IDEO METHOD CARDS

IDEO helps companies innovate. We create strategies for innovation and we design products, spaces, services, and experiences. Key to our success as a design and innovation firm are the insights we derive from understanding people and their experiences, behaviors, perceptions, and needs.

IDEO Method Cards are intended as inspiration for practicing and aspiring designers, as well as those seeking a creative spark in their work. These cards show some of the ways IDEO keeps people at the center of the design process. Our techniques are not proprietary and have been adapted from various established human and social research methods.

Initially, we compiled this collection to inspire our own design teams. In response to requests from clients, colleagues, students, and teachers, we're sharing some of these methods and how we have found them useful in real design projects. These cards aren't meant to be a prescriptive nor exhaustive "how to" for human centered design. New methods are being developed, adapted and applied all the time. This deck is meant to encourage you to try new approaches for making design useful, useable and delightful to people.

Much more about our work, methods, and culture can be found at our website, www.ideo.com.

Using the Method Cards

The cards are divided into four categories representing ways to empathize with people:

Learn, Look, Ask, and **Try.**

These categories make it easy to reference, browse, sort, and share the cards.

The Method Cards can help you to plan projects or just remind you or your team of various approaches.

They can suggest ways to apply human-centered methods throughout all stages of your projects.

You can use them to prove a point and challenge your colleagues to seek insights in new ways.

Learn:	**Look:**
Analyze the information you've collected to identify patterns and insights.	Observe people to discover what they do rather than what they say they do.

Learn	Look
Activity Analysis	A Day in the Life
Affinity Diagrams	Behavioral Archaeology
Anthropometric Analysis	Behavioral Mapping
Character Profiles	Fly on the Wall
Cognitive Task Analysis	Guided Tours
Competitive Product Survey	Personal Inventory
Cross-Cultural Comparisons	Rapid Ethnography
Error Analysis	Shadowing
Flow Analysis	Social Network Mapping
Historical Analysis	Still-Photo Survey
Long-Range Forecasts	Time-Lapse Video
Secondary Research	

Ask:

Enlist people's participation to elicit information relevant to your project.

Try:

Create simulations to help empathize with people and to evaluate proposed designs.

Camera Journal	Behavior Sampling
Card Sort	Be Your Customer
Cognitive Maps	Bodystorming
Collage	Empathy Tools
Conceptual Landscape	Experience Prototype
Cultural Probes	Informance
Draw the Experience	Paper Prototyping
Extreme User Interviews	Predict Next Year's Headlines
Five Whys?	Quick-and-Dirty Prototyping
Foreign Correspondents	Role-Playing
Narration	Scale Modeling
Surveys & Questionnaires	Scenarios
Unfocus Group	Scenario Testing
Word-Concept Association	Try it Yourself

Respect your participants!

Some methods depend upon other people, often strangers, sharing generously their time, thoughts, and feelings. Have consideration for their health, safety, privacy, and dignity at all times.

Here are some principles that guide IDEO's interactions with participants:

- approach people with courtesy

- identify yourself, your intent, and what you are looking for

- offer to compensate participants

- describe how you will use this information and why it's valuable

- get permission to use the information and any photos or video you take

- keep all the information you gather confidential

- let people know they can decline to answer questions or stop participating at any time

- maintain a nonjudgmental, relaxed, and enjoyable atmosphere

Notes:

Empathy Tools
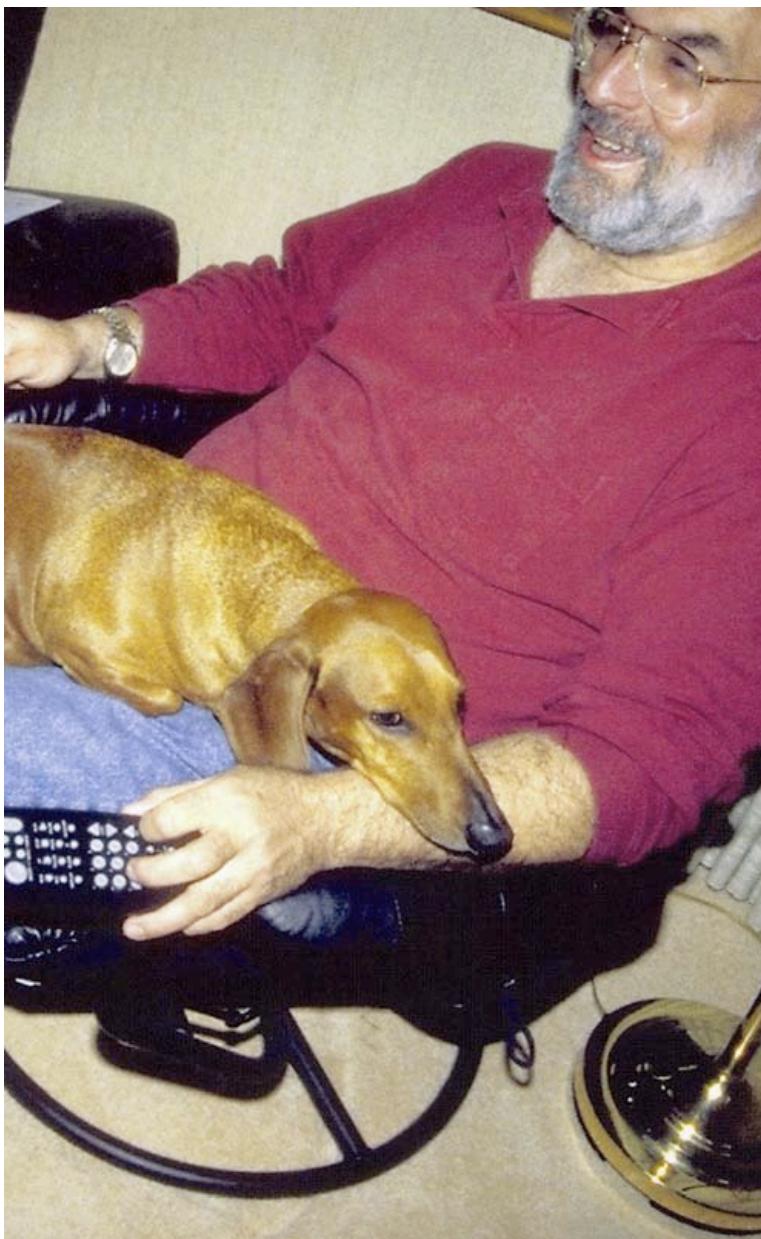
HOW: Use tools like clouded glasses and weighted gloves to experience processes as though you yourself have the abilities of different users.

WHY: This is an easy way to prompt an empathic understanding for users with disabilities or special conditions.

IDEO designers wore gloves to help them evaluate the suitability of cords and buttons for a home-health monitor designed for people with reduced dexterity and tactile sensation.

IDEO

www.ideo.com

Error Analysis

HOW: List all the things that can go wrong when using a product and determine the various possible causes.

WHY: This is a good way to understand how design features mitigate or contribute to inevitable human errors and other failures.

The IDEO team used error analysis on a remote-control concept in order to maximize the functionality of each button's size, shape, and texture.

IDEO

www.ideo.com

Experience Prototype

HOW: Quickly prototype a concept using available materials and use it in order to learn from a simulation of the experience using the product.

WHY: This is useful for revealing unanticipated issues or needs, as well as evaluating ideas.

The IDEO team built a working interactive model of a digital camera to understand the experience of different interaction design solutions.

Extreme User Interviews

HOW: Identify individuals who are extremely familiar or completely unfamiliar with the product and ask them to evaluate their experience using it.

WHY: These individuals are often able to highlight key issues of the design problem and provide insights for design improvements.

By understanding the role and mindset of the youngest family member, the IDEO team uncovered new product design opportunities for household cleaning.

IDEO   www.ideo.com
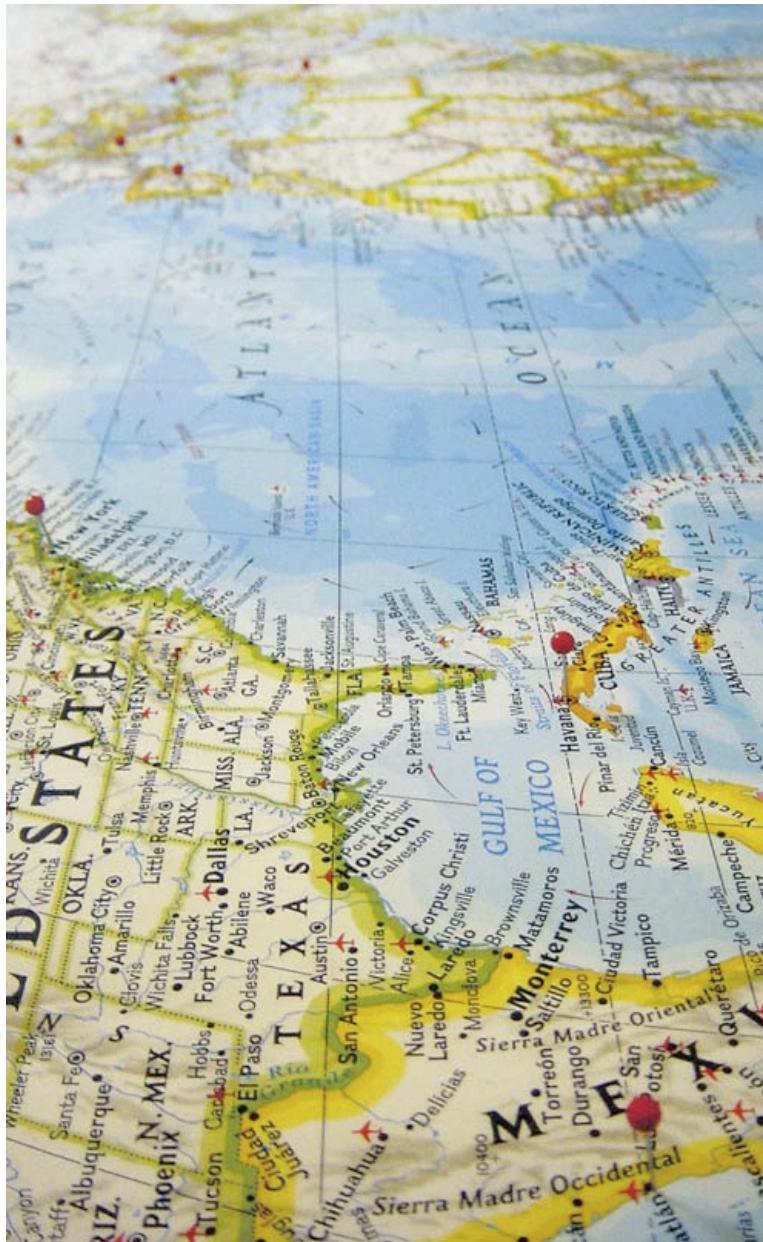
Five Whys?

HOW: Ask "Why?" questions in response to five consecutive answers.

WHY: This exercise forces people to examine and express the underlying reasons for their behavior and attitudes.

"Five Whys" was used when interviewing dieting women around the US to understand their attitudes and behaviors around weight loss.

IDEO   www.ideo.com

Foreign Correspondents
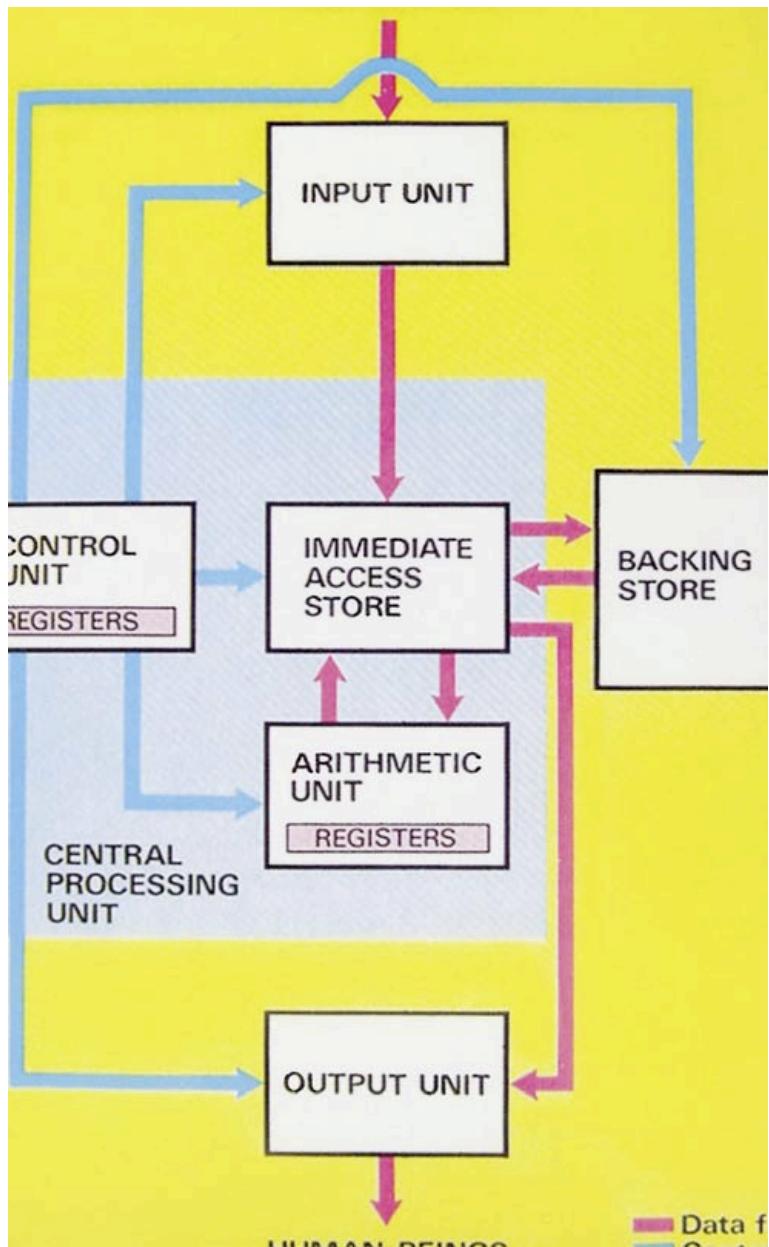
HOW: Request input from coworkers and contacts in other countries and conduct a cross-cultural study to derive basic international design principles.

WHY: This is a good way to illustrate the varied cultural and environmental contexts in which products are used.

Compiling a global survey about personal privacy, IDEO correspondents from around the world contributed images and anecdotes from their own lives.

IDEO   www.ideo.com
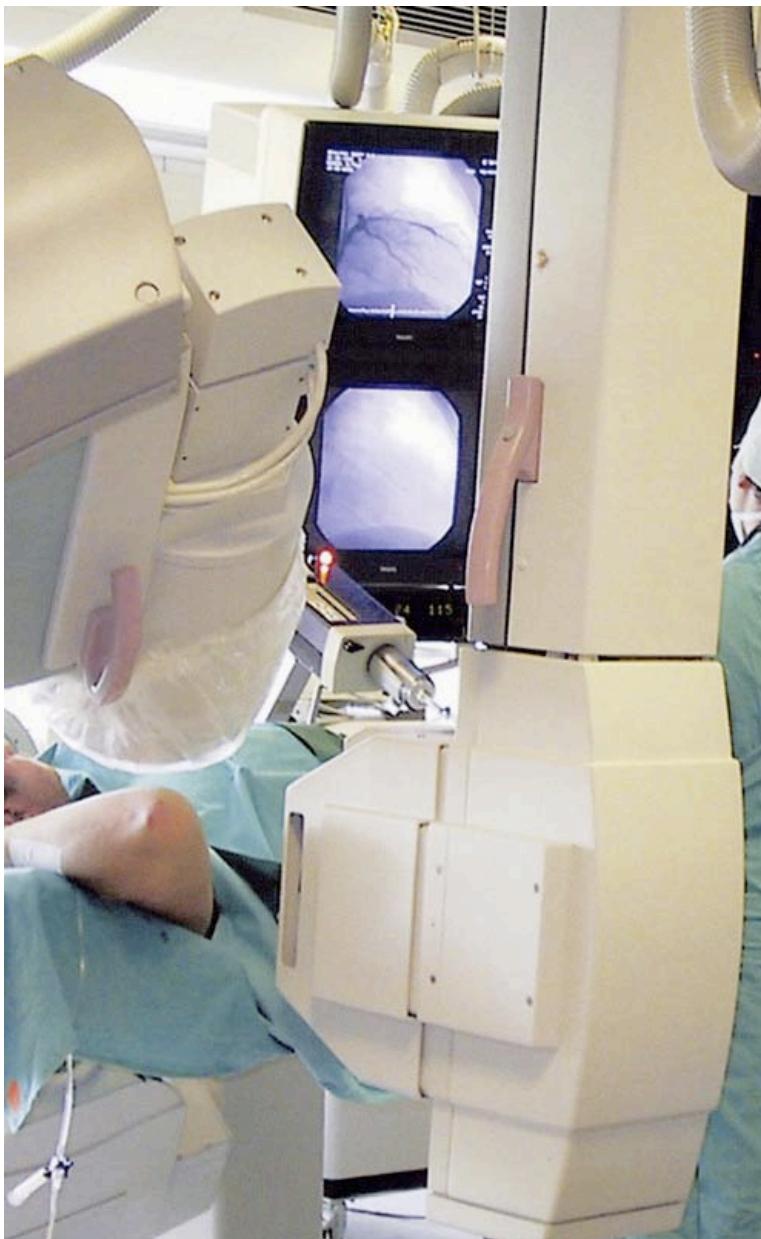
Flow Analysis

HOW: Represent the flow of information or activity through all phases of a system or process.

WHY: This is useful for identifying bottlenecks and opportunities for functional alternatives.

Designing an online advice website, flow analysis helped the IDEO team to design a more seamless experience navigating the site.

IDEO   www.ideo.com

Fly on the Wall

HOW: Observe and record behavior within its context, without interfering with people's activities.

WHY: It is useful to see what people actually do within real contexts and time frames, rather than accept what they say they did after the fact.

By spending time in an operating room, IDEO designers witnessed the regard with which the surgeons treated a transplant organ and incorporated these ideas into the transport box they were designing.

IDEO   www.ideo.com

Guided Tours

HOW: Accompany participants on a guided tour of the project-relevant spaces and activities they experience.

WHY: Making an exploration of objects and actions in situ helps people recall their intentions and values.

By following users through their homes, the IDEO team understood the various motivations behind ways photographs are used and stored.

Historical Analysis

HOW: Compare features of an industry, organization, group, market segment, or practice through various stages of development.

WHY: This method helps to identify trends and cycles of product use and customer behavior and to project those patterns into the future.

A historical view of changes in chair design helped IDEO to define a common language and reference points for the client and the team.

IDEO
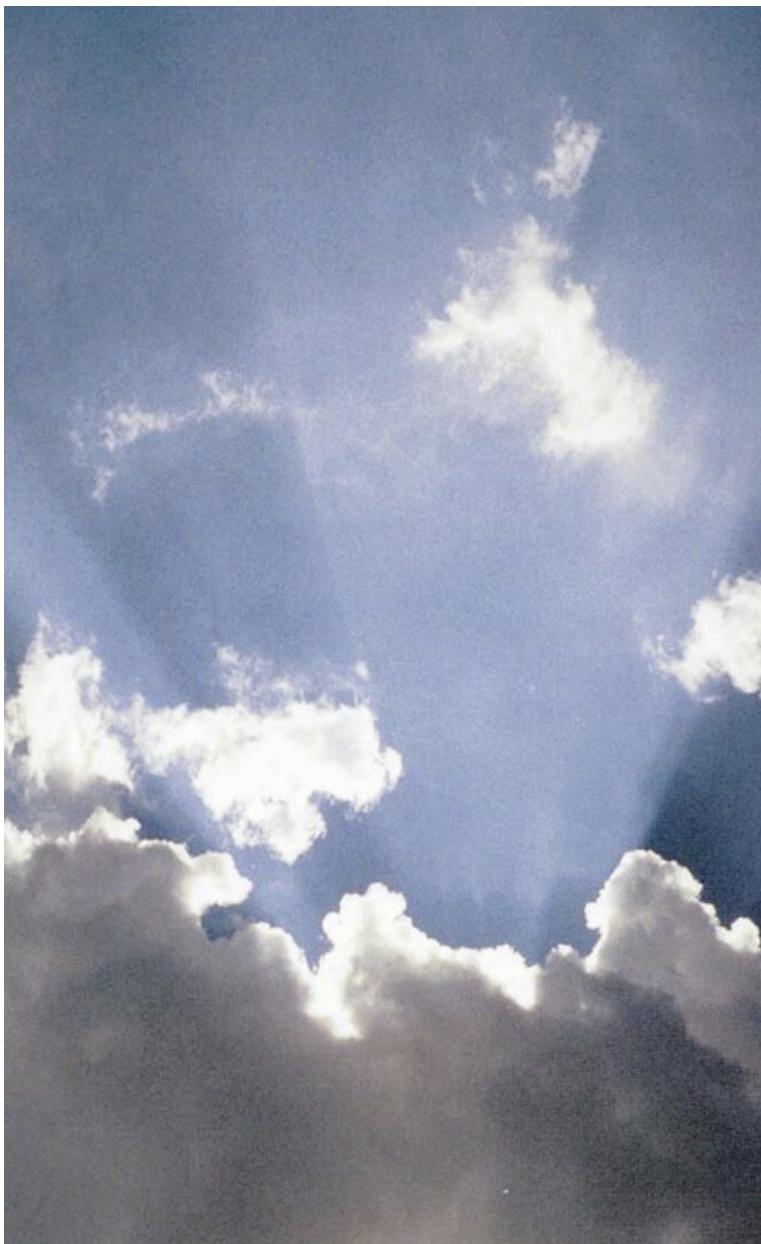
Informance

HOW: Act out an "informative performance" scenario by role-playing insights or behaviors that you have witnessed or researched.

WHY: This is a good way to communicate an insight and build a shared understanding of a concept and its implications.

IDEO team members redesigning a shopping experience used informance to convey the implications of proposed technology concepts.

IDEO

www.ideo.com

Long-Range Forecasts

HOW: Write up prose scenarios that describe how social and/or technological trends might influence people's behavior and the use of a product, service, or environment.

WHY: Predicting changes in behavior, industry, or technology can help clients to understand the implications of design decisions.

In an effort to describe how changes in work behavior might affect design strategy, the IDEO team wrote up forecasts to consider future circumstances or contexts in office spaces.

IDEO   www.ideo.com

Narration

HOW: As they perform a process or execute a specific task, ask participants to describe aloud what they are thinking.

WHY: This is a useful way to reach users' motivations, concerns, perceptions, and reasoning.

In order to understand how food is incorporated into people's daily routines, the IDEO team asked people to describe what they were thinking while eating.

Paper Prototyping
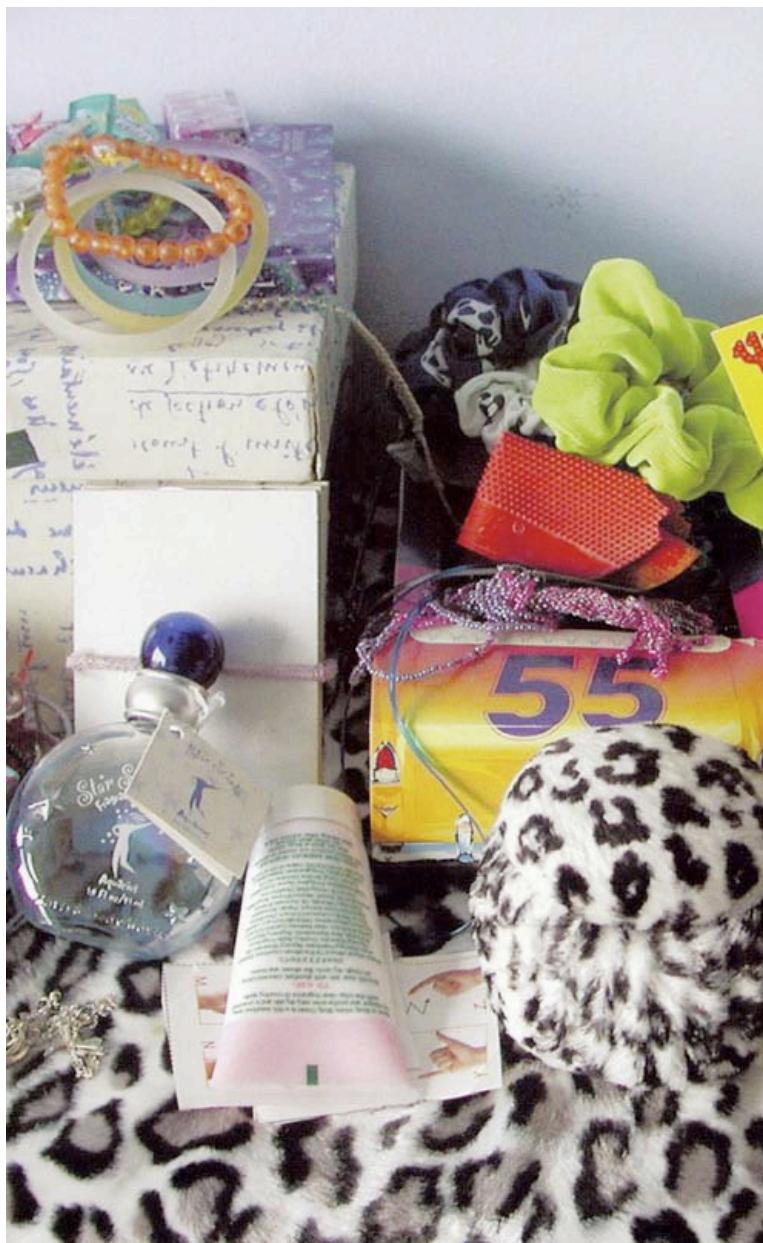
HOW: Rapidly sketch, layout, and evaluate interaction design concepts for basic usability.

WHY: This is good way to quickly organize, articulate, and visualize interaction design concepts.

Sketching out various screens and testing their sequence helped the IDEO team to demonstrate the logic necessary for a successful interaction with an in-store inventory database.

IDEO   www.ideo.com

Personal Inventory

HOW: Document the things that people identify as important to them as a way of cataloging evidence of their lifestyles.

WHY: This method is useful for revealing people's activities, perceptions, and values as well as patterns among them.

For a project to design a handheld electronic device, the IDEO team asked people to show and describe the personal objects they handle and encounter every day.

IDEO   www.ideo.com

Predict Next Year's Headlines

HOW: Invite clients to project their company into the future, identifying how they want to develop and sustain customer relationships.

WHY: Based on customer-focused research, these predictions can help clients to define which design issues to pursue in product development.

Designing an intranet site for information technologists, the IDEO team prompted the client to define and clarify their business targets for immediate and future launches.

IDEO

www.ideo.com

Quick-and-Dirty Prototyping

HOW: Using any materials available, quickly assemble possible forms or interactions for evaluation.

WHY: This is a good way to communicate a concept to the team and evaluate how to refine the design.

IDEO team members designing a shopping device quickly prototyped various concepts to evaluate qualities like weight, size, and orientation.

Rapid Ethnography

HOW: Spend as much time as you can with people relevant to the design topic. Establish their trust in order to visit and/or participate in their natural habitat and witness specific activities.

WHY: This is a good way to achieve a deep firsthand understanding of habits, rituals, natural language, and meanings around relevant activities and artifacts.

In exploring opportunities for internet-enabled devices, an IDEO team spent time with families from different ethnic, economic, and educational backgrounds to learn about their daily patterns.

IDEO

www.ideo.com

Role-Playing
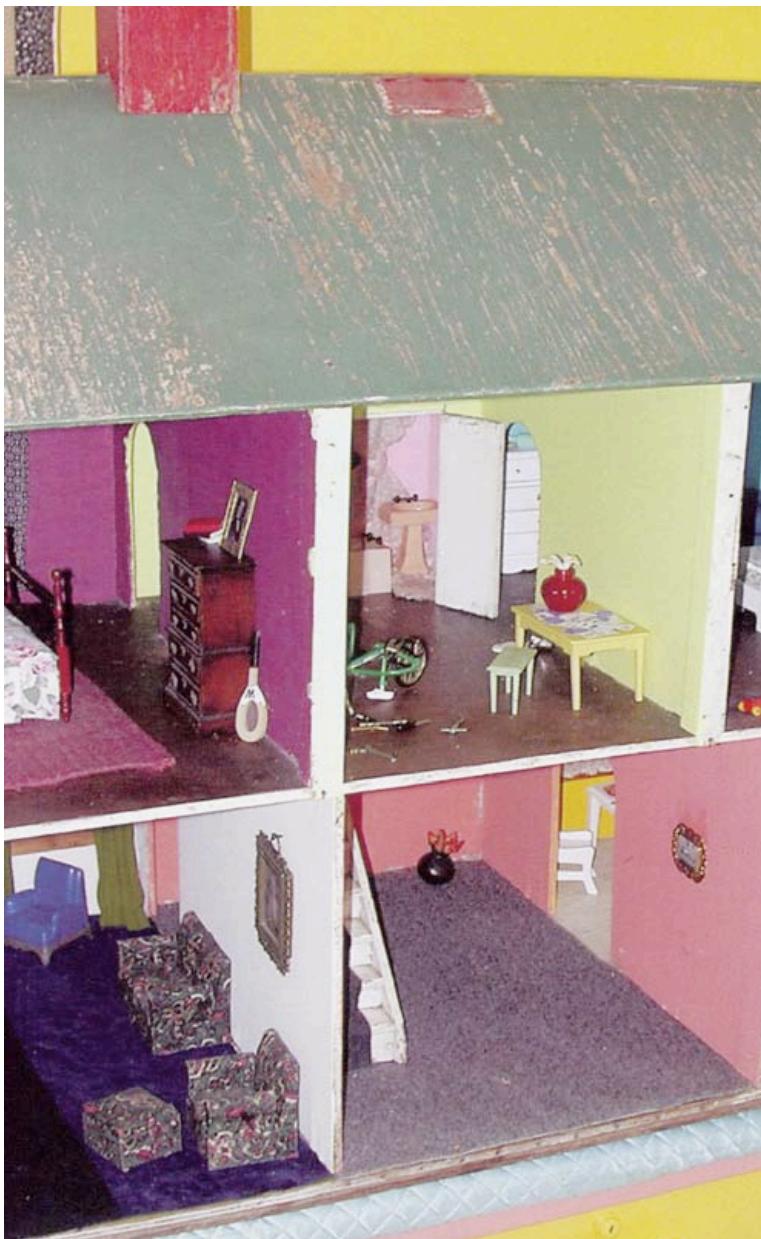
HOW: Identify the stakeholders involved in the design problem and assign those roles to members of the team.

WHY: By enacting the activities within a real or imagined context, the team can trigger empathy for actual users and raise other relevant issues.

Designing a medical device, the IDEO team role-played a situation involving a doctor, a nurse, a patient, and an anesthesiologist to simulate the interdependent tasks demanded of the operating room staff.

IDEO

www.ideo.com

Scale Modeling

HOW: Use scaled, generic architectural model components to design spaces with the client, team, and/or users.

WHY: This spatial prototyping tool provides a way to raise issues and respond to the underlying needs of different stakeholders.

In designing home office products, the IDEO design team used scale models to allow people to explore usage scenarios.

Scenarios

HOW: Illustrate a character-rich story line describing the context of use for a product or service.

WHY: This process helps to communicate and test the essence of a design idea within its probable context of use. It is especially useful for the evaluation of service concepts.

Designing a community website, the IDEO team drew up scenarios to highlight the ways particular design ideas served different user needs.

Scenario Testing

HOW: Show users a series of cards depicting possible future scenarios and invite them to share their reactions.

WHY: Useful for compiling a feature set within a possible context of use as well as communicating the value of a concept to clients.

Designing a handheld media device, the IDEO team used scenario cards to ask potential users to evaluate early concepts.

Shadowing

HOW: Tag along with people to observe and understand their day-to-day routines, interactions, and contexts.

WHY: This is a valuable way to reveal design opportunities and show how a product might affect or complement users' behavior.

The IDEO team accompanied truckers on their routes in order to understand how they might be affected by a device capable of detecting their drowsiness.

IDEO

www.ideo.com

Social Network Mapping

HOW: Notice different kinds of social relationships within a user group and map the network of their interactions.

WHY: This is a useful way to understand interpersonal and professional relationship structures within workgroups.

Understanding the social relationships within a workplace helped IDEO to articulate how environment design could support these important connections.

IDEO

www.ideo.com

Still-Photo Survey

HOW: Follow a planned shooting script and capture pictures of specific objects, activities, etc.

WHY: The team can use this visual evidence to uncover patterns of behavior and perceptions related to a particular product or context, as well as structure and inspire design ideas.

For a faucet design the team documented all the situations in which people accessed water.

IDEO   www.ideo.com

Surveys & Questionnaires
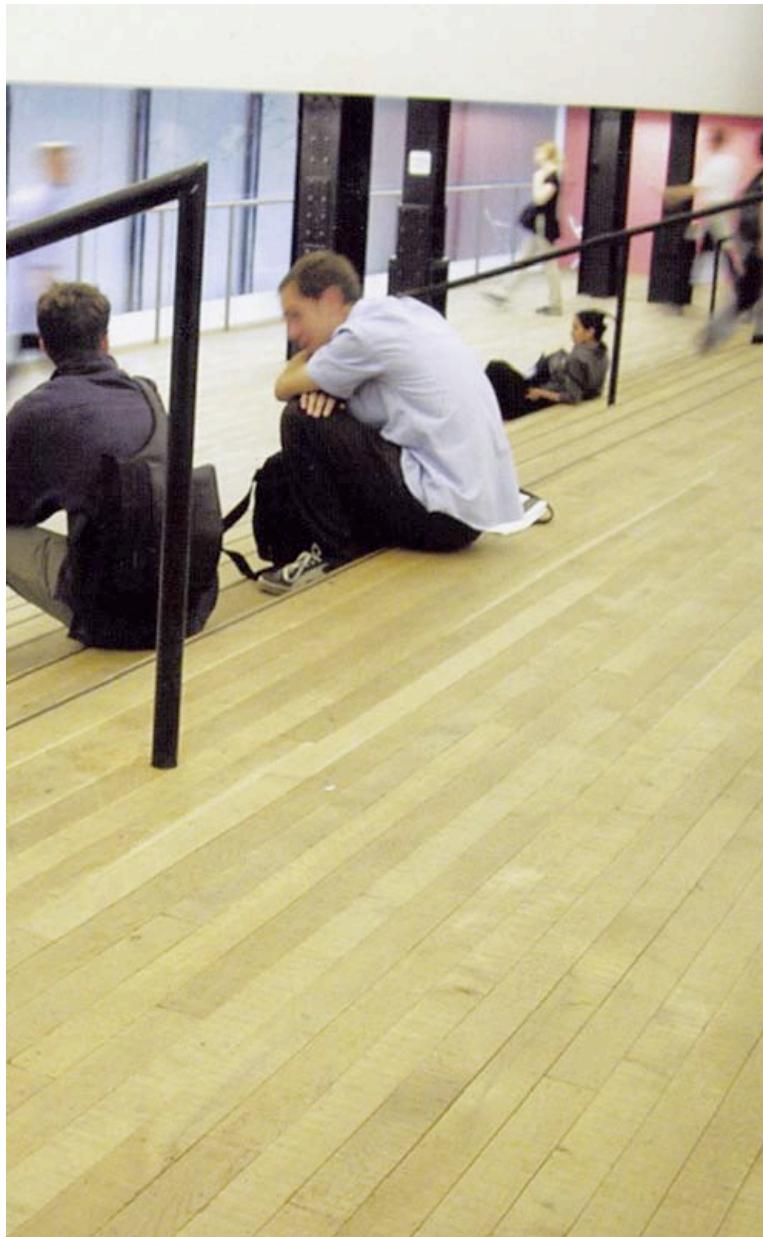
HOW: Ask a series of targeted questions in order to ascertain particular characteristics and perceptions of users.

WHY: This is a quick way to elicit answers from a large number of people.

Developing a new gift-wrap packaging concept the IDEO team conducted web-based surveys to collect consumer perspectives from many people around the world.

IDEO   www.ideo.com

Time-Lapse Video

HOW: Set up a time-lapse camera to record movements in a space over an extended period of time.

WHY: Useful for providing an objective, longitudinal view of activity within a context.

The IDEO team recorded the activity of museum visitors over several days to learn how to improve space layout.

IDEO

www.ideo.com

Try It Yourself

HOW: Use the product or prototype you are designing.

WHY: Trying the product being designed prompts the team to appreciate the experience the actual users might have.

By wearing a prototype medical device throughout their daily activities, the team understood the physical, social, and emotional implications for patients who might use it.

Unfocus Group

HOW: Assemble a diverse group of individuals in a workshop to use a stimulating range of materials and create things that are relevant to your project.

WHY: Encourages rich, creative, and divergent contributions from potential users, releases inhibitions, and opens up new thinking.

An IDEO team invited a foot-fetishist, an artist, a body-worker, a podiatrist and others to work together to explore and build concepts for a new range of fashion sandals.

IDEO   www.ideo.com

Word-Concept Association

HOW: Ask people to associate descriptive words with different design concepts or features in order to show how they perceive and value the issues.

WHY: Clustering users' perceptions helps to evaluate and prioritize design features and concepts.

Developing the design of a new container, word-concept association studies helped the IDEO team to understand how different forms convey different meanings to users.

IDEO

www.ideo.com

A Day in the Life
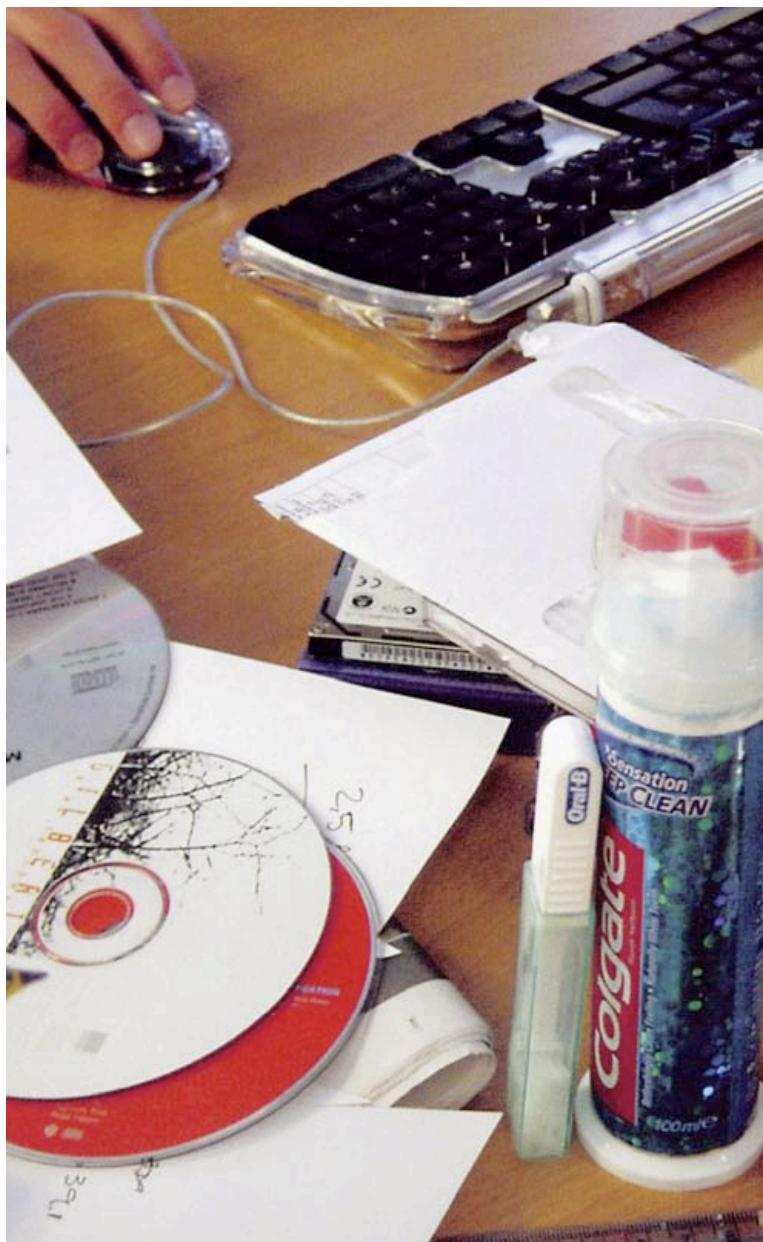
HOW: Catalog the activities and contexts that users experience throughout an entire day.

WHY: This is a useful way to reveal unanticipated issues inherent in the routines and circumstances people experience daily.

IDEO asked potential wearers of a drug-delivery patch to document their daily behaviors including those that might affect the function of the patch – getting wet, snagging on clothing, etc.

IDEO   www.ideo.com

# Activity Analysis
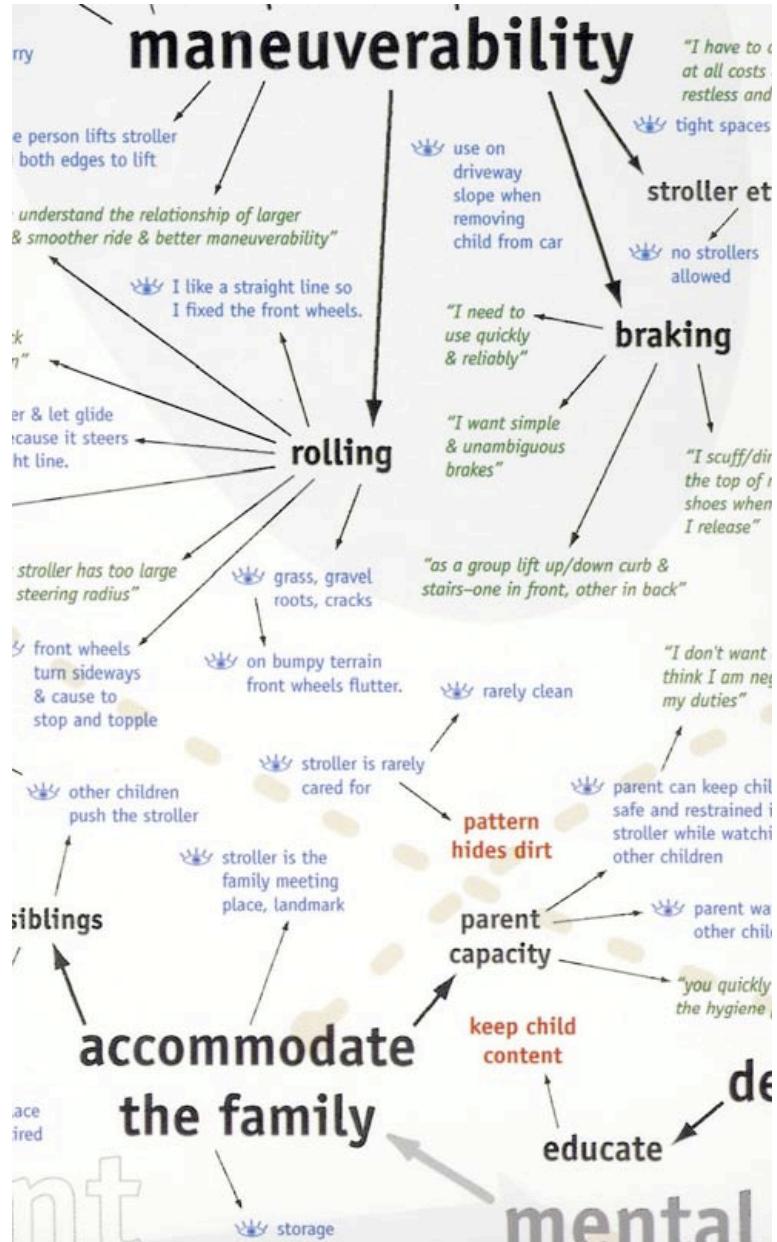
HOW: List or represent in detail all tasks, actions, objects, performers, and interactions involved in a process.

WHY: This is a useful way to identify and prioritize which stakeholders to interview as well as which issues to address.

Analyzing the many activities and procedures involved in brushing teeth helped the IDEO team to understand some unanticipated needs and concerns.

Affinity Diagrams
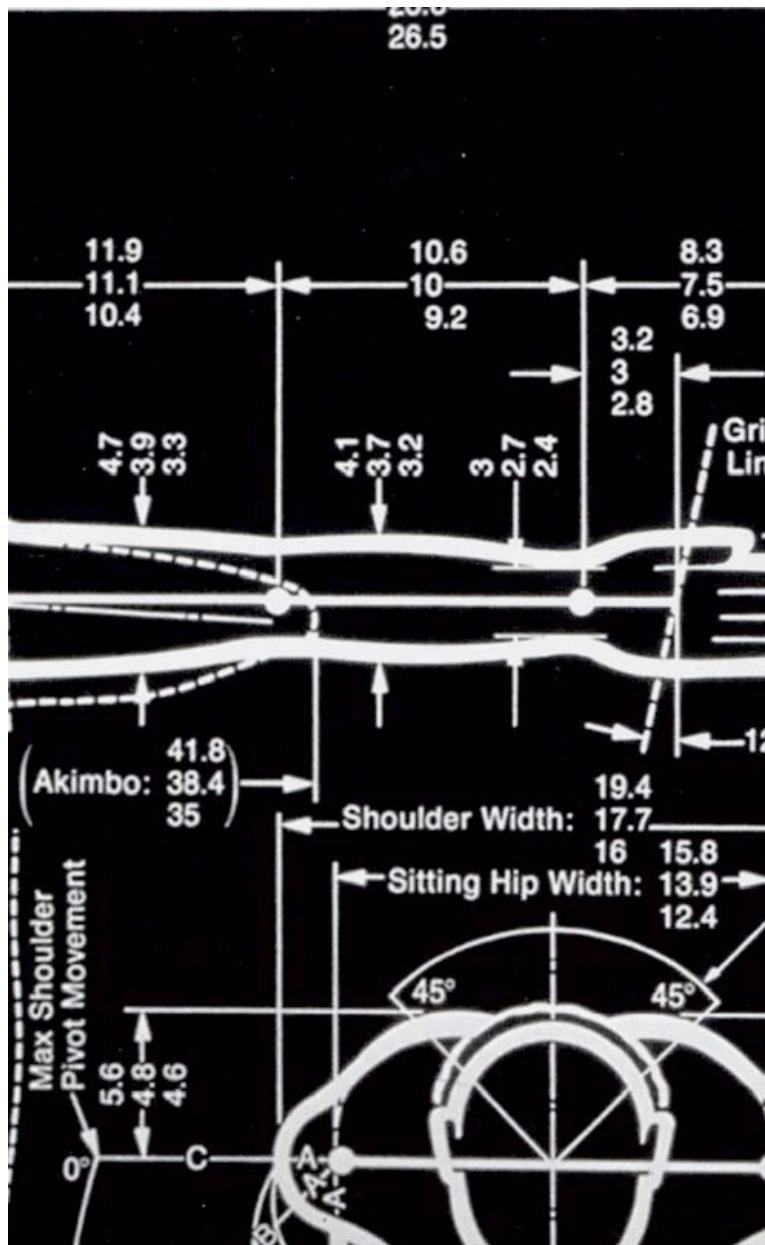
HOW: Cluster design elements according to intuitive relationships such as similarity, dependence, proximity, etc.

WHY: This method is a useful way to identify connections between issues and reveal innovation opportunities.

Clustering the elements related to transporting the family helped the IDEO team to discover some significant opportunities for stroller design.

IDEO

maneuverability

rry

at all costs
restless and

"I have to
tight spaces

e person lifts stroller
both edges to lift

use on
driveway
slope when
removing
child from car

stroller et

understand the relationship of larger
& smoother ride & better maneuverability"

no strollers
allowed

I like a straight line so
I fixed the front wheels.

"I need to
use quickly
& reliably"

braking

er & let glide
cause it steers
ht line.

"I want simple
& unambiguous
brakes"

"I scuff/dir
the top of
shoes when
I release"

stroller has too large
steering radius"

grass, gravel
roots, cracks

"as a group lift up/down curb &
stairs—one in front, other in back"

front wheels
turn sideways
& cause to
stop and topple

on bumpy terrain
front wheels flutter.

rarely clean

"I don't want
think I am neg
my duties"

other children
push the stroller

stroller is rarely
cared for

**pattern
hides dirt**

parent can keep chil
safe and restrained i
stroller while watchi
other children

stroller is the
family meeting
place, landmark

parent wa
other chil

siblings

**parent
capacity**

"you quickly
the hygiene

**accommodate
the family**

**keep child
content**

de

ace
red

educate

storage

mental

Anthropometric Analysis

HOW: Use human population measurement data to check the coverage and suitability of the design solution for the target user group.

WHY: This helps to identify a representative group of people for testing design concepts and evaluating the general usability of product details.

Selecting individuals with hand sizes representative of the population to test prototypes helped IDEO design a computer mouse suitable for general use.

IDEO   www.ideo.com

Behavior Sampling

HOW: Give people a pager or phone and ask them to record and evaluate the situation they are in when it rings.

WHY: This is a useful way to discover how products and services get integrated into people's routines in unanticipated ways.

Developing an implantable defibrillator system, the IDEO team distributed pagers to the client team to signal a defibrillating shock. This evoked deep empathy for the patient's everyday experience.

IDEO   www.ideo.com

Behavioral Archaeology
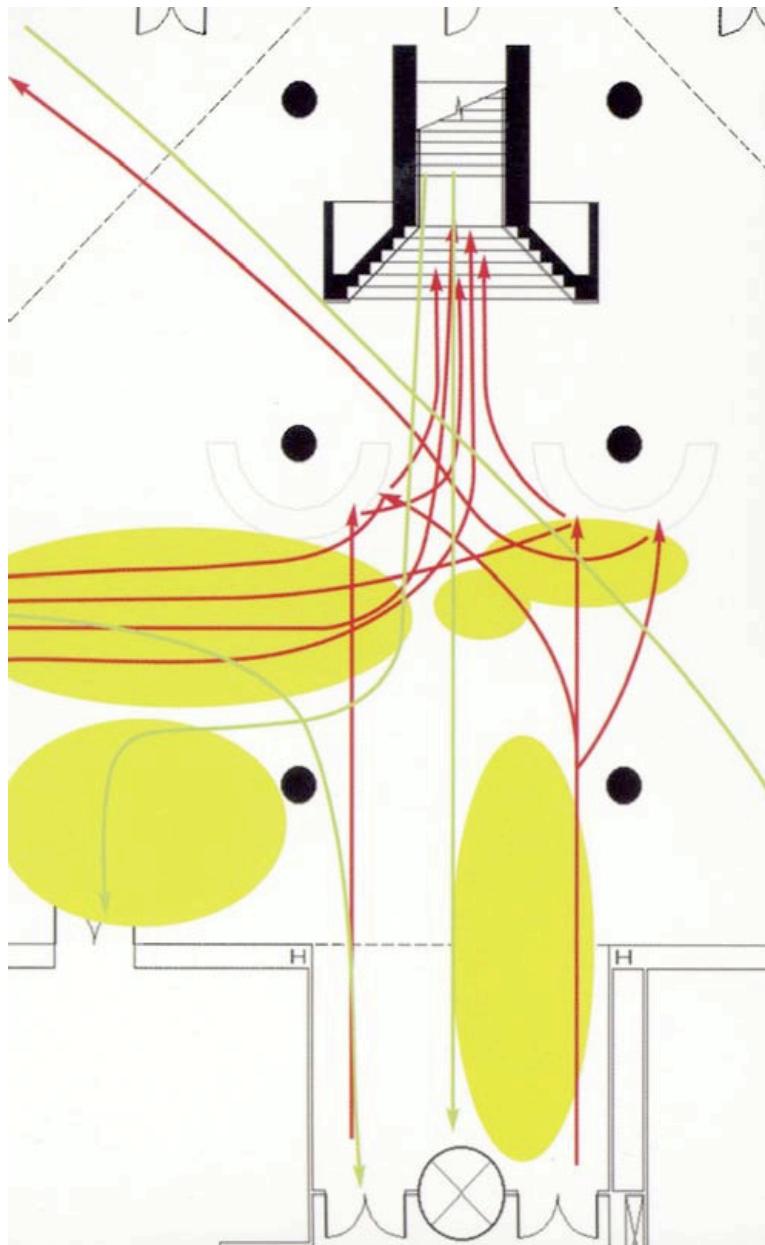
HOW: Look for the evidence of people's activities inherent in the placement, wear patterns, and organization of places and things.

WHY: This reveals how artifacts and environments figure in people's lives, highlighting aspects of their lifestyle, habits, priorities and values.

Noting that people efficiently organized multiple work tasks by stacking paper all over their desk surfaces, IDEO invented a brand-new system furniture element to support this.

IDEO   www.ideo.com

Behavioral Mapping

HOW: Track the positions and movements of people within a space over time.

WHY: Recording the pathways and traffic patterns of occupants of a space helps to define zones of different spatial behaviors.

Tracking the paths of visitors helped designers to identify the traffic spots and the vacant, underused areas of a museum lobby.

IDEO

www.ideo.com

Be Your Customer
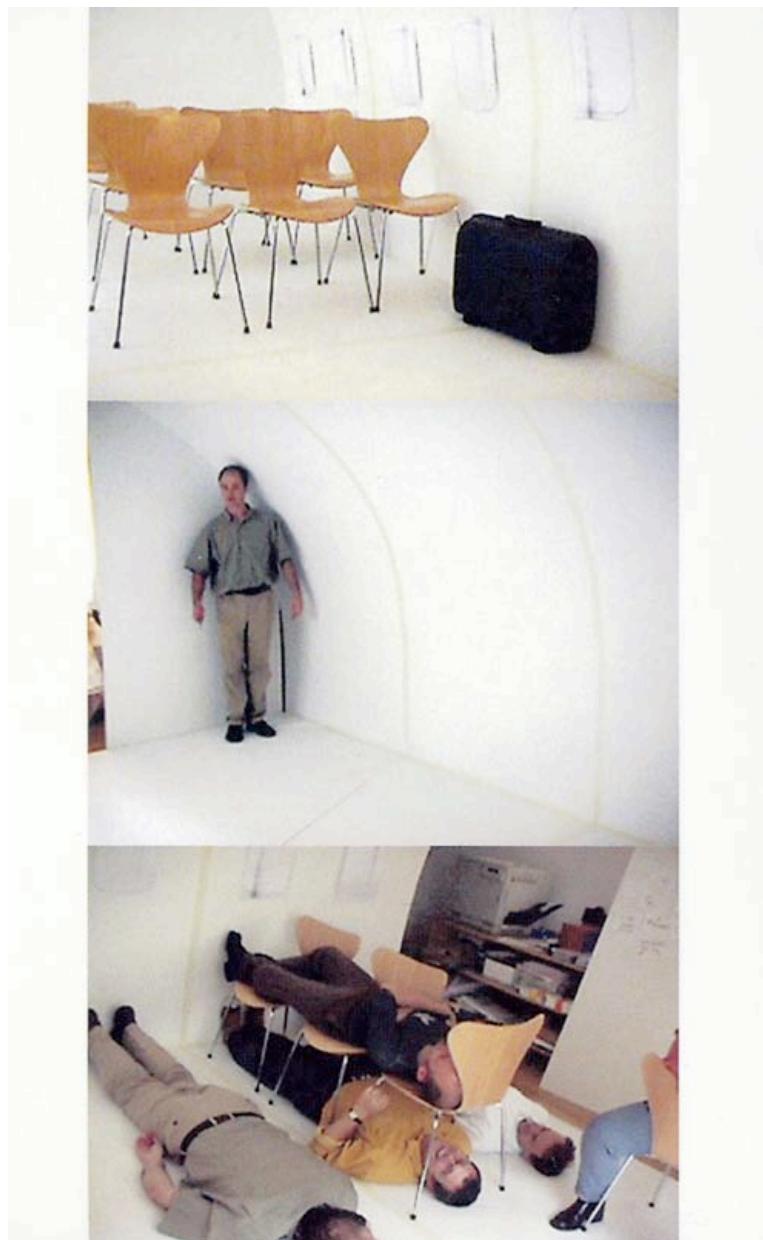
HOW: Ask the client to describe, outline, or enact their typical customer's experience.

WHY: This is a helpful way to reveal the client's perceptions of their customer and provide an informative contrast to actual customer experiences.

An IDEO innovation workshop designing desktop printers began with an exploration of the client's preconceptions about how people choose and purchase a printer.

IDEO   www.ideo.com

Bodystorming

HOW: Set up a scenario and act out roles, with or without props, focusing on the intuitive responses prompted by the physical enactment.

WHY: This method helps to quickly generate and test many context- and behavior-based concepts.

Bodystorming various ways of sleeping in airplanes helped the IDEO design team to generate a wide variety of concepts for an airplane interior.

IDEO

www.ideo.com

Camera Journal

HOW: Ask potential users to keep a written and visual diary of their impressions, circumstances, and activities related to the product.

WHY: This rich, self-conducted notation technique is useful for prompting users to reveal points of view and patterns of behavior.

The IDEO team designing a travel information system distributed camera journals to families taking car trips to capture map reading and other car travel behavior.

IDEO

www.ideo.com

Card Sort
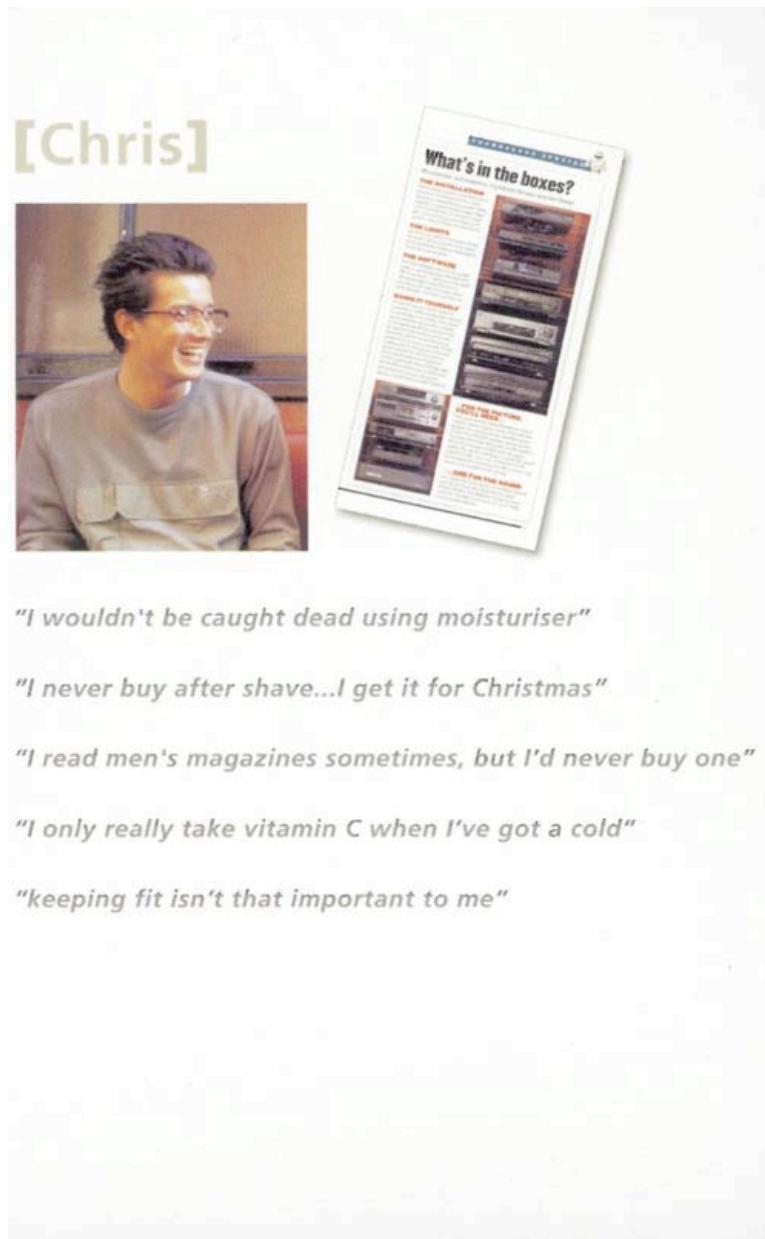
HOW: On separate cards, name possible features, functions, or design attributes. Ask people to organize the cards spatially, in ways that make sense to them.

WHY: This helps to expose people's mental models of a device or system. Their organization reveals expectations and priorities about the intended functions.

In a project to design a new digital phone service, a card-sorting exercise enabled potential users to influence the final menu structure and naming.

IDEO   www.ideo.com

[Chris]

"I wouldn't be caught dead using moisturiser"

"I never buy after shave...I get it for Christmas"

"I read men's magazines sometimes, but I'd never buy one"

"I only really take vitamin C when I've got a cold"

"keeping fit isn't that important to me"

Character Profiles
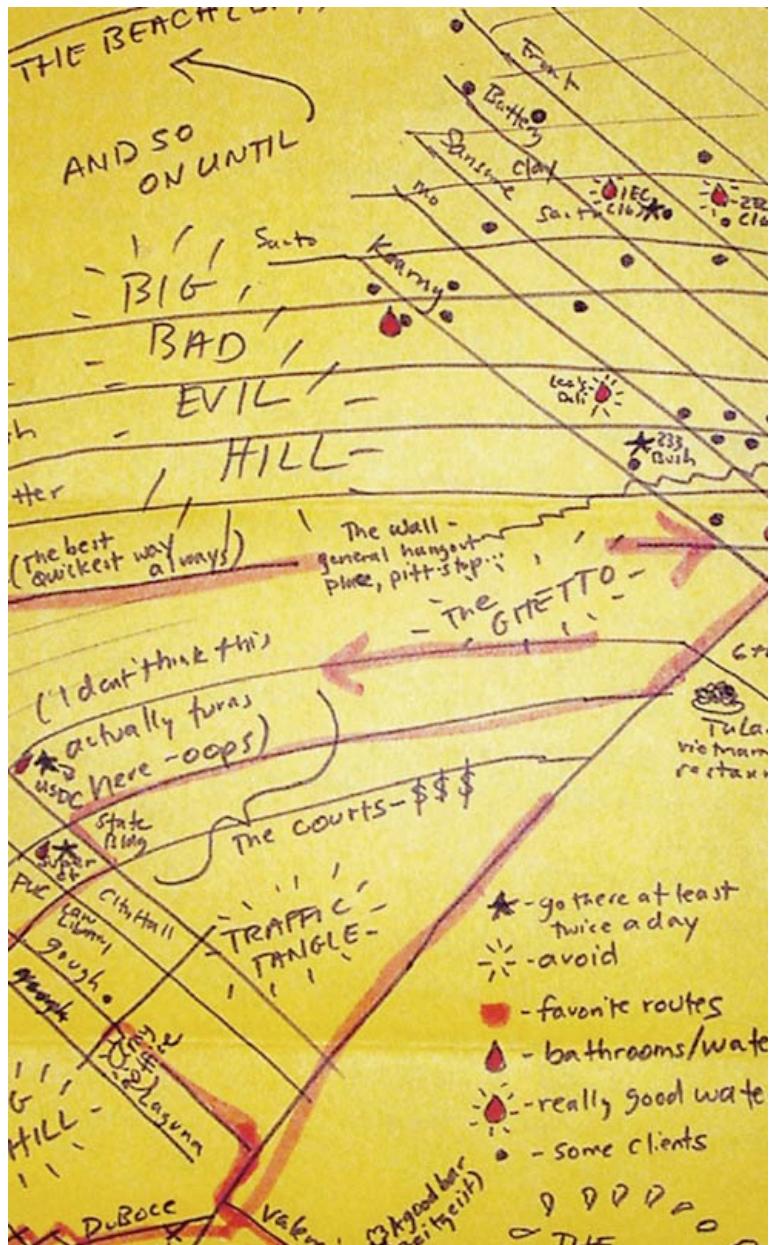
HOW: Based on observations of real people, develop character profiles to represent archetypes and the details of their behavior or lifestyles.

WHY: This is a useful way to bring a typical customer to life and to communicate the value of different concepts to various target groups.

In order to understand different types of customers and how to target them, IDEO developed four characters for a pharmacy wanting to reach the male beauty-product market.

Cognitive Maps

HOW: Ask participants to map an existing or virtual space and show how they navigate it.

WHY: This is a useful way to discover the significant elements, pathways, and other spatial behavior associated with a real or virtual environment.

Mapping how they occupy or pass through different zones of the city, the IDEO team asked bike messengers to indicate where water oases are located and how they reach them.

IDEO

www.ideo.com

Cognitive Task Analysis
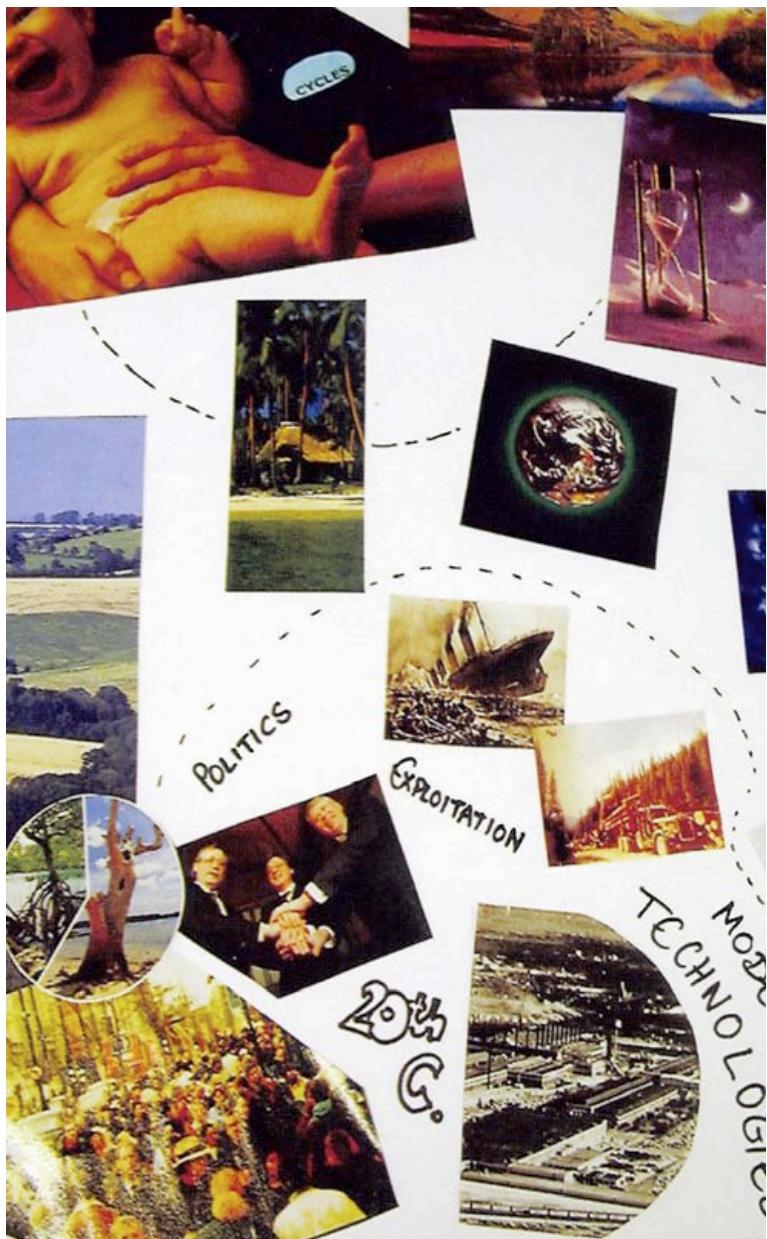
HOW: List and summarize all of a user's sensory inputs, decision points, and actions.

WHY: This is good for understanding users' perceptual, attentional, and informational needs and to identify bottlenecks where errors may occur.

Cognitive task analysis helped the IDEO team understand the proximity and disorientation problems that remote-vehicle operators suffered due to the design of their controls.

Collage

HOW: Ask participants to build a collage from a provided collection of images, and to explain the significance of the images and arrangements they choose.

WHY: This illustrates participants' understanding and perceptions of issues and helps them verbalize complex or unimagined themes.

Participants were asked to create a collage around the theme of sustainability to help the IDEO team understand how new technologies might be applied to better support people's perceptions.

IDEO   www.ideo.com

Competitive Product Survey

HOW: Collect, compare, and conduct evaluations of the product's competition.

WHY: This is a useful way to establish functional requirements, performance standards, and other benchmarks.

Developing a new soft drink, the IDEO design team surveyed the competition for functionality and form factors.

IDEO   www.ideo.com

Conceptual Landscape

HOW: Diagram, sketch, or map the aspects of abstract social and behavioral constructs or phenomena.

WHY: This is a helpful way to understand people's mental models of the issues related to the design problem.

Designing an online university, the IDEO team illustrated the different motivations, activities, and values that prompt people to go back to school.

IDEO   www.ideo.com

Cross-Cultural Comparisons

HOW: Use personal or published accounts to reveal differences in behaviors and artifacts between national or other cultural groups.

WHY: This helps teams to understand various cultural factors and the implications for their projects when designing for unfamiliar or global markets.

In designing a messaging device for an international market, IDEO compared communication methods across cultures.

Cultural Probes
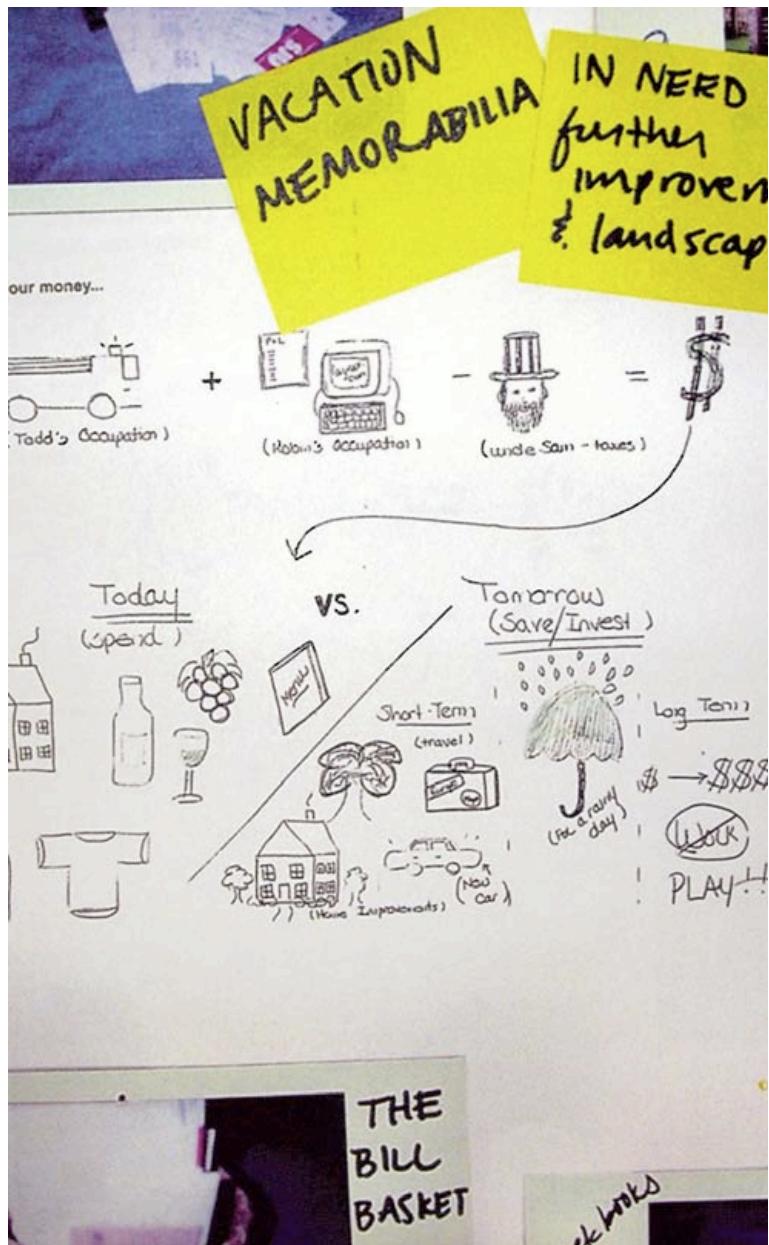
HOW: Assemble a camera journal kit (camera, film, notebook, instructions) and distribute it to participants within one or across many cultures.

WHY: To collect and evaluate perceptions and behaviors within or across cultures.

Comparing the ways different cultures care for their teeth helped expose important similarities and differences to the IDEO team.

IDEO   www.ideo.com

Draw the Experience

HOW: Ask participants to visualize an experience through drawings and diagrams.

WHY: This can be a good way to debunk assumptions and reveal how people conceive of and order their experiences or activities.

By asking people to "draw your money," the IDEO team designing an online bank was able to discern people's attitudes towards their finances.

IDEO   www.ideo.com

IDEO METHOD CARDS
51 ways to inspire design

Keep people at the center of your work!
- **Ask** them to help,
- **Look** at what they do,
- **Learn** from the facts you gather, and
- **Try** it yourself!

IDEO has become a leader in design by keeping people at the center of our design process.

These cards show some of the methods we use to inspire great design. Each card describes one method and includes a brief story about how and when to use it.

This is not a "how to" guide. It's a design tool meant to help you explore new approaches and develop your own. Use the deck to take a new view, to inspire creativity, to communicate with your team, or to turn a corner.

IDEO