## Can "Flavor of the Month" Be Progress?

This is the third of a three-part series on critical research principles for safety management. With the first paper, I used research rationale to denigrate the concept of "root cause" in occupational safety. I defined three basic criteria required for a cause-and-effect relationship; and I explained why these criteria cannot be reached with the standard "accident investigation" (which should be called an "incident analysis"). Then I discussed how the typical search for a "root cause" can inhibit the kind of open and candid interpersonal conversation needed to identify the various ways another similar mishap can be prevented.

The second article in this series was an attempt to defame the term "common sense" with regard to understanding and managing the psychology of safety. I defined the scientific method as empirical, objective, self-correcting, and progressive. In this article I make the case for safety professionals gaining a greater understanding and appreciation for research.

## Become a Skeptical Consumer of Information

Safety management clearly suffers from a "flavor-of-the-month" syndrome. It seems safety pros are continually looking for a new idea or "fad" on which to hang their "management hat." In the 70's, DuPont's STOP was a popular approach to managing the human aspects of safety. Then, in the 80's, safety pros became enamored with the notion of "total quality management" which encompassed the profound teachings of Deming, Crosby, Juran, and Covey. "Behavior-based safety" attracted peak interest in the 90's, quickly challenged by consultants promoting "holistic and humanistic approaches" and "culture

change." In the 21<sup>st</sup> century, the new kid on the block is "six sigma." Trainers, managers, and consultants are scrambling to figure out the profound knowledge behind this concept, so they can develop relevant training and management programs.

Were any of these paradigm shifts influenced by scientific research? Did any change in perspective adopt and adapt the best in the prior approaches as the result of objective and empirical research evidence? Were any components of a proposed "new" approach to safety management dropped because of a lack of research support?

I think the answer to each of these questions is "no." Am I right? Be honest – isn't it rare for a change in safety management to be driven by empirical and objective research data? Instead, we convince ourselves to try a new safety-management technique after reading a slick promotional brochure, hearing a salespitch at a safety conference, or skimming a "pop psychology" book – the same kind of presentation that taught us habits are formed after repeating a behavior 21 times and the "root cause" of an incident is revealed after asking "Why?" five times.

## Solicit Assistance from Behavioral and Social Scientists

Okay, you're convinced (I hope) that specific changes in methods of managing the human dynamics of safety should be based on empirical evidence rather than common-sense opinion. But you're probably also convinced you don't have the time to conduct sufficient objective evaluations of the potential components of a safety-management process. You barely have the time to skim

the variety of management approaches available, and select the one that sounds the best.

So how about informing social or behavioral scientists of your evaluation needs? Researchers in applied psychology are always looking for empirical questions to answer that could make a beneficial difference in the real world – such as your industrial setting. And it's usually unnecessary to offer financial compensation for this special service.

As a researcher in a university psychology department for almost 40 years, I assure you behavioral and social scientists are constantly looking for useful empirical questions they can address with their students. Of course, it's advantageous if you live close to a college or university so you can make a personal request and visit the research group periodically for an update. This is not necessary, however, given the availability of efficient and low-cost communication channels, especially e-mail. But you must be able to formulate your research question(s) appropriately.

### Use Language to Attract the Researcher's Interest

In order to persuade a social or behavioral scientist to address your research need(s), you need to use the right words. You need to "sell" your idea or need to a researcher by using language that shows respect for the scientific method while also peaking the interest of the scientist. That's the theme of this article and a primary purpose for preparing this three-part series on basic research concepts.

This series has revealed how researchers talk. They are skeptical about assertions of "cause-and-effect" relationships, and they insist on defining concepts and ideas in operational terms. "Operational" means the factor or program component is explained with objective language that can be similarly understood by everyone who receives the explanation. Thus, it's essential to state your research question(s) in operational terms.

And remember, researchers love theory. My *ISHN* article last month included a figure to show how theory guides and integrates research. Researchers like to test a theory, particularly when their data could show support of one theoretical concept over another. Plus, researchers like to organize and interpret their data within a theory or principle. So attempt to relate your research question(s) to a theoretical concept or principle.

It's optimal to find one or more relevant theories from the literature, but feel free to apply your own theoretical notions to your research question(s). It's likely the researcher will be able to link your conceptual analysis to one or more other theories previously proposed and tested in the research literature.

### Conduct Your Own Research

I cannot end this treatise on the value of research for safety pros without making another plea for conducting your own management-related research. My *ISHN* article last month reviewed a straightforward DO IT research process whereby an intervention target is operationally defined and then objective measures of this target are taken systematically before, during, and after a particular management intervention is put into effect.

Intervention evaluation can be as simple as counting the occurrences of a certain behavior or event throughout an intervention process. For example, every time I board an airplane I give the flight attendant an "Airline Lifesaver" card which contains a safety-belt reminder message I want read at the end of the flight. Half the cards promise a prize for reading the safety-belt message. At the end of the flight, I complete a data log to track the intervention condition (prize vs. no prize), airline, length of flight, gender and age of flight attendant, and if the announcement is read.

In a similar vein, I bet you could count reactions or results from something you do on a regular basis for safety, and track ongoing impact or change influenced by your intervention. You could, for example, count every safety conversation you have with another person and note whether the result of each interaction is positive, negative, or neutral. Such data could be helpful in learning what kinds of interpersonal communication lead to the most constructive results. One thing is certain, tracking your safety conversations will influence more safety conversations.

Bottom line: Research is motivating. Tracking interventions for safety will increase the occurrence of safety-management interventions. For over 15 years, I have given the Airline Lifesaver card on more than 1,000 flights. I would not have kept implementing this simple intervention if I were not tracking its impact.

**In Conclusion**

This third segment of a three-part series on research principles made a case for safety pros getting more involved in safety-management research. You

can conduct a simple research project by tracking activities, perceptions, or

outcomes before and during the implementation of a particular safety-

management process.  For more complex evaluations, you can contact

behavioral and/or social scientists at nearby colleges or universities and turn

them on to your empirical question(s).

Without input from scientific research, decision making can rely only on

intuition or common sense.  Without more safety-management research,

intervention programs to prevent workplace injuries will come and go according

to the latest "pop psychology" fad.  Research makes possible the continuous

improvement of safety-management programs, thereby enabling successively

better safety performance.  In this case, a new "flavor of the month" program

means progress toward attaining and maintaining an injury-free workplace.


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