This research also revealed that the number of people who shared that they had no one with whom to discuss important matters doubled over those twenty years to nearly twenty-five percent of respondents.¹⁴ Researchers suspect that these declining groups of confidants may be playing a significant role in the rise in challenges to individuals' mental health.

Men were found to be less likely than women to have significant support systems around them. Studies found that men were more likely to keep to themselves and not to share their concerns with others¹⁴ which was consistent with research into men and the gender roles they often feel they must fulfill by acting as islands of strength. Some research suggested that individuals who have friends who are deeply involved in their lives are more likely to seek help whether it be finding a counselor or identifying problems that need to be addressed.^{38 39}

Counseling for Men: Solutions

Much research and writing produced over the past five years has started to focus on the importance of shaping the counseling experience to be *culturally* relevant for patients. By doing so, therapists are hoping to help shape a more comfortable counseling experience and also to ensure patients are not alienated before they step through the doors of the mental health professionals' office.^{40 41} This approach has even gone so far as to spawn brand consultants for psychotherapists who partner with counselors to shape their personal and professional brand appearance and messaging as if they were businesses selling products.³⁵

Once men are inside the door and sitting in the chair, researchers challenged that men should be counseled differently because of their unique cultural makeup,^{42 38} resulting from the gender role messages they received when they were young. Counselors advised that men should be engaged using non-medical language and that a more kinetic approach of doing activities together with patients could open new avenues for discussion.^{43 44 16} This "customized service" considering male culture was framed to encompass social class, occupation, family attitudes, gender orientation race and ethnicity.¹⁷

Much of the literature that was reviewed illustrated and clarified challenges facing men when caring for their mental health. Many researchers also called for solutions and suggested solution spaces worthy of focus

Design is for people
which means that
designers must start
with gathering evidence
to better know why and
for whom they create.

with several suggesting that visualizing the counseling environment and process could help men to feel more comfortable attending sessions, lessening their fear of the unknown.⁴⁵ Other researchers posited that counseling practice needed to focus on convincing men that attending sessions was “normal” in an effort to overcome stigmas.¹⁶ As far as timing of solutions, the body of research suggested that mental health counseling and the normalization of engaging with emotions needed to be addressed at a very early age, circumventing problems before they would arise.³²

What I Found and How it Affected My Research Project

Following the review of literature, I found that study on barriers between men and mental health counseling has been addressed most widely in the discipline of psychology by counselors and scholars. This helped me to conclude that design researchers have either not reported their findings widely or have not addressed this issue in this area. It also meant that the project as I had envisioned it would satisfy one of my main goals for the research: that I address an issue underserved by design.

My review of literature confirmed that the act of seeking and attending professional mental health counseling sessions brings with it stigmas that often cause individuals to avoid doing so. These stigmas which present themselves as barriers, are especially potent in preventing men from seeking counseling due to social norms that define masculinity and in turn render counseling as an undesirable activity. Having learned this, I had a feeling that finding participants for my project may have been difficult to locate and to engage because of their resistance to the activity. Because outward appearance and status are privileged in the Dallas/Fort Worth area, the social stigmas that make attending counseling undesirable were especially potent and difficult to combat.

RESEARCH PROGRESSION

Confirmation

After reviewing previous research into men's mental health, I gained *confirmation* that barriers were a valuable thing to address for my project. I also gained clarity that my research endeavor was relevant, that I was focusing on a people group in need and that there was much room for discovery and for design solutions to affect change. The knowledge gained helped inform the development of my research surveys for the operation of the research, ensuring that what I was asking and what my goals for the research would render were reasonable.

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PROCESSES

Anyone who says you need inspiration like a bolt of lightening in order to design is doing it wrong. Design is a process—a learned process—and the act of designing has a beginning, an end and distinct stages in between that often include sketching iterations, researching materials, testing prototypes, revising those prototypes and developing final products for widespread release. In the design process, “inspiration” only seems to be spontaneous when in fact it is fueled and shaped by many sequential decisions and course corrections through the process of developing the desired outcome.

Research, not too unlike design, has its own methodologies and procedures that are operated with the goal of gathering valid data. Methodologies found in the social sciences are effective at engaging humans in the work of determining their beliefs, behaviors and tendencies. Surveys, interviews, focus groups, observations and other field methods found in cultural anthropology are often used to gather this kind of data and my research leaned heavily on these methods in order to engage men in my study area. By operating the research process I was able to gather information about Dallas/Fort Worth area men and their mental health while also learning about the process of operating first-hand, primary research.

Men and Mental Health: Their Thoughts

My review of previous research on the topic of barriers between men and their mental health revealed that this topic was an important and valuable area for inspection. A review of the culture of the Dallas/Fort Worth area also revealed that my research endeavor would be appropriately placed and significant to the specific area and those who live in it. I was also able to determine that not much research in the way of applying a design research approach to this problem in the Dallas/Fort Worth area had been completed, helping to solidify that my endeavor would be one that could help to fill gaps in existing knowledge and to serve the local counseling community. All of these informed my approach to gathering specific information about the men in the Dallas/Fort Worth Metroplex.

Both research and design are procedural, with clear starts that sometimes lead to unexpected results.

While my review of previous research did help clarify the state of men and counseling at a global level I was very interested to discover what men in my specific study area thought about. I had questions that included:

- How men felt about emotions... did they even recognize that they can cause negative outcomes?
- Men's experience with counseling, if any.
- Men's preferences regarding the nature of the counseling experience (environment, access, privacy, convenience, counselor gender).
- If men knew how to find a counselor.

I believed that the answers to these types of questions about emotions and counseling experiences would produce responses that could be analyzed for patterns that could reveal the barriers I sought to discover. In order to do so, I needed men to respond to my questions so the data I would be working with would be specific to the area and men in my study.

This gathering of local data is a simple example of how design research is participatory. While data gathered from previous research was helpful in designing this study, it was hardly sufficient to create an accurate picture of what was actually happening in the Dallas/Fort Worth area. The co-creation that takes place when stakeholders get involved in the research ensures that the outcomes will be relevant to those who participate. Quite simply, design researchers can not assume they know all there is to know about a problem and the people it affects rather they engage people to become part of the process. Much like when clients share their thoughts and notions on a project as the solution is being formed in the design process, design research calls on participants to be part of the research process.

Because my research involved a people group who preferred to remain anonymous, I felt personally interacting with men about their feelings would have harmed my ability to gather objective answers and in turn, unbiased data. My people group (men) and their tendencies shaped the design of my research, causing me to choose to use anonymous surveys instead of face to face interactions. While I would have liked to have used other methods of data gathering for this research because I felt they would have rendered dynamically different responses, bringing depth to

my findings, I felt it important to consider the needs of my people group as more important than that of my research outcomes.

Honoring Participants

Because design research is often participatory and a collaborative effort between stakeholders and design researchers, the often murky waters of research involving human subjects is traversed. While typically a tranquil and friendly sea, when dealing with human subjects it is important to make sure you are honoring those who are engaged in your research so they are treated with dignity, with fairness and are honored for their participation. No one likes to be walked over and discarded and those who participate in research are no different.

In academic settings, there are protocols that must be completed before research can move forward. At the University of North Texas, where I was conducting my research, I was required to complete paperwork to submit to the *Institutional Review Board (IRB)*, a body of researchers whose duties includes reviewing research proposals to determine if participants would be treated fairly and with dignity throughout the research process. The paperwork for obtaining IRB approval is significant in the degree of detail it requires of researchers, but if you've ever done taxes or sold a house, you pretty much have an idea for the level of complexity. Paperwork is submitted to the board for review and responses to proposals are usually returned in a few weeks with any necessary revisions and red flags or with an approval that the research may go forward with the institution's blessing.

The IRB approval I submitted for my research was approved on the first try, which is not terribly common as revisions are often necessary because of the complexity of the endeavor. Based on my experience with writing and submitting an "IRB" I recommend that designers pull from the business sense they have gained from their professional practice. Just like how you would build a presentation or pitch for a design concept or campaign, approach writing the IRB as if the reader has no knowledge of your topic and that you must persuade them that your project has value. Whether you are trying to get a client to buy off of sending chalk artists out to city street corners to draw their newest cell phone as part of an ad campaign or you are proposing a project to explore ways of bridging barriers between men and their mental health, the goal and the process is the same: make it clear, make it desirable, and show that you know your stuff.

Whether you are interested in conducting design research in a professional setting or in academic circles, make sure you honor your participants' dignity, their time and especially their privacy. It is likely you will be collecting information about your research population and it is imperative that you make arrangements to safeguard this information. After all, no one likes getting those "Canadian pharmacy magic pill enhancement" spam e-mails so what makes you think anyone would be okay with having their personal information (whether in video, textual or photographic form) available to the world? When you assure participants that you will be careful with their information, they will be far more likely to trust you with the information you really want to know.

Reacting to the fact that my research was largely centered around a population who wanted to remain anonymous, I collected data in such a way so it could not be connected back to participants to honor their privacy. However, in the future I may engage men in person, challenging them to interact with each other or to observe their behaviors in certain settings. This activity could potentially have an impact on these men and their comfort levels, their privacy, and depending on the scenarios I could ask them to enact, it could have bearing on their mental health and perception of themselves and their worlds. At the most extreme, behavioral research could have very negative effects on participants, especially if research is to be done on people who are considered "vulnerable populations" like children, prisoners, or those whose decision making abilities are impaired.

Be sure to check the research review requirements at your institution or in your municipality, state, province, region and or nation and abide by them at your own peril. While the research design researchers conduct don't involve medical trials that can involve drawing blood or having participants take medications, it does require participants' time and could affect their mental health, depending on the research you are conducting. An excellent resource for research integrity which includes the policy and guidelines of the United States Department of Health and Human Services is at the National Institutes of Health web site. Also at this site is an area where researchers can take a training course on protecting human research participants. Following the training and answering test questions accurately, researchers will receive a digital certificate proving their completion of the session. At most institutions, this training is mandatory before any research may be submitted for approval but from my experience, it's an extremely valuable course which highlighted areas where, as a researcher, I would do well to design my research to honor my

<http://grants.nih.gov/grants/policy/policy.htm>

participants. The training course can be found online, is open to anyone, is free and took me just over an hour to complete.

Operating the Research

With an eye toward gathering enough information (and the right information) to inform the design of interventions that could address the challenges of men attending mental health counseling sessions, I designed my research as a project with two distinct phases. *Phase one* consisted of a survey completed by men in the Dallas/Fort Worth area whose answers informed the design of interventions that addressed the challenges that were raised. Following the design of these interventions, *Phase two* of the research required participants to respond to a second, much shorter survey where they responded to the designed prototype solutions to reveal not just their efficacy, but also participants' attitudes on mental health through responding to solutions. I felt that this second phase would allow me to get a "fresh look" at men's perceptions because it would not require introspection but would allow men to be more objective on counseling because they would be responding to "make believe" solutions. My initial thinking was to use the design prototypes as critical probes which could reveal as much about the participants through their responses as it would about their reaction to the prototype solutions, themselves.

In the interest of honoring those who participated in the study and so others would benefit from my research, I planned on sharing results from the study at the website where the surveys would be hosted. These reports would be stripped of any personally identifiable information and any quotes used would be modified to ensure that those who shared information could not be discovered. Sparked by my review of literature on men and their attitudes on mental health counseling, I went to significant lengths to ensure that any information gathered and shared would be done so in such a way so the privacy of participants in this study would be maintained. For lack of a better way to say it, I stuck with the "golden rule" for my research: I endeavored to conduct it in such a way that I would want if I were a participant.

Website Development

Considering the fact that my review of previous research on the topic highlighted that privacy was of significant importance to the men whose behaviors and perceptions I sought, I decided that a data collection instrument that would protect participants' anonymity would be ideal. By doing so I felt that I would be most likely to gain their trust which could

potentially lead to more participation in the study. Online surveys are very familiar to the people group I would be studying and their convenience of being accessible any time day made them an ideal method for gathering data.

My familiarity with web form hosting like *Formstack* and *Survey Monkey* prompted me to review them as potential solutions for gathering survey responses from participants. These services offer both standalone and embeddable forms that can be shared easily via e-mail and via social media, though the forms they offer are not easy to share verbally or in print media. In the interest of broadcasting my phase one and phase two surveys as far as possible in the interest of gaining participation, I wished to have the forms hosted in such a way that they could be shared easily using diverse means of promotion and engagement.

Formstack: www.formstack.com

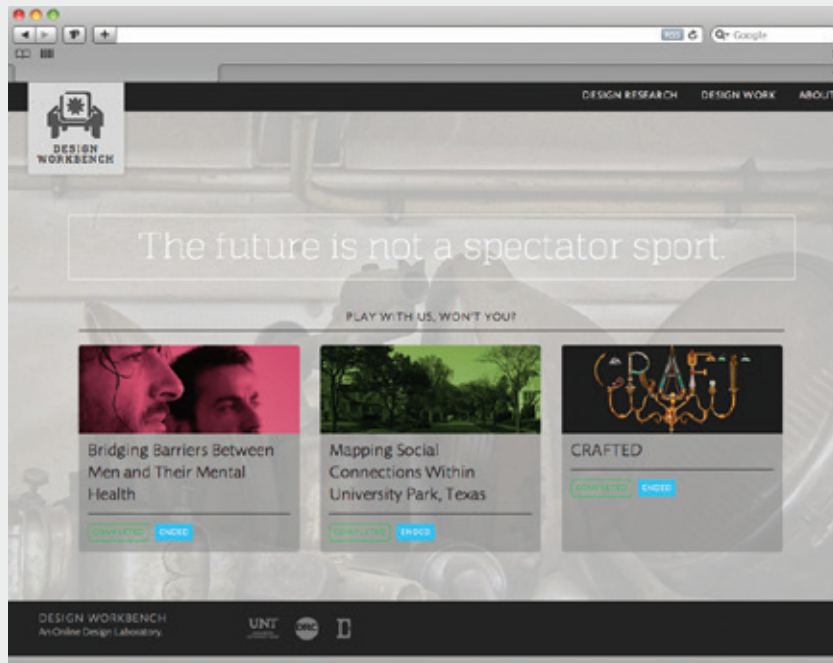
Survey Monkey: www.surveymonkey.com

The result of this process was the creation of a website with a custom web address (URL) to host surveys as well as informed consent forms and contact information for the study. My experience developing web sites using the WordPress content management system and also with *Formidable*, a WordPress plugin that allows for simple form generation, management, data capture and visualization led me to choose this combination as ideal for my needs. This solution brought with it the advantage of easy sharing because it had a memorable custom web address. The custom site design solution also brought with it benefits like increased ease of usability via targeted user experience design and the ability to provide information about design research and about myself in an effort to add credibility to the research and the project.

The self-install version of WordPress can be found at: www.wordpress.org. For the "just add water" version, visit www.wordpress.com.

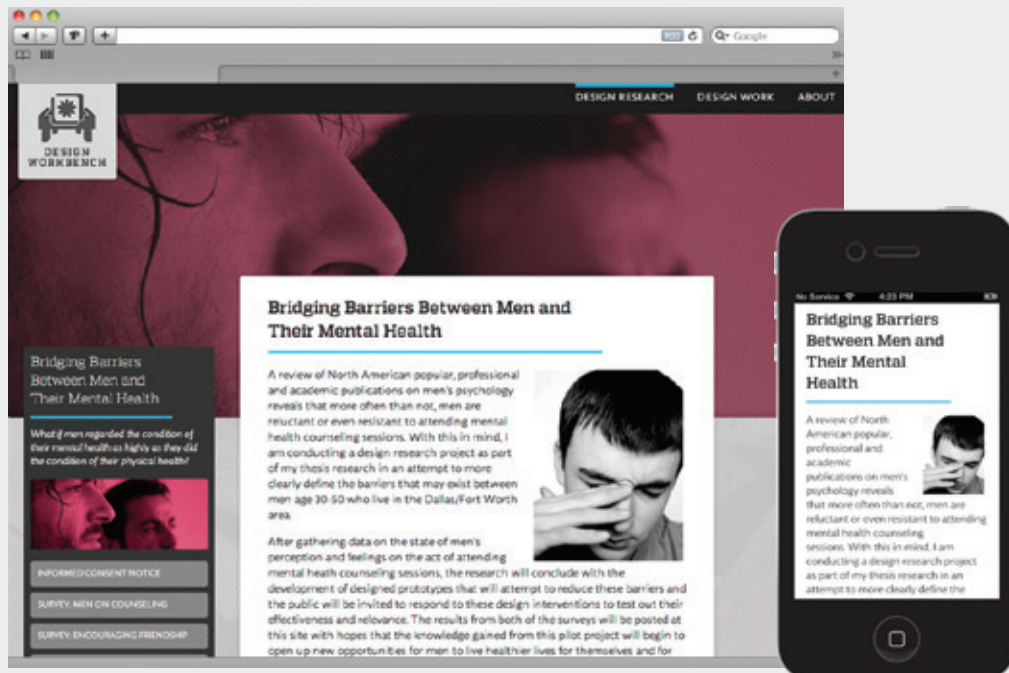
Learn more about *Formidable* and *Formidable Pro* at www.formidablepro.com.

The development of tools for operating this study on men and barriers to their attending mental health counseling was my most immediate need, prompting the design of the site. However, anticipating I would most likely operate similar studies in the future, I developed the site with an information architecture that would support mini-sites within the main site structure. By designing and coding the site this way, each study or endeavor in the future could have its own unified look and feel by employing large, monochromatic photographs, while still "living" harmoniously inside the larger framework. For this reason, the naming of the site was an important component of the research design as it would need to be flexible enough to not interfere with the independent studies hosted there, but still gave users contextual clues that it was a design research-centric domain.



DESIGNWORKBENCH.COM

HOME PAGE



DESIGNWORKBENCH.COM

RESPONSIVE WEB SITE COMPARISON

In an effort to highlight the changing nature of design and design research, the URL designworkbench.com was purchased and development on the site began. Because recent trends in web usage have revealed that users access web pages using their mobile devices more than they do using traditional computing devices, designworkbench.com was coded as a responsive website, ensuring that it would resize and morph to the screen size and constraints of the device upon which it was displayed. The site was designed and coded so when designworkbench.com was displayed on mobile devices of varying sizes, images would resize, type sizes would increase, button sizes and navigation bars would re-flow and size and form entry spaces would flow to assume common, mobile-friendly conventions.

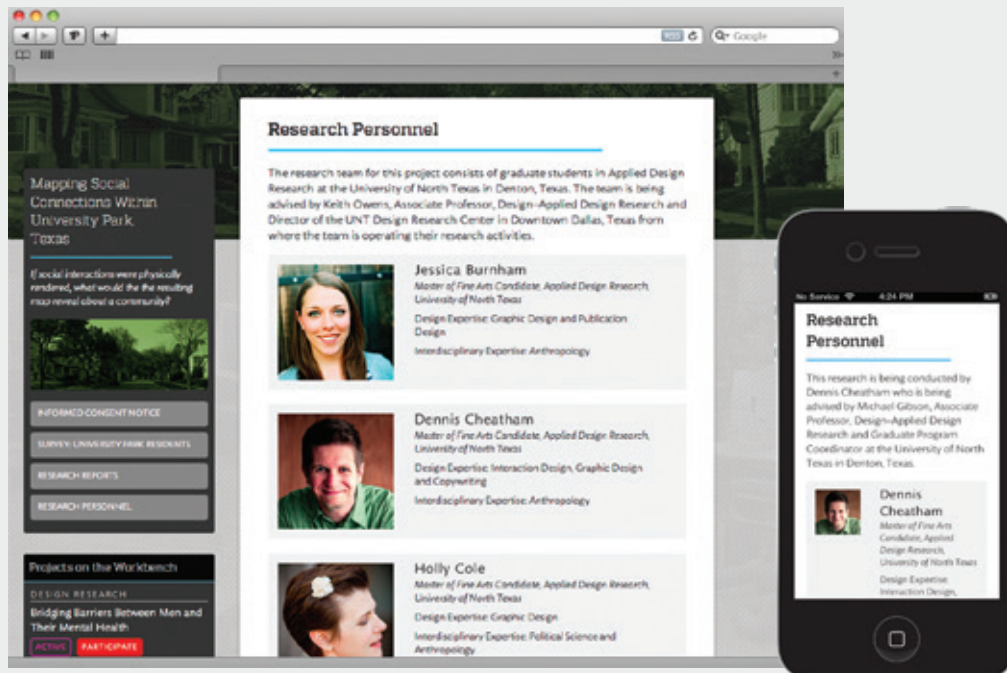
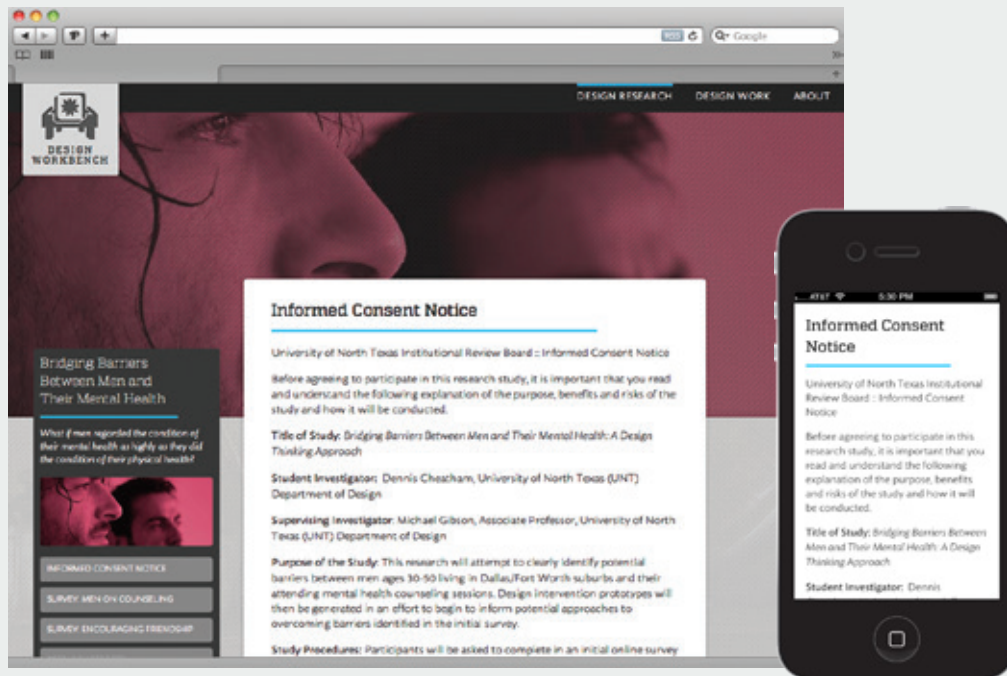
Because designworkbench.com was designed to hold multiple, self-contained design research projects simultaneously as if in adjacent “neighborhoods,” it was possible to host each project with its own domain or subdomain. This was done in order to make sharing links to each project easier across a variety of methods and media from verbal sharing to print. For this study, I created men.designworkbench.com, which forwarded site users directly to the study area of the site, making accessing the survey as easy as possible for participants by reducing the complexity of accessing the study’s information and survey instruments.

A Learning Experience, Too

While conducting the research via designworkbench.com was of primary importance to my study, I also hoped that by designing the site to carry multiple projects running simultaneously, guests would wander around the site and would gain a deeper understanding of what design research is and who it can serve. Content at the site was written in a conversational tone so guests with a wide range of experience with research would feel more welcomed and hopefully would engage with the content. Also, definitions of design research and where it fits in the realm of design as a whole was presented so users could gain insight into the practice. As a whole, the site was developed to both conduct research and to inform not as much by telling and describing the activity, but by showing it in action.

Design Workbench Extensions

The development of designworkbench.com proved to be a fruitful experience for me personally, thanks to approaching the creation of a tool with an extended mindset. Through the creation of the site I worked to code and design a site that would last beyond my Master of Fine Arts experience, so it was built to be modular and flexible to hold future projects.



Through the experience, I coded functions and developed a flexible grid for the site that I had never tried before. While this approach significantly added time to the project in the way of multiple iterations and a week of testing and debugging, I gained knowledge from the experience that will fuel future research endeavors when using interaction design as a significant component of the research operation.

Phase One: The Counseling Survey

The initial phase of this research required the development of a survey in order to collect participants' thoughts on counseling and emotions. I started the process of developing the survey by modeling what kinds of responses I would most like to gather from participants. As I worked through developing the language of the survey, its tone started very clinical and scientific but moved to being more familiar and comfortable. While my initial thinking on the survey was to maintain its scientific rigor with hopes that it would be a strong instrument for data collection, "backing away" from the survey language and empathetically exploring how it would be received and understood by men caused me to make modifications to its wording.

Survey Construction

When building the survey for this research, I thought through the questions in a specific, procedural order in order to design the survey so questions would lead into one another and also as participants completed the survey and did the thinking necessary to answer questions through the process, the frame of mind they would be in would most successfully set them up to answer the following questions. This cascading method of placing questions to trigger thinking that informs following questions is nothing new in anthropology, where interviews are used as an effective tool for data gathering in research. While what I developed was an instrument common in the social sciences, I approached the problem as a designer, as if it were a design problem, with the end in mind.

In all, my goal for the survey was to learn answers to several key questions which would help me to create a clearer picture of the state of men and their mental health. Questions in the survey included language like a Likert scale on how comfortable men were with emotions and feelings:

Generally speaking, how comfortable are you about sharing your feelings with others?

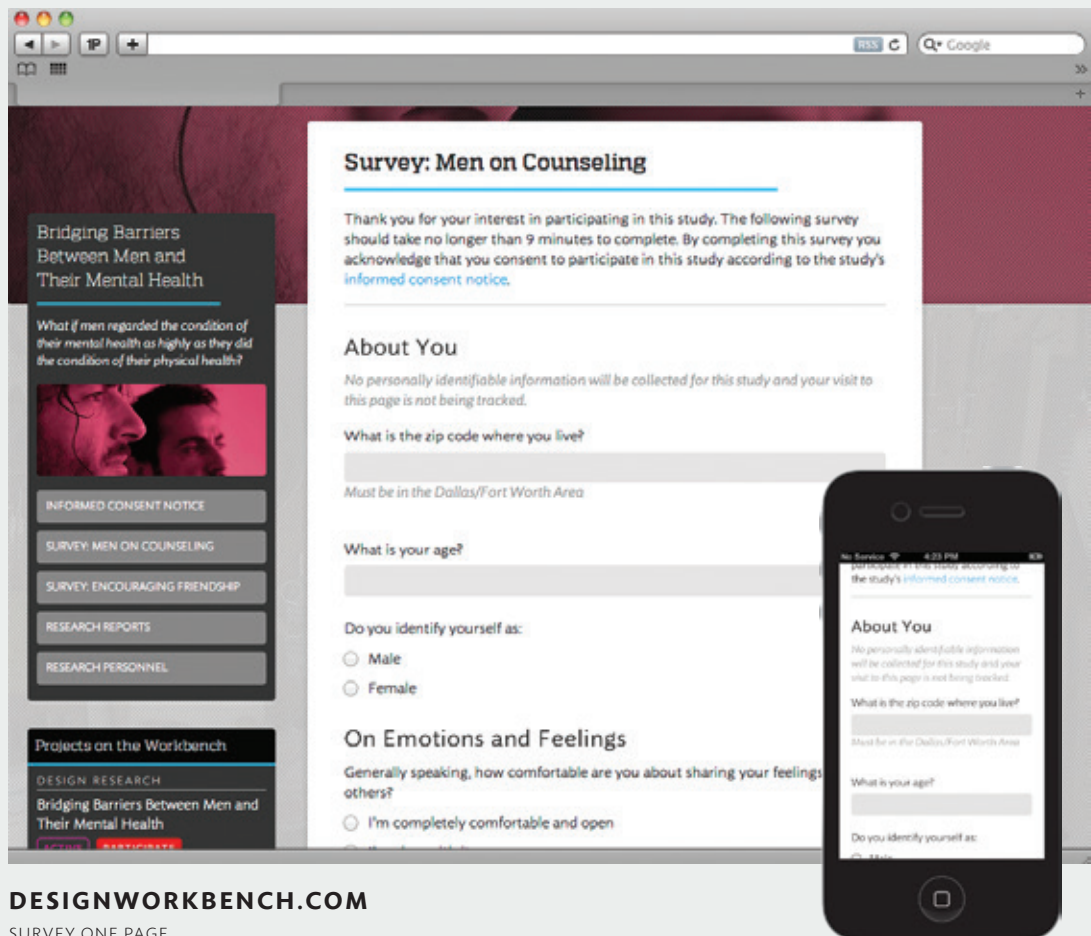
I'm completely comfortable and open

I'm okay with it

I usually don't talk about emotions

I'm uncomfortable with it

I avoid it at all costs



DESIGNWORKBENCH.COM

SURVEY ONE PAGE

The phrasing of possible responses as “I” statements was a conscious decision with hopes that it would assist participants to “own” the statements and in some way model the behavior mentally so they could more accurately choose which statement was accurate for them. Other questions in the survey were also worded in ways that I had hoped would make them easier to answer honestly and also would put participants at ease thanks to the relaxed tone. Several questions that prompted qualitative, long-form answers included:

If you have attended a session before, what was it like?

If you haven't attended a session but have thought about it, what has kept you from going?

If you wanted to contact a counselor, how would you go about it?

The process of developing the survey instrument took time and refinement and its overall tone was influenced by my experience as a man. I am now more aware that when I create surveys I must consider participants' world views and cultural influences in order to craft questions that are approachable and understandable. This level of attention to language will be especially important for any research that is outside of my area of expertise, especially for surveys that may engage people with very different backgrounds than my own.

Participant Invitations

Because the people group I was attempting to recruit for this study likely preferred to remain anonymous and because the research survey was located online, I initially used only electronic means to recruit users. I felt this would enable me to recruit participants more easily because they would be able to click on a link I provided in my communication and could access the survey immediately instead of seeing or hearing the URL and potentially forgetting it afterwards. At the start of my solicitation process I activated several media outlets to engage participants, including:

- word of mouth
- direct e-mail
- Twitter
- Facebook wall postings
- American Institute of Graphic Arts (AIGA) Dallas Facebook group postings
- Dallas Society of Visual Communications (DSVC) Facebook group postings

A-HA!

Operating a research endeavor can often reveal many levels of “research within the research.”

Each of these outlets brought with them unique challenges of timing and language formation in order to engage the largest number of potential participants and I was prepared to modify my core solicitation language to best match each medium's strengths and usage.

A Few More Tools

As I prepared to share the project with others to invite their participation, I realized I needed to develop several more tools to improve the research project site's credibility while also improving ease of sharing the site with others. With "design" embedded in the site's name, I realized it would be important for designworkbench.com to have a visual brand as well. At this point I designed a logo for Design Workbench which gave me an avatar for the site that helped me to soften its image and to highlight that the work at the site was akin to a spark of creativity.

Another opportunity for adding credibility to the designworkbench.com site was through obtaining a shortened URL for sharing links to pages within the site. While I had developed the site so each project within it could use its own subdomain (men.designworkbench.com for this study) the use of subdomains came with their own downsides. One such drawback was that if "www" was placed in front of a subdomain it would often fail to operate properly, forcing users to visit the "404" error page. Another downside was that the length of the URL itself used up a significant number of characters when shared via social networks like Twitter, that limit the number of characters in their postings.

With these drawbacks in mind I started to use the *bit.ly* domain shortening service for sharing content on the site. After looking through the use of custom short domains by sites and outlets like *Good* magazine (*good.is*), *Design Observer* (*dogroup.co*) and *IDEO* (*ideo.is*), I researched how securing such a domain would be done and discovered that it was not a difficult process. In order to research available names, I used the site *domai.nr* and after finding that the domain "wkbn.ch" was available, I purchased it for one year for use promoting the study and my design research work. I linked this shortened, custom URL with bit.ly's service and started using it to promote my research and the site.¹ One extra benefit of using bit.ly was that they offer simple analytics to track the number of times each link is clicked. Reviewing these numbers and comparing the links I shared to the research allowed me to get an idea of how well each shared link was received.



WKBN.CH/7EWRHSD3

Instructions on how to set this up are at <http://support.bitly.com/knowledgebase/articles/76741-how-do-i-set-up-a-custom-short-domain->

Learning Through Doing: Shifts in the Research Framing

While I had worked hard to anticipate how the site and the project could be promoted so men would learn of the study and participate, I had to respond to several unexpected challenges once it was time to get the word out about the research. Much like the iterative design process where outcomes are refined and perfected, I learned that design research processes can also adapt in order to ensure that data collected will be relevant and useful in order to inform designed prototypes. At first I was wary of changing the shape of my research design. As an experienced designer but a somewhat inexperienced researcher who was wading into a science-driven project, I was afraid of making changes because it seemed as if doing so would invalidate my research. All of my experience in research to that point had ingrained in me that the design of my research processes should not be changed because doing so would be adapting my research instrument to get the data I *wanted*, not what was actually there. However, the fact that I had not yet gathered any data meant that I was not *reacting* in order to get the specific information I sought, rather I was actually *designing* the research. It took my *doing* the research in order to organically learn that this process of reassessment, evaluation and redesign is an important part of research—a part that felt so much like designing that I thought I was doing something wrong.

As I reexamined the research I found that the title I had originally developed, *Researching the Barriers Between Men and Mental Health Care* was clinical and staid. Each time I would type it in an e-mail or prepared to share it via a social network it sounded, looked and felt cold and uninteresting. While I felt it was respectable as a research title, the more I considered how those who were unfamiliar with my research would receive it, the more I realized that I needed to re-word the title to make it more approachable.

The original title of my research project also implied that I would be “researching” barriers, but that the work would stop there. Because design research is not just a research activity but an endeavor that creates and tests solutions as well, I needed a kinetic title that differentiated this research from other “fact finding” pursuits. For these reasons I retitled my research to *Bridging Barriers Between Men and Their Mental Health*. Renaming the study focused my topic on the “bridging” of barriers, not just finding out about them. This kinetic approach to language made the study much easier to promote via the outlets I had planned and also unexpectedly helped reveal the eventual focus of the design interventions portion of the project.

Learning Language: Research Solicitations

Having completed development on the designworkbench.com site, as well as its identity mark and tools for sharing links to information and surveys, I was prepared to contact potential participants to invite them to participate in the research. Much of the language I used for these calls to action were analytical, clear and precise, privileging accuracy over the use of a friendly tone. Over the course of writing solicitations I began to see the value of honing wording and focus based on the intended audience at the sacrifice of maintaining a purely scientific stance.

My first e-mail solicitation, sent to a limited group of about 60 staff members and pastors at Irving Bible Church where I worked at the time. I recognized that this group was a sample of convenience for my research, but I believed this network of individuals would be instrumental in sharing my solicitation with others in their personal networks. This e-mail was the only one sent that included the “men.designworkbench.com” web address and read:

Hello Colleagues,

As you may know, I have spent the last three years working on my Master of Fine Arts degree in Design Research and I'll be completing that work this May. But with it comes my thesis project and the research that goes into it... and that's where you, your friends and connections have an opportunity to get involved.

I am researching barriers that prevent men in the Dallas/Fort Worth area from attending mental health counseling sessions. The first phase of my primary research involves a survey of men in our area to determine their perception of counseling and why they choose to not attend. The survey is online, should take no more than 12 minutes to complete and will inform the development of design prototypes I hope will help bridge the gap between men and improved mental health.

Men, please consider participating in this research and for all of you, please consider forwarding the research site along to those men in your lives who may wish to take the survey.

Visit and share:

<http://men.designworkbench.com>

...to learn more and to take the survey.

Thank you all for joining me in the research!

Dennis Cheatham

After receiving only six responses over three days and then none over the next seven days, I decided to write a solicitation with a more friendly tone, hoping to pique curiosity. Using my skills and experience as a designer and

communicator, instead of focusing first on accurate and precise language (which were still of value), I approached this rewriting process with the reader in mind. This e-mail was sent to a group of my friends, colleagues at the University of North Texas and some of my freelance design practice connections. I implemented the custom short domain into this e-mail:

What if going to counseling was just as common as going to the gym?

As part of my Applied Design Research thesis project at the University of North Texas I am conducting research on reasons why men in the D/FW area refuse to attend counseling sessions. Part of this research involves a survey that takes no more than 12 minutes. This is your chance to share your thoughts and no personal information will be collected.

(Oh, and in a few weeks you'll get to see and comment on the design solutions I'll create, thanks to your participation.)

*To get involved, visit:
<http://wkbn.ch/WBqIhM>*

*Thank you, and please share this with others...
Dennis*

The language included in this approach was followed by a proportionately larger response from participants who responded to my survey. It is difficult to tell if the way the verbiage was written had a direct impact on the response that was garnered, but from my professional experience of writing copy I have learned the value of how memorable headlines can stand out in readers' minds and I believe the change of approach may have had some positive effect, though this is not based on any evidence.

While the long-form letter had great value in the e-mail context where readers are more accepting of spending a longer amount of time to read through a message, promoting research via social media requires a more focused approach in order to keep up with the short attention spans of readers. My initial post to Facebook promoting the research read:

Hey men (and those of you who know and love them)... I invite you to take part in and share my research survey on mental health counseling. Your voice is important (and needed!)

visit: <http://men.designworkbench.com/>

And my initial post on Twitter read:

How can we bridge the gap between men and improved mental health? Take part in my research at: men.designworkbench.com

That same tweet was repeated a week later, updated with my new initiative to write an even more engaging call for participants:

Hey men: what if going to counseling was just as common as going to the gym? Take my research survey here: wkbn.ch/WBqIhM

I also posted my call for participants at Dallas/Fort Worth Craigslist, an online classifieds site. Because I knew readers would have little knowledge of my topic or the type of work I was doing I saw value in wording my call for participants a little bit differently, using the “designworkbench” URL to give users context in a place where shortened URLs can often lead to pages that feature malicious content. The verbiage for that post was:

<http://dallas.craigslist.org>

I am a graduate-level Design Researcher at the University of North Texas and am looking at what men in our area think about mental health. It's all online, only takes a few minutes, nothing is being sold, it's completely anonymous and no one will ever contact you.

Get involved at: men.designworkbench.com Thanks so much for making a difference!

Over the course of posting calls for participants I became more comfortable at re-wording my solicitations to match the tone of the medium. My process of revising wording was spread out over two weeks and there was not much time for significant iteration. In the future I would like to leave more time for this process of refinement with hopes that the additional exploration time will render quality survey and solicitation language.

A Poster Campaign: Pushing the Roundel Further

After producing weeks of electronic solicitations for participants, I was a bit disheartened that I only had twenty responses to my initial survey. At this point I decided to take the “familiar language” work I had already been completed and push it further. I wanted to see what would happen if I used my design and copywriting skills to push the boundaries of engaging participants.



PARTICIPANT SOLICITATION POSTER

"JEDI KNIGHTS"

**PARTICIPANT SOLICITATION POSTER**

"OTHER PANTS"



PARTICIPANT SOLICITATION POSTER

"COFFEE"

The poster is a vertical rectangular design with a light gray background. At the top, a black banner with white text reads "HEY FELLAS". Below this, the text "DO YOU THINK" is in a small, black, sans-serif font. The phrase "soft & strong" is written in a large, red, cursive script. Underneath, "ONLY APPLIES TO" is in a small, black, sans-serif font. The words "TOILET PAPER?" are in a large, bold, black, sans-serif font with a halftone dot pattern. A horizontal line separates this from a paragraph of text: "I'm looking at what men in our area think about mental health. It's all online, only takes a few minutes, nothing is being sold, it's completely anonymous and no one will ever contact you." Another horizontal line follows. Below that, a black banner with white text says "VISIT". Underneath, a black banner with white text says "MEN.DESIGNWORKBENCH.COM". At the bottom, there are four logos: "A UNIVERSITY OF NORTH TEXAS DESIGN RESEARCH PROJECT", the "UNT" logo, the "DRC" logo, and a logo with a car and a person icon.

HEY FELLAS

DO YOU THINK
soft & strong
ONLY APPLIES TO
TOILET PAPER?

I'm looking at what men in our area think about mental health. It's all online, only takes a few minutes, nothing is being sold, it's completely anonymous and no one will ever contact you.

VISIT
MEN.DESIGNWORKBENCH.COM

A UNIVERSITY OF NORTH TEXAS
DESIGN RESEARCH PROJECT

UNT
UNIVERSITY OF NORTH TEXAS

DRC

Car and Person Icon

PARTICIPANT SOLICITATION POSTER

"TOILET PAPER"



PARTICIPANT SOLICITATION POSTER

"PULL MY FINGER"

I started this process of developing solicitation materials with a design practice mindset, evaluating and dreaming where men would engage with information and how I might target them most effectively. This approach hinged on my goal of creating memorable promotions that would entertain potential participants as much as it would entice them. What resulted was a poster campaign whose “voice” was punchy and memorable with fun copywriting and friendly calls for action. This “Hey Fellas” campaign was both fun to design and develop and was a way where my design skills directly connected with my research endeavor.

The language on the posters was a continuation of the friendly tone of the messages I had been developing in previous weeks.



I'm looking at what men in our area think about their mental health. It's all online, only takes a few minutes, nothing is being sold, it's completely anonymous and no one will ever contact you.

The work that resulted was fun to produce but also got a lot of laughs from those who critiqued the posters before they were released. It also highlighted a budding area for future research that I believe could benefit our discipline: how we engage and recruit for research. From my limited research of receiving tons of long-winded solicitation e-mails from researchers, I feel this is an area where development and writing could benefit the research community and I look forward to exploring this area further.

Phase Two: Design Intervention Calls for Participants

While designing research itself is a design act, the practice of design research is still geared toward the production of knowledge (hence the “evidence” in “evidence-based design”) that informs the design of a product, service or artifact. Following Phase One of my research which centered on fact-finding, Phase Two was focused on applying the Phase One data analysis toward the creation of design outcomes that could serve as solutions for the problem of bridging barriers between men and their mental health.

The solicitations for responses built on my previous experience and also hearkened the “Hey Fellas” poster campaign. The e-mail language sent to

my network of colleagues stands as an example of this continuing trend:

Hello friends,

Thanks to those of you in the Dallas/Fort Worth area who completed and shared my research survey on Men and Mental Health a few weeks ago. I have some great data that revealed some insights that I look forward to sharing as I complete my M.F.A. Thesis in the coming weeks.

The second and final phase of my research is now open and its only 5 questions ...but this is the really fun part: I want you to dream.

I have developed 4 design interventions: prototypes for the future and I'd appreciate your thoughts. Which design intervention could help you strengthen your friendships? It takes fewer than 2 minutes and may raise just as many eyebrows!

Visit and share: <http://wkbn.ch/14zltUn>

*Best,
Dennis*

Language posted to Facebook read:

Hey fellas: time to create the future and it takes less than 2 minutes. Phase 2 of my research project on Men and Mental Health is now open and I'd like to hear from you: which design intervention could help you strengthen your friendships?

Come dream with me, will ya? <http://wkbn.ch/14zltUn>

Twitter calls for participants were as follows:

Prototypes for the future of friendship: take 2 minutes to share your reactions at <http://wkbn.ch/14zltUn>

The following call was posted to AIGA and DSVC Facebook groups:

How far would you go to keep your friendships strong? (and not the Facebook kind)

A 2-minute survey that concludes my research and I need your reactions to some design interventions!

<http://wkbn.ch/14zltUn>

According to the website bit.ly who hosts wkbn.ch, solicitations for phase one of my research rendered 24 clicks, but phase two rendered 75 clicks.

It is impossible to determine the exact cause of the increase in clicks and visits to the Phase Two survey, though it is possible that the “Hey Fellas” language may have had a positive effect in yielding a greater response.

The Research Inside the Research

Knowledge is everywhere you look. Any encounter, and in my case any research project, holds something new to learn. The yield can be learning new information, new processes, or even what *not* to do, but the fact that designers are *aware* human beings means that they are often adept at finding and receiving new knowledge. What I have learned from my research process is that by *doing* the research and then looking back on it, I learned the value of language and tools to research. In fact, it seems that looking back on my endeavor, I learned something that can be used for future research from every process I employed.

Even the writing of this document was part of the process of the research, rendering new knowledge. In an effort to more effectively streamline my process and my focus on the large task of writing what is essentially a book, I endeavored to use a software that would not “get in the way” but would also support my view of code as an effective means for organizing information hierarchically. For this reason I used *Ulysses*, a software by The Soulmen, that allowed me to organize my thinking but also output components very easily as plain text so the data could be shared and disseminated effectively and smoothly to others when needed. It is plain text that does not require special processing, something I desired for my research in keeping it lean as I ported content throughout the system.

Indeed, there is research *inside* research. My research project was designed to render knowledge and solutions that could help men to live healthier lives. However, through my research process I tried new approaches and combinations of tools that also rendered knowledge on *how* to operate research. The result was learning I never expected and new areas for inspection I hadn't imagined.

RESEARCH PROGRESSION

Data

After operating the research I gathered hard *data* for analysis but also learned of changes that needed to happen to make my initial approach more relevant. Through the process of doing research I learned new ways of doing research. Following the operation of the project and the data it rendered, I was ready to move to analysis and interpretation of my participants' aggregate responses.

RESULTS AND INTERPRETATION

Before I started this research, I thought I had some pretty clear ideas on what my effort would reveal and what types of solutions would follow. I expected for my review of literature to confirm my assumptions that a gross number of participants had never attended a counseling session and that they were resistant to doing so. I also expected for men to largely admit that they avoided emotions and feelings and if they ever thought about attending a counseling session, they would favor attending under cloak of darkness, unseen and hidden.

Once responses to my phase one survey started coming in from the website I realized that my preconceived notions were just that, *notions*. But while some of my hunches were right and some were way off, the survey responses created a clearer picture of what men in the Dallas/Fort Worth area think about counseling and their mental health in general. After the phase one survey window was closed I began analyzing the data in a variety of ways, some of them specific to design.

What I Thought I Would be Doing

Like any good designer, throughout the research process I was anticipating the design interventions I would be creating in response to the data gathered. I figured I might be redesigning counseling based on my secondary research by showing comfy couches and renaming counseling “consulting”¹. I also thought I might be working to make the counseling experience visual so men would know what to expect and so counseling would not seem so foreign.²

I have learned from several research projects that one can never plan how things will happen when it comes to humans—they always seem to change things up. Despite all of my planning and future-thinking, the interpretation of the research results revealed a direction for exploration I hadn't expected. While I was a bit disheartened at first that all of my planning was undone by results, I actually found that the direction change was exciting. Between September 2012 and March 2013 I had been planning outcomes and processes and had started to feel like I was going

A-HA!

Designers think ahead
and anticipate outcomes
(not always a good thing
for research).

through the motions for the project instead of finding the new and unexpected and reacting to those findings. But when the data came in, data that revealed no *clear* barriers between men and their mental health, I realized that my focus for the future of the research and any ensuing solutions, would have to follow what the data revealed. Before I even knew it, I had adopted a *grounded theory* approach and it radically shaped the design interventions that followed the analysis and interpretation phase of my research.

Analysis Methods

One way design is a key component of design research is through the work of visualizing data in order to reveal patterns and connections that otherwise could be missed. While data visualization may seem to visually resemble information design, the similarities stop there. While information design (often called infographics) can be an effective and enlightening way to present and communicate information, its purpose stops there. Data visualization is more of a tool for research than it is communication because it takes information and visually qualifies it in order to reveal relationships about a set of specific data. Considering this, data visualization takes what Poynor referred to as the *Sense Making* role of design³ and precedes it: instead of illuminating content so it makes sense, data visualization reveals the *important content, itself* that's worthy of Sense Making.

For my study I took a variety of data sets and mapped them in varying combinations in an effort to discover trends and areas of interest for further study. These data visualizations are presented with my findings later in this chapter. Had I not gone to the length of visualizing this information I may have not discovered areas of interest and their significance and in turn, may not have focused on solving the problem worth solving.

An example of the power of data visualization can best be seen in comparing how social scientists often present their data, seen in this chart from Bray's dissertation, with the presentation of data from my research for this project. The use of a color system, clear typography and spacial proximity both presents the data and reveals the relationships between data points simultaneously. While the precision of the text-only approach to presenting information does provide pinpoint accuracy of measurements and for this reason has value, data visualization serves as a valuable tool for the discovery of areas of interest and the relationships between those precise data points. From my experience operating this research, there is a place

for both methods of data presentation and when used together, can communicate abstract findings with depth and with accuracy.

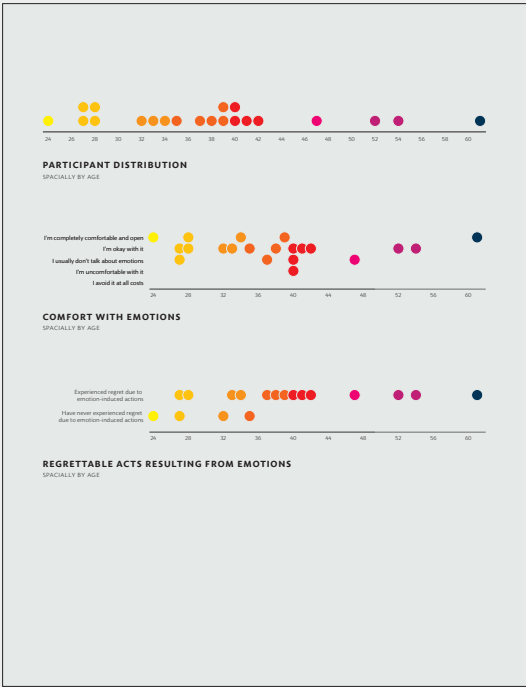
16 ROBERT J. COURNOYER AND JAMES R. MAHALIK

Table 2
Means, Standard Deviations, and *t* Values Comparing College-Aged and Middle-Aged Men on Items of Two Factors for the Gender Role Conflict Scale

| Item | <i>M</i> | <i>SD</i> | <i>t</i> |
|---|----------|-----------|----------|
| Success, Power, and Competition | | | |
| Moving up the career ladder is important to me | 4.72 | 1.25 | 3.80*** |
| C | 3.98 | 1.32 | |
| Making money is part of my idea of being a successful man | 4.01 | 1.60 | 0.25 |
| C | 3.95 | 1.33 | |
| I sometimes define my personal value with my career success | 3.37 | 1.57 | -1.09 |
| C | 3.61 | 1.40 | |
| I evaluate other people's values by their level of achievement and success | 2.88 | 1.45 | -0.06 |
| C | 2.89 | 1.30 | |
| I worry about failing and how it affects my doing well as a man | 3.81 | 1.67 | 2.21* |
| C | 3.28 | 1.55 | |
| Doing well all the time is important to me | 4.61 | 1.25 | 2.21* |
| C | 4.20 | 1.21 | |
| I often feel that I need to be in charge of those around me | 3.56 | 1.38 | 1.65 |
| C | 3.23 | 1.28 | |
| Competing with others is the best way to succeed | 3.23 | 1.62 | 1.90 |
| C | 2.82 | 1.38 | |
| Winning is a measure of my value and personal worth | 3.43 | 1.56 | 3.05** |
| C | 2.77 | 1.27 | |
| I strive to be more successful than others | 4.46 | 1.47 | 3.35*** |
| C | 3.77 | 1.26 | |
| I am often concerned about how others evaluate my performance at work/school | 4.23 | 1.46 | 1.12 |
| C | 4.21 | 1.36 | |
| Being smarter or physically stronger than other men is important to me | 3.79 | 1.48 | 2.16* |
| C | 3.33 | 1.30 | |
| I like to feel superior to other people | 3.85 | 1.51 | 5.04*** |
| C | 2.77 | 1.32 | |
| Conflict Between Work and Family | | | |
| I feel torn between my hectic work schedule and caring for my health | 3.07 | 1.69 | -2.77** |
| C | 3.79 | 1.75 | |
| My career, job, or school affects the quality of my leisure or family life | 4.35 | 1.61 | -0.83 |
| C | 4.53 | 1.36 | |
| Finding time to relax is difficult for me | 3.07 | 1.63 | -2.59** |
| C | 3.70 | 1.59 | |
| My needs to work or study keep me from my family or leisure more than I would like | 3.56 | 1.72 | -1.02 |
| C | 3.82 | 1.55 | |
| My work or school often disrupts other parts of my life (home/family/health/leisure) | 3.64 | 1.68 | -0.86 |
| C | 3.85 | 1.48 | |
| Overwork and stress, caused by a need to achieve on the job or in school, affects/hurts my life | 3.28 | 1.53 | -0.55 |
| C | 3.40 | 1.34 | |

Note. For each *t* test, *df* = 175. C = college-aged men; M = middle-aged men.
* *p* < .05. ** *p* < .01. *** *p* < .001.

Data presentation from Cournoyer and Mahalik's *Cross-Sectional Study of Gender Role Conflict Examining College-Aged and Middle-Aged Men*.⁴



Visualization of data from this study.

Context

The number of responses received from the initial survey weren't quite what I had hoped. Going into this project I was hoping for over 50 participants from across the Dallas/Fort Worth area. After three weeks of soliciting for research participants to take part in my phase one survey, I wound up with 21 men who had chosen to participate. While the number of participants wasn't what I had hoped for, most participants took the time to write paragraph-long responses to survey questions which provided me with a sizable set of qualitative data that translated into a valuable look into participants' perceptions of mental health.

In order to provide context for the data that was gathered it is necessary to review the age, location and counseling experience of participants. Most of the men who participated in the study lived northwest of Dallas and their ages ranged from 24 to 61 years old with most participants between ages 37 and 42. By using data visualization methods it is possible to present several

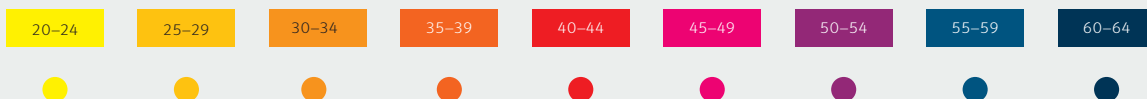
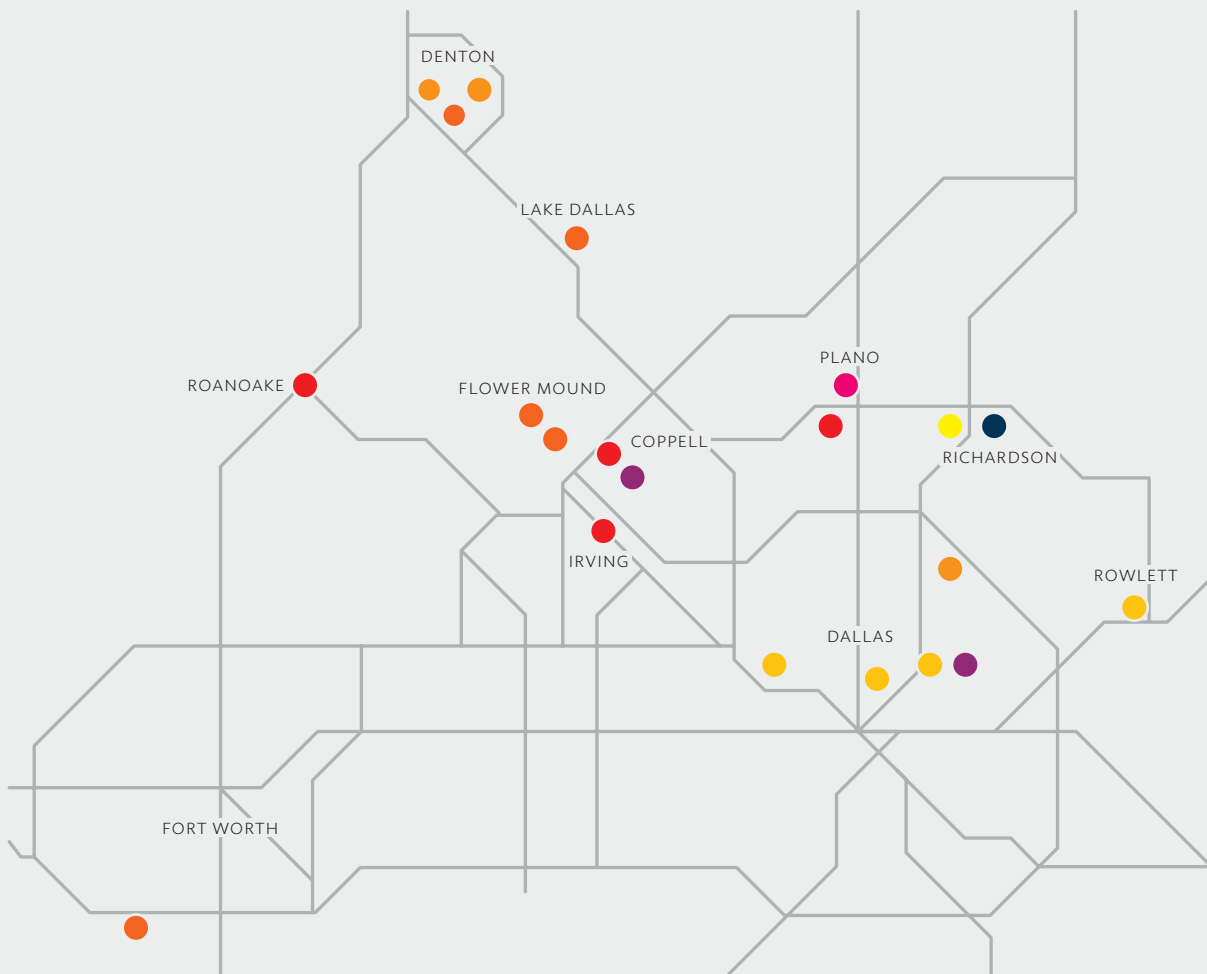
data sets simultaneously, revealing patterns and combinations that can reveal data dynamics otherwise not possible. For presenting the data from this study I developed a color gradient that started with bright and warm colors for the youngest range of ages and spread to dull and cool colors for the oldest individuals.

A review of the income levels of the areas sampled reveals that the area around downtown Dallas and around Denton about 40 miles to the north of Dallas represented the lowest participant incomes of the study and that a band that runs between these areas represents the area where the highest incomes were present. Because this study endeavored to address potential barriers between men and their mental health, I entered the project believing that some of those barriers could have included economic factors. Entering the research I had a theory that one barrier between men and their mental health could be the high cost of the counseling. However, entering the research I also considered the possibility that a barrier of social stigma could be in place when it came to the outward appearance that participants had “everything together” with their lives, supported by Dallas/Fort Worth’s culture of success. This stigma, I believed could have prompted men not to attend because of the fear that they would be seen as “weak” or that someone in the social circles would find out.

This information was found using the City Data website: www.city-data.com.

Following a view of men in context, where they lived and their age, I wanted to learn how men perceived their emotions and feelings. When considering the cognitive disorder of normative male alexithymia, where men in some cases do not even perceive the presence of their own emotions and their effects, it was important to determine whether my people group identified those emotions. After all, if men couldn’t identify that emotions existed and that they could spark negative behaviors, then it would be very difficult to encourage men to attend counseling should they need assistance in addressing those emotions.

The initial survey also included several questions that asked men to share if their feelings had ever caused them to do things they had regretted. But the question went a little bit further, asking men if they had ever done something they regretted because of those emotions. My rationale in approaching this questioning was to learn if men could identify that they had emotions and if those emotions actually had agency in their decisions. If so, then I would then learn where to aim my potential interventions, whether they be designed to help men to deal with emotions or to just help men to know these emotions even existed.



LOCATION AND AGE OF PARTICIPANTS
 GEOGRAPHIC LOCATION IN DALLAS/FORT WORTH AREA, BY AGE

Results

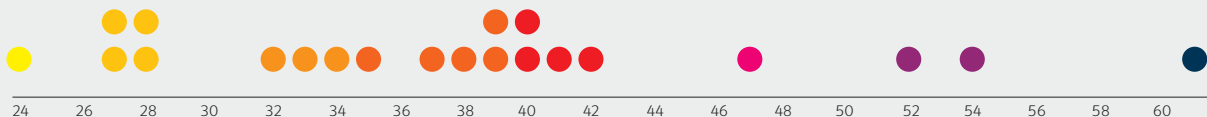
While the number of participants who responded to my initial survey wasn't what I had hoped, the data that was gathered started to create a picture of men that revealed things hadn't expected. As I analyzed the data from survey one, I began to locate groups and subgroups within the data that provided me with areas of interest for further inspection. These subgroups allowed me to compare men of distinctly different views and socioeconomic and demographic makeups during analysis which rendered insights. By comparing and contrasting these groups, areas of interest and new knowledge was created, new questions for future research were generated, and blind spots in my research design were revealed.

Participants

The largest number of responses to my phase one survey came from men who were between the ages of 28 and 42, which is likely due to my initial research design centered around men ages 30 to 40 years old. An evaluation of this subgroup revealed that, as a microcosm of the study population, most men were either generally comfortable with sharing their feelings with others. However, three respondents in this subgroup responded to the question in a negative way, citing that they were in some way uncomfortable or resistant to sharing their feelings.

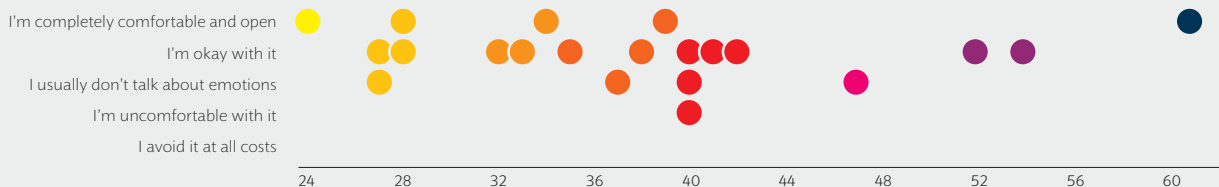
Examining the survey results as a whole revealed that several men between the ages of 27 and 47, at regularly spaced intervals, shared that they did not talk about emotions. While the responses to the survey were clumped in the generally favorable range of possible responses, this repeating rhythm of responses in the avoidance area highlighted that my research was aimed at a valuable area for inspection. Even the "okay" responses, while falling in the "favorable" grouping of response possibilities indicated that there were opportunities for design interventions in this area.

My secondary research into psychologists' prior findings in this area suggested that men were resistant to treatment and more importantly, considered attending counseling only when their problems reached a *severe* level of impact on their personal lives. I believed this "okay" level of responses could have meant that this group of 11 men represented a group who was still resistant to attending counseling or at least sharing their feelings at times when they may have needed to address mental health concerns before they reached a detrimental level.



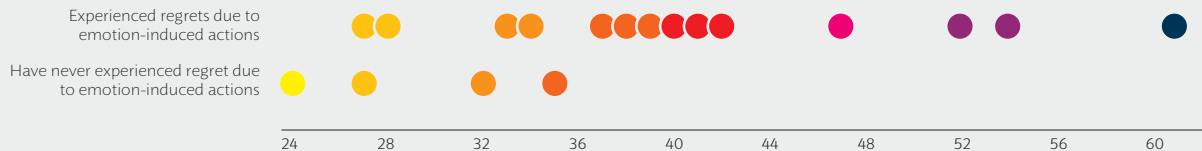
PARTICIPANT DISTRIBUTION

BY AGE



COMFORT WITH EMOTIONS

BY AGE



REGRET FOR ACTIONS RESULTING FROM EMOTIONS

BY AGE

Perception of Emotions

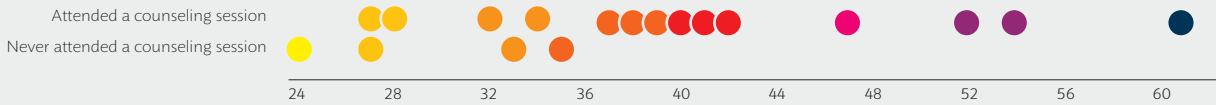
A review of men and their perception of emotions revealed that almost half of the men who participated in the study were “okay” at sharing their feelings with others. An examination of the age of participants in relation to their feelings about emotions suggested that the younger a man’s age, the more likely they were to be comfortable with emotions. According to the data and responses received, I believe only the group of men who responded as being “completely comfortable and open” would be the most likely to attend counseling and to “vent” their feelings to others.

Negative Outcomes from Emotions and Regrets

Of the 21 men who responded to my survey, 17 shared that they had done things they had regretted, resulting from their emotions. Coming into the study I anticipated that all of the participants to my survey would identify that at least in *some* way, their emotions had caused them harm and the fact that four men were outliers in this area provided me with a subgroup for closer inspection. The presence of this subgroup also revealed a weakness in my survey design.

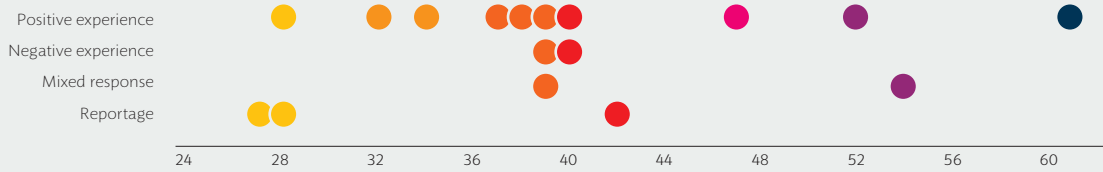
While these four men shared that they had not acted out negative behaviors due to their emotions, all four of men still noted they believed counseling was helpful for dealing with emotions and their long-form answers revealed that they all had a generally favorable attitude toward the practice. I believe this suggests that these men could feel “separate” from emotions, as something they are unaffected by but still have agency in the lives of others. Due to my very limited data set I can not support this theory, but believe it is an area for further research. The content of these findings do seem to suggest the symptoms of normative male alexithymia, though again, based on my limited sample I cannot unquestionably correlate my findings with this theory.

After discovering this subgroup within my research population I realized a weakness in my survey design. Looking back, I now wish I had asked participants to share if they recognized their own emotions at all. This questioning could have informed further research into normative male alexithymia in the Dallas/Fort Worth area and at least would have proven or disproved my theories regarding this subgroup of men who had never experienced negative outcomes from their emotions.



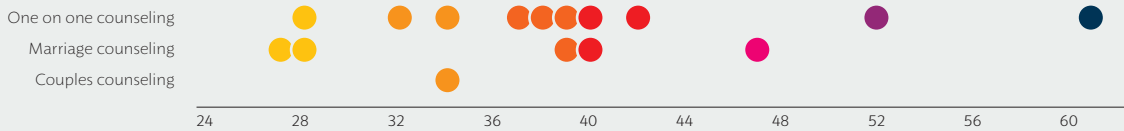
COUNSELING ATTENDANCE

BY AGE



THOUGHTS ON COUNSELING EXPERIENCE

BY AGE



TYPE OF SESSION ATTENDED

BY AGE

Counseling Attendance, Experiences and Types

Of the 21 men who participated in the study, 17 noted that they had attended a session before while four offered that they had never had a professional counseling experience. Of those who had attended a counseling session, most men (ten in total) had a positive experience while two shared their negative experiences and two men had mixed comments, noting how at first their sessions made them feel “awkward” or that the experience of attending a session was “unnerving and weird” but that after repeated sessions these men found it easier to “open up.” Across the participant responses I received, apprehension and discomfort during initial counseling sessions was a theme that presented itself and I believe a design research approach to mitigating these early stages of the counseling experience may be worthy of further research and exploration. When these negative and mixed response participants are combined, a review of their ages reveals that these men were all between the ages of 39 and 51, placing them in the middle range of my research population. This “middle age” grouping may be of significance for further study considering the cultural context of this subgroup and how designed outcomes may be created to serve their specific needs. Finally, when reacting to my question about counseling experiences, three men reported the logistics of their sessions with no positive or negative leaning remarks. Most men (eleven) shared that they had attended a one on one counseling session while five had attended a marriage counseling session and one with a couples counseling experience.

I was surprised by the number of men who reported that they had attended counseling sessions. I had assumed that most men would have either avoided counseling or had not seen the value of attending but the results gathered from my survey indicated that this sample group saw value in the practice of speaking with a counselor. The outcome of this study area revealed that, in the Dallas/Fort Worth area, if men attended counseling, they most often had a positive experience. With this in mind, I believe these individuals could serve as counseling advocates in their spheres of influence and in turn, could be important components of design solutions to help other men overcome barriers to attending sessions.

The Value of Counseling

Men's perception of the value of counseling in helping men overcome issues, regardless of if they had attended before or not, was very positive. No men responded negatively to the survey question on the efficacy of counseling, with eighteen positives and three men responding with a neutral position. This positive response on the value of counseling revealed

In both design and
in research, carefully
consider context to
inform solution steps.

that there was no barrier present between men and counseling when it came to their trust in the practice.

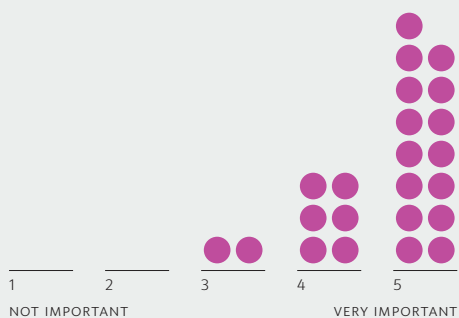
Several qualitative responses to the question about the value of counseling revealed some perspectives on the practice that were enlightening and had value for informing design interventions. One participant shared that they felt counseling was valuable for someone if they did not have a network of close friends in place. In fact, one man noted that a counselor is even better than a friend, sharing that someone can share details with a counselor that they would never share with a friend, enabling honest and open conversation about potentially challenging issues. Much in this same vein, four men noted that while they may or may not have participated in a session with counselor before, they felt that a friend or spouse was equal to a counselor with regard to the topics they could discuss and the counseling function they served.

Reasons for Attending Counseling

In line with what other researchers found when studying men's attitudes on mental health counseling, my results revealed that a majority of men felt that counseling was necessary only when they experienced problems that needed addressing. One man noted that they regarded mental health counseling as preventative maintenance that should be attended even when specific problems could not be identified. Two men responded that they believed counseling was especially valuable for people who had no friends with whom to share their feelings. As a whole, my research revealed that the sample population regarded counseling as an "only when needed" activity.

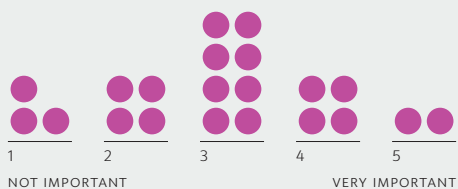
Counseling and Faith

My analysis of the collected responses revealed that many participants connected counseling with faith-based initiatives. Participants mentioned faith-based connections ten times and several men responded in ways that suggested they expected counseling to take place at or through religious organizations. Several men responded that they preferred counseling to be independent of any faith-based initiatives. Regardless of whether they were for or against religious organizations being involved in mental health counseling, the regular incidence of mentions about faith initiatives may have been a symptom of the location where the survey was completed. The Dallas/Fort Worth area is known as being located in the "Bible Belt," an area where there is an extremely high incidence of protestant churches and congregations and for this reason, respondents may perceive that counseling and matters of faith are not exclusive.



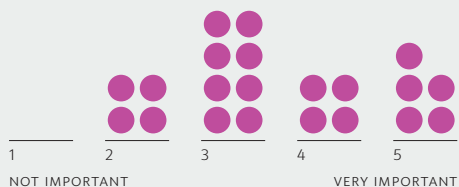
COUNSELOR PERSONALITY AND DEMEANOR

PARTICIPANT RESPONSES ON IMPORTANCE



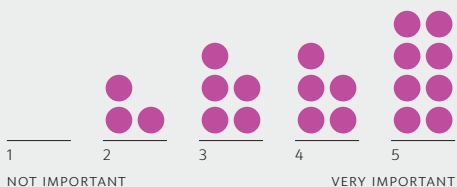
COUNSELOR GENDER

PARTICIPANT RESPONSES ON IMPORTANCE



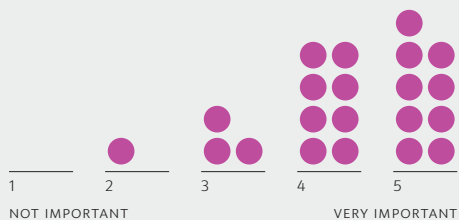
CONVENIENCE: LOCATION

PARTICIPANT RESPONSES ON IMPORTANCE



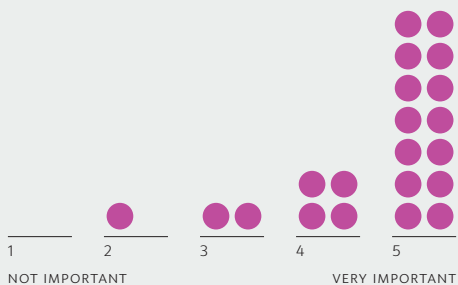
CONVENIENCE: TIME OF DAY

PARTICIPANT RESPONSES ON IMPORTANCE



COMFORT LEVEL OF COUNSELING ENVIRONMENT

PARTICIPANT RESPONSES ON IMPORTANCE



PRIVACY AND SECRECY OF COUNSELING SESSIONS

PARTICIPANT RESPONSES ON IMPORTANCE

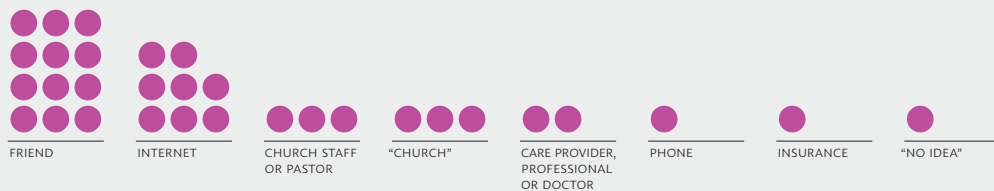
Aspects of the Counseling Experience

The last third of the phase one survey invited men to share their feelings on a series of aspects of the counseling experience. These included an array of topics from the logistical challenges of attending counseling and the counseling environments itself to the demeanor of a counselor during the counseling session. When developing the survey document, fueled by my secondary research, I had anticipated that men would have an aversion to attending counseling sessions with a female counselor. However, as with my initial thoughts on how I would operate the research as a whole, my assumptions were undone by the responses I received.

Of the responses to the phase one survey, men felt that the personality and demeanor of the counselor was the most important aspect of the counseling experience. Men also noted that the secrecy and privacy of counseling sessions was very important. Men also noted that the comfort of the environment in which counseling would take place was important, responding very specifically on this topic using words that resembled spaces found in homes like “comfy chair,” “living room” and “personal.” Some men noted that they would prefer outdoor spaces for counseling sessions. Regardless of the environment, a majority of respondents noted that they would prefer a counseling environment that did not resemble a lab or an office.

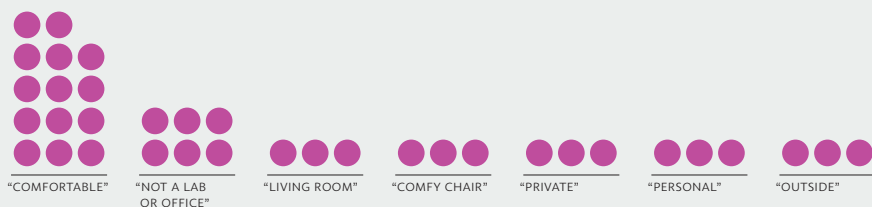
Aspects of the counseling experience including convenience of appointment times and locations were rated low by participants, indicating these criteria did not factor significantly into their decision to attend counseling. Men also rated the gender of counselors as a less-important aspect of the experience. Based on my secondary research, other researchers had found that some men had aversions to counselors of the opposite sex and based on this research I was surprised to learn otherwise. Still, these surprises are reminders that I need to do more research in this area to broaden my sample size in order to make sure these findings are valid and also that it is possible for different contexts to produce different results.

The final question of my survey asked participants to share how they would contact a counselor if they needed one and the results were revealing. One quarter of responses included faith-based connections like “church” or though a pastor or church staff member. Another quarter of responses indicated that men would use the internet to find a counselor. Half of the answers indicated that friends and family would be the best means of finding a counselor. Considering the fact that men responded



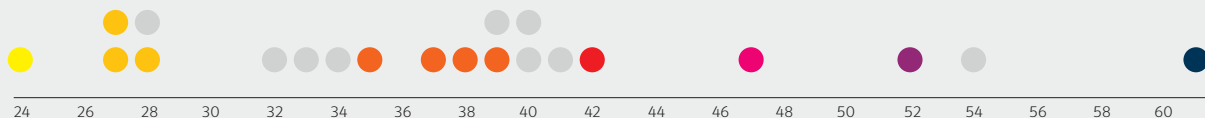
HOW TO CONTACT A COUNSELOR

TOTAL OF ALL PARTICIPANT RESPONSES



IDEAL COUNSELING ENVIRONMENT

TOTAL OF ALL PARTICIPANT RESPONSES



SEEKING FRIENDS FOR COUNSELING CONNECTIONS

BY AGE, COMPARED TO ALL PARTICIPANTS

that privacy and secrecy were very important aspects of the counseling session, their response that friends and family members would be helpful in guiding them to a counselor was perplexing. This finding would later prove to be pivotal in identifying the focus of design prototypes.

No Clear Barriers

After assembling all data from the phase one surveys and analyzing that data for repetitive themes that could present themselves as barriers to men attending mental health counseling sessions, I realized that no clear barriers presented themselves. After eight months of researching the body of knowledge on this topic expecting to find several clear barriers based on that research, my findings failed to replicate their results. Several men responded that they thought the high cost of counseling was a concern, several others said they didn't attend because they had no problems to address and only one said they felt stigmatized for thinking about attending, but no clear barrier could be found. At the conclusion of my analysis of the data I felt as if my research endeavor had failed. I pored over the data for days hoping to find a barrier I had missed until I realized that I was looking at the wrong part of my research focus.

Friendship as Bridge

Faced with the fact that I had no clear barrier to try to solve with design solutions, I "backed away" from the data to try to identify any themes I may have missed. This "backing away" from the project was an approach I had used as a designer many times when stumped to develop copy for an ad campaign or a logo design. By taking this approach I discovered a thread that connected almost every response in my phase one survey: friends.

Whether they were related to friendship or not, answers to many of the questions in survey one highlighted the value of friendship. Half of the responses given to the question about counselor referrals indicated that friends and family were the key individuals for men to find help. Several men responded to the survey indicating they did not or had not attended counseling in a long time because they had "transparent" relationships with their friends or wives. Two responses noted that counseling was especially helpful for individuals who lacked a strong network of friends. Three of the four men in the subgroup who shared they had never experienced negative outcomes due to their emotions shared that they would go to their friends if they needed to find a counselor. Even the value of friendliness was revealed by men who responded that the demeanor and personality of counselors was the single most important aspect of the counseling experience.

A-HA!

The solution direction
was embedded in the
research problem!

By taking a systemic approach to analyzing the data, examining it as a whole in all its complexity, I was able to discover that my research and solutions needed to shift from breaking down *barriers* between men and their mental health to *bridging* those barriers. In doing so I turned my research question around and asked “what bridges or connectors can get men into healthier mental condition?” and the answer, grounded in fact thanks to my survey data was *healthier friendships*.

A Grounded Theory

During the defense of my work on this thesis, one of my mentors, Keith Owens put a finer point on what had happened to me at this stage of the research. Mr. Owens noted that, having planned ahead for the data I thought I would gather and the design interventions I had planned to implement, what actually happened was “a grounded theory truck ran me over.” Another mentor, Michael Gibson put it that “what I thought to be “x” turned out to be yellow.” Regardless of how it could be worded, the data itself steered my research into a new direction.

The term “grounded theory” captures how this approach to research relies on “grounded” data to inform theories. Stemming from my research, the theory of the importance of friendship to counseling emerged. To put this theory into a physical healthcare framework, I devised a theory that friends serve the role of mental health primary care physicians. These “family doctors” of mental health do not replace counselors, but they serve the function of addressing everyday issues as men who are available to listen to their friends’ problems and cares. These day-to-day discussions can alleviate many emotional stressors just by providing opportunities for sharing.

Friends are not trained mental health professionals and my referring to them as “mental health primary care physicians” is not intended to imply that they replace mental health professionals. However, I believe that friends can be effective referrers if made aware of the importance of their roles in their guy friends’ mental health lives. In other words, friends seem to play the most important role in helping other men get medical help, which means *encouraging friendship* became the focus of my research, thanks to the grounded theory “truck.”

RESEARCH PROGRESSION

Data-Informed Direction

Analyzing data is the process of taking the raw harvest of findings and identifying a common thread (or threads). As a design researcher, operating my research and collecting the data was only done for the purpose of informing the development of design interventions. By remaining flexible and adapting my research to my findings, I had a *data-informed direction* for the creation of solutions to help encourage friendships and bridge barriers between men and their mental health.

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DESIGN
INTERVENTIONS

Without the act of designing, design research would just be “research.” As noted in the *Evidence* chapter of this book, most purely scientific research endeavors are focused on discovering and defining what is and their causes. But design, being future-oriented, focuses on what *could be* and design research is no different. Instead of only uncovering evidence through research, design research applies creativity, design thinking and design practice through making in order to develop and test transformative solutions.

Generative Leaps

One hallmark of design research that sets it apart from other research approaches is its focus on the development of solutions based on evidence from research findings. The interventions design researchers implement are seldom conventional solutions already in existence, needing only surface design and implementation. Rather, design research endeavors to produce interventions that are specifically designed based on research findings and populations, taking the form of *generative leaps*. These “leaps” are designed to solve problems but they also become experiments themselves, inspiring further research into their effects during development and following implementation.

A leap is big. It's a whole-body, weight-shifting, violent motion that requires every ounce of strength to complete. A “generative leap” isn't an incremental innovation or a hop—it's a game changer, a paradigm shift and a transformative moment that makes whatever was “normal” before the leap look archaic. If a *leap* is a heave of a movement in a new direction, then the characteristics of a solution that has “leap” as part of its name implies it is an approach to problem solving that's far from conventional.

The widespread use of touchscreen smart phones is a good example of the effects of generative leap thinking. Before these phones started flooding the market, anyone sharing the idea of a phone with no physical

buttons would probably have been laughed at. After all, who ever heard of a phone with no buttons? Up until 2007, phones had always had some sort of tactile interface and any conventional effort of designing a new phone included designing a layout of physical buttons. The move to touch screens largely redefined the smart phone experience and broke previously established conventions. Today, phones with touchscreen interfaces don't seem strange at all but there was a time before the leap, when buttonless phones were the stuff of science fiction.

Shortsighted Conventions

The design, development and implementation of buildings, brochures, websites and other conventional solutions is a process designers carry out daily. Conventional approaches to solving problems and the outcomes they produce require little exploration beyond the steps of defining problem parameters, choosing solution formats and customizing outcomes to fulfill desired outcomes. However, this approach to generating solutions limits potential for lasting impact because of their lack of being informed by contextual research as well as their familiar outcome formats.

There are many reasons why conventional solutions have become conventional. These types of “expected” solutions have been implemented and tested repeatedly for decades (even centuries) so their efficacy is well documented. Other aspects of conventional processes like production costs, personnel, equipment and materials needs, experience requirements and time necessary for completion can be estimated with a high degree of accuracy. With this in mind, the process of designing conventional solutions is a relatively safe and repeatable effort, where the risk of unexpected outcomes and procedural missteps can be controlled.

The familiarity of conventional solutions, while improving production efficiency, tends to obstruct the design of unexpected outcomes that can spark transformative change. For instance, during their academic training many industrial design students are presented with the classic task of designing a “chair.” The task seems simple enough largely because the convention of a “chair” is widely known. In fact, as you’re reading this you probably have a picture of a “chair” in your mind, most likely consisting of four legs supporting a horizontal surface for sitting and maybe back support. What results from this way of thinking is most often a familiar and “expected” solution that satisfies the assignment parameters but doesn’t innovate beyond embellishing on the previously defined construct of a “chair.”

Design problems are wicked problems—they do not come with an assignment sheet or a description of the specific outcome to be designed (like “chair”).¹ These problems are complex and undefined and their solutions come with consequences that can affect broad swaths of the population. In order for solutions to make a lasting impact they must be developed to specifically address the complexities inherent in the nature of wicked problems. Solutions must be informed by research, developed to match cultural environments in which they will exist and implemented so they can be sustained over the long run. Conventional approaches to solving and conventional solutions lack the specificity of being matched to the problems they are intended to solve and as a result, often fail.

For instance, public service advertising campaigns aimed at curbing tobacco use in the United States have been deployed for decades but the bad habit continues. Municipalities have produced poster campaigns to encourage individuals to live their lives with high moral character but truancy, cheating and stealing still takes place. Organizations on either side of the issue lobbying for gun control or gun safety haven't been able to stop all gun violence or prevent firearm accidents. If we consider the statement that “Insanity is doing the same thing over and over again but expecting different results.”² then it can be said that repeatedly using the same conventional design approaches to solve wicked problems is insane.

For more on the Owasso project, view the full PDF report at: <http://www.dennisceatham.com/portfolio-downloads/DC-Owasso-Case-Study-12-05-07.pdf>.

Embrace the Unfamiliar

The responsibility and power of generative leap solutions is their ability to challenge assumptions and to align interests. This requires creative approaches to solving like reframing problem definitions, activating unused and seemingly unrelated resources as well as engaging stakeholders as co-creators in order to gain their insights and perspectives. Quite the opposite of conventional solutions, generative leaps require experimentation, comfort with ambiguity and reflexivity throughout the process of designing outcomes. Sometimes the path to generating lasting and innovative solutions requires embracing, or even creating the unfamiliar in order to avoid the conventional.

For instance, let's return to the industrial design “chair” assignment. When charged with designing a “chair,” designers bring with them their conventional notion of a chair. By doing so, designers are already biased when beginning the chair-designing process and may be more likely to develop only incremental variations of “chair” instead of a form that embraces a totally new definition of this piece of furniture. Immediately, the num-

Design creativity
powers iterative problem
solving and propels
generative leaps.

ber of possibilities are limited by conventions. However, if the problem were reframed to invite the design of “a mechanism for supporting a human’s seated position,” design outcomes may resemble vastly different definitions and variations of “chair.” By reframing the chair as something unfamiliar, avoiding conventions, unexpected and inventive solutions are more likely to emerge. This process of designing the unfamiliar takes time, resources and research but the end result, the leap of transformative change is worth it because of its lasting impact.

Unexpected Interventions

Upon analyzing men’s survey responses on mental health counseling I discovered that the clear barriers between men and mental health counseling I had hoped to break down didn’t materialize. Ever since the start of my research project I had been thinking through the types of interventions I might be developing in March of 2013 but by the time late March arrived I was scrounging around to find a problem I could begin to solve. It was at this point that I realized I had been researching like a designer. From the very start I had laid out my schedule with exacting precision and had thought through and planned all of the details of my project in advance. However, what I learned was that research processes don’t always go as planned. In my head I knew research was an organic process that would require me to embrace the unfamiliar but it wasn’t until I had to actually do it that I knew what being comfortable with ambiguity actually meant.

Encouraging Friendship

In the absence of revealing barriers standing between men and their mental health, survey responses revealed that friends were a bridge that served to connect men to mental health care professionals when their friends needed help. This meant that I needed to focus my design interventions on encouraging deeper friendships in order to enable those connective relationships. By doing so, I hoped to develop solutions that could help encourage reciprocal sharing of thoughts and experiences to become more common in male friendships, enabling men to talk about potentially damaging thoughts and emotions. Once these channels of communication and sharing would be open, I believed that men would be more likely to help with the process of contacting a mental health care professional to explore if treatment would be beneficial in order to seek relief from or even avoid negative behaviors. By empowering men as a key agent in this system of interactions, discussions about emotions could take place in trusted environments between friends instead of being artificially instigat-

ed by individuals outside these trusted networks where rapport had not yet been established.

The inspiration for my pursuit of developing solutions to enable deeper friendships was a single theme that emerged from my captured data. In my survey, several men shared that the transparency of their relationships with friends and spouses was the reason why they didn't need counseling. The word "transparency" stuck out from the survey results as an area of significant interest because it signaled an ideal measure of depth of personal relationships. This discovery led to my decision to set transparency of friendship as the desired outcome stemming from my design interventions. I extended that if friendships could be deepened to the point of transparency where feelings and concerns could be shared openly, then men would be more likely to both vent their emotional challenges and ask for assistance finding professional help from those same friends.

Sizing up the challenge ahead for the design interventions phase of my research, I did not presume that I could have created a prototype that would even begin to help men develop transparent relationships. In order to reach this conclusion I pulled from my professional experience as a communication designer. When approaching a design problem, I have learned that it is essential to determine the intensity of the desired outcome in order to begin to design a solution that matches that intensity. To put this into other words—if the problem of carrying groceries out of a store requires a paper sack, use a paper sack and not a dump truck. For my needs at this stage of the research, deeply-informed solutions weren't appropriate because I lacked evidence upon which their forms could be based.

Critical Probes

At this stage of the research, my design interventions did not have to be perfectly formed, rather their main function was to elicit honest and insightful responses from men about what types of experiences they felt would encourage their friendships. I proposed that if I could learn this information, then the data collected could help identify areas of focus for design intervention development in order to help men deepen their relationships toward the goal of transparency. The result was the development of critical probes³ that served as focal points that sparked participants to pause and think about their daily friendships. Simply, these design interventions posed a "what if" scenario to get participants to look closely at something that is seldom inspected closely, their friendships.

Designers Dunne & Raby are known for designing critical probes to promote discussion. More at: www.dunneandraby.co.uk.

In order to capture reactions to each design intervention, I set up a simple web form survey with the four “Encouraging Friendship” solutions described and depicted so participants could compare each option. In the response area of the form, each option was reworded in second person tense to allow respondents to most easily self-identify with the option and its parameters via a “call to action” statement. Participants were allowed to choose the option they felt could most effectively encourage their friendships and were then asked to share why they chose the option they did.

Creating the Interventions: A Fast Process

While these interventions I designed didn't take on the form I had once expected they might, I found that the process of “starting from scratch” via a grounded theory approach actually sparked my creativity instead of stifling it. These design interventions were crafted over a period of hours instead of days and no outside input was gathered before their implementation, due to the fact that my research shifted so late in its process and so close to my deadline for reporting my findings. This quick timeframe for the development of interventions forced me to act quickly and while I feel that my short session of brainstorming and creation rendered strong outcomes, I would have liked to have had more time to engage participants in the process of their formation before they were released.

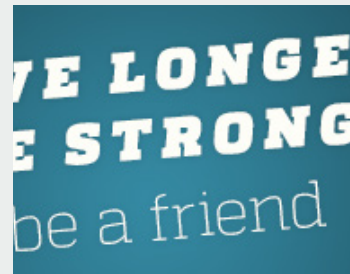
The four “encouraging friendship” design interventions I developed were:

Awareness: Be a Friend

A campaign of posters, television ads and web banners is produced that raises awareness for the health benefits of friendship.

CALL TO ACTION

Be reminded of the importance of friendship by the “Be a Friend” advertising campaign.



When approaching the four different design intervention directions, I wished to offer participants an option that would represent a public service announcement approach common in westernized culture and including the Dallas/Fort Worth area. The image for this option included two men with a headline that read “Live Longer, Live Stronger... Be a Friend”. The image I chose depicted a head and shoulders view of two young men who were both smiling and facing the same direction, both of whom seemed to be very comfortable as friends however not posed



and smiling directly at the camera. By combining a catchy headline with the image of two men who seemed to be friends, I hoped to model the promotional nature of this prototype for participants.

As a public service announcement, this design intervention was to serve the purpose of allowing men to choose an option with which they were familiar but also to test out men's thoughts on the efficacy of these campaigns. When developing this option I believed that while it was the most native solution to one of my areas of expertise in graphic design and art direction and in turn the easiest to develop, it would also be the easiest to discard and ignore because of its place as a de facto solution that would not stand out against the other interventions as anything novel or unique.

Incentive: Time to Hang Out

Your job offers a program where you can get a three hour lunch or can leave work two hours early once a week without pay penalty, as long as you spend it with your friends.

CALL TO ACTION

Take advantage of the "Time to Hang Out" work leave program to increase frequency.



As a design intervention that was more focused on a service than awareness alone, the imagery for this option depicted the backs of two men who were facing away from the camera, looking out over a calm lake as if they were on a fishing trip. I chose this image because it de-emphasizes the men themselves and highlights the activity of fishing and in turn, the time spent doing so. The tone of the intervention title (Time to Hang Out) was specifically written to evoke that the margin it would offer in the way of regular time was intended to be spent on informal and unstructured activities where conversations could take place.

Of the four interventions I designed this option was the most directly incentive-for-friendship driven, proposing that participants in the program would receive the time from their employers as an incentive to use it for friendship building only. I designed this option both as a test for participants to see if time for friendships would outweigh working their jobs and also to discover what motivations would most likely prompt participants to choose it (the benefit of getting out of work alone or the value of time allocated for the growth of friendship, alone.).



Purpose: For the Common Good

A nonprofit organizes and does all of the legwork for year-long, “common good” experiences where you and two of your same friends can work together on a meaningful project of your choosing.

CALL TO ACTION

Enroll in a “For the Common Good” year-long experience to work together toward something meaningful.

Coupling what I’ve learned from people who have served as soldiers at times of war or have endured basic training with my own experiences of making long camping trips and hikes with friends has revealed that close bonds often form when people are unified in a common, rigorous task. This is also evident in design teams when long, arduous campaigns or projects require great amounts of time and effort from creatives who after the completion of the process experience a “bond” thanks to their shared experiences. Regardless of the collaborative activity, all of these instances produce deeper relationships (and often lasting friendships) centered around a shared goal.

“For the Common Good” was developed to present an option for participants that mimicked team-oriented and project experiences like building a house or surviving military basic training. In developing its description I also hoped to offer an option that could determine if men privileged an experience that catered to their need for the pursuit of a greater purpose for their lives and time. In all, this option presented opportunities to both discover how participants would react to and felt about the importance of shared experiences and unified outcomes to the development of deeper relationships and friendships.



Proximity: Friendly Confines

Your city or town creates a new, conveniently located community where housing costs are 25% lower, but a requirement is that you live next to two of your friends.

CALL TO ACTION

Commit to daily friendship by moving to the “Friendly Confines” living community.

The most extreme of all of the design interventions I developed, “Friendly Confines” was designed to offer participants an opportunity to react

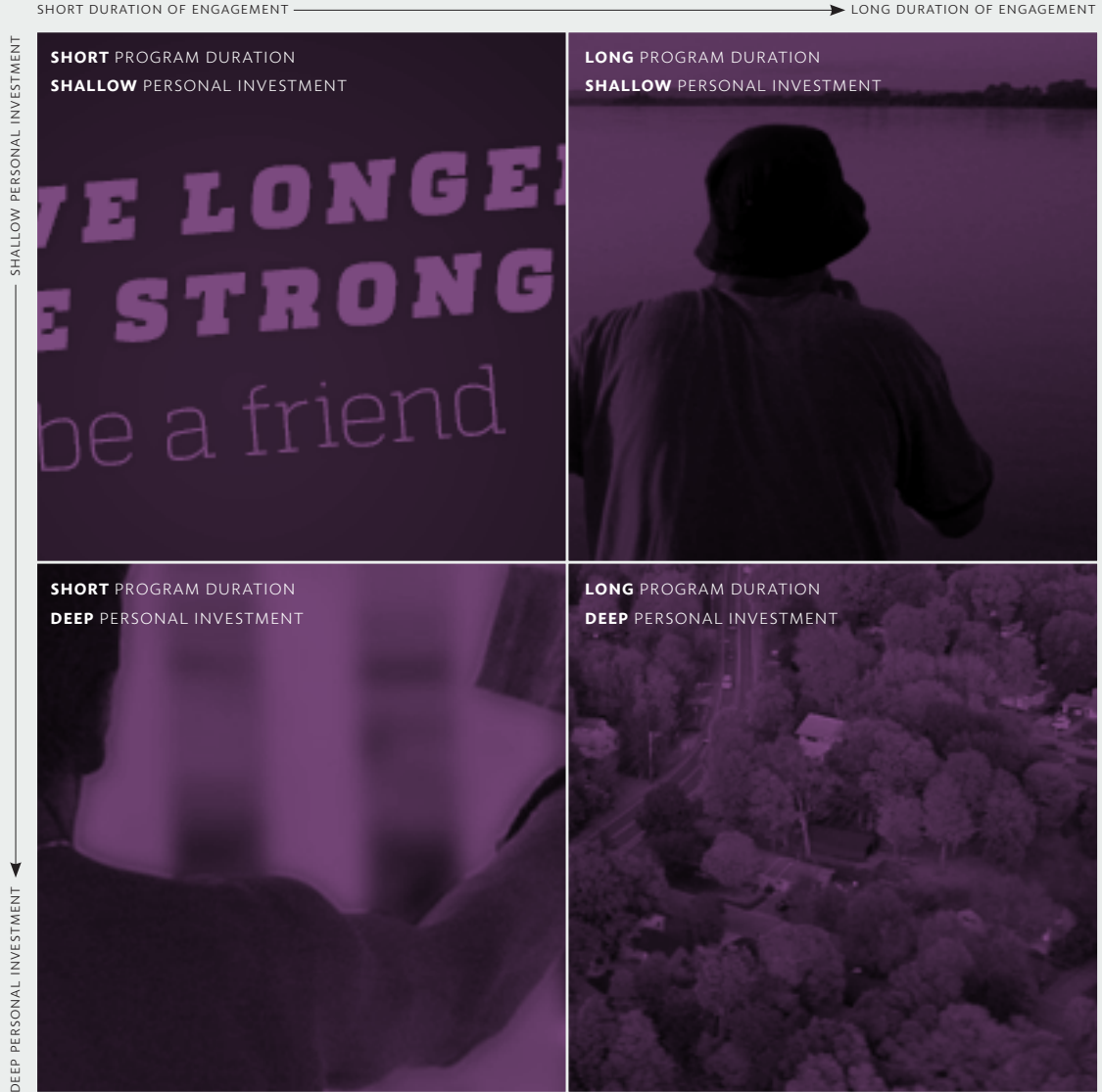
to the importance of proximity and repeated, long-term interaction to relationship building. My hope in creating this option was to emulate the appeal of a stereotypical small town community environment and to determine that, if the logistics of extreme life change were no issue for participants (this is a critical probe, after all) would participants choose to move to a small town community. In an effort to lessen the severity of the transition to this option I developed this probe with a tangible benefit, the 25% savings in housing costs. This was implemented to both entice respondents to the option but also to emulate how often, living in a small towns comes with the benefit of lower living expenses because of reduced commuting costs, lower stress and reduced lower pricing when compared to more “desirable” urban areas where the commodity of housing comes at a premium because of proximity to more developed urban centers.

Of the four design intervention options I created, this option required the most extreme change of lifestyle to adopt. Through gathering reactions to it, I wished to determine what measures respondents would go to be part of a small, close-knit community. Because of the extreme degree of “buy in” required for participants to endure in order to encourage the depth of their friendships, this option also presented me with an opportunity to determine why those who would choose it would go to such lengths to develop personal relationships. This was of special interest to me because as the most extreme of the design interventions presented, it provided me an opportunity to compare responses to the other design interventions and reasons for why participants would choose it or potentially other extreme life change measures like it.

This concept was termed “Lifestyle Redesign” by my friend and colleague, John Hicks.

A Matrix of Engagement and Interactions

In the interest of designing each critical probe so they would be distinctly different from one another, I strove to avoid each probe being too similar to the other options. I wanted to make sure participants were forced to make a clear choice because they resonated with one friendship scenario over another, instead of choosing one because it was “not as bad as” another or “close enough”. Quite unintentionally what resulted from my development of the design intervention options was a matrix of choices that related to one another in a larger grouping structure. This “unintentional matrix” created a coding mechanism which later proved useful in my analysis of the outcomes. The matrix that resulted was not shared with participants but was used to analyze the data in grouping responses by the characteristics of the interventions themselves.



“ENCOURAGING FRIENDSHIP” MATRIX

PARTICIPANT RESPONSES ON IMPORTANCE

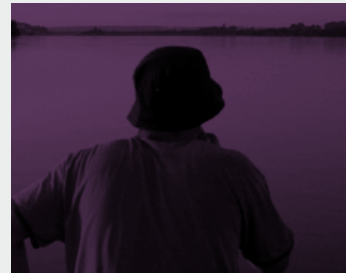
Awareness: Be a Friend - Short and Shallow

The “Awareness” option offered participants an opportunity to respond to a design intervention that privileged shallow engagement with the designed program whose running duration was short. This “ad campaign” approach represented a public service announcement approach which is fairly common in the Dallas/Fort Worth area and has been used in many places across the world. With this approach, the message of friendship is presented to viewers without any engagement necessary and once the campaign would end, the messaging would stop because its communication would be solely based on its producers to keep it in front of intended audiences. This very surface approach is so ubiquitous in culture that I wished to see it as a placebo or “controlled variable” to determine if participants who were familiar with this common approach would respond to it. From my professional design experience I have learned that many clients perceive an ad campaign like this option as an ideal approach. I was interested to learn if the qualitative responses to this option supported this view that such a conventional approach to sparking behavior change could make an impact.



Incentive: Time to Hang Out – Long and Shallow

“Incentive” brought with it an opportunity to challenge participants to respond to a scenario which brought with it a much longer duration of engagement compared to the “Awareness” option. Still, this option was designed to allow participants to choose an option that brought with it a shallow level of emotional investment (lunches or recreational activities with friends) over a long period of time (potentially unending if participants chose to continue meeting with their friends on a regular basis). This option did not present an opportunity for participants to engage in deep, rooted content but rather offered the benefit of shallow, sustained effort much like hanging out at the pub in a “Cheers” model of friendship building. This probe was generated to resemble beer ads and other advertising that depicts a bunch of buddies all hanging out together. It was also inspired by groups of breakfast and golfing buddies who get together regularly, sometimes even daily. I hoped to see if the image presented by these types of get togethers would rub off on men so much so where they would choose it as an ideal way to encourage friendships.



Purpose: For the Common Good – Short and Deep

This design intervention's characteristics focused on creating a central item that men could gather around and work on together. Inspired by stories of dads and sons working on rebuilding cars together and the



effects of military Boot Camp training experiences, this option was presented to test out how men valued the role a common, shared experience. The “gather around” nature of this option presents a scenario where men could share how they privilege “being part of something bigger than themselves” and the role that plays in encouraging friendships. By its nature of being cause-based, a deep engagement level with the content of the experience is necessary in this scenario, brought about by the fact that this experience requires a deep commitment to a central effort every day for one year. This experience only lasting one year, however, does mean that its raw commitment of time is fairly short and finite as opposed to other options that would have no set end date.



Proximity: Friendly Confines – Long and Deep

Of all four design intervention options, this option is the most extreme and would require the greatest sacrifice on the part of participants. In an effort to determine “how far participants would go” to be part of an environment where friendships could become a way of daily life, this option required sacrifices on the part of participants in the way of relocating to a physically new place to reside. It also offered an opportunity for participants to choose an option that touted very deep engagement with others stemming from the fact that this option would have participants living in close proximity to one another. “Friendly Confines” also brought with it a scenario for a long, extended period of interaction with no finite end. These characteristics of this option were designed so participants could choose it to help express their feelings that encouraging friendships is a deeply engaged process that requires long periods of time.

The Survey Instrument

In the interest of gathering as much data as possible across all ages I did not limit responses for the design interventions survey. My solicitations for participants for this phase of the research invited anyone to participate though I still required individuals to indicate their ages and locations by zip code as I had done earlier in my research. After receiving all responses to this survey I parsed the data out based on demographic information.

The solicitation language I used for the phase two survey was a lot friendlier than calls for participants for phase one, possibly because the topic was more accessible (“encouraging friendship” instead of “men’s mental health”) or possibly because the data I was requesting felt a little more like a design competition than a medical survey. Because the survey document I offered was only available online I did not have the luxury of face-

to-face interactions so I hoped that rewording and opening my survey up would allow it to be more endearing to respondents.

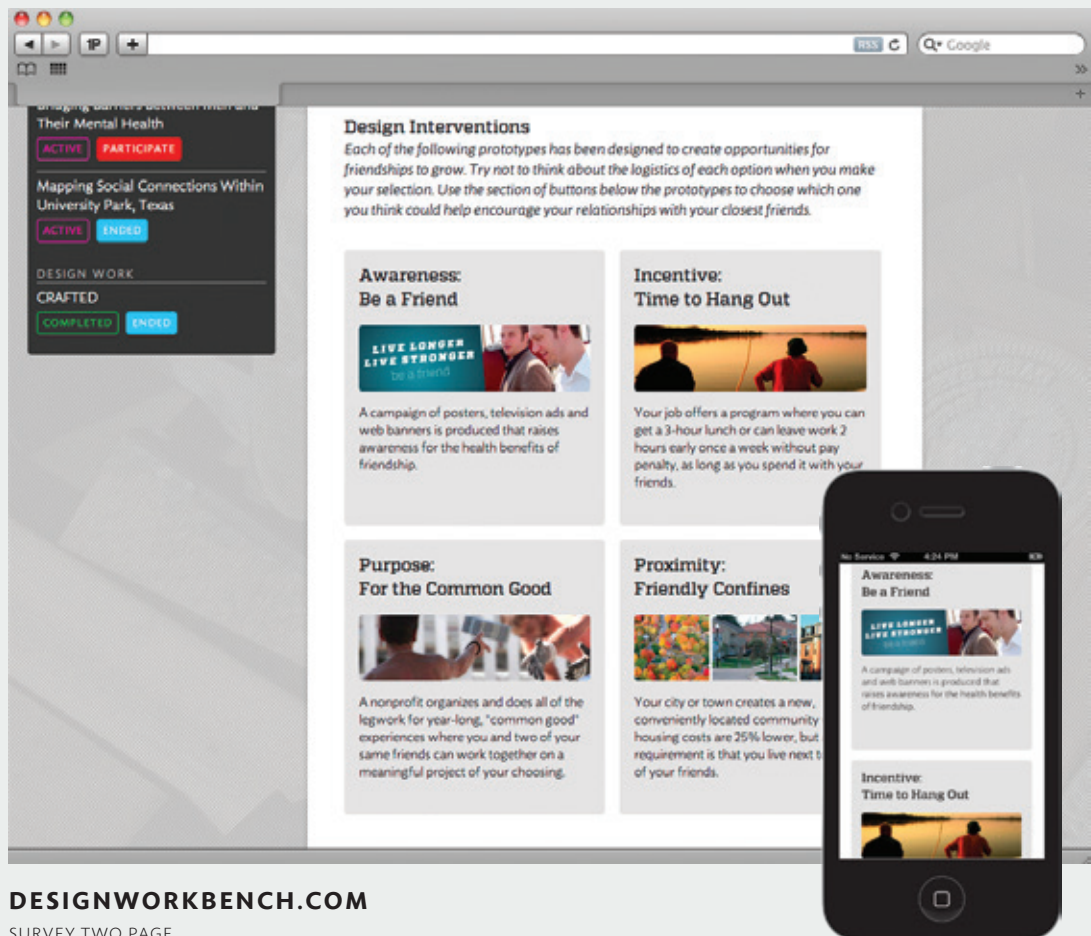
Results: A Very Quick Glance

Responses to the design interventions portion of my research were collected at the very end of my research period and I have not yet completed a full analysis of the captured data. A glance at the data captured reveals that a total of 12 men and 17 women participated in the survey. Men who responded were between the ages of 20 and 68 while women participants were between the ages of 28 and 58. Responses from women are outside of the scope of my research for this project but could be used later for comparison as I extend my research to focus on the refinement and implementation of design interventions.

In total, 12 men responded to the phase two survey. Men who responded to the interventions chose the “For the Common Good” option as their most preferred scenario though it narrowly edged out the “Time to Hang Out” option. Two men shared that they felt the awareness campaign would be most helpful in encouraging their friendships and only one man chose the “Friendly Confines” scenario.

As the most popular option, men noted how the “Common Good” scenario was powerful because they saw significant value of working with others on a collaborative task where competition was not a factor. Men also shared how the opportunity to help others was important, but the idea of doing it with friends would make the experience even more fun. Several men noted that the sense of pride that comes from completing such a task was an important component of this option. One thing that set this option apart from the other scenarios was the fact that it had a “completable” task at its center. I’m interested to learn if this option was seen as ideal because men seem to be comfortable when completing defined tasks and having clear goals. This has implications for further study and future intervention development in the interest of fostering friendships.

Men who chose the “Time to Hang Out” scenario indicated that they looked forward to time to play golf or have lunches and that their current, busy schedules make these activities hard to make happen. Several men suggested that the incentive of not having to work a full day every once in a while was this option’s greatest benefit, suggesting that spending time with friends was of secondary importance. This scenario was designed to be an unstructured option and men’s responses captured how they valued



being able to spend it flexibly with friends. A segment of responses from men who were also fathers revealed that, because they felt they were already very busy at work and at home, an option that allowed them to spend time with friends without sacrificing time with their spouses and children was ideal.

At the conclusion of my first rounds of analysis, the design interventions which sat at the extremes (awareness campaign—shallow/short and moving into a “friends” community—deep/long) were the least desirable. I believe this is a signifier that my design interventions were well-formed in providing sufficiently extreme, “outer boundary” solutions for participants to consider. The two most popular options being “time with friends” (shallow/long) and “Common Good” (short/deep) captured the bulk of the responses and in turn, create a mass for future research into how they may encourage friendship. I am interested to explore if personality types of men had anything to do with which option they chose as most encouraging for their friendships. Simply, it is possible that neither of these choices is better than the other, but that men chose them because they prefer unstructured time or finite tasks. Examining this further and inviting participants to take part in the shaping of these options would allow them to be more discretely defined and ideally, effective at encouraging friendships.

Next Steps for Friendships

Each of these designed interventions brought with them opportunities for bridging barriers by creating regular engagement based on how friendship was cited by survey respondents as a valuable conduit for both finding counseling help and also in sharing feelings and working out emotional problems collaboratively. Based on my findings, the next steps would be to refine several of these approaches to test on a broader people group for their efficacy and also to reveal new opportunities for refinement. I would most like to engage a group of men in a charette to collaboratively design experiences and frameworks for friendship building. By refining these options as a group, I believe the options I designed could be improved or possibly jettisoned in favor of more appropriate and effective experiences. Beyond further research, I believe the work of finding ways for societal systems to support the designed interventions is paramount. By aligning interests so business and individuals both benefit from intervention implementations, these solutions would be more likely to become sustainable, long-term programs.

RESEARCH PROGRESSION

New Research Areas

This stage of the research revealed new directions for future research. It also provided confirmation that men resonated with the provided design interventions and in doing so, highlighted that my evidence-based solutions were properly aimed at an area that is of valuable study. At the conclusion of my research progression, my solutions have created new areas for inspection and in turn have sparked new questions to ask and problems to solve.

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REFLECTION

During my career as a designer I have developed a tendency to not look back. From my experience, most designers are either working on a project or are looking forward to the next one, but they do not often reflect on their most recent work and its effects. Instead of carrying on this “next thing” tradition, I have learned the value of taking time to reflect on past events in order to learn from them and to apply this new knowledge to the pursuit of future endeavors. There are few places where this kind of reflection is as important as research, where lessons are often learned long after the last part of the active research has been completed.

The Meta-Level Approach

As a whole, I consider this project to have been a great success, both due to the knowledge it generated for the fields of psychology and design and as a case study to inform this document. When I started this research I didn't intend to use it as the focus of a meta-level approach; however, doing so has allowed me to both inspect the research process closely with a critical eye and to back away from it to examine the research and its outcomes holistically. This multi-level, reflexive approach is one I will likely use again in examining future research endeavors in order to learn from my processes and outcomes.

Over the process of writing this book I have been forced to pore over my research process as well as the nature of design research, itself. I've found that the process of explaining my thoughts on design research has been one where I have learned as much as I have taught. It's uncanny how writing your thoughts down on paper will force you to think critically about what you're saying and what you believe. Several times I've been writing this document and have worked through difficult concepts I thought I understood, only to find that my knowledge was lacking and my own stance on the topic was weak. I've also found that grappling with my thoughts on some aspects of design research has allowed me to explore and form my own definitions and approaches more solidly. As I write this document at the culmination of this project I realize that much of what I have written

will serve as fodder for my own research into the practice of design and research through design.

Reflecting on the Research

At the outset of this research endeavor I felt that the topic of bridging barriers between men and their mental health would be a valuable pursuit that could benefit a largely underserved and difficult to reach population. Having completed as much of the research as I have (this project is far from over), I believe this pursuit has been a worthwhile project. My work has generated new knowledge for both mental healthcare professionals, for design researchers and I hope also for practicing designers who are curious about what it means to conduct design research. I believe both the process of design research has been illuminated by this foray into what it can look like when applied to a topic like men's mental health.

Research Operation

Developing my research project was a struggle at times. As a fairly new researcher who aspired to design a study that could return valid results and conclusions, I was focused on making sure my research design was solid by science standards. However as a longtime designer I was used to projecting ahead to desired outcomes and then crafting processes to make them a reality. What resulted was a research design where hypotheses were developed and unraveled, research was planned and then scrapped and results were rendered that didn't match expectations. Through the process I was reminded that finding weaknesses in design (and research) is not a sign of failure, rather its actually knowledge gained (which is the reason for research in the first place). Having completed the operation of this phase of the research I realize that I have learned as much from its operation as I have its outcomes.

The work of gathering data through the surveys that were developed was an area where I felt relatively comfortable at the project's outset, based on my previous research experience. These surveys were fairly easy to shape and their implementations through a website was a procedure with which I was very comfortable. While the number of responses I gathered weren't quite what I had hoped, the quality of the responses sparked by my questions rendered plenty of data in order to inform design outcomes.

The "research within the research" for this project was it's most enlightening product. As I began to write solicitations to invite participant responses I explored how these solicitations could become more friendly and

endearing while still honoring the rigor of the research. I extended this idea further through the design of the Design Workbench web site, using it as a platform for several research projects and directions. Blurring the lines between design and research, my application of advertising concepts merging bold copywriting with design allowed me to begin to explore how research solicitation can be (and should be) context and audience aware in the interest of engaging participants. This exploration has the potential to render new knowledge for design research as well as for the social and behavioral sciences. It also was the most unexpected portion of my project, revealing that within a single research endeavor there are opportunities for discovery and research on the *execution and extension* of the research and not just into the research topic, itself.

Outside Influences and New Combinations

As I conducted this research I found that the information I brought in from other sources in my daily reading and interactions fueled my introspection and discovery. Before this project, my concept of research was that in order to maintain a rigorous research design, the principal investigator had to sequester them self from the world lest their results be tainted and spoiled. However, as I operated my research into barriers between men and mental health, the content I took in from a variety of sources actually fueled new directions for research and connections within it I may have otherwise missed.

Blog posts, posts on Twitter, hallway chats with colleagues and other cultural interactions helped give me new sets of lenses through which I could view my research. In other words, while I was focused on my research over its course, I was glad to not have been locked up in a windowless room with it. Based on my experience, I believe outside interactions that are part of my daily work as a designer, educator, colleague, father and friend brought with them new ways of seeing and in turn new ways of understanding the research as it developed. Simply, I now see the value of design researchers as hybrid beings—simultaneously culture consumer/creators and evidence-based investigators. As I complete this report out I recognize that I have just begun to explore what that hybridity can render but I believe such a mix has great potential for outcomes that can serve others in unexpected ways.

Evaluating the Results

As noted before, I wish I had been able to gather a greater number of responses to my surveys in the interest of offering a broader sampling to

A-HA!

In order to work
iteratively you have
to “fail” at least once.

study. Had I had more participants across age groups I believe I would have been able to define subgroups and outliers in the research more confidently. With so few participants taking part in the research, subgroups, themes and outliers were revealed but they were based on a small number of responses instead of being proven with greater certainty through greater numbers.

Evaluating the performance of my surveys has encouraged that the work I put into refining their language rendered quality results. The responses to my questions were straightforward and participants did not seem to be confused or have many issues. However, several participants did note that they wish they could have chosen multiple options on several radio button responses because they had attended several different types of counseling sessions before. I will take special care in the future to make sure that the responses I am soliciting offer as many options as possible for participants to choose, should there be a scenario where multiple responses are required.

Having completed the research, I look back and wonder what data could have been gathered had I engaged men to participate personally instead of via online surveys. This approach could have involved participants in a far more vocal and active way and in turn, could have resulted in data that could have been more robust in its quantity and quality. From my experience studying and operating research in cultural anthropology I have learned that what people say they do and what they *actually* do are not always the same. I believe direct observation and engagement could have at least augmented online surveys, providing a “reality check.” Looking back, it is difficult to tell what outcomes would have been produced as a result of the change, but it does open up doors for further testing and increased engagement by participants to see what such an approach may render in comparison to my online methods of gathering data.

Even though I had a relatively small number of participants engage with research, I believe what resulted was a solid proof of concept. The findings presented in this book may not be definitive in the Dallas/Fort Worth metroplex, but they did create a sketch that can be developed into a more robust study. At the outset of the research I had never expected to find that friendships would be a bridge to help men connect with counselors, especially considering men privilege their privacy when it comes to such matters. But through my small study, the importance of friendship surfaced and based on the evidence gathered, I believe it is an area for further research and development. What is most encouraging is that my

results, while unexpected, organically grew out of themes discovered in participant responses and interaction versus being forced into my own preconceived notions. For this reason I believe my outcome was genuine *research*—I found something that was invisible, and have made it visible and accessible to others.

Interventions

Beyond my review of previous research into men and mental health and the development and operation of my research, the design interventions portion of the project stands out as my favorite component of the project. Though the development of the four critical probes was completed very quickly and left a lot of room for refinement, the array of responses I received and the comments they sparked revealed that my design interventions hit their mark—they got people thinking. And the thinking that resulted revealed that active time spent with friends is of value to men.

The “creative,” design interventions phase of my research was the component that was most familiar to me as a practiced designer. For almost two decades I have developed graphic, interaction and service design solutions and sitting down to create four programs for encouraging friendship felt very native to me. However, I do regret that this stage of the research was done alone, necessitated by my time constraints. I believe that, had I employed a more collaborative process as I’m used to from my design studio experience, the programs to encourage friendship may have taken on deeper forms, bolstered by rounds of revisions and the input of other design researchers and research participants in a co-creative process. In much the same way how I wish my initial surveys could have engaged men directly, I would have liked to have explored how the design interventions may have been shaped by through direct collaboration.

Research Results and Benefits

My research being an endeavor to benefit others, the knowledge gained through it and the solutions it rendered have potential to serve several groups of stakeholders. The operation of the research as a design research endeavor benefits mental health care professionals through illustrating how this hybrid approach to seeking and solving can reveal areas of focus for their research and counseling practice, in the case of this project the value of encouraging lasting friendships between men. Having revealed the value of friendships as bridges to overcome barriers preventing men from attending mental health counseling, mental health care professionals can use this knowledge to explore how they may equip men to

become effective referrers in the interest of avoiding the negative actions and behaviors that result from a lack of treatment.

Knowledge gained from this project also serves the community of researchers and scholars through its exploration of using familiar language for survey questions and the use of interaction design to operate those surveys. My work of eschewing scientific survey language in favor of culturally aware, familiar language has potential to inform further study and implementation. While the purpose of this research was not to determine the efficacy of the language of survey questions, it began to reveal the value of developing research specifically to determine how language can best be used to invite quality results by lowering barriers for participation.

My exploration of using art direction techniques from advertising as well as guerrilla methods of inviting research participation is of specific benefit to researchers in the behavioral and social sciences. While this component of my research was very brief and begs for further development and testing, the knowledge gained is a foray into how graphic design and copywriting can directly benefit the operation of research, potentially rendering greater data yields. More specifically, I challenge that if we as researchers strive to *delight* our audiences we may honor both participants and the research in which we are calling for their participation.

The informal approach of this report and the use of my research project as a case study for illustrating design research in action benefits design practitioners and professionals by clarifying the place research has in the discipline. The knowledge gained from my research approach has provided me a variety of explorations and incidents that have helped to “flesh out” what design research is and can be. By reframing and passing this knowledge along to practicing designers and the uninitiated, these individuals may better understand the value of research in the discipline and may engage in this practice for their personal and professional gain.

Overall, I am pleased with and surprised by the outcomes of this research. I learned that the road of developing and operating design research is often fraught with twists and turns. I believe this is largely because of the hybrid nature of design research as a scientifically inspired, evidence-driven process and a creative, generative activity. It also comes from the fact that my research was centered on *people*, specifically the *emotions* of people. Knowing people and their feelings, the unexpected should be expected

when operating research using human subjects and the meandering nature of my project reinforced that notion. By applying a design research approach to exploring human emotions I was set to drive an unexpected road. But from my road-tripping experience, the roads with the twists and turns are usually the most scenic and provide the most memorable drives and valuable knowledge. At the conclusion of this trip I can safely say that I have many stories to tell including some I never expected.

Project Goals: A Review

Over the course of framing my research endeavor, I was guided by a few sets of goals. These project goals were developed to serve the needs of several groups in order to ensure relevant outcomes would be produced. In much the way design practice sets a course of action for a project so successes can be measured, my goals were created so at the end of the process I would know to what degree my work had been successful.

For Men and Mental Health Counseling Professionals

This goal area was focused on serving the end group consisting of adult men and the mental health care professionals dedicated to the quality of their mental health. From my research proposal, the goal for how my research could serve this group was:

- overcoming barriers between men and their mental health

While my research had many ancillary aspects that extended its reach, the main goal of the project was still about determining and overcoming barriers between men and their mental health. This goal was met, in an unexpected way, through determining the value of friendship as a preferred bridge that can connect men to mental health care professionals. By no means do I suppose that friendship is a definitive solution, but its discovery opened doors for further research and fulfilled my goal to serve men and mental health counseling professionals.

For Design Research

The goals I set for my research to serve design researchers and to build upon the body of knowledge built by this group were stated early in my research process as an explorative approach to:

- test design thinking's strength as a mechanism to enable transformative change for a population underserved by design research

- test the rigor of research through addressing a tough population and difficult challenge
- explore what an innovation-driven attitude could produce

My research being focused on the mental health of adult men in the Dallas/Fort Worth area, succeeded at addressing a population that proved very difficult to engage, which presented a significant challenge for operating the research. The data gathered from the men who participated in the research was rich and proved to be a valuable yield for analysis. In turn, the research output proved to be sturdy and valuable, though I believe this goal was only half met because of the low response rate to surveys.

The innovation-driven attitude I brought to operating the research, seen through the creative solicitations for participants, the creation and use of the designworkbench.com web site and the development of critical probes as design interventions yielded some valuable insights into the effectiveness of a design approach. From my limited experience through this project I believe taking these types of innovative approaches could help researchers to engage reticent populations in the future. This innovation-driven attitude played an important part in the formation of the design interventions portion of the research. From the positive responses I received to these interventions, I believe the research satisfied the goal of exploring how such an approach could render results otherwise not possible.

I believe transformative change for the quality of men's mental health could come from my research and I believe the approach I took could spark just such a change. The reactions to my surveys were honest and thoughtful and the research outcomes were unscripted, organically following where gathered evidence dictated. However, based on my research to date, I do not believe such a transformation has taken place and in turn, this goal was not met. While I think the course of this research provided valuable results, I only see them as a step toward further, deeper research on the way to reaching an eventual goal.

For Non-Design Researchers

This volume is the main instrument for engaging non-design researchers in exploring how design and research connect. My goals for this endeavor in connection with this group were to:

- introduce design research to the uninitiated as a powerful spark for transformative change
- share design research with others to pique their curiosity, and engage them in the act in some way

The structure of this book and the vernacular used to communicate design research concepts were planned to help those new to the idea of design research to see it in action and to dissect a project's many parts. While the research outcome, by my criteria, failed to produce transformative change, I believe it did showcase the “spark” that can come from an evidence-based, creative approach to research. I also hope that, by showcasing this “spark” I have piqued readers' curiosities so they will explore design research further. Sitting in this chair, I can't determine if the goals in this area have been met so I will leave it to you, my reader, to decide.

For Myself

Regardless of the task at hand, the doer gains knowledge through doing, known as experiential knowledge. Through completing my research and this document, I hoped to accomplish several goals for myself:

- explain what I actually do for a living so my family will know what to write in their Christmas card letter
- as a review for myself by activating all I've learned and experienced in a culminating document

I am satisfied that this book is, indeed, a culminating document, though in its present form it hardly captures everything I have learned. In fact, there are tens of pages left “on the cutting room floor” that didn't make this volume. Still, it has taken everything I have learned to produce this book and I have also learned through the very process of its writing. For this reason I believe that my goal for it to capture a significant body of knowledge has been met. As far as if my family now knows what I do for a living... I'll have to get back to you on that one when Christmas card letters are sent out in December.

My Challenge for Designers

Several design firms and organizations I am aware of in my area are adamant about being active in the community by carrying out work projects that serve the needs of their neighbors. It's inspiring to hear these efforts

by creatives to engage issues in the world around them. But typically the way designers go about serving their communities often leaves their unique skills and abilities untapped. Mind you, I am not dogging community service, but look at this with me from a design research perspective.

If designers bring with them skills for problem identification and problem solving, then why aren't we serving our communities by using those skills? Quite often, designers serve by volunteering for Habitat for Humanity or by participating in a fun run to raise money. But the truth of the matter is, we aren't highly skilled at using hammers or at running (or at running with hammers!) so our work for these causes makes a difference but leaves our *strongest* skills untapped.

What if we activated design research methods to collectively go after the problems in our communities that needed solving? What if we took the skills we hone daily and applied them to solve our communities' hairiest problems? How much of a difference could we make if we organized charrettes and focused on one problem over a period of several years? Could we tackle poverty? What about school truancy? Maybe we could save local businesses from closing down by developing, testing and implementing sustainable commerce solutions. I believe these are all quite possible, especially because these approaches reside in the "designer wheelhouse" of problem solving.

As I showcased in this book, I believe an evidence-based, generative approach can and *has* yielded impressive results. My challenge for practicing designers across all design disciplines is for you to try using your design strengths and skills to affect change in an area where your passions lie. With research, your endeavors will be well-informed and relevant. With design, your outcomes will be unexpected and inventive. Combined, problems that could not be solved any other way can be solved for the benefit of your neighbors.

The *Design* in Design Research

The purpose of this book has been to shed some light on where design is found in design research. I hope that through it, you have experienced an epiphany like the ones I experienced when I waded into the design research waters. Now that I've spent a few months forming my thoughts into this document I can no longer tell where design ends and research begins.

At the most basic level, in order to research one must design the research plan itself, and in order to design one must research the content *to be* designed and the culture(s) design outcomes will affect.¹ At a more expected level, designed artifacts and processes are ubiquitous in modern society and in turn, their impacts on society are worthy of research to determine their effects. At a more advanced level, the practice of designing renders knowledge in such a way that is specific to design and designers, inviting research into how and why designers *know* what they know.² These examples, seated in the framework of research *for* design, *into* design and *through* design^{3 4} stand as just a few ways design and research belong together. In this light, design and research are tightly interwoven and one cannot exist without the other. *Design*, in its many facets, is *in* design research.

Much like in design practice, all of the knowledge gained through research is only as good as the outcomes it makes possible. At our core, designers are still *makers* and *doers*. I am excited to be among those who are exploring the outcomes that are possible when design research is conducted and applied to untried problems in unexamined contexts. I'm not alone, and anyone can join. If you're curious about what a design research approach can produce; start inquiring, grow your toolset for gathering data, expand your concept of design thinking, activate your propensity for creating generative leaps and let your curiosity lead. The future is not a spectator sport—play with us, won't you?

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APPENDIX

Appendix A: Consent Form

University of North Texas Institutional Review Board Informed Consent Notice

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose, benefits and risks of the study and how it will be conducted.

Title of Study: Bridging Barriers Between Men and Their Mental Health: A Design Thinking Approach

Student Investigator: Dennis Cheatham, University of North Texas (UNT) Department of Design


Supervising Investigator: Michael Gibson, Associate Professor, University of North Texas (UNT) Department of Design

Purpose of the Study: This research will attempt to clearly identify potential barriers between men ages 30-50 living in Dallas/Fort Worth suburbs and their attending mental health counseling sessions. Design intervention prototypes will then be generated in an effort to begin to inform potential approaches to overcoming barriers identified in the initial survey.

Study Procedures: Participants will be asked to complete in an initial online survey which will consist of no more than ten questions which will take no more than 12 minutes of time to complete. Should you choose to participate in a follow up study, you may return to this website to respond to a survey which will consist of no more than ten questions which will also take no more than 12 minutes to complete.

Foreseeable Risks: No foreseeable risks are involved in this study.

Benefits to the Subjects or Others: This study is not expected to be of any direct benefit to you; however, I expect that by participating in active design research you will gain insight into the process and the potential benefits of design-driven, evidence-based research. This study is expected to benefit the discipline of design research through its procedural analysis and knowledge gained through creating research using interaction design tools and processes. The results from this study will be posted on this website and will be available to the public for review.




DESIGN
WORKBENCH

DESIGN RESEARCHDESIGN WORKABOUT

Bridging Barriers Between Men and Their Mental Health

What if men regarded the condition of
their mental health as highly as they did
the condition of their physical health?



INFORMED CONSENT NOTICE

SURVEY: MEN ON COUNSELING

SURVEY: ENCOURAGING FRIENDSHIP

Informed Consent Notice

University of North Texas Institutional Review Board :: Informed Consent Notice

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Study Procedures: Participants will be asked to complete in an initial online survey

Compensation for Participants: None

Procedures for Maintaining Confidentiality of Research Records: The confidentiality of your individual information will be maintained in any publications or presentations of findings from this study. No personally identifiable information will be collected but any information collected will be stored on an encrypted hard drive on one personal computer and the archived data will be stored in Curry Hall Room 315 on the University of North Texas Denton, Texas Campus.

Questions about the Study: If you have any questions about the study, you may contact Dennis Cheatham at dennis@dennischeatham.com or Michael Gibson at Michael.Gibson@unt.edu.

Review for the Protection of Participants: This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

Research Participants' Rights: Your participation in the survey confirms that you have read all of the above and that you agree to all of the following:

- You have had an opportunity to contact Dennis Cheatham with any questions about the study.
- You have been informed of the possible benefits and the potential risks of the study.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to participate in this study.
- You understand you may print a copy of this page for your records.

Appendix B: Survey One

Survey: Men on Counseling

Thank you for your interest in participating in this study. The following survey should take no longer than 9 minutes to complete. By completing this survey you acknowledge that you consent to participate in this study according to the study's informed consent notice.

About You

No personally identifiable information will be collected for this study and your visit to this page is not being tracked.

What is the zip code where you live? *(Must be in the Dallas/Fort Worth Area)*

What is your age?

Do you identify yourself as:

- Male
- Female

On Emotions and Feelings

Generally speaking, how comfortable are you about sharing your feelings with others?

- I'm completely comfortable and open
- I'm okay with it
- I usually don't talk about emotions
- I'm uncomfortable with it
- I avoid it at all costs

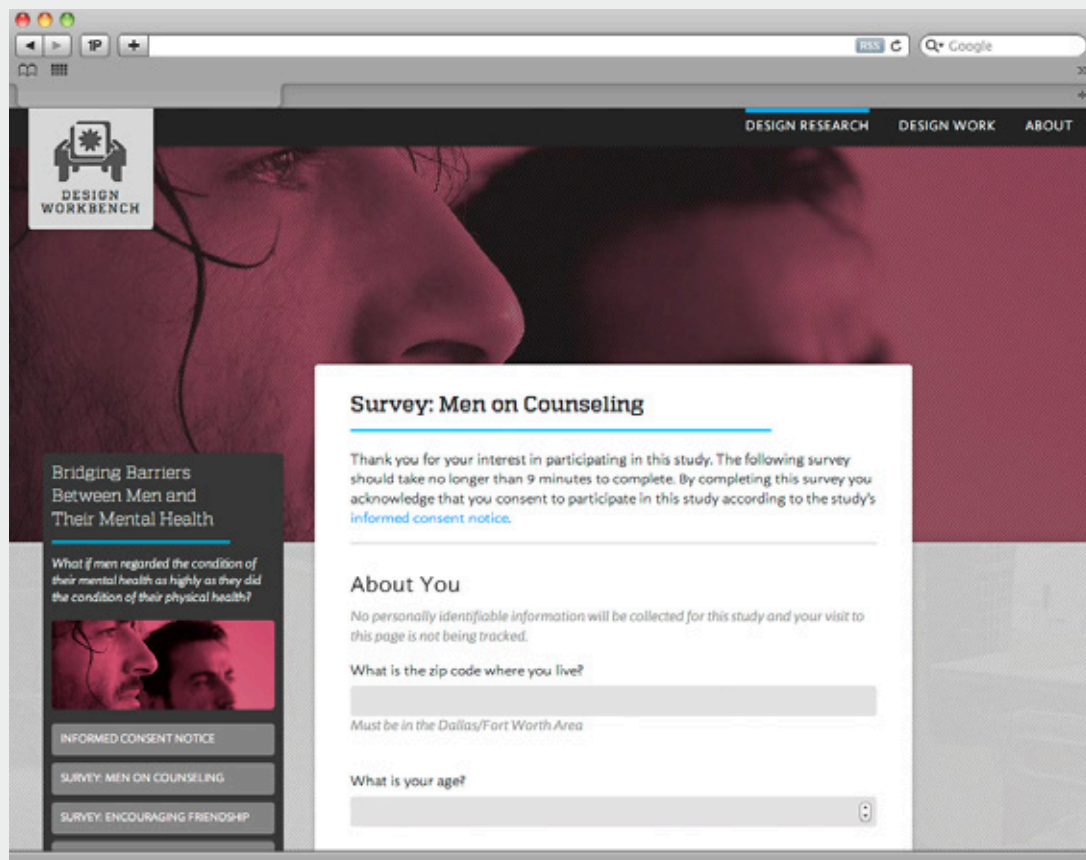
Have your feelings ever led to actions you regret?

- Yes
- No

What do you think about the effectiveness of counseling in helping men get relief from their problems?

Have you ever attended a session with a counselor to talk about your feelings or about behaviors you wish you didn't act out?

- Yes
- No



On Counseling

If you have attended a counseling session before, what was its setting?

- Group Session (with other men and/or women)
- One On One (a private session)
- Couples (with your significant other to whom you were not married)
- Marriage Counseling (with your partner or spouse)

If you have attended a session before, what was it like?

If you haven't attended a session but have thought about it, what has kept you from going?

How do you feel about mental health counseling and counselors and why do you feel the way you do?

Counseling Preferences

If you were to talk with a counselor for a mental health session, to what degree are the following important to you? (1 indicates "not important" and 5 is "very important.")

Privacy and secrecy of session

1 2 3 4 5

Convenience: time of day

1 2 3 4 5

Convenience: location

1 2 3 4 5

Comfort level of the counseling environment

1 2 3 4 5

Gender of counselor

1 2 3 4 5

Counselor's personality, demeanor and counseling style

1 2 3 4 5

If you were to attend a counseling session, what would an ideal environment look and feel like?

If you wanted to contact a counselor, how would you go about it?

Appendix C: Survey Two

Survey: Encouraging Friendship

Thank you for your interest in participating in the design prototypes portion of this study. Phase one of this research project is complete and the analysis of the data revealed evidence that friends and friendships were significant factors in how participants maintained their mental health and also how they would go about finding a counselor, if needed. As a result, the following prototypes have been designed in an effort to test various solutions for how friendships may be encouraged.

The process of responding to this survey should take no longer than 2 minutes to complete and your responses will help inform future research in this area. By completing this survey you acknowledge that you consent to participate in this study according to the study's informed consent notice.

About You

No personally identifiable information will be collected for this study and your visit to this page is not being tracked.

What is the zip code where you live?

Do you identify yourself as:

- Male
- Female

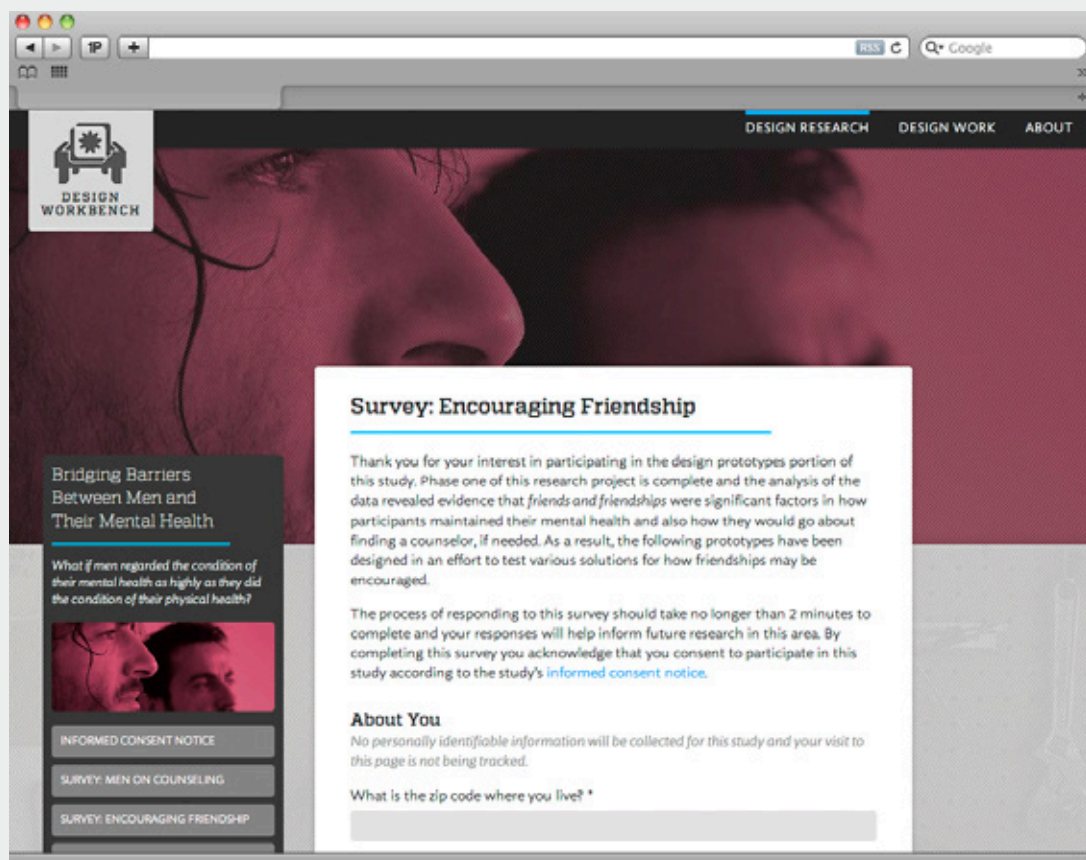
What is your age?

Design Interventions

Each of the following prototypes has been designed to create opportunities for friendships to grow. Try not to think about the logistics of each option when you make your selection. Use the section of buttons below the prototypes to choose which one you think could help encourage your relationships with your closest friends.

Awareness: Be a Friend

A campaign of posters, television ads and web banners is produced that raises awareness for the health benefits of friendship.



Incentive: Time to Hang Out

Your job offers a program where you can get a 3-hour lunch or can leave work 2 hours early once a week without pay penalty, as long as you spend it with your friends.

Purpose: For the Common Good

A nonprofit organizes and does all of the legwork for year-long, “common good” experiences where you and two of your same friends can work together on a meaningful project of your choosing.

Proximity: Friendly Confines

Your city or town creates a new, conveniently located community where housing costs are 25% lower, but a requirement is that you live next to two of your friends.

Of the design interventions above, which one do you think could most effectively encourage your friendships?

- **Awareness:** Be reminded of the importance of friendship by the “Be a Friend” advertising campaign.
- **Incentive:** Take advantage of the “Time to Hang Out” work leave program to increase frequency.
- **Purpose:** Enroll in a “For the Common Good” year-long experience to work together toward something meaningful.
- **Proximity:** Commit to daily friendship by moving to the “Friendly Confines” living community.

Why did you choose the prototype you did?

