

Effective Training

A Case Study From the Oil & Gas Industry

By Elaine T. Cullen

Culture can mean many things to many people. The word can be used to talk about the fine arts or social competence, as in, "She is certainly a cultured person." It can describe social structures and practices that appear to be uniquely different, as in, "The Maori culture of New Zealand can be very intimidating to outsiders." SH&E professionals talk about safety cultures, by which they mean the values, norms and practices of an organization that deal with the safety of its people.

These definitions share a common thread, the idea that culture is socially constructed. In other words, members of the culture in question create, define, protect and teach it to new members.

Humans cannot operate without cultures. These systems provide roadmaps for their members to know how to make sense of what is happening in their lives and how to deal with it. Patton (2002) defines culture as:

[T]hat collection of behavior patterns and beliefs that constitutes:

- standards for deciding what is;
- standards for deciding how one feels about it;
- standards for deciding what to do about it;
- standards for deciding how to go about doing it. (p. 81)

Culture has been described as "the collective programming of the mind which distinguishes the members of one group or category of people from another" (Hofstede, 1997, p. 5). Simply, culture is "the way we do things around here."

An individual can be a member of

many different cultures. A person may be a member of a family that has its own rules and traditions; s/he may be a member of a church that provides definite guidance on what constitutes moral behavior; s/he may be an alumnus of a school with well-defined customs; and s/he may work for an organization with established policies and procedures. Each culture differs from the others, with different members, and with rules and standards that govern different elements of a person's life.

All of these cultures share common traits, however. Cultures:


- are socially constructed systems;
- have developed over time;
- are shared by all of the members;
- define who is a member and who is not;
- provide a social road map on what is acceptable and what is not;
- can be difficult to describe but are quite obvious to both members and outsiders.

Cultures are important because they control, to a large degree, the actions of everyone inside of them. Arnould and Wallendorf (1994) describe culture as "the cumulative total of learned beliefs, values, and customs that serve to order, guide, and direct the behavior of members . . . [it is] that which one needs to know to behave in a manner acceptable to its members" (p. 485). A member of a culture cannot go against that culture and expect to

IN BRIEF

- This case study discusses how new training videos were developed for high-risk, blue-collar workers in the oil and gas extraction industry.
- NIOSH's Oil and Gas Injury Reduction project is focused on developing culturally relevant and acceptable materials for workers.
- Steps for undertaking an occupational ethnography or work culture study are examined, as are ideas on why work stories matter, and who might be the most effective people to star in training videos.
- Tips on creating training videos in the field are offered as well.

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remain a trusted insider. The culture will always have penalties for rule breakers; in extreme cases, those penalties will include banishment.

Occupational Ethnography

Occupational cultures have particular significance for SH&E professionals because they control how workers behave on the job. Workers in high-risk industries such as mining, commercial fishing, or oil and gas extraction do not generally define themselves by who they work for, but rather by what they do. In many of these industries, workers are fairly transient, moving from mine to mine, boat to boat, or rig to rig, looking not only for better pay, but also for better working conditions or, sometimes, to do something different.

Hard rock mining has a term for these miners, calling them *tramp miners*, because they tramp from site to site, or *gypos*, a term generally believed to derive from their gypsy nature. Workers who refer to themselves as *gypos*, roughnecks or *seiners* are more strongly connected to their occupational norms than to any company policies. If they do not like the company rules, they simply move on. Policies and procedures that are not acceptable to a work culture will not be adopted by the workforce, regardless of organizational consequences. Therefore, it makes sense for a person trying to convince workers to change the way they do things to understand their work cultures and to use those cultures rather than struggle against them.

Ethnography is the study of human cultures. While sociologists often use ethnography to learn why young people start smoking, for example, or how fraternal orders attract new members, it is an excellent tool to learn how occupational cultures work. It is the primary tool used in a NIOSH project focused on developing effective safety and health training for the land-based oil and gas (O&G) extraction and production industry, commonly known as the upstream portion of that industry (which includes exploration, drilling and all servicing operations for the wells themselves). Research included in this project is qualitative rather than quantitative in nature in that researchers are more interested in discovering what is going on and why than in measuring or evaluating.

Gathering Information on Work Cultures

If occupational culture is a key to worker behavior, then it makes sense that a safety trainer, training developer or operator should understand the norms and values, the expectations and prohibitions, the heroes and the villains, and, particularly, the stories shared among members of the culture. All of these factors provide clues about what controls the culture has on the workers, and all can be used to craft training that not only will be accepted, but also valued.

How does one begin to study a work culture? A work culture cannot be studied effectively from a distance. To learn the culture and what really matters to workers, one must visit worksites and spend time with workers, whether on fishing boats or at construction sites, mines or oil rigs.

When NIOSH funded the project to study the culture of O&G extraction and production workers, the first step was to create an organized plan to gather information on key topics. This plan was based on experiences and knowledge gained while studying mining cultures. This included:

- demographic patterns;
- environmental issues;
- work practices;
- occupational norms and values;
- workplace taboos and prohibitions;
- language unique to this culture;
- beliefs common to workers, particularly beliefs about safety;
- geographical differences from one oil field to another;
- recognized heroes and mentors;
- stories told by members;
- differences in company cultures.

Ethnographers gather this type of information in three primary ways (LeCompte & Schensul, 1999). They study:

- 1) what people say (this includes the "tribal language" or jargon commonly used);
- 2) what people do;
- 3) what artifacts (or documents) they choose to create.

Studying any culture *in situ* requires immersion of the researcher, to some degree, in the work culture itself. While SH&E personnel may be tempted to make suggestions or try to influence workers' actions when observing, it is critical to stay out of the way and make no attempt to change or bias the culture at this stage of the process. (This does not include situations where workers' lives are in danger. SH&E professionals must address those immediately.) To develop a valid picture of work culture that is useful for creating culturally acceptable training materials, the researcher must stay neutral, and confine his/her actions to asking questions, seeking clarification and watching.

Those accustomed to fast responses to any situation may initially perceive an ethnographic study as a long, drawn-out process, particularly if they have no prior knowledge of the work or the culture of the workers. However, learning about workers in order to create safety training that is unique to their needs is not a waste of time. The most obvious benefit is the ability to create more effective training.

Learning About the O&G Industry

The data gathering plan for this project began with going into the field and talking to workers. The O&G extraction industry in the U.S. is divided