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## Ready, Set, Train!: Strategies to Incorporate Self-directed and Embodied Learning into Training and Development Programs

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## **Abstract**

Offering training and development programs to employees is one strategy to help companies maintain a competitive advantage in industry. In order to be beneficial for employees and companies, training and development programs must be effective. Research consistently shows that learning activities are one strategy to incorporate into training and development programs to keep participants engaged and to make training sessions more effective. This article highlights how the adult learning theories of self-directed learning and embodied learning can be incorporated into training and development programs. An overview of self-directed learning and embodied learning theories and examples of related learning activities that could be incorporated into other training programs and curriculums are highlighted.

*Keywords:* Training and development programs, employee training, self-direct learning, embodied learning, active learning

## **Ready, Set, Train! Strategies to Incorporate Self-directed and Embodied Learning into Training and Development Programs**

Offering training and development programs is a key strategy for companies seeking a competitive edge. According to the 2022 Training Industry Report, training expenditures in the United States surpassed \$100 billion in 2021-2022 (Freifeld, 2022). This reflects the importance of training in employee growth and development. A study by the Society for Human Resource Management (SHRM, 2022) found that over 80% of hiring managers agree that training programs attract and retain talent. Furthermore, more than 75% of employees are more likely to stay with a company that offers continuous training opportunities (SHRM, 2022).

However, for training programs to benefit both employees and companies, they must be effective. According to the 2022 *workplace learning and development trends report*, over one-third of employees struggled to stay motivated during training (SHRM, 2022). Incorporating engaging activities into training programs can help address this issue. Minnick et al. (2022) found that active learning is among the most effective methods for improving workplace competence through learning retention. Self-directed learning and embodied learning are two examples of active learning explored in this article. It highlights how these adult learning theories can be incorporated into training and development programs and provides examples of related learning activities. These activities could be incorporated into various training programs and curricula.

### **Self-Directed Learning**

Self-directed learning is a theory often integrated into training and development programs. Knowles (1975) played a significant role in the development of this concept. In his book, *Self-directed learning: A guide for learners and teachers*, Knowles (1975) defined self-

directed learning as:

In its broadest meaning, “self-directed learning” describes a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. (p. 18)

When Knowles coined his definition, self-directed learning was not a new concept; It had been researched for over 50 years (Merriam & Bierema, 2013). Tough (1967), based on Houle’s (1961) earlier work, developed the first comprehensive model for self-directed learning, initially calling it self-teaching. Houle, Tough, and Knowles developed the foundation of self-directed learning, upon which many others have since built. Merriam and Caffarella (2006) described self-directed learning as an environment where learners have primary responsibility for planning, carrying out, and evaluating their own learning experiences.

Self-directed learning differs from traditional, teacher-directed learning. Here, learners take control of their own learning, deciding what and how they learn (Merriam & Bierema, 2013). This does not mean they work entirely independently. Caffarella (1993) noted that self-directed learners do not work in isolation and often use a variety of resources, including peers, colleagues, subject matter experts, books, magazines, and journals. The educator still has a role in this environment. According to Knowles (1975), the educator becomes a facilitator, guiding and supporting the learning process. Facilitators are not necessarily content experts or authority figures (Brockett & Hiemstra, 1991), but they are crucial resources. Brockett (1994) noted that facilitating self-directed learning is not easy. It requires a highly active and individualized approach. Educators must consider various factors, such as classroom climate, planning,

diagnosing learning needs, setting goals, designing a learning plan, engaging in activities, and evaluating outcomes, to ensure they effectively meet the students' needs (Knowles, 1975).

Knowles (1975) developed a 6-step process for learners and instructors to use when planning self-directed learning. These six steps are:

1. Climate setting, that is, creating an atmosphere of mutual respect and support
2. Diagnosing learning needs
3. Formulating learning goals
4. Identifying human and material resources for learning
5. Choosing and implementing appropriate learning strategies
6. Evaluating learning outcomes (Merriam & Bierema, 2013, p. 62).

Alternative terms used for self-directed learning include self-planned learning, self-teaching, self-instruction, and autonomous learning (Knowles, 1975; Merriam & Bierema, 2013).

### **Embodied Learning**

Embodied learning is another adult learning theory relevant to training and development programs. It involves both the body and mind in the learning process. Merriam and Bierema (2013) noted that the body, mind, and emotions are interconnected, suggesting that separating these elements makes little sense when considering learning. Everyday life experiences naturally engage both physical and emotional responses. Freiler (2008) stated, "Simply stated, embodied learning involves being attentive to the body and its experiences as a way of knowing" (p. 40). Merriam and Bierema (2013) offered a similar definition, "Embodied learning, then, is seeing our body as an instrument for learning" (p. 132). They further explained that the study of embodied learning in adult education is fairly new, with other terms like embodiment, somatic learning, and embodied cognition gaining traction. Lindgren and Johnson-Glenberg (2013) found

that embodiment is a powerful tool for learning, indicating that human cognition is deeply rooted in the body's interactions with its physical environment. Their definition describes embodiment as "the enactment of knowledge and concepts through the activity of our bodies" (Lindgren & Johnson-Glenbert, 2013, p. 45).

The workplace is an ideal setting for embodied learning. Somerville (2004) examined how embodied learning can promote safety in coal mines. She spent time in mines to understand the body's role in a hazardous work environment. Participants discussed "pit sense," described by Somerville (2004) as a "keen sensory awareness of one's surroundings in relationship with the mines but also on reliance on other miners inhabiting the same place in the mines" (p. 60). In dangerous industries like construction, body and mind awareness is critical. Workplace injuries can have devastating effects on individuals and families while costing companies time and money. No construction company wants projects delayed due to safety violations, and all want their employees to return home safely. Merriam and Bierema (2013) discussed the importance of knowing oneself in the context of embodied learning. Just as coal miners developed "pit sense," individuals must listen to their bodies and trust their instincts, intuition, and emotions to understand how the body contributes to learning.

### **Strategies to Incorporate Self-directed and Embodied Learning into**

#### **Training and Development Programs**

The training program discussed in this article is a safety training program designed for professionals in the commercial construction industry. This program is not part of a standardized OSHA 10-hour or 30-hour construction safety course. According to OSHA, nearly 1,000 worker fatalities occurred in construction in 2021, accounting for about 20% of worker fatalities across all industries. Offering safety training is one strategy construction companies can use to promote

a safer working environment. The learning activities outlined in this article have also been successfully integrated into a construction management curriculum at a higher education institution. These activities can be adapted for other training and development programs.

### **Self-Directed Learning Strategy: Climate Setting**

Climate setting is the first step in Knowles (1975) process for self- directed learning. In this this training session, the facilitator and participants collaboratively created a learning environment characterized by mutual respect and support. Before the participants arrived, handouts were placed at each seat, and a basket with index cards, name cards, pens, and markers was placed at the center of each table. The facilitator greeted participants at the door, inviting them to the refreshment table and directing them to choose any seat with a handout. To start the session, the facilitator introduced herself, providing a brief background to establish credibility. Ground rules were outlined, covering refreshments, facility information, participation expectations, and cell phone use.

Participants then created name signs and introduced themselves briefly. The facilitator followed with safety statistics to show the importance of safety in construction. The discussion began with participants writing on index cards why safety is important to them. They then spent 10 minutes in table groups discussing their reasons and collaboratively writing a unified reason why safety is important to the whole group. Afterward, each group shared its reason with the others. The facilitator led a discussion about the similarities among the reasons, reinforcing that safety is a shared priority. This initial activity helped establish a climate of mutual respect and support by creating a welcoming environment, building rapport, and sharing common experiences among the participants.

### **Self-Directed Learning Strategy: Reflection**

Reflection is an active and engaging process that aligns with self-directed and adult learning principles (Hammond & Collins, 1991). In this training session, participants completed two reflection activities—one at the beginning and one near the end. At the start, participants wrote down three learning goals they wanted to accomplish during the training. Near the session's end, the facilitator asked them participants to review these goals and reflect on what they had learned. The participants then wrote down two things they had learned on a separate index card. The facilitator collected these cards to review later to determine any needed changes to the content or learning activities. This process benefits both the participants and the facilitator.

Reflection allows learners to internalize new ideas, find personal meaning, consolidate learning, synthesize new concepts, and integrate existing and new knowledge (Hammond & Collins, 1991). By reflecting at the beginning and end of the session, participants can connect the session's information to their experiences. This process helps deepen the understanding gained from the training.

### **Embodied Learning Component 1: Stretch and Flex**

Embodied learning can be incorporated into safety training through hands on activities. To reduce workplace injuries, many construction job sites now include “stretch and flex” sessions in their daily routines. Stretch and flex involves everyone on site gathering before work begins to complete a series of muscle stretches. Gilbane (2010) is an example of a general contractor who utilizes stretch and flex. According to their project safety plan, all employees must participate in stretching exercises at the start of each workday to prevent injuries. During this safety training session, a stretch and flex exercise was included after the initial introduction.

To begin this activity, the facilitator explained the importance of stretching to avoid muscle strains and injuries, citing examples of contractors who practice stretch and flex. The



facilitator then led the group through a series of five brief stretches and followed up with a debriefing. This stretch and flex activity lasted about 7 minutes, providing a way to physically engage participants with the course material.

### **Embodied Learning Component 2: Demonstrations of Personal Protective Equipment**

Personal fall arrest systems are a common type of personal protective equipment used in the construction industry. The OSHA (2015) Standard 1926.501 outlines fall protection requirements, specifying that companies must provide systems such as guardrails, safety nets, or personal fall arrest systems. To apply embodied learning principles in this safety training, the second activity involved all participants practicing the proper use of a personal fall arrest system.

The facilitator began by sharing real life examples of how fall protection has prevented injuries and invited participants to share similar examples from their own experiences. Following this discussion, participants formed pairs, and each group received written instructions on how to put on the fall arrest system correctly. Every participant had a chance to practice with the equipment. After the hands on activity, the pairs discussed the most challenging aspects of using the fall arrest system and reasons why people might hesitate to wear it. To debrief, the facilitator summarized key points from the group discussions.

### **Conclusion**

Providing training and development programs is a key strategy for companies to maintain a competitive edge. Learning activities are crucial for keeping learners engaged and improving the effectiveness of training. This article highlighted how self-directed learning and embodied learning theories can be integrated into training and development programs through various learning activities, including climate setting, reflection, hands-on exercises, and demonstrations. Designing training programs with self-directed and embodied learning activities provides

benefits for both facilitators and participants.

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