



TCM 2430 – Construction Safety

Week 3

Part 1: Hazard Perception on the Field

Pert 2: How to motivate staff to practice safety and health practices

Part 3: Construction Safety and Health Programs

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Part 1:

Hazard Perception on the Field





What do we mean by safety perception on a construction job site

- Safety perception on a construction job site refers to how workers, supervisors, and other stakeholders **perceive** and **understand** the level of safety present in the work environment.
- It encompasses their **attitudes, beliefs, and opinions** regarding the **potential hazards, risks, and safety practices** in place on the construction site.
- Safety perception is a **critical aspect** of ensuring a **safe working environment** and **preventing accidents and injuries**.

As a construction manager, how can I improve the perception of hazard by workers on the job site? *(Slide 1 of 4)*

Train

Experience

Inspections

- 1. *Train and educate the workers:*** Proper training and education about potential hazards and safety protocols can significantly improve hazard perception. Workers who are well-informed are more likely to recognize and respond to dangerous situations.
- 2. *Hire more experienced workers:*** Workers with more experience in the construction industry tend to develop a keener sense of hazard perception. They become accustomed to identifying risks and understanding the nuances of various job site scenarios.
- 3. *Perform Regular Site Inspections:*** Regular inspections by safety professionals can identify and address potential hazards. When hazards are consistently identified and corrected, it trains workers to be more vigilant in spotting them.

As a construction manager, how can I improve the perception of hazard by workers on the job site? *(Slide 2 of 4)*

Signage

Communication

Simulation

4. ***Use Clear Signage and Markings:*** Clearly visible signs and markings that indicate hazardous areas or conditions help workers stay alert and cautious in those zones.
5. ***Establish Effective Communication:*** Open lines of communication among workers and between workers and supervisors are crucial. Encouraging workers to report unsafe conditions or practices can lead to quicker identification and resolution of hazards.
6. ***Use Real-Life Scenarios and Simulations:*** Engaging workers in realistic simulations of potential hazards can enhance their ability to recognize and respond to dangerous situations.

As a construction manager, how can I improve the perception of hazard by workers on the job site? *(Slide 3 of 4)*

Technology

- 7. Utilize Technology:** Implementing technologies like sensors, wearables, and cameras can provide additional layers of hazard detection and alert systems.

Leadership

- 8. Enhance your Leadership and Supervision:** Strong leadership and proactive supervision can foster a culture of safety where workers are more attuned to recognizing and addressing hazards.

PPE

- 9. Ensure using Personal Protective Equipment (PPE):** Wearing appropriate PPE not only protects workers but also reminds them of the potential dangers around them, encouraging heightened awareness.

Involve

- 10. Maximize Worker Involvement:** Involving workers in safety discussions and decision-making processes empowers them and makes them more invested in hazard perception and prevention.

As a construction manager, how can I improve the perception of hazard by workers on the job site? *(Slide 4 of 4)*

Feedback

11. Use Feedback and Incident Analysis: Regularly reviewing near-miss incidents and accidents can provide valuable insights into potential hazards and encourage workers to be more vigilant.

Awareness

12. Emphasize on Situational Awareness: Encouraging workers to constantly be aware of their surroundings can significantly improve their ability to perceive hazards.

Improving hazard perception involves a combination of **education**, **experience**, **communication**, and a **proactive approach** to safety. It's a collective effort that involves workers, supervisors, and management working together to create a safer work environment.

View the video below to learn about specific hazards that require heightened attention on a construction site.

- <https://youtu.be/TnRsiNH-tTw>



Part 2:

How to motivate staff to practice safety and health practices



Watch the video below to learn about motivating the employees by managers

- <https://youtu.be/qtOj9a5aPbA>



Why is self motivation a fundamental element to improve safety on the construction job site?



Self motivation contributes to the following

Personal Responsibility: Self-motivated individuals take ownership of their safety and well-being. They understand that their actions directly affect their safety and the safety of others. This sense of responsibility drives them to consistently follow safety protocols and make safe choices.

Risk Awareness: Self-motivated workers are more likely to be aware of potential hazards and risks. They actively seek out information about safety practices and stay vigilant to identify and mitigate risks in their work environment.

Proactive Behavior: Self-motivated workers are proactive in identifying and addressing safety issues. They don't wait for someone else to take action; they take the initiative to resolve safety concerns promptly.

Adherence to Protocols: Individuals who are self-motivated consistently adhere to safety procedures, even when they're not being closely monitored. They recognize the importance of these protocols in preventing accidents and injuries.

Why is team motivation a fundamental element to improve safety on the construction job site? *(slide 1 of 2)*



Team motivation contributes to the following

- ***Collaboration:*** Team motivation encourages workers to look out for one another. When everyone is motivated to ensure each other's safety, they are more likely to communicate hazards, share knowledge, and intervene when they see unsafe behavior.
- ***Positive Peer Pressure:*** A motivated team sets a positive example for safety behavior. When coworkers actively prioritize safety, it creates a culture of peer pressure in which everyone feels motivated to follow suit.
- ***Shared Responsibility:*** Team motivation reinforces the idea that safety is a collective responsibility. This shared commitment fosters a sense of unity and common purpose, making it more likely that safety standards will be upheld.

Why is team motivation a fundamental element to improve safety on the construction job site? *(slide 2 of 2)*



- ***Mutual Support:*** Motivated teams support each other in upholding safety standards. If a worker is struggling to follow a safety procedure, motivated colleagues can offer assistance and guidance, reducing the likelihood of errors.
- ***Reinforcement of Safety Culture:*** A motivated team contributes to the development of a strong safety culture. This culture becomes a shared value that informs decision-making at all levels of the organization.

By focusing on both self-motivation and team motivation, construction job sites can create a comprehensive safety framework that encompasses individual responsibility and collective commitment. Workers who are self-motivated take the initiative to uphold safety practices, while a motivated team reinforces these efforts through peer support and shared commitment. This two-pronged approach helps establish a safer work environment, reduces accidents and injuries, and contributes to a positive safety culture overall.

Professional's advice about safety motivation

- ***How can we get everyone's involvement In practicing safety?*** Obtaining good safety and health behavior and work practices can be directly attributable to how effectively you apply good principles of motivation.
- ***What are the integral part of the motivational process?*** Goals are an integral part of the motivational process and tend to structure the environment in which motivation takes place.
- ***Can same motivational techniques affect everyone on the field?*** No, changing the environment may not affect all individuals in the same way because "People are Unique!" If you are that person with the responsibility of trying to motivate another individual or group, you will need to address their motivational needs.



Watch the video below to learn
about How to MOTIVATE the
UNMOTIVATED by Simon Sinek

- <https://youtu.be/y7xAtSETznY>





What are the key traits to understanding how to motivate people

1. What people do, seem logical and rational to them.
2. People are influenced by what is expected of them.
3. To each individual, the most important person is oneself.
4. People support what they create or are involved in.
5. Conflict is natural (normal) and can be used positively.
6. People prefer to keep things the way they are rather than to make a change.



**Watch the video below to learn
about 6 Ways to Motivate Your
Team by Brian Tracy**

- https://youtu.be/_z7AC8yJxRU



How can I be a motivational construction manager for behaving safely on the job site? *(Slide 1 of 3)*



1. **Lead by Example:** Your actions speak louder than words. Always adhere to safety protocols and wear the required personal protective equipment (PPE) yourself. When your team sees you prioritizing safety, they are more likely to follow suit.
2. **Communication Clearly:** Regularly communicate the importance of safety to your team. Explain the rationale behind safety measures and how they contribute to the overall success of the project and the well-being of everyone involved.
3. **Set High Standards:** Establish clear expectations for safety behavior from the beginning. Emphasize that safety is non-negotiable and that everyone's commitment is essential.
4. **Empower and Involve:** Involve your team in safety discussions and decisions. When they have a voice in shaping safety protocols, they are more likely to take ownership of their safety practices.

How can I be a motivational construction manager for behaving safely on the job site? *(Slide 2 of 3)*



5. ***Recognize and Reward:*** Acknowledge individuals and teams that consistently exhibit safe behavior. Publicly recognize their efforts and highlight how their actions contribute to a safer work environment.
6. ***Create a Positive Environment:*** Foster a positive atmosphere where workers feel comfortable reporting unsafe conditions without fear of reprisal. Encourage an open dialogue about safety concerns.
7. ***Celebrate Safety Milestones:*** Celebrate safety milestones, such as completing a certain number of accident-free days. This reinforces the idea that safety achievements are valuable accomplishments.
8. ***Share Stories and Lessons:*** Share real-life examples of how adhering to safety protocols has prevented accidents. Personal stories can resonate and remind everyone of the importance of their actions.

How can I be a motivational construction manager for behaving safely on the job site? *(Slide 3 of 3)*



- 10. *Stick to Inspections:*** People don't do what you expect. They do what you inspect!
- 11. *Continuous Improvement:*** Actively seek feedback from your team about safety practices. Use their insights to refine existing protocols and make safety an evolving process.
- 12. *Lead with Positivity:*** Approach safety discussions with a positive attitude. Instead of focusing solely on rules and regulations, highlight the benefits of a safe work environment.
- 13. *Stay Informed:*** Keep yourself updated on the latest safety regulations and industry best practices. Your expertise will be valuable in guiding your team towards safer practices.

By embodying these principles and consistently demonstrating a commitment to safety, you'll become a motivational construction manager who inspires your team to prioritize safety on the job site. Your dedication will foster a culture where safety is not just a requirement, but a shared value that everyone actively upholds.

Part 3:

Construction Safety and Health Programs





**Watch the video to learn
about the construction
safety and health program
components**

- <https://www.youtube.com/watch?v=-NGdAJxArjU>



Why is Construction Safety and Health Program a fundamental element in establishing safety on a construction job site?

- a Construction Safety and Health Program provides a strategic framework for creating a safe work environment.
- It brings together various components, including policies, procedures, training, communication, and leadership commitment, to systematically enhance safety practices, reduce risks, and foster a culture of safety on the construction job site.

What is a fundamental component in structuring safety in a project?

- A written safety and health program is the key component in providing and structuring that foundation.
- This written program should set the tone for safety and health within the work environment.



What should a safety program for a project include? *(Slide 1 of 3)*



1. ***A Safety Policy Statement:*** A clear and concise statement that outlines the company's commitment to safety and the importance of protecting the well-being of workers.
2. ***Roles and Responsibilities:*** Clearly define the roles and responsibilities of all personnel involved, from management to workers, in terms of safety management and implementation.
3. ***Safety Training and Orientation:*** Detail the training programs and orientations provided to ensure that all workers are informed about potential hazards, safety procedures, and emergency protocols.
4. ***Project-Specific Hazard Identification and Assessment:*** Describe how hazards are identified, assessed, and mitigated through regular inspections, risk assessments, and job hazard analyses.

What should a safety program for a project include? *(Slide 2 of 3)*



5. ***Safe Work Practices and Procedures:*** Document the specific safety procedures and practices to be followed for various tasks and activities, including equipment operation, material handling, and confined space entry.
6. ***Personal Protective Equipment (PPE):*** Specify the types of PPE required for different tasks, along with guidelines for proper selection, use, maintenance, and disposal.
7. ***Emergency Response Plans:*** Outline procedures for responding to emergencies, including evacuation routes, assembly points, communication methods, and roles during emergencies.
8. ***Incident Reporting and Investigation:*** Detail the process for reporting incidents, near misses, and accidents, as well as the steps for conducting thorough investigations to prevent recurrence.
9. ***Safety Meetings:*** Describe the frequency and format of safety meetings, emphasizing the importance of open communication, sharing lessons learned, and addressing worker concerns.

What should a safety program for a project include? *(Slide 3 of 3)*



- 10. Subcontractor Safety:** Address how subcontractors will adhere to the safety program, ensuring that their practices align with the project's safety goals.
- 11. Safety Inspections and Audits:** Explain how routine inspections and audits will be conducted to monitor compliance with safety procedures and regulations.
- 12. Recordkeeping:** Specify the types of safety records that will be maintained, including incident reports, training records, inspections, and safety audits.
- 13. Communication Channels:** Provide information on how safety-related information will be communicated throughout the project, including safety notices, updates, and changes in procedures.
- 14. Safety Performance Metrics:** Define the key performance indicators (KPIs) that will be used to measure safety performance and evaluate the success of the program.



What questions must be answered by the health and safety programs?

1. What is the policy of the contractor regarding safety and health on the projects?
2. What are the safety and health goals for the company?
3. Who is responsible for occupational safety and health?
4. How are supervisors and employees held accountable for job safety and health?
5. What are the safety and health rules for this type of construction?
6. What are the consequences of not following the safety rules?
7. Are there set procedures for addressing safety and health on the jobsite?



What are the minimum requirements of a safety program for a contractor?

1. have a demonstrated commitment to job safety and health
2. commit budgetary resources
3. train new personnel
4. insure that supervisors are trained
5. have a written safety and health program
6. hold supervisors accountable for safety and health
7. respond to safety complaints and investigate accidents
8. conduct safety audits



What are the fundamental elements of a health and safety program?

1. Rules and responsibilities of staff
2. Communication Channels: including safety meetings, workshops, safety bulletin boards, new employee orientation, safety talks
3. Training: see next slide

What should an effective construction safety training workshop include? *(Slide 1 of 4)*

1. Introduction to Safety Culture:

- Emphasize the importance of a strong safety culture in construction.
- Explain how individual actions contribute to the overall safety of the team and project.

2. Overview of Regulations and Standards:

- Provide an overview of relevant local, state, and federal safety regulations and industry standards.
- Explain how non-compliance can lead to legal and financial consequences.

3. Hazard Recognition and Assessment:

- Train participants to identify potential hazards and risks on construction sites.
- Teach hazard assessment techniques, including job hazard analysis (JHA) and risk assessment.



What should an effective construction safety training workshop include? *(Slide 2 of 4)*

4. Personal Protective Equipment (PPE):

- Detail the types of PPE required for different tasks.
- Demonstrate proper selection, use, maintenance, and storage of PPE.



5. Safe Work Practices:

- Cover safe work practices for common construction activities, such as excavation, scaffolding, welding, and material handling.
- Provide guidelines for using tools and equipment safely.

6. Emergency Procedures:

- Explain evacuation procedures, assembly points, and emergency communication methods.
- Train participants in responding to various emergencies, such as fires, chemical spills, and medical incidents.

What should an effective construction safety training workshop include? *(Slide 3 of 4)*

7. Explain how to handle primary hazards

- Confined Space and Fall Protection
- confined spaces
- Electrical Safety
- Material Handling (lifting, moving, and storing materials)
- Scaffold and Ladder Safety
- fire prevention

8. Health Hazards and First Aid

- basic first aid techniques and CPR



What should an effective construction safety training workshop include? *(Slide 4 of 4)*

- 9. Communication and Reporting
- 10. Interactive Exercises and Simulations
- 11. Q&A and Discussion
- 12. Evaluation and Assessment
- 13. Documentation and Certification

