

Implications

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A Newsletter by Informedesign. A Web site for design and human behavior research.

Research 101: An On-Line Tutorial

We are pleased to introduce a new feature of Informedesign that will give you greater ease using the Research Summaries from our database and other research you find in your daily work. We developed an on-line tutorial on research basics called “Research 101: An Introduction to Research.” Whether your design process uses research findings from academic studies or product information from manufacturer’s studies, it is important to know how to use these results and what difference they can make to your practice. This tutorial will:

- refresh your research vocabulary,
- increase your knowledge about research methods, and
- provide you with rationale for use of research-based findings in your design solutions.

Using research findings as a basis for your design solutions and informing your clients of this research information can improve your design solutions, and inherently, your bottom line. In this tutorial, we use a human behavior approach to the design of the built environment. What that means is that the human is always the center of the design problem.

As practitioners we solve the design problem for the humans who use the space; their needs, whether functional, social, or psychological, are what the solutions revolve around. With this viewpoint then, the research the Informedesign staff find to review and translate for our Research Summaries, always touches some aspect of how the research findings affect the human who uses the built environment. And, that is the focus of this tutorial: understanding how to use research that has been conducted to help you identify and clarify the relationship between human behavior and the built environment. “Research 101” is divided into three parts.

Part I answers the question, “Why should practitioners care about research methods?” In this part, we talk about an emerging trend among design practitioners to use design criteria that are evidence-based. No longer is it justifiable to solve a design problem based on trends or preference alone. Clients are asking, “What will this design solution do for me, my employees, the patients, the visitors, and my bottom line?” Designers are moving toward a research-based practice.

Part II answers the question, “What is the common vocabulary in research-based practice and academic research?”



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InformedesignSM
Where Research Informs Design

This part will help you become comfortable with research terms used in the literature you read, whether academic or industry-related. This knowledge will guide you to ask relevant questions of researchers, industry representatives, or other designers. Many of these terms are not new to you, but may have somewhat different meanings or application in the context of research.

Part III answers the questions, “What research methods might serve as core methods for the design process in my firm?” as well as “Help me understand the quality of a process that produced new knowledge that I might use in designing places.” As the integration of research findings become a more important component in the design process, your ability to determine if the researcher used an appropriate research method to conduct a study becomes more important. The purpose is not to make you into a researcher, just a good *consumer of research*.

Locating Research 101

You will find the Parts I, II, and III of “Research 101” on the InformedDesign Web site under the *Research Tutorials* page, noted in the *Main Menu* selection list. Each part is a separate PDF for easy downloading and printing. And of course, the tutorial is free of charge!

Earning Continuing Education Units

Do you want to earn continuing education units (CEUs) for studying “Research 101?” You can do this by completing the tutorial and responding to the questions included in the “Evaluation Form,” and submitting the information to ASID. Once on the *Research Tutorials* page of the Web site, you will see a sidebar entitled, *Continuing Education Credits*. There you will find the “Evaluation Form” in PDF format for downloading and printing, and instructions about the process.

“Research 101” Authors

We hope you study this tutorial and register for the continuing education units, and that you and your practice benefit from your learning. The tutorial was developed by **Dr. Joy Dohr**, University of Wisconsin-Madison, a member of InformedDesign’s Technical Review Board (see Dr. Dohr’s biography under that heading on the Web site) and **Dr. Denise Guerin**, University of Minnesota, coordinator, InformedDesign (see Dr. Guerin’s biography under *Personnel* on the Web site). Both of them have conducted many research projects related to design and human behavior, have taught research courses throughout their careers, and design practice has been in their backgrounds for many years. We also appreciate the contributions of **Kate Bukoski**, Ph.D. student, University of Minnesota, InformedDesign staff, for her contributions to Part 2 of the tutorial.



—Denise A. Guerin, Ph.D., Coordinator, InformedDesign

Research, Theory, and Why Should We Care?

Many people consider themselves “practical” and often dispel “theory” as the whimsical excess of academics and philosophers. However, such a viewpoint is uninformed at best, deceptive at worst. For all theories are practical—they exist to better help us understand the complex world around us.

All theory is metaphor—a complex analogy to help us understand what is beyond our comprehension. Theory does not judge, instigate, or shape anything. Instead, theory is created, adapted, and built over time to help in the understanding of the complex world around us. As there are no “black-and-white” answers in this universe, humans conduct research to continually reassess their contemporary metaphors and understanding of how the world works.

Building Theory

Research is the process of adding, or weeding out inaccurate knowledge to further expand our understanding of the world around us. We use research to further evolve our theories. Often, numerous theories exist to help humans make sense of a particular situation or process, for example, there are multiple theories about color in design.

However, not all theories are created equal. Some are better than others in their explanation; though, determining which are better is always contestable, often determined through research. And as theory development is ongoing, you’ll never hear serious researchers say that they “proved” something. Like those before Galileo who said that they had “proved” that the Earth was the center of the universe...

Just as some metaphors work better than others in any given situation, some theories are better informed than others in explaining a process or

thing. Weaker theories will disappear over time: old color theory was obsessed with the “nature of color” and how colors could be organized. Whereas theories backed by evidence rigorously collected via scientific method, by numerous people, and with varying techniques over time, will often evolve and become even more useful in helping us understand how things work. For example, today color theory has shifted to the subjective, or how humans perceive color through the physiological and psychological processes of vision.

Why You Should Care

Good research is the foundation of good theory. If a theory is informed by bad research, then our metaphor for how something works will be misleading. This has serious implications for designing the built environment. Research and theory inform good decision-making during the design process. Theory development is a continuous process. Unfortunately, once designers leave school and enter practice, it is difficult to have the time to keep up on new research.

This brings us back to where we began: research is often viewed as a static “thing” that scientists and theorists do, when in reality it is a continuous process. In turn, researchers often produce for consumption by their colleagues, and thus those practicing design often miss out on acquiring new understanding of the built environment.

Perhaps one of the main reasons research fails to disperse to designers in the field is linguistic, as theories and research rely on complex and specific jargon—language familiar to those in academia, not practice. Informedesign attempts to bridge this gap in communication by enhancing and deciphering key findings in contemporary design research and distributing it freely to practitioners of all persuasions. Moreover, our on-line tutorial, “Research 101,” will inform you about research and theory, attempting to

dismantle the wall of jargon that camouflages design research from those in design practice.

—Ian Oas, Assistant Director, *InformeDesign*

About the Author: Ian Oas is Assistant Director of *InformeDesign*. He received his M.S. in geography



from the Pennsylvania State University. Ian's book reviews have been published in numerous geographic journals and he has written a book chapter forthcoming in *The Geography of War and Peace* (Oxford University Press).

Related Research Summaries

InformeDesign has many Research Summaries about research, theory, research methods, and related, pertinent topics. We believe that this knowledge will be valuable to you as you consider your next design solution and worth sharing with your clients and collaborators.

Research and Theory

“Women’s Concerns About Public Space”
—*Journal of Environmental Psychology*

“Narrative Theory as a Tool for Identifying Meaning”
—*Journal of Interior Design*

“Antisocial Workplace Behavior”
—*Academy of Management Journal*

Post Occupancy Evaluations (POE)

“Post Occupancy Evaluation Can Improve School Design” —*Environment and Behavior*

“Creating Facilities for AIDS Patients”
—*Journal of Architectural and Planning Research*

“Health Benefits of Including Nature Within Hospitals” —*Journal of Environmental Psychology*

Case Study

“Facility Plan Influences Learning and Socialization”
—*Journal of Architectural and Planning Research*

“Lighting and Age Influence Reading Ability”
—*Human Factors*

“Relating Ways of Learning to Designing Spaces”
—*Journal of Architectural Education*

“Fabric Streakiness” —*Textile Research Journal*

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Caren Martin, University of Minnesota
(Experience Music Project Interior, p. 1)



InformeDesignSM
Where Research Informs Design

The Mission

The Mission of *InformeDesign* is to facilitate interior designers’ use of current, research-based information as a decision-making tool in the design process, thereby integrating research and practice.

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