

# Ladder Related Incidents

How this Installation & Maintenance  
Provider reduced Ladder Falls, the leading  
cause of workplace injury, by 31.5%

amplifire

The Learning and Performance Platform

## Ladder Accidents

Across all industries, the highest fatal and nonfatal Ladder Fall Incidents (LFI) rates were in the following two occupation groups: construction and extraction (e.g., mining), followed by installation, maintenance, and repair.



Every year, over 300 people die in ladder-related accidents, and thousands suffer disabling injuries. According to a report from Liberty Mutual, the direct compensation and medical treatments associated with these falls cost American businesses \$4.6 billion a year.

[The Future of Fall Prevention](#)



Installation, maintenance and repair occupations have the 3<sup>rd</sup> highest fatal and nonfatal ladder fall incident rates according to an EHS article.

[CDC: There's Nothing 'Easy' About Falling Off a Ladder](#)



According to NIOSH, ladder fall injuries annually account for 26% of nonfatal and 16% of fatal US workplace injuries.

[NIOSH Grant Moves Ladder Safety Up The Rungs](#)

## Confidently Held Misinformation

Confidently held misinformation (CHM) exists in all individuals and organizations. It is one of the largest contributors to costly errors.

CHM exists when an individual is sure they are right, but they are wrong. It creates misjudgments and mistakes. Misplaced confidence can be perilous—and result in adverse incidents.

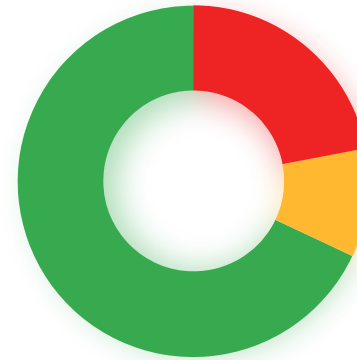
Amplifire has the unique power to detect and correct CHM. The platform requires learners to state their certainty when they answer questions.

The system then classifies which questions were answered confidently but incorrectly—representing confidently held misinformation—and customizes a module in real time that will lead the learner to rapid mastery of the topic.

The cognitive science behind the platform has proven itself in over one billion learner interactions.

## Ladder Safety Course

### Knowledge Before Amplifire



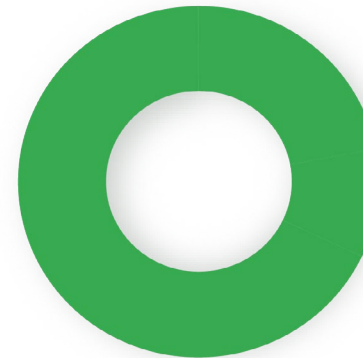
FINDINGS:

- CHM = 22.37%
- Uncertainty = 9.78%
- Mastery = 67.85%

Avg. time = 36 mins

- 4,435 instances of CHM were found and fixed
- 1,939 instances of uncertainty were found and fixed

### Knowledge After Amplifire



FINDINGS:

- CHM = 0%
- Uncertainty = 0%
- Mastery = 100%

## Intro

For this telecom/cable service provider, technicians who experienced a ladder fall averaged 81.25 days of lost work. Their top executives employed Amplifire to reduce the number of incidents.

Amplifire worked with their L&D team to develop a Ladder Safety training course that focused on how to perform safety checks according to OSHA guidelines. The course was then rolled out to 862 supervisors. Each supervisor has 15 subordinates.

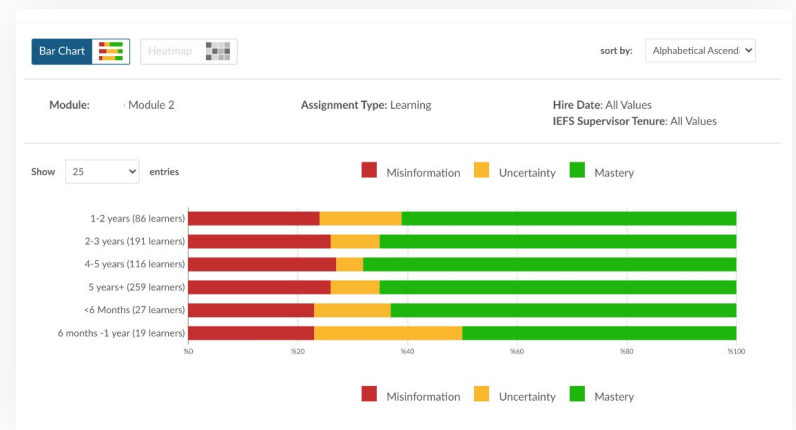
## Course Results

- The most knowledgeable were 100% confident and correct about ladder safety.
- The least show that misinformation occupied up to 52.1% of their knowledge.
- Supervisors who were most misinformed or uncertain spent 53 minutes in the module, while supervisors who were most knowledgeable about ladder safety spent only 28 minutes.
- By the end of the course, 100% of the Supervisors who completed were 100% confident and correct on all information.

## Knowledge Variation

The variation of knowledge among supervisors was high, with some supervisors quite misinformed and others showing confident mastery of the topic. Surprisingly, some of the more senior supervisors held more CHM than their counterparts.

### Knowledge Variation by Tenure



## Outcomes

Ladder incidents among crews for these supervisors were then compared to supervisors who were not put through the Amplifire training. The outcomes over the next 6 months were impressive with a significant reduction in incidents and a considerable cost savings.

## Results

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**31.5%**  
REDUCTION IN  
INJURY RATE

**44 Fewer**  
ADVERSE INCIDENTS  
PER YEAR

**28,600 Fewer**  
LOST HOURS  
PER YEAR

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**\$772k Saved**  
PER YEAR WITH  
FEWER HOURS LOST

**\$856k Saved**  
IN MEDICAL COSTS  
PER YEAR

**\$1,628,200**  
TOTAL SAVINGS  
DUE TO AMPLIFIRE