Foundations for Safety Leadership and UW’s Construction Health & Safety Research

By Dr. Ken-Yu Lin
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About Dr. Ken-Yu Lin

> Associate Professor, P.D. Koon Endowed Professorship in Construction Management
> Associate Director, Center for Education and Research in Construction (CERC)
> CMOSH Program Director, Northwest Center for Occupational Health and Safety
> Co-Director, Laboratory of Safety and Health Advancement through Research and Education (SHARE Lab)
> Chair, ASCE Computing Division, Executive Committee
> AGC 2014, 2015, 2016, 2018 Award Panel
> OSHA certified outreach trainer
> Co-author of “Construction Project Safety”

Enthusiast for Innovating Construction Safety and Health
Non-Profit

- Established in 1990 by North America’s Building Trades Unions (NABTU)

Mission

- To protect the safety and health of America’s construction workers

Service, Training, Research

Research to Practice (R2P)

Contact:

Dr. Linda Goldenhar (Lgoldenhar@cpwr.com)
Director of Research and Evaluation
From Safety Climate Assessment to Foundations for Safety Leadership

- 8 Leading Indicators of Jobsite Safety Climate

  Improve supervisory leadership

- Rubrics, Intervention Ideas, and Worksheets and Safety Climate Assessment Tool (S-CAT)
Foundations for Safety Leadership (FSL) by CPWR

By Linda M. Goldenhar, Stefanie K. Johnson, Natalie Schwatka

> Develop an evidence-based leadership educational module that introduces trainees, especially those with supervisory responsibilities, to a number of critical leadership skills they can use to improve safety climate and safety outcomes.
Foundations for Safety Leadership (FSL) by CPWR

FSL Structure and Content:

> **Section 1 - Foundational material - (50-55 mins)**
  - Costs of ineffective leadership
  - Benefits of effective leadership
  - Definition of safety leader
  - How safety leaders improve safety outcomes
  - 5 leadership skills

> **Section 2 - Application - (85-90 mins)**
  - 7 real world construction scenarios
  - Watch (videos), reading, role plays

Elective Module for OSHA 30 starting January 2017
Foundations for Safety Leadership (FSL) by CPWR

Safety Leader is Defined as...

> A person who has the **courage** to demonstrate that s/he values safety by working and communicating with team members to identify and limit hazardous situations even in the presence of other job pressures such as scheduling and costs.
Foundations for Safety Leadership (FSL) by CPWR

5 LEADERship Skills

> **L**eads by example
> **E**ngages and empowers team members
> **A**ctively listens and practices three-way communication
> **D**evelops team members through teaching, coaching, & feedback
> **R**ecognizes team members for a job well done
Foundations for Safety Leadership (FSL) by CPWR

What is the emotional impact?

> Uncertainty/anger due being told what to do and how to act, but watching others, particularly leaders, not following the rules
> Frustration at not being asked for ideas on how to do task even though they may know a safer and more efficient way to do it
> Annoyance at not being listened to when raising an issue
> Anxiety due to not understanding the desired outcome of the request being made
> Apprehension due to fear of being ignored or ridiculed when asking for more direction on how to complete a task
> Resentment from never being acknowledged for going above and beyond what’s expected
Foundations for Safety Leadership (FSL) by CPWR

1. Cover Up!
2. It's Too Hot
3. To Check
4. Gimme Space
5. The Right Tool
6. Do We Have To?
7. Fritz's Shortcut
8. Takeaways
Foundations for Safety Leadership (FSL) by CPWR

<table>
<thead>
<tr>
<th>Who</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floyd</td>
<td>Painting Perfection Foreman</td>
</tr>
<tr>
<td>Ed</td>
<td>Painting Perfection Experienced Worker</td>
</tr>
<tr>
<td>Tom</td>
<td>Painting Perfection Trainee/apprentice</td>
</tr>
<tr>
<td>Tina</td>
<td>Painting Perfection Trainee/apprentice</td>
</tr>
</tbody>
</table>

WATCH

READ

PLAY
Foundations for Safety Leadership (FSL) by CPWR

FSL Teaching and Supplemental Materials

> **Primary Teaching Materials**
  - PPT (PC and MAC) – Original + 3 new scenarios
  - Instructor Guides & Student Handouts
  - Train the Trainer ppt & instructor guide

> **Support Materials**
  - Hard hat sticker
  - Pocket reference card
  - Toolbox talks
  - FSL Handbook + Leadership skill self-assessment & plan
  - Frequently Asked Questions
UW’s Construction Health & Safety Research

A Seattle ironworker fell eight floors and survived. Here’s why

By Anna Boiko-Weyrauch - May 15, 2018

SLIDESHOW: Workers pour concrete for a floor of an office tower in Renton. Pouring concrete carries a lot of risk for workers.

KUOW PHOTO/ANNA BOIKO-WEYRAUCH
UW’s Construction Health & Safety Research

Regional Total Worker Health Survey (by Nihar Trivedi)

Time spent in travelling round-trip (hours)

- 0-1: 21%
- 1-2: 33%
- 2-3: 28%
- 3-4: 11%
- 4-5: 5%
- Over 5: 2%

CENTER FOR EDUCATION AND RESEARCH IN CONSTRUCTION
Department of Construction Management, College of Built Environments
UW’s Construction Health & Safety Research

Regional Total Worker Health Survey (by Nihar Trivedi)

Frequency of seeing a doctor when in pain

- Very Often: 33%
- Often: 2%
- Sometimes: 5%
- Rarely: 26%
- Never: 34%
Regional Total Worker Health Survey (by Nihar Trivedi)

Trouble going to sleep or staying asleep

- Very often: 25%
- Often: 24%
- Sometimes: 20%
- Rarely: 5%
- Never: 26%

UW’s Construction Health & Safety Research
Marijuana Use Interviews (by Abby Patil)
UW’s Construction Health & Safety Research

Marijuana Use Interviews (by Abby Patil)

![Pie chart showing stress factors affecting workers](chart.png)

- **Peer Pressure**: 34%
- **Rebellion**: 22%
- **Escape the Situation**: 11%
- **Disappointment**: 11%
- **Boredom**: 11%
- **Other**: 11%

**WORKERS AFFECTED BY STRESS FACTORS**
Mental Health Among Construction Workers in WA (By Qinxue Lee)

**Age**
- 18-24: 7%
- 25-44: 38%
- 45-65: 55%

**Annual Family Income**
- <25k: 16%
- 25k-50k: 25%
- 50k-75k: 23%
- >75k: 36%
- >25k: 61%

**Construction vs. Non-Construction**
- Construction: 6%
- Non-Construction: 34%
Mental Health Among Construction Workers in WA (By Qinxue Lee)

- **Smoking**
  - Current Smoker: 23%
  - Current Non-Smoker: 77%

- **Housing Status**
  - Own: 31%
  - Rent: 67%
  - Other: 2%

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**Construction**

**Non-Construction**
UW’s Construction Health & Safety Research

Upcoming Research

Safety and Health in Prefabricated Construction: A New Framework for Analysis
By Elena Franks

Solar Ready for New Construction: Scope Effectives and Elements for S&H
By Jeremy Berke

https://youtu.be/Mn6PYOG6sWw

National Renewable Energy Laboratory
UW’s Construction Health & Safety Research

Upcoming Training Opportunity

By Elena Franks

**Contact:** Dr. Ken-Yu Lin (kenyulin@uw.edu)/206-616-1915

- Sponsorship
- Research study collaboration
- Training / curriculum development
- Guest lecture opportunity @ UW
- Funded MS degree program with a S&H focus