

Measuring and Improving Safety Culture



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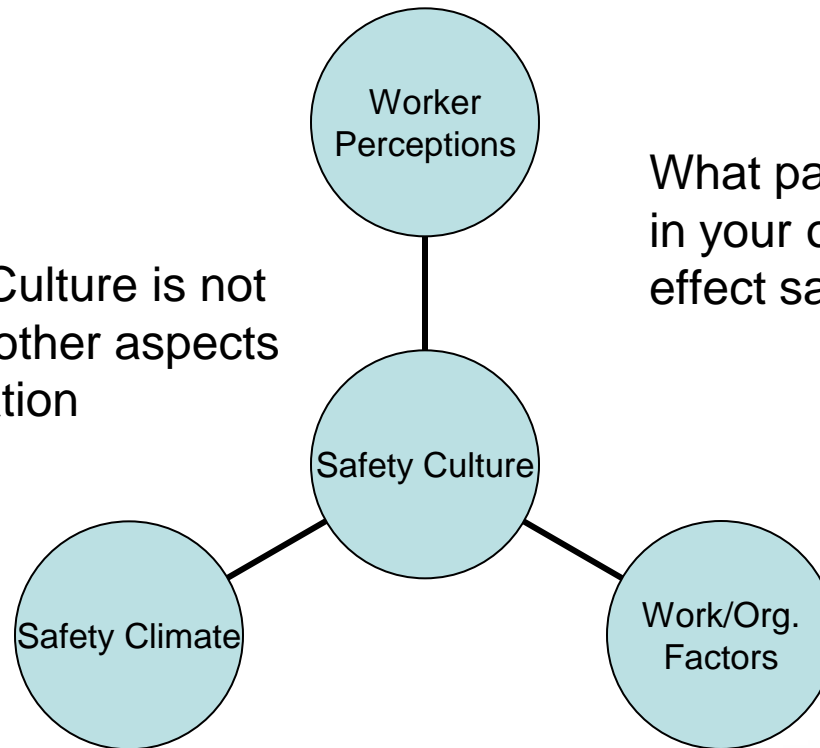


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What is Safety Culture?

Safety Climate/Culture is not Independent of other aspects of your organization



What parts of the culture in your organization could effect safety culture?



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Influencing Organizational Factors

Several key organizational factors can account for at least half of employees' perception of the safety climate:

- 1) Organizational Support (“The organization really cares about my well-being”)
- 2) Coworker Support (“My coworkers care about me as a person”)
- 3) Communication (“Management gives notice to employees before making changes in policies and procedures”)

(from DeJoy et al. 2004)



“Perception is Reality”

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Components of Safety Climate

Zohar (1980) Surveys of Worker Perceptions

- 1) Importance of safety training
- 2) Management attitudes towards safety
- 3) Effects of safe conduct on promotion
- 4) Level of environmental risk
- 5) Effects of work pace on safety
- 6) Status of the safety officer
- 7) Effects of safe conduct on social status
- 8) Status of the safety committee



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How Can You Measure Safety Climate?

- Survey
 - Multiple surveys from research over the last 30 years
- Program Evaluation
 - Structured questions to review your own program
- Audit and Interview
 - Use existing audits to assess

Safety Climate Surveys

Dedobbeleer and Beland (1991):

- 1) Worker safety practices are important to management. (M)
- 2) Supervisors and top management seem to care about your safety. (M)
- 3) Your team leader emphasizes safe practices on the job. (M)
- 4) Instruction on the safety policies/requirements of the company are provided to employees. (M)
- 5) Your work team's safety meetings are helpful. (WI)

Two Factors: Management Commitment (M) and Worker Involvement (WI)



Safety Climate Surveys (cont.)

6. Proper equipment is available to do your job safely. (M)
7. You have control over safety on the job. (WI)
8. Taking risks is part of your job. (WI)
9. You think a member of your team will be involved in an accident in the next 12 months. (WI)

Two Factors: Management Commitment (M) and Worker Involvement (WI)

Safety Climate Surveys (cont.)

Where did these come from?

Dov Zohar (1980...)

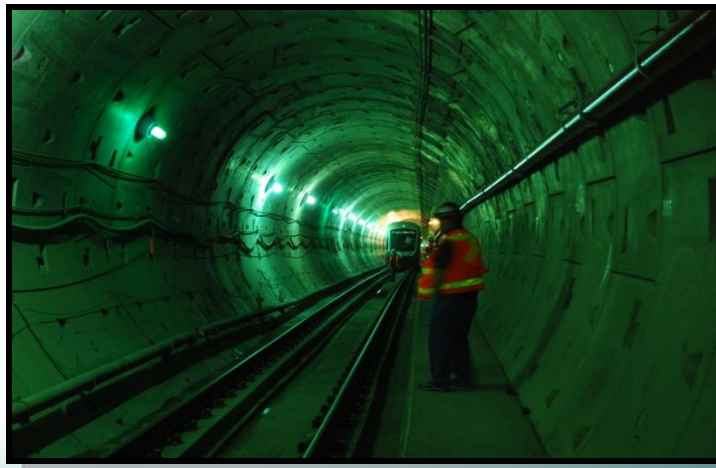
Jorgensen et al. (2007)- 7 item scale developed for construction sites (modified from DeJoy 1995)

Hofmann and Morgenson (1999) – 7 item safety communication scale

DeJoy et al. (1994; 1995) – Multiple/NIOSH/7-item

Program Structure and Evaluation

- ANSI Z10 Occupational Health and Safety Management System
 - Guides coordinated activities that can target improvements in safety metrics and climate
- A process template, not a prescriptive standard



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ANSI Z10 OHSMS Cycle



Evaluating Safety Culture as Part of Program Evaluation

OSHA 33 Program Evaluation

Elements (approx 10 questions each):

- 1) Management Leadership/Employee Participation
 - Can managers describe safety and health system?
 - Do managers personally follow safety and health rules?
 - Do managers personally intervene in the safety behavior of others?
- 2) Administration
- 3) Evaluation/Analysis
- 4) Education and Training
- 5) Hazard Prevention and Control



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Audit and Interview

- Annual audits are a perfect opportunity to interview members or work teams
- Pre-determine questions for the checklist as part of the pre-audit process
- Obtain information that can be used as a benchmark for measuring improvement

Improving Safety Culture



Social Marketing

- Applies standard marketing strategies to convince people to change behaviors
- Uses the principle of the 4 P's
 - 1) Product – what you want people to do and its benefits
 - 2) Price – what it costs them, negatives from their perspective
 - 3) Place – where you want them to change behavior
 - 4) Promotion – how you can communicate with the specific audience most effectively



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Social Marketing

- Targets those people who will benefit and who are ready for change (i.e. executives)
- Aims to activate people (give them a specific action)
- Strategic- defines the most efficient use of resources to achieve outcomes
- Integrated and works well in staged implementation

Implementing Social Marketing

- CDCynergy
 - Step by step program available on CD for \$7
 - Basic Steps
 - 1) Define the problem (SWOT analysis)
 - 2) Conduct market research (defines audience and budget)
 - 3) Create marketing strategy
 - 4) Plan the intervention
 - 5) Plan program evaluation and monitoring
 - 6) Implement interventions and evaluation

Case Study: Sound Transit



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Agency Safety Survey

Question
New workers learn quickly they are expected to follow good safety practices
There are no significant compromises or shortcuts taken when worker safety is at stake
Workers and supervisors work together to ensure the safest possible working conditions
Workers are told when they do not follow good safety practices
The safety of workers is a big priority with supervisors
I feel free to report safety violations where I work
Safety remains a priority even when a job runs behind schedule



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Reference: Jorgensen et al. (2007)

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Improvements to Address Climate

- Conducted the CDCynergy process to identify target audiences in the agency and how we could most effectively interact with them
- Increased activity of safety oversight for Construction, Design and Operations
 - Increase in safety from 4 FTE to 8 FTE
- Re-formulated agency safety program plans



Improvements to Address Climate

- Monthly safety newsletter with prizes
- Safety outreach campaigns for commuter rail and light rail
- Involving CEO and Executive Directors to promote safety for agency and light rail department
- Developed a new employee training program that starts with inclusion in new hire packets
- Updated training courses – all agency rollout, specific to managers, and custom by group
- New agency-wide emergency training curriculum and exercises introduced

Finally....

- Safety Climate is something that can be measured
- Focus on the areas of weakness identified through evaluation can address issues
- A positive-marketing approach is one way to achieve visibility for the safety function
- A defined program management system can help guide activities of continuous improvement

Thank you!



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