

1 When Should We Trust What We Know? Why Research Methods?

We live in an information-dominated society. Every day, like it or not, we are bombarded by facts, figures, news, and opinions; we are connected to countless information sources about our local community, our society, and our world. Awakening to clock radios or morning TV, we start our days with the latest breaking news. On route to work, radios, cell phones, and amber alert systems sustain the information loop. Palm pilots, billboards, and information kiosks also keep us in the know. At work, many of us “log on” and ride the information highway. The journey can continue at lunch or dinner or at a happy hour as more and more cafeterias and diners and bars offer patrons a side dish of information in the form of streaming electronic message boards. Standing in food checkout lines gives us just enough time to catch up on the latest celebrity scoop. And we return home to find our mailboxes stuffed with letters, notices, and solicitations reminding us of local, national, and international issues and crises. Our nightly fix of television entertainment has an information edge to it as we tune into *48 Hours* or *Dateline* or *20/20*. If we haven’t had enough by day’s end, we can fall off to sleep watching a late-night talk show, an hour or more of politically correct and incorrect programming, or a rebroadcast of Oprah. If we’re “up for it,” the stream of information can go on 24/7.

In recent years, our information age has taken an alluring, perhaps compelling, “personal” turn. To a large extent, the personal computer and the Internet allow us (even encourage us) to customize the information that comes our way. Yahoo, for instance, will set up a personal stock quote page for us. We can arrange for daily emails about our favorite sports teams and figures. Lap top computers and the Internet

2 WHY RESEARCH METHODS?

can deliver just about any “personalized” piece of news or factoid. Want to know how much social security you’ll receive by the time you retire? Go to http://www.ssa.gov/SSA_Home.html and click onto the “Plan Your Retirement” link. Want to estimate your chances of developing heart disease? Go to <http://www.americanheart.org> and follow the “Health Tools” link. Want to know how your congressman or senator voted on the latest piece of legislation? Try the following Library of Congress service site: <http://thomas.loc.gov/>. Want to know more about your family history? Go to <http://www.genealogytoday.com>. Have any question at all? You might find some answers at <http://answer-point.ask.com/>.

Given all the ways of knowing that are available to us, and given our growing ability to get exactly the information that *we* want, students of research methods may wonder why we need to learn the methodical and labor-intensive procedures of research methods? Can’t we get the information we need from the radio, TV, or from newspapers and magazines? Given the wealth of information available on the Internet, can’t we be satisfied to just sit and click?

Perhaps a recent Internet banner ad for the *New York Times* offers the best answer to the question: “What’s the point of an information age without the right information?” Information is only useful if it’s accurate.

The incredible amount of information that confronts us (and the relative ease of accessing it) makes us all the more vulnerable to misinformation. Consider three pieces of “information” that recently circulated on the Internet:

- The Federal Communications Commission (FCC) is trying to ban God from television programming.
- Congressman Schnell is proposing a five cent tax on emails to raise funds for postal services.
- Bananas from Costa Rica carry a flesh-eating bacteria.¹

All of these assertions grabbed a lot of attention on the Internet. Yet, *none* of these statements is true; The Federal Communications Act prohibits the FCC from censoring broadcast materials; there is no Congressman Schnell in the House; the flesh-eating banana bacteria story is a hoax. Internet rumors, however, are particularly hard to squelch because individuals are quite willing to believe anything they learn from the “all-knowing” computer. Though false, these rumors still exact a price. The

1 CBS *Evening News*, WCBS New York City Broadcast, July 19, 2000.

FCC received a half million angry letters of complaint about banning God from the airwaves. Similarly, Congress reported an “impeachment level” volume of citizen complaints about the proposed email tax. A spokesperson for banana importers reports that the false banana rumor has cost the industry \$30 million in lost sales.

When confronted by an information glut, how are we to know which information is the “right” information? How are we to decide which information to trust? To answer these questions, we need to give some thought to the various sources of knowledge that drive our information society. We need also to consider if some sources of knowledge are more worthy of our trust than others.

Time-Based Knowing: Traditional Knowledge

Consider a popular “fact” asserted by many in today’s society: Gay soldiers have no legitimate place in the US military. Military grunts and brass, politicians and pundits speak knowingly about the threat gay soldiers pose to unit solidarity. Order and discipline are thought to be incompatible with allowing gays in military service. According to opponents of gays in the military, nothing less than national security is at risk when soldiers must worry about sexual advances from other same-sex soldiers. Advocates of this position are confident that their assertions are correct. In part this confidence is derived from the fact that this negative view of gays in the military is a long-standing one – as such, it represents a tenacious form of knowledge: i.e., traditional knowledge.

With traditional knowledge the mere passing of time is seen as the basis for making knowledgeable assertions about the world. In surviving the test of time, long-standing ideas or enduring assertions about the world are assumed to be true. One of the reasons that the rumor about the FCC banning God from TV is given credence is because it has been circulating for the last 25 years! When we hear the same thing over and over, we frequently conclude that there’s got to be some truth to it. But herein rests the major flaw of tradition as a source of knowledge and information: The mere passing of time *does NOT in itself establish something as true*. Consider the fact that for thousands of years “everyone knew” that the earth was flat. Navigators chartered their trips to accommodate this fact. Mapmakers were content with two-dimensional maps. But claiming the earth was flat did not make it so. The mere passing of time did not verify the assertion. (If anything, the passing of time is exactly what showed this assertion to be unequivocally false.)

4 WHY RESEARCH METHODS?

Similarly, until the fifteenth century, astronomers held that the earth was the center of the universe. It was unthinkable to challenge this fact. (Recall the fate of Galileo for bucking the system – he was excommunicated from the Catholic Church for promoting a sun-centered model of the universe.) Once again, however, thousands of years of asserting that all heavenly things revolved around the earth did not make it so. Most recently, the genetic mapping evidence of the genome project challenged the traditional view of race as a biologically determined category. Despite age-old arguments to the contrary, human races are not genetically distinct. Humans share 99.9 percent of their DNA. Racial similarities, not differences, are in our genes.

As these examples show, traditional knowledge with its unthinking acquiescence to the passing of time can be very risky knowledge. The “age” of an idea or a belief does not necessarily prove its accuracy or truth.

Credential-Based Knowing: Authoritative Knowledge

Now consider another widely held view today: After a long bullish ride, many financial experts predicted that the start of the new millennium would see a major correction in the stock market. Many investors took the correction warning to heart and changed their investment strategies. The stock market example illustrates another popular and frequently utilized way of knowing: authoritative knowledge. With authoritative knowledge, we defer to experts when looking for accurate assertions about the world. In trusting experts, we are deferring to their credentials and training. We accept as accurate and true that which experts tell us.

Our willingness to trust authorities has led some to observe that ours is a society of “authority addicts.” Many of you may already be familiar with a rather famous study by Stanley Milgram (1974) that poignantly revealed our willingness to defer to authorities. In this study, Milgram discovered that ordinary civilians would administer electrical shocks to others when directed by authority figures to do so. (Participants were told to administer shocks to those who had failed at a learning task.) Indeed, in various replications of the study, Milgram found that a majority of study participants were willing to administer the electrical jolts even when they thought the shocks were causing others severe pain. Milgram’s research indicated that humans are willing to accept uncritically an authority figure’s perceptions and definitions of reality.

Our enamoredness with expert knowledge is really a lifetime affair. Many of our parents raised us with a little bit of help from baby and child “experts.” Since the 1940s, millions of parents have regarded Dr Benjamin Spock’s advice as the gospel truth about childcare. Before Spock, parents of the 1920s were embracing the expert advice of the behaviorist John Watson. Our early schooling experience is largely about teaching students to defer to authority. In grade school and high school we learn to respect authoritative sources of information – i.e., teachers and textbooks. Interestingly enough, some students find college unsettling because the authority program changes somewhat. The college years are the first time that some students are encouraged to question and scrutinize what they’ve already learned. This can be an exercise in anxiety; many of us prefer the security and stability that comes from trusting authority. (Indeed a popular bumper sticker of the eighties was aimed at challenging our deep-rooted authority addiction. The sticker simply read “Question Authority.”)

Our reliance on authoritative knowledge continues into our adult years. In the area of health, many of us wouldn’t dream of second guessing our physicians. We hesitate to question whether the pharmacist has properly filled our prescriptions. In buying or selling homes, most of us will rely on the expertise of realtors. We take our cars in for “diagnostic” check-ups. At present, countless Americans are investing for their financial futures on the basis of the economic “facts” presented by stock market analysts. (We refuse to think about the fallout if the experts are wrong.) Many of us feel secure about the accuracy of any information if we’ve read it in *The New York Times*² or seen it on *World News Tonight*. There is no doubt about it – authoritative knowledge offers us a certain comfort zone and we like it that way.

As with traditional knowledge, however, authoritative knowledge can be wrong. Frequently our trust in experts is misplaced. Credentials don’t always give experts the corner on truth. Most of us know this all too well from our first-hand experiences with such things as weather forecasts, election projections, or media hype. Meteorologists tell us to get ready for a soggy weekend and it turns out to be lovely and sunny. They warn of a severe snowstorm and we wind up with a dusting. During the 2000 presidential campaign, the Sunday morning “talking heads” predicted a Bush landslide in the New Hampshire Primary and then had to

2 Indeed some would argue that the recent Jayson Blair scandal (Blair was a Times reporter who plagiarized and fabricated news stories) is most troubling for *The New York Times* because it undermines the paper’s greatest asset: its reputation (Sloan 2003).

6 WHY RESEARCH METHODS?

scramble to explain a McCain victory. Despite critical acclaim, Spielberg and Cruise's *Minority Report* turned out to be a major disappointment at the box office. And let's not forget the millennium's Y2K bug – despite the big hoopla, media experts were essentially wrong about the expected calamity.

Of course, the stakes of our misplaced trust in experts can be higher than what's suggested by these last examples. Many financial experts, for instance, failed to foresee the famous stock market crash of 1929 – they were confident that stocks had achieved a new but safe high plateau. As a result, countless Americans who trusted the experts were financially ruined in the aftermath of Black Tuesday (October 29, 1929). In the three years following the crash, national income was cut in half and there were some 15 million unemployed Americans – up from 1.5 million in 1929 (Garraty & Gay 1972; Wiltz 1973).

Prior to 9/11, we might have thought that national security experts knew best about significant and credible threats to the safety of US citizens and territory. Yet post-9/11 reviews of “who knew what and when” suggest that experts had trouble connecting the dots that pointed to and forewarned us about the worst terrorist attack on US soil. FBI superiors elected to dismiss warnings from local agents in Minnesota and Arizona who were concerned about flight training activities of individuals under surveillance (Hirsch & Isikoff 2002). INS (Immigration and Naturalization Service) authorities failed to stop Mohamed Atta from entering the US despite the fact that he had an expired visa and links to known terrorists. On the very day of the attacks, airport security agents singled out nine of the terrorists for special scrutiny but did not prevent them from boarding the planes (*The New York Times* 2002). Our faith and trust in experts clearly failed us on this issue of homeland security. Why? Surely one of the reasons for the failure is that credentials don't automatically give people a corner on truth. Experts work with facts, information, and ideas *as they see them*. And as 9/11 painfully showed us, there isn't necessarily any common agreement regarding experts' perceptions of facts and information.

The previous discussion of child experts John Watson and Benjamin Spock provides yet another more mundane yet instructive example of how experts can offer very different “reads” of a social phenomenon. Both men were regarded as offering unassailable advice on childrearing. Yet the advice offered by the two experts was not at all compatible. Watson, a behaviorist, advocated a strict regime of childcare: Keep children on a four-hour feeding and sleeping schedule; resist cuddling or other signs of affection. Spock endorsed a much more child-friendly

philosophy. He advocated love over rigid discipline and encouraged parents to treat children with respect. He even slipped Freudian ideas into his advice (but without letting the parents explicitly know this). Which expert really deserved the trust of parents? Note that some social critics charge that Spock was the “father of permissiveness” and helped raise a generation of hippies and war protestors who are now (mis)running the country (Whitall & Lawson 1998)!

Note too that authorities, however credentialed they are, can sometimes *intentionally* mislead us. Experts can distort information when it is in their vested interest to do so. For example, during the Vietnam War, military authorities obscured American participation in combat and doctored enemy casualty reports in order to offset resistance to the war. The efforts by President Johnson and military advisors to paint a positive picture of US involvement in the war eventually contributed to a serious “credibility gap” with the American public (Braestrup 2000). Or consider another exercise in expert deception – one that is now coming back to haunt an industry. In 1953, several CEOs of major tobacco companies created the Tobacco Industry Research Committee to counteract growing public concerns about the hazards of smoking. The tobacco industry spent the next several decades denying the health risks of cigarettes despite the fact that its own research efforts were showing the opposite to be true. As early as 1963, cigarette makers knew the addictive properties of nicotine but intentionally withheld the release of this damaging information. These cover-up efforts by the tobacco industry lasted decades, coming to light only in 1994 with the leak of a “smoking gun” (no pun intended). An anonymous “Mr Butts” released over 40 years’ of internal company documents detailing how much tobacco industry experts knew but wouldn’t tell about the dangers of its product (Zegart 2000).

On a less sinister note, authorities can also mislead us when they move outside their areas of training and expertise. Prior to the American Revolution, health care was a very risky enterprise. Why? Well perhaps it had something to do with the “medical experts” of the day. Most American medical practitioners were ship’s surgeons, apothecaries, or clergy (Cockerham 1998). It was not until the early 1900s that the American Medical Association was able to effectively limit the practice of medicine to those with an MD degree (Starr 1982). Prior to the emergence of a secular worldview, legal rulings were also frequently left in the hands of religious authorities. Divinely ordained inquisitors were given the job of deciding a person’s innocence or guilt on the basis of trials by ordeal (aka trials by torture). Presumably, the guilty would cry out damning admissions during their ordeal while the innocent, fortified by

8 WHY RESEARCH METHODS?

God, would remain silent. In colonial America, accused witches had their legal fate determined by their ability to say the Lord's Prayer in public. A slip of the tongue was taken to be a sign that the accused was possessed by the devil (Pfohl 1994). A moment's reflection should help you see the risks entailed in moving beyond an authority's area of expertise. Our past reliance on questionable medical and legal "experts" no doubt cost some unfortunates their lives and liberty.

More Risky Knowledge Sources: Common Sense and Intuition

There are two additional knowledge sources worth mentioning: common sense and intuition. As with tradition and authority, each of these ways of knowing can be compelling. Common sense uses our personal experiences and the experiences of those we know as the source of "practical" knowledge. Common sense tells us that six-year-olds should not be in charge of family meal plans. Common sense tells us that adolescents should not supervise their own schedules or finances. And common sense tells us that if someone hits us before marriage, she or he is likely to hit us after marriage as well. Intuition can be thought of as "direct access" knowledge; it refers to a way of knowing that operates on "gut feelings" without the use of intellect. Intuition can be a powerful source of information – even a real lifesaver. (My intuition saved me from an assault and robbery when I was in graduate school.) Many of us have had occasions where our intuition has steered us away from making bad choices or steered us into "good bets." (My only winnings at the race-track have come from betting hunches.)

Still, as with traditional and authoritative knowledge, common sense and intuition are not error-free ways of knowing. Common sense places far too high a premium on personal experience as a basis for universal truths. Yet personal experience, because it is tied to the individual and unique circumstances, is not the best basis for generalized knowledge. Just imagine the health risks entailed when one person (say a husband) shares his prescription drugs for high blood pressure with another (say his wife). There is a rather high likelihood that the drugs that benefit one person could actually prove detrimental to another. (Small differences in our genes can greatly affect how we react to medicine. See <http://www.nigms.nih.gov/funding/htm/diduno.html> for additional information on why people can have wildly different reactions to medicines.) To paraphrase an old saying, one size experience doesn't fit all.

Intuition, because it operates outside the realm of intellect and reason, is often hard to understand. (In fact, there is an entire psychic industry that has evolved around the inability of most of us to listen to or “hear” our intuitive voice.) Our reliance on intuition is further complicated by our common sense. Common sense tells us to be suspicious of intuition. Common sense reminds us that while many of us eagerly broadcast times when our intuition has paid off, many of us will also conveniently forget all of the times when our hunches were wrong. (Think of all the *losing* horse and lottery bets that were placed because of hunches.)

Where does all of this leave us? Hopefully with a new found realization that much of the information that bombards us every day is based on some rather questionable knowledge sources. While many of our most familiar and comfortable ways of knowing may be fast and easy, they can also be risky, error-prone ways of knowing. Traditional and authoritative knowledge, common sense and intuition are all alike in that they encourage an uncritical acceptance of information. Ideas that have been around a long time, ideas that are presented by authorities, ideas that are practical or “feel right” can wind up being accepted as true *even when they are false*. Still, we need not despair; there is one way of knowing that is distinctively different from those we’ve just reviewed: science. Science and its research methods promote a critical assessment of information before that information is accepted as accurate.

Science as a Trustworthy Way of Knowing

If we are interested in obtaining the highest quality of information, we are well advised to engage scientific ways of knowing. An understanding of research methods allows us to become critical consumers of information. Understanding research methods allows us to assess the wealth of information we receive each day in light of some very discerning standards.

Science is distinctive in that it employs set methodical procedures that aim to reduce or control the amount of error that creeps into the process of knowing. For instance, the scientific approach demands **empirical evidence** to support any assertions about the world. Its empirical nature means that science places a high premium on the observation, direct and indirect, of concrete phenomena. Science also insists on our following **systematic, methodical “rules”** for gathering our empirical evidence. Evidence that is obtained in an unsystematic way is regarded as tainted or problematic; it is seen as less trustworthy. And science insists that the evidence we find in support of our assertions be **replicated** by other

10 WHY RESEARCH METHODS?

studies before it is considered trustworthy. This repetition of studies in search of the repetition of findings is an essential safeguard against our jumping to false conclusions. It is also an essential part of science's interest in discovering "laws" or regularities of both the physical and social worlds. Each of these standards is elaborated below.

Empirical evidence

Science as a way of knowing is not willing to accept assertions about the world at face value. In science, it is not sufficient, for instance, to maintain (as traditional knowledge does) that gays in the military are bad for soldier morale. It is not acceptable for us to believe that Costa Rican bananas are bad simply because an Internet communiqué tell us that. Science requires that assertions be backed by concrete, objective corroboration that shows or reveals the accuracy of the statements. In insisting on empirical evidence, science is asking for *sensory* evidence that we can see, smell, hear, or taste (Goode 2000). With this demand for empirical evidence, science is highlighting its inherently skeptical nature – unless we "show it" to be so (via the empirical world around us), claims about reality are merely that – "claims," nothing more. Science is not willing to trust a mere assertion – it demands empirical documentation.

Methodical rules

In the interest of curtailing error, science utilizes standardized procedures that guide our search for accurate information about the world around us. There are rules for developing and assessing the accuracy of the ways we try to document or measure social reality (i.e., criteria for establishing measurement validity). There are "rules" that govern our ability to draw causal connections between events or between characteristics and behaviors (i.e., criteria for establishing internal validity). There are rules that govern which people, things, or events we should focus on when studying the world around us (i.e., criteria for sampling). And there are rules that govern whether or not it is appropriate to generalize our research findings beyond our study at hand (i.e., criteria for establishing external validity). These rules constitute the heart of research methods. And while learning these rules is challenging work, they promise a benefit not offered by any other way of knowing. The methodical rules of research minimize the likelihood of error. In abiding by the

discerning methodical rules of research, we gain confidence that our findings are accurate or error free.

Replication

To regard findings as true and reliable, science insists that those findings occur more than once. This insistence on repetition of studies and findings reveals a fundamentally conservative side to science. Replication is seen as a safeguard against our drawing premature and therefore possibly false conclusions about the world. Findings that can't be replicated arouse suspicion – isolated findings are regarded as flukes and are not considered worthy of our trust. (Recall the earlier discussion of Milgram's study of obedience to authority. He was not willing to draw any conclusions on the basis of just one study. Instead, he repeated the study over and over again to see if the findings continued to hold.) Indeed, the insistence on replication is simply the skeptical "show me" attitude of science coming full circle – if the findings are true, they should show up time after time under similar research conditions. One-time findings (like one-time sales offers) are usually too good to be true. Our confidence that our findings are accurate is further bolstered each time our findings are replicated by others employing the same rigorous methods of research.

Replication also serves science's interest in systematically explaining the world around us. The physical sciences are committed to discovering the invariable laws of nature. The social sciences are committed to discovering the regularities of social life. Sociology, my own academic discipline, pursues research to uncover general social patterns or forces that transcend particular characteristics of individuals and shape and influence our behaviors. Sociological research, for instance, consistently shows us that Americans follow the norms of homogamy when selecting marriage partners – i.e., we marry people who are very similar to us (McPherson et al. 2001; Ruane & Cerulo 2004), that suicide rates are inversely related to levels of social integration (Thorlindsson & Bjarnason 1998), and that poverty is quite detrimental to our mental, physical, and social well-being (Ruane & Cerulo 2004).

Goals of Research

The systematic, empirical standards of good research are often pursued in the name of four basic research goals: exploration, description,

explanation, and evaluation. While a careful reading of a research article or report will likely reveal the underlying goal or motive for any research project, researchers will frequently explicitly state their purposes in the abstract or opening paragraphs of their writings.

Exploratory research is typically conducted in the interest of “getting to know” or increasing our understanding of a new or little researched setting, group, or phenomenon; it is used to gain insight into a research topic. Consequently, exploratory research tends to utilize relatively small samples of subjects that permit the researcher to get “up-close” first-hand information. To facilitate in-depth understanding, the researcher might engage in intensive one-on-one interviewing or pursue a participatory study that allows the researcher to “walk a mile” in the research subjects’ shoes. Exploratory research often (though not exclusively) produces **qualitative data** – i.e., evidence presented in words, pictures, or some other narrative form that best captures the research subject’s genuine experiences and understanding. For instance, in the 1980s, Palmer (1989) undertook a study of a newly emerging occupational specialty: the EMS (emergency medical systems) worker. In an effort to better understand the social context of this work, Palmer immersed himself in the world of paramedics by participating in and observing emergency runs and by interviewing emergency medical workers. His qualitative data consisted of the notes from his field observations and transcripts of the interviews with emergency personnel.

Descriptive research offers a detailed picture or account of some social phenomenon, setting, experience, group, etc. In painting a descriptive picture, this kind of research strives to be as accurate as possible. Consequently, descriptive research pays close attention to such issues as measurement and sampling. In effect, descriptive studies offers the research equivalent of a Joe Friday “just the facts” line of investigation – it seeks to find out what’s going on and who is involved, the size of the group, and what the members look like, etc. In generating these basic facts, descriptive research aligns quite naturally (although again not inevitably) with quantitative methods. **Quantitative methods** document social variation in terms of *numerical* categories and rely on statistics to summarize large amounts of data. In recent years, for example, there has been a keen interest in knowing more about the fast growing population of Internet users. Since 2000, the *UCLA Internet Project* has been providing a yearly overview of a national sample of both Internet users and nonusers. The project also offers comparisons of new versus experienced Internet users. Current reports can be found at the UCLA Center for Communication Policy web site: www.ccp.ucla.edu. The quantitative nature of this research can readily be

gleaned from the percentages and averages presented for the various groups of Internet users.

One question is noticeably overlooked in descriptive research – the *why* question. To understand the *why* or *how* of social phenomena, the researcher must pursue **explanatory research**. For example, descriptive research on domestic violence might seek to tell us about the prevalence of domestic violence, the most typical incidents, and the parties most likely to be involved in family violence. Explanatory research goes beyond these descriptive tasks. Explanatory research wants to know *why* some and not others resort to this family dynamic? *How* do violent events occur or unfold? Explanatory research makes a firm commitment to causal analysis. It confronts head on the challenges and difficulties of establishing causal order and connections. Explanatory research tries to identify the causes and/or effects of social phenomena. Some research on domestic violence, for instance, suggests that experiencing violence as a child increases one's tendency to resort to violence in subsequent relationships (Fitzpatrick 1997; McNeal & Amato 1998). Alcohol abuse has been cited as both a causal agent in producing violence (O'Farrell & Murphy 1995) as well as a consequence of victimization (El-Bassel et al. 1995; Plichita 1992).

Another goal of research that is closely related to explanatory research is achieved via evaluation research. **Evaluation research** seeks to judge the merits or efficacy of some social program or policy. If we want to know if an anger-management program "works," we would need to conduct some evaluation research. If we want to know if arresting abusive spouses is a good social control policy, evaluation research is in order. In the final analysis, evaluation research is interested in "outcomes" or results of some specific program or policy. Consequently, evaluation research must concern itself with the causal issues that are the hallmark of explanatory research. Evaluation research has a very practical, bottom-line orientation, however. In the present social climate of accountability, it is a "must do" area of research for many major social institutions (e.g., education, health care). It can also be a requirement for programs seeking program funding. In recent years, evaluation research of various drug prevention and/or rehabilitation programs has been in the media spotlight.

Using Research Methods to Become Critical Consumers of Information

While relatively few of us will be directly involved in the production of research, all of us will be involved in *consuming* such information. Thus,

14 WHY RESEARCH METHODS?

you might regard the learning of research methods as a matter of personal empowerment. We stand to gain by arming ourselves with scientific know-how. Our stakes in obtaining accurate information about our world are higher than ever. The sheer volume of information and the speed with which it travels carry grave ramifications concerning the consequences of misinformation. The damage of erroneous info can be as insidious as a computer virus. (Banana importers can offer 30 million reasons why this is true.) Consequently, the ability to evaluate information as more or less trustworthy is a crucial skill.

Our ability to evaluate information is directly tied to our knowledge of research methods. Information that is the product of carefully conducted scientific research is less likely to be in error, more deserving of our attention and trust. In the end, it may be your understanding of research methods that helps you make some critical life decisions. What's the most prudent diet or health regime for someone of your age, race, or gender? Which course of medical treatment is the best for you? What's the "safest" family vehicle? Do "red light cameras" really deter drivers from running red lights? Is there a real danger to using cell phones? Is there a good reason to pay higher prices for organic fruits and vegetables? Is home schooling the right choice for your family? Is your retirement fund safer in the hands of the government or in the hands of private investors? In large measure, your finding the right answers to these and other questions will depend on your ability to judge the quality of relevant information. In the end, your knowledge of research methods could very well be a life-enhancing, even a life-sustaining resource.

Expanding the Essentials



More information about persistent urban rumors and unfounded tales can be found at the About.com web site: <http://www.about.com/>

Internet Information – should we trust it or not? The query is prompted by the fact that information on the Internet is not screened for accuracy. Anyone, after all, can post anything on a web page. For a good tutorial on how to evaluate a web page, visit the following site maintained by the University of California, Berkeley: <http://www.lib.Berkeley.edu/TeachingLib/Guides/Internet/>. Scroll down and click on link to "Evaluating Web Pages: Why and How."

For any number of the topics covered in this text, you will find additional reader-friendly information at Bill Trochim's homepage: <http://trochim.human.cornell.edu/>. Once at the homepage, click on the Knowledge Base link, and then click the Contents link. Scroll down until you find the topic of interest to you. A good place to start would be with the links to "Language of Research" and "Five Big Words."



Those wanting to delve further into the questions of knowing and truth and objective reality should take a look at the first few chapters in Babbie's *Observing Ourselves: Essays in Social Research* (1998).

Exercises

- 1 Visit the Urban Legends and Folklore link at About.com (see above). Review several of the legends and see if you can identify the "way of knowing" upon which they are based. Do you see any pattern?
- 2 Review a week or two of letters to the editor in your local newspapers. Identify the dominant knowledge source being used to support the claims/assertions made in the letters.
- 3 Carefully consider current print or television commercials. For each of the knowledge sources reviewed in this chapter, locate one or two ads/commercials that invoke these sources in order to convince us of the merits of their product claims. (E.g., a Hebrew National hot dog commercial has the voice of God telling us the product is good – this is clearly asking the consumer to defer to the ultimate authority.)