

Managing Safety: The Chess Game of Safety

Many years ago, I walked into a park near my home on a bright summer day. I was only 16 years old and that day there was something different in the park: four tables in a square with twenty chess sets on each table and a little, grey-haired man in the middle. We were told the old man was a chess "master" and would like to challenge any or all of us to a game.

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I thought of myself as a pretty good player; I could beat my dad on occasion and regularly beat my friends who also played. So I took my place at the table with 79 others and made my first move. I was astounded at the speed with which the master moved around the tables, taking a quick glance at each board and making his move. On the ninth round, the master glanced at my board and then at me and announced, "You have not made your move."

I guess I looked a bit confused and amazed and he said, "Are you going to take the bishop or not?" I said, "Well you really left it unguarded and" He simply replied, "If you take the bishop, I have you in three moves." Then he added, "You are a move behind," and left me to continue his rounds. Next time around he observed, "So, you took the bishop. Do you want to see all three moves at once or do you want to play them out one at a time?" I replied that I wanted to play on to see if I could counter his plan. He flatly replied, "I have five ways to counter any three moves you make. When you took the bishop, you lost the game."

What does my chess story have to do with safety? First, another question: what does a great chess player do that an average chess player does not? He thinks ahead and recognizes emerging patterns. Now, what does a great safety worker do that an average safety worker does not? The answer is remarkably similar.

As we progress with fewer workers and put those workers in increasingly complex situations, safety challenges are multiplied. As we continue to diminish the number of supervisors, our workers must become more self-directed in safety as well as job performance. The old safety mantras of "keep your mind on the job" and "think before you act" become gross oversimplifications. Just as mathematics becomes more complex as you work with more unknown variables, safety becomes more challenging when there are more unknown combinations of risks. How, then, can we help workers play the increasingly complicated game of safety chess and always come out the winner?

First, it is important to dispel the myths and oversimplifications of past safety efforts. There are four truisms that especially need to be addressed:

Recognize the risk: Simple, linear, cause-and-effect thinking is not sufficient for today's safety challenges. The worker who reacts to each risk as it impacts the work without recognizing more complex patterns of possibilities may get ambushed. The very fact that "risk" is singular instead of plural is indicative of this thinking. The old idea that every job has a "risk" rather than "risks and patterns of risks" is as antique as the idea that every accident had a singular root cause. Risk analysis needs to incorporate contingency thinking and planning. Every worker needs to think "What if..." and have a plan to deal with each combination of potential events.

Safety training needs to include multiple-contingency analysis and safety meetings (toolbox, tailgate, pre-shift meetings) need to incorporate that training to pre-analyze job safety issues. Workers need to think more like chess players than checker players.

Follow the rules and wear your PPE: Simply following the rules and procedures without analyzing the risks potentially is more hazardous. Rules and procedures are considered the minimum standard of safety. Complex rules can address more risks, but they also create a more elaborate, false sense of security. Workers cannot afford the luxury of thinking that someone else has done the job-hazard analysis for them. Following instructions or rules no longer is an acceptable substitute for solid risk analysis and contingency planning. No set of guidelines covers all the potential moves in chess or safety. Every game can have surprises and needs to be played with a solid but flexible strategy.

Experience and common sense: These can be powerful tools to prevent accidents, but they alone are not sufficient. Workers with experience can draw from past experiences to better control the future. Common sense (no two experts can agree on the existence of common sense or its definition) usually is what we refer to as the ability to reason and anticipate. The more a worker can draw on experience and utilize anticipation, the more he or she can avoid potential injuries.

However, both these “safety techniques” have a common weakness: the ability to identify low-probability risks. Low-probability risks tend to have the potential of multiple causal factors in varying combinations. They usually don’t result in injury, but definitely have the potential to if the combinations of causes come together in certain patterns. Recognizing these patterns typically requires more than the rudimentary use of experience and anticipation.

Potential severity: It is common nature to protect ourselves from what we perceive to be the most severe injury, rather than the most common. That is not all bad; we should prioritize according to severity. However, doing so often can create two other problems:

1. We ignore what we perceive to be lower-severity risks rather than simply reducing their priority; and
2. We cannot regularly and accurately predict potential severity. If we forget that even a pawn can capture a king, we increase our odds of losing the game. When we ignore some types of risks or think they can’t do major damage, we run the same risks.

Unfortunately, becoming a good chess player doesn’t ensure that you will be a safe worker; but more and more, the complexity of our safety challenges will force us to think differently to win the battle against unwanted workplace injuries.



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