



WATCH CLOSELY NOW.

Want to know what people really think of your product? How they really use the space you've designed?

360: Designed to inspire and inform Architects and Designers, 360 explores the latest in workplace research, insights, and trends.

Chris Conley walked up to the woman who had just left the Office Max store and asked, “Without turning around, can you tell me what store you just shopped at?”

She couldn't. Nor could most of the other customers he asked that day. In fact, very few of the customers that Conley and his team interviewed at five different Office Max locations could say what office supply store they'd walked out of just moments before.

Conley is founding director of Gravity Tank, Inc., a Chicago-based consulting and design firm and practitioner of user observation, a disciplined approach to closely watching and listening to customers to find out what they really think about products and services and how they use them.

Unlike traditional market research that relies on surveys and focus groups, user observation employs face-to-face conversation, shadowing, and other scientific methods. It's being used across industries – from improving ball point pens to creating better college classrooms to designing more efficient restaurants – and helping to drive changes in practically every business. Whether the user is at home, at work, or out shopping, the research approach for user observation, and the benefits that result, are the same.

350 PENS TO CHOOSE FROM

The office supplies market is brutal. Commodity products are sold in stores that look the same and even have similar-sounding names. To differentiate itself in the marketplace, Gravity Tank helps Office Max better understand its customers' needs. One recent

product focus: pens. Gravity Tank researchers observed and talked with customers at five stores.

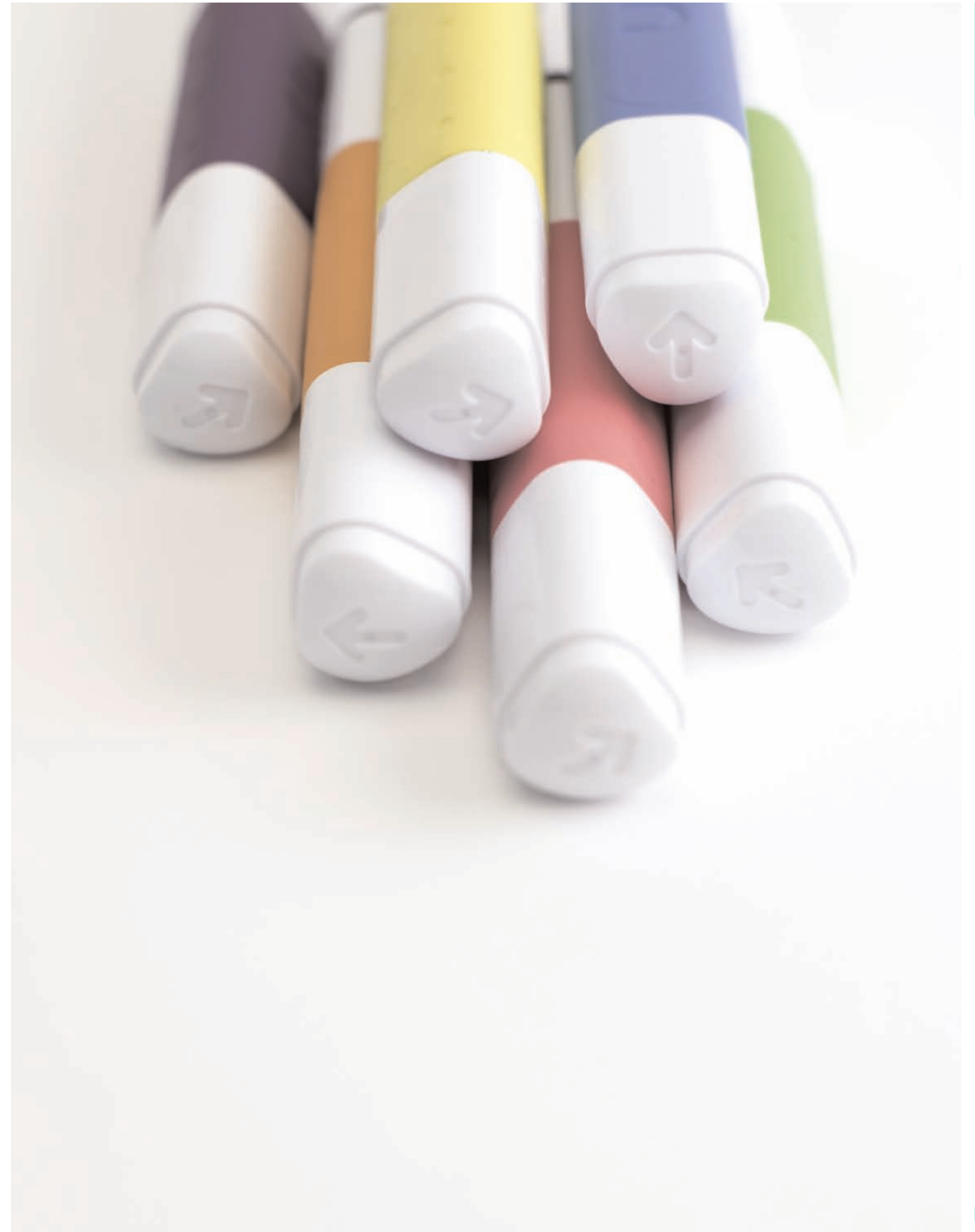
“People were bewildered and overwhelmed by the selection of pens and the lack of information and organization in helping them make a choice,” says Conley. The chain offers over 350 products in the “pens” category.

“The customers' body language would quickly go from forward-leaning and determined when they entered the store to slumped over and disappointed when they faced a wall of pens, as if to say, “where is it?”

That's the beauty of user observation. The concerns and desires of real customers in real situations become readily apparent.

“When people buy office products they tend to shop price. But every category – paper, pens, binders, whatever – has a dynamic: qualities of the product that people care about. People will pay for the qualities that they value, but you have to find out what those qualities are.”

Gravity Tank's observational insights helped Office Max introduce its own TUL™ brand of writing tools. The products feature user-inspired improvements such as dry-erase markers in triangular





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shapes so they won't roll off tables, magnets so the markers cling to whiteboards, and built-in touch-up erasers. The packaging helps communicate the product features, so the differentiators between products are clearly understood. Introduced this summer, they sold out their first week.

“User observation helps you clearly understand what people are going through at work, so you can design something that improves that process,” says Joyce Bromberg, director of research for the WorkSpace Futures group at Steelcase. “That can be a new product, a revision to an existing one, or changes to the work process itself.”

Steelcase has used user observation research in the development of products ranging from the Leap® chair to Duo™, an innovative storage solution designed specifically to help facilitate collaboration between coworkers.

BEHAVIOR REVEALS WHAT WORKS, WHAT DOESN'T

Many companies have recently discovered the power of user observation, but the science has been around for decades. Margaret Mead, the distinguished cultural anthropologist, made the process famous 75 years ago in field trips and observations of real world situations.

Today, skilled anthropologists and other social scientists are being called upon to help companies meet and even anticipate customers' needs.

Most of us know what products and services we like, but don't spend time organizing the reasons why we prefer a certain toothbrush, airline, or chair, over another. “The daily activity of using a product isn't something you store in your brain. The fact is that behavior is much richer indicator of what works and what doesn't, than opinion or memory,” says Conley.

“You need to go out in the world and let people talk to you about what matters when they're using a product. The issues start to bubble up. You hear, ‘Oh man! This happens every time I use this thing!’ and you ask, ‘How often does this happen to you?’ You tease apart the issue, and go to other sites, observe more users and eventually determine if it's a systemic problem.”

‘WORK AROUNDS’ = DESIGN OPPORTUNITIES

For systemic, or common, problems, people routinely create their own ‘work arounds’ to fix them. User observation seeks to discover those work arounds so the product or service can be altered to meet the user need. Sometimes a new product results.

That's how Procter & Gamble's Mr. Clean™ Magic Reach™ was invented. It started when the company hired IDEO, the Palo Alto, CA-based design firm, to observe how people clean their homes, specifically the bathroom. Three teams, each with a designer and a human factors specialist, spent two weeks in the U.S., France, England, and Puerto Rico, watching people and asking questions, taking a fresh look at this age-old chore.

“We wanted to understand how people clean in different countries and cultures, different climates, and with different types of water,” says Velma Velazquez, a researcher at IDEO. “In the bathroom, most people get down on their hands and knees to clean, but we saw some people clean the bathroom with a broom. That became the inspiration for what became the Magic Reach product introduced last year. It has a football-shaped head that helps you get at hard-to-reach places, disposable scrubbing and mopping pads, and a telescoping handle so you can use it while standing or kneeling.”

The more complex the technology, the more work arounds that are created. Sometimes it's because the technology is difficult to understand. More often, work arounds are a result of a poorly designed user interface. The sheer volume of tools and technology available today also poses a challenge. Users are expected to learn, and incorporate those tools into their daily lives, even as newer, faster, more efficient technologies come to market.

“We're creating tools at a rate unprecedented in human history,” says Larry Keeley, president of the Doblin Group, a consulting firm in Chicago. “Consider a tool as simple as a Post-It® note, and the

many ways people use them: thousands of different uses for these simple tools. Then consider that we have Blackberries, blogs, cell phones, all these other technological tools that are so much more complicated.”

“What the observation process does is help figure out how people and their tools affect one another, the recurring patterns. When you have that knowledge, you can transform how people interact with those tools and shift those patterns.”

Keeley’s firm used these techniques to help McDonald’s reinvent their restaurant work processes. The firm recorded more than 7,000 hours of video of customer and employee interactions at different restaurants, analyzed their observations, and produced key insights about McDonald’s customers’ expectations and frustrations.

McDonald’s serves more food to children than any other company in the world and maintains a legendary standard of consistency. Yet Doblin detailed 75 different issues in the ways the company was serving their youngest customers, and helped McDonald’s develop infrastructure innovations, along with new restaurant interiors and work processes.

BACK TO SCHOOL

If you think fast food is complicated, consider the business of higher education. The challenges facing every college and university are daunting, but for a profession that’s all about research and learning, the main workspaces, particularly classrooms, are stuck in the past. In most college classrooms the teacher stands up front, students sit in rows to watch the instructor, a projection screen, and a big board. Just as they did 50 years, or even 100 years, ago.

“Many things have changed in education. New methods of instruction, new technology. But what hasn’t changed is the classroom, and that physical space gets in the way of more effective teaching and learning,” says Bromberg. She and her colleagues – trained observers from a variety of backgrounds, including human factors, design, anthropology, and other social sciences – have developed a set of design principles for learning spaces based on observational research at different colleges and universities in the U.S. and Canada.

The Workspace Futures team’s research has helped many universities create more effective learning spaces, and has more recently led Steelcase to create a new prototype classroom. Referred to as the LearnLab, the 25’ by 30’ classroom provides a space for university

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The Steelcase WorkSpace Futures research team employs specific methods in observation studies, such as:

Contextual Interviews:

Discussions with users in their work environment (office, lecture hall, clinic, etc.) to clearly understand the business and identify issues that need to be understood more deeply.

Photography/Videography:

Real world images of people, places, artifacts and activities provide documentation and convey the essence of situations.

Fly on the wall:

Observing and documenting behavior without interfering in people’s activities – what people actually do – and then comparing it to what they say they did, after the fact.

Shadowing: Tagging along with people to observe and record their day-to-day routines; often reveals design opportunities and how a product might affect user behavior.

Field notes:

Documented quotes, observations, and details about how people use products and services; often includes sketches and floor plans to show relationships between users and objects.

“We start to see patterns within organizations,” says the department’s director of research, Joyce Bromberg. “We synthesize these patterns with our secondary research on the organization and its industry along with information from related disciplines to develop an overall set of insights. By comparing our findings across a number of organizations, we can form insights both within an industry and across industries. Then we create design principles that focus on the user’s needs.”

students and Steelcase, to explore and test new concepts for learning environments.

Rob Frans, adjunct instructor at Grand Valley State University (GVSU), says students quickly adapted to the LearnLab’s unique design. “They can tell as soon as they walk in that this isn’t a typical classroom. Furniture is set at a diagonal to the door and everything’s

mobile. Three of the four walls have whiteboard and projection surfaces. It’s a totally different classroom.”

As Frans and his colleagues teach in the LearnLab and other groups work in the space, user observation continues to measure the effectiveness of the various design and product innovations within the classroom. Julie Barnhart Hoffman, a designer principal from the WorkSpace Futures Application Lab, explains the purpose of the LearnLab “It’s kind of like putting students and



instructors into a 3-D lab, so we can understand how their behaviors are affected by this environment,” says Hoffman. “We’re designing not only furniture, and spaces, but technology applications, even learning experiences. And as the people in the LearnLab are learning, so are we.”

Each night after class, Elisa Valoe, a design researcher with the Workspace Futures team, posts a question on a blog set up for the GVSU students. Their responses are more data points in the group’s research.

“Our research is ongoing and we’ve yet to draw conclusions,” says Valoe, “but we’re seeing a lot of interesting user behaviors. For example, freshman and seniors use the room and the tools differently. Seniors leave the room and meet in groups, and freshmen move the Huddleboards around and meet inside the room. Why? There are things like that, dozens of changes in how people teach and learn, and we’re discovering more every day as we observe in this space.”

The research conducted by the Workplace Futures team follows a consistent pattern: understand-observe-prototype-measure-refine. But the process always begins with clearly understanding users, what really works for them and what doesn’t. Ultimately, user observation clarifies the difference between perception and reality. As Margaret Mead said, “what people say, what people do, and what they say they do, are entirely different things.

A Way of Seeing

The AEIOU method provides a framework for capturing and organizing the data from observational studies.

Activity: what are the users doing? Brainstorming, eating, mentoring, traveling, etc.

Environment: where is the activity taking place? The location, noise, lighting, distractions – any and all factors affecting the user.

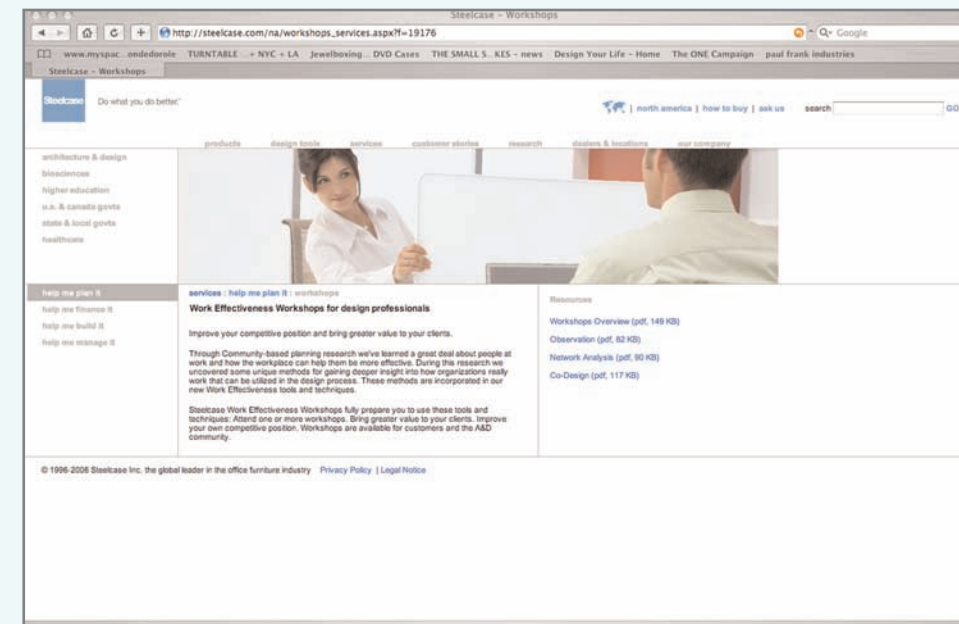
Interaction: who are the users interfacing with and how: Talking, collaborating, speaking over the phone, meeting in the hall, etc.

Object: what are they using? Chair, projector, keyboard, phone, PDA, whiteboard, etc.

User: who are they? The individuals, groups, their roles in the organization, work responsibilities, demographic data, etc.

The End.

Take the course



If you’re interested in learning more about how user observation can inform the design process, Steelcase offers a one-day CEU User Observation Workshop (Course #4565). Members of the WorkSpace Futures department demonstrate how to use cultural anthropology and ethnographic techniques to take an intimate look at what really happens inside an organization. Workshop participants use a variety of tools to profile human relationships and behaviors in the workplace, and learn techniques they can use to form a deeper level of understanding about the users of their products, services, and spaces.

More information is available at http://steelcase.com/na/workshops_services.aspx?f=19176.