

Theory to Practice: New Hire Orientation Safety Training

Jillian Moore

EDAE 624

Colorado State University

May 5, 2019

Theory to Practice: New Hire Orientation Safety Training

Manufacturing industries place significant focus on keeping workers safe and free from injury; in addition to mitigating risks through engineering safer systems, companies must educate their employees about how to recognize, mitigate, and safely work around on-the-job hazards. Creating and maintaining motivation is a critical component of these safety training sessions, because workers will need to continuously apply this knowledge while on the job. Since the enactment of the Occupational Safety and Health Act of 1970, U.S. companies have been responsible for providing safety training to their employees (OSHA, 2015). While this bureaucratic oversight of training is intended to protect workers, the training itself can be delivered in a manner that is ineffective (Ali & Blair, 2018). Why is this? The most recent publication of the Occupational Safety and Health Administration (OSHA) Training Requirements for Workplace Safety is a 270-page document that outlines a myriad of specific topics that must be covered in initial employee training. The magnitude of these requirements creates a focus on compliance that leads to training that just “checks the box” without considering learner needs. In many industries, mandatory safety training is considered by workers to be “safety jail” (Ali & Blair, 2018; Wilkins, 2011). As Ali & Blair assert, there is a need for employers to re-design safety training sessions to engage employees with delivery techniques that encourage retention and application.

This paper will evaluate the safety training session for new employees at one U.S. manufacturing facility through the lens of Wlodkowski’s Motivational Framework to determine its motivational value and potential areas for improvement. A thorough description of the event will be provided, followed by a short review of Wlodkowski’s Motivational Framework and

other relevant theories. This will lay the groundwork for a full motivational analysis of the training event and conclude with a summary and recommendations.

Event Description

On February 4, 2019, 25 new employees attended a mandatory safety awareness training session as part of the New Hire Orientation (NEO) process at the Company X¹ manufacturing facility in Town A¹, Colorado. Most of these employees were young white and Hispanic men, although there were a few women and older men in attendance as well. Many of these new employees had some prior experience in manufacturing industries, but experience and/or advanced degrees were not a job requirement.

The safety awareness training session was facilitated by Mr. B¹, a qualified and experienced instructor from the site's Health/Safety/Environmental (HSE) department. Mr. B was a middle-aged white man with eight years of experience at the site in various roles. To facilitate safety training sessions, he received a corporate designation to teach company-required awareness and a local certification from the site's training department for the overall course. The 3 ½ hour classroom training session was given in a lecture-style format, with light use of PowerPoint slides, a white board, and a few interactive activities. The objectives of the training session, as provided by the instructor, were to:

- 1) Cover the OSHA (Occupational Safety and Health Administration) general industry awareness standards
- 2) Discuss behavior-based safety and site culture
- 3) Present the Company X Safety Awareness program

Mr. B began the session with a lively entrance followed by a verbal explanation of session topics and a request for participant interaction. After a quick safety moment, he asked

everyone to introduce themselves by stating their name, previous workplace/experience, new position in Company X, and who they are safe for. Many of the new employees described having previous labor or craftsman experience in other industrial and manufacturing environments, and most said they were safe for their family.

Once all the introductions are complete, Mr. B dove into the OSHA safety awareness portion of the class. He pulled up a slide that shows a cartoon employee and asked the class what PPE (personal protective equipment) is required to work at the factory; a short discussion followed. Next, Mr. B handed out two common pieces of PPE (a half-face respirator and ear plugs) that are effective only if worn properly. He demonstrated the proper way to put on this equipment and then asked everyone to try it themselves. Everyone appeared to participate. After covering several additional awareness topics and facility rules, this portion of the class ended with a 15-minute break.

Mr. B switched to the whiteboard for the second half of the class. He described a story about a near-miss safety accident that he witnessed several years ago, using this story as a backdrop for discussing an iceberg metaphor for behavior-based safety (Heinrich, 1959). Mr. B also emphasized the importance of learning from near miss accidents and said that employees will not get in trouble for reporting these issues. He continued the behavior-based safety discussion with a humorous and descriptive story about creating culture in a group of gorillas.

Then Mr. B covered company safety principles and the site's process optimization philosophy. While this was all required material that can be boring, he tried to make the content relevant and personal. After a short ergonomic stretch break, Mr. B showed several humorous pictures and asked the class to identify the hazards, using these images to drive home the point that everyone in the factory has the right and the responsibility to speak up when they see

something unsafe. “We are continuously building our safety culture”, he said. One of the ways safety culture was built at this site was through peer-to-peer safety observations; Mr. B was in charge of this program and described the process for this activity.

The final section of the class covered chemical awareness in more detail, as required by OSHA (2015). Mr. B returned to PowerPoint and clicked through several slides that show proper storage for the various chemicals in the plant along with graphic pictures of what can happen with repeated exposure to certain chemicals. He admitted, “I am trying to scare you” to reiterate the importance of wearing the correct PPE and handling chemicals appropriately. This was followed by an interactive activity to practice removing chemical-laden gloves so that contact with chemicals is minimized. After a few additional slides, Mr. B ended the session with, “My name is Steve¹, and I am passionate about safety. If you have any questions, ask me!”

Key to the retention and implementation of the information in this training session is employee engagement and motivation. Next, we will explore the theoretical foundations behind motivation in workplace learning.

Motivation Theory and Learning Transfer in the Workplace

Motivation theory

In simple terms, motivation is a “concept that explains why people think and behave as they do” (Wlodkowski, 2017, p 2). Despite decades of research in this area, motivation is still largely understood as the “carrot and stick” model; however, emotions and social context play a huge role in the motivation of all learners, whether in a formal or informal environment (Wlodkowski, 2017). The desire to apply motivation-based theories to the workplace is natural, but leads to some criticisms of intent by Ahl (2006). Ahl argues that motivation is a

¹ Name changed to preserve privacy

“hypothetical construct” whose purpose is to maximize productivity and control workers (2006).

“It is when someone wants someone *else* to do something and this person does not that the problem (of motivation) arises” (Ahl, 2006, p 402). This critical view is important to keep in mind so we can ensure that workers are not blamed for their supposed lack of motivation.

One theory that looks at motivation in a constructive way is Wlodkowski’s motivational framework, which can be used to better understand workers and attempt to enhance their motivation (Wlodkowski, 2017). According to the author, this framework “provides a structure for planning and applying a rich array of motivational strategies”, bringing a practicality to the theory (Wlodkowski, 2017, p 97). Wlodkowski’s motivational framework consists of four elements: Establishing inclusion, developing attitude, enhancing meaning, and engendering competence. While all four elements are important in creating motivating conditions to learn in the NEO safety orientation, this paper will focus on enhancing meaning and engendering competence since they directly contribute to the goal of transferring learning to the factory floor.

In the eyes of constructivism, learning is creating *meaning* from experience. Creating meaning from experience involves finding personal relevance in the learning. It is important for instructors to create the conditions that encourage meaning-making by maintaining learner attention, making learning interesting, and deepening engagement through critical thinking and active learning processes (Wlodkowski, 2017).

Competence is a feeling of mastery, one of the three keys to motivating employees (Pink, 2009). Adults feel a sense of satisfaction when they successfully accomplish a task or learn a new skill, which leads to enhanced motivation moving forward. Instructors can engender competence by helping learners take control of what they are learning, fostering learning transfer, and using authentic and effective assessment strategies (Wlodkowski, 2017).

Learning transfer

Perhaps the most important objective of industry training is learning transfer, or, the “effective application by program participants of what they learned as a result of attending an education of training program” (Caffarella, 2013). Industries spend billions of dollars annually on training for their employees and want to see a return on their investment; unfortunately, estimates on the transfer of learning from industry training hover around 10% (Caffarella, 2013). Much of the problem here is that transfer can only happen after training has occurred, and most trainers do not employ robust follow-up mechanisms for their classes. Caffarella outlines several factors that trainers can consider in the planning of training classes, including motivation (2013). According to Naquin and Holton, “even the most sophisticated and well-designed training programs cannot be effective without the presence of motivation to learn...” (Naquin & Holton, 2003, p 357). They conclude that training programs need to consider both motivation to learn and motivation to transfer that learning (Naquin & Holton, 2003).

Knowledge of motivation and learning transfer theories can help us to evaluate workplace learning sessions and identify areas for improvement.

Analysis

While all four components of Wlodkowski’s motivational framework can be applied to this safety training session, this paper will focus on enhancing meaning and engendering competence because they are the components that are necessary for learning transfer and are often missed in mandatory training.

Enhancing Meaning

Within his motivational framework, Wlodkowski (2017) divides the element of enhancing meaning into three parts: attention, interest, and engagement. It is clear that Mr. Bause

prioritizes maintaining attention and making learning interesting in the NEO safety training session. He has a lively and animated style of talking, keeping participants on their toes through (often sarcastic) humor and storytelling (Ricketts, 2015). Working within the given time and content constraints, Mr. B employs a satisfactory use of breaks and physical exercises, spacing them out in a way that minimizes boredom. He tries to help learners realize their personal accountability and values with the “who are you safe for?” question. He also repeatedly advocates for a safety culture where everyone feels accountable for the safety of their coworkers and actively speaks up when they see potential problems. Another activity Mr. B uses to make learning interesting is the collaborative creation of a concept map to describe the metaphor of safety behaviors as an iceberg. He also uses humorous images to engage the class in an exercise to identify unsafe behaviors and predict what could go wrong. While Mr. B does well with enhancing meaning through attention and interest, he does little to deepen engagement. Many of Wlodkowski’s recommended strategies for deepening engagement are not practical for the NEO safety session, largely due to time and content constraints. Since the ability to work safely and anticipate problems on the job requires critical thinking and collaboration, Mr. B could consider including exercises that allow learners to practice these skills. Posing some critical questions could help learners engage more deeply with the content, increasing the likelihood of retention and recall (Wlodkowski, 2017).

Engendering Competence and Learning Transfer

While competence is the ultimate goal of OSHA-required safety training, it is often ignored and replaced by the need to prove compliance with regulations. In order to minimize employer liability, there was no formal assessment in this class. The only competence-driven exercises in the session were the PPE activities (respirator, ear plugs, and glove removal), and

even these were not evaluated by the instructor or peers. While these were all authentic performance tasks, participants received no feedback about their ability to successfully complete the tasks. This could be easily remedied by asking learners to provide feedback to their table partner.

The transfer of learning was a primary expectation of the session; however, it was not well-supported. Much of this is due to the fact that most of the content is presented with an emphasis on awareness rather than application. As Caffarella (2013) points out, the measure of learning transfer comes in the form of visible behaviors. With this in mind, Mr. B could consider including exercises that allow participants to practice the behaviors they will be expected to use on the job. Successful learning transfer requires “both motivation to learn and motivation to perform using that learning” (Naquin & Holton, 2003, p 368). This realization provides an opportunity for Mr. B to consider how he could include exercises that would motivate students to transfer their learning (rather than just motivating them to learn the content).

Key challenges

Key challenges for this training session include time constraints, content requirements, and the difficulty of measuring learning transfer. The session instructor has optimized the class to minimize the time requirements so that other NEO sessions can be covered; however, this leaves almost no time for questions, feedback, or deviation from the prescribed content. The safety department has whittled the OSHA training requirements down to the most pertinent information; however, there are some applicable topics that are left out due to focusing solely on these requirements. Transfer of learning is difficult to measure because it comes after-the-fact and requires behavior changes to occur based on a few hours of awareness-style discussion. Even if Mr. B included more activities directed toward learning transfer, it would be difficult to

influence transfer beyond the session due to cultural and structural factors that are out of his control (Caffarella, 2013). Other challenging factors in this training session include the large class size (which limits individual interaction) and a dependence on the individual instructor to maintain attention of the class. A substitute instructor may not be nearly as effective without the charisma and knowledge of Mr. B.

Motivational Framework – Strengths and Weaknesses

With the implementation of OSHA, employee safety has become an important issue for employers and has created a need to motivate employees so they work not only in a productive manner, but also in a safe manner. Using Wlodkowski's motivational framework is beneficial in this context for a few reasons. First, it defines concepts that instructors can focus on when developing and modifying safety training sessions. It can also help identify potential motivational gaps and provides many strategies instructors can explore to enhance motivation in the curriculum. For instance, the NEO safety training was found to be lacking in the element of engendering competence; Wlodkowski's strategies helped to uncover the hidden objective of learning transfer and provided some concrete suggestions to help promote it. Finally, Wlodkowski's (2017) framework avoids the "blame the learner" approach that can often occur in industry contexts, focusing instead on learner-centered strategies that promote positive experiences with the instructor and content.

Wlodkowski's (2017) motivational framework assumes that learners have an intrinsic motivation that just needs to be uncovered by creating motivational conditions; it does not consider readiness or ability to learn. Businesses place significant focus on measurable results; since motivation is difficult to measure, this may create difficulty in obtaining management support for the time and resources necessary to implement a motivation-focused curriculum.

Wlodkowski's motivational framework may not provide concrete enough "proof" to warrant its use in industries that are quick to cut training budgets. Additionally, motivational conditions do not always translate to successful learning transfer. A single class is rarely enough to ensure that everyone absorbed, will remember, and be able to correctly act upon that knowledge (Jennings & Smith, 2002). Finally, if we consider motivation to be simply a construct that those in power use to control others, Wlodkowski's motivational framework may be viewed as a means of manipulation that just gives the appearance of valuing the learner (Ahl, 2006).

Recommendations and Conclusion

Recommendations

Based on the analysis of the NEO safety training using Wlodkowski's Motivational Framework, I have three recommendations:

Implement collaborative learning: Workers need to be able to work safely and collaborate on the job, so it makes sense to combine these requirements with collaborative learning activities in the NEO safety training session. Potential activities include case studies and role play to identify and discuss job hazards, or the addition of game elements for hazardous chemical identification. Collaborative learning can be an effective way to enhance meaning through engagement and challenge, as well as promote learning transfer (Wlodkowski, 2017).

Encourage critical engagement: To further enhance meaning from the session, Mr. B could introduce some activities that promote critical thinking. Brookfield's Critical Incident Questionnaire (CIQ) could be used at the end of the class as a quick way to encourage employees to think critically about what they learned and for the instructor to assess his own teaching (Brookfield, 1995). Mr. B could also expand the discussion of barriers to speaking up by

encouraging the group to critically discuss how to react appropriately in stressful situations and deal with changing conditions on the floor.

Promote transfer of learning: The ability of employees to transfer their learning from this class to the floor is an important but implicit goal of this training session. Potential activities that could promote learning transfer include building competence through peer and/or instructor feedback in mock safety observations. As Naquin and Holton (2003) state, it is important to promote motivation to learn as well as motivation to transfer that learning. Refocusing the class objectives to include motivation to transfer learning may help Mr. B design activities that help in this area.

Conclusion

Overall, the Vestas NEO safety training session achieved its stated objectives and successfully implemented several of Wlodkowski's motivational strategies. While the objectives indicate that this session was an awareness training, there was an unstated expectation that participants be able to transfer their learning to the factory floor. With this goal in mind, this paper focused on evaluating the elements of Wlodkowski's motivational framework that most directly influence learning transfer – enhancing meaning and engendering competence. This evaluation identified gaps in deepening engagement and engendering competence. Using Wlodkowski's motivational strategies, it was recommended that the session revise its objectives and activities to include more opportunities for collaboration, critical thinking, and learning transfer. These changes should enhance motivation to learn and motivation to transfer learning, which will increase retention and hopefully lead to a more robust safety culture within the organization.

References

- Ahl, H. (2006). Motivation in adult education: a problem solver or a euphemism for direction and control? *International Journal of Lifelong Education*, 25(4), 385-405. doi: 10.1080/02601370600772384
- Ali, R. and Blair, E. (2018, June). Safety training revisited: Effective design and delivery. *Professional Safety*, 63(6), 57-60.
- Brookfield, S. (1995). *Becoming a Critically Reflective Teacher*. San Francisco, California: Jossey-Bass, Inc.
- Caffarella, R. S. (2013). *Planning Programs for Adult Learners: A Practical Guide*. John Wiley & Sons, Inc.
- Heinrich, H.W. (1959). *Industrial Accident Prevention: A Scientific Approach*. New York: McGraw-Hill Book Company, Inc.
- Jennings, L.B. and Smith, C.P. (April 2002). Examining the tole of critical inquiry for transformative practices: Two joint case studies of multicultural teacher education. *Teachers College Record*, 104(3), 456-481.
- Naquin, S. and Holton, E. (2003). Motivation to improve work through learning in human resource development. *Human Resource Development International*, 6(3), 335-370. doi: 10.1080/13678860210154431
- Occupational Safety and Health Administration. (2015). *Training requirements in OSHA standards* (OSHA 2254-09R). Retrieved from <https://www.osha.gov/Publications/osha2254.pdf>
- Pink, D. (2009). *Drive*. New York, New York: Riverhead Books.

Ricketts, M. (2015, May). Using stories to teach safety: Practical, research-based tips.

Professional Safety, 60(5), 51-57.

Wilkins, J.R. (2011). Construction workers' perceptions of health and safety training

programmes. *Construction Management and Economics*, 29(10), 1017-26.

Wlodkowski, R. and Ginsberg, M. (2017). *Enhancing Adult Motivation to Learn*. Jossey-Bass.