Utilizing Technology in Mentoring

By Steve Verhardt,
NorthArm Advisory Services

> **Almost 80 percent of American companies now use some type of e-Learning to train and mentor employees**

Any enterprise or operation, whether it is in resource extraction, manufacturing or providing services, needs a unified approach to support the achievement of its objectives (which can include health and safety, shareholder value, ethics, regulatory compliance). For this to happen, all personnel need to know and understand the organization's objectives, and especially, how those objectives are to be achieved. A greater understanding will lead to an acceptance of those objectives and an active contribution to the achievement of them. There are several ways to keep personnel informed of the organization's expectations and how they are to be met. One such method is through mentoring.

There are a number of ways that companies currently mentor and train employees such as:

- providing written materials to employees
- online video training (sometimes with testing)
- classroom training (in-house and external)
- on-site training
- supervisor and peer training
- one-on-one mentoring (by supervisor, peers and/or central functions).

In-person mentorship within the company takes place every day with supervisors, peers and central functions such as Human Resources (HR) and Health, Safety & Environment (HSE). Third-party trainers can also be contracted to provide professional mentorship. Many companies are also leveraging online technology through e-Learning to onboard, educate, and mentor their employees. The latest development in e-Learning is called gamification, an interactive approach to training using a simulation of actual site operations where a person can learn to perform an operational task in a game environment.

HOW ARE COMPANY OBJECTIVES COMMUNICATED?

For most companies, onboarding is the first opportunity for mentoring an employee. This is when HR conveys the company's culture through a mission statement or company charter, with the achievement of the goals and expectations through rules, procedures and incentives. In conjunction with HSE and the line supervisor, safety and/or quality in-house trainers provide the basics of how to complete a particular role correctly and safely.

Third-party training companies or associations provide the second opportunity to reinforce the company's culture. They use mainly industry compliance standards to establish the bare minimum requirements of compliance. They may also provide specific company safe work practices and standard operating procedures as part of this initial training. The cost varies widely between providers and curriculum.
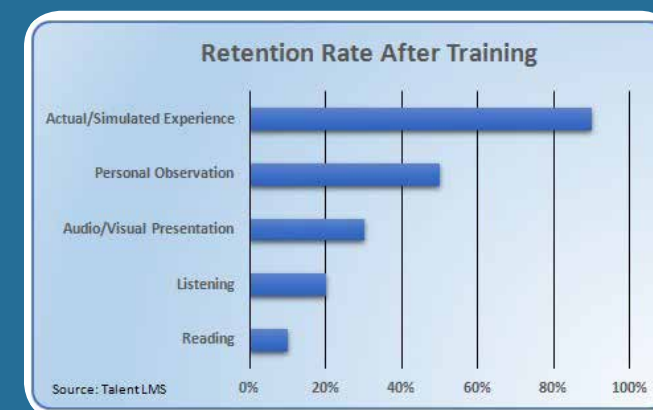
Both solutions require in-person training. This means travel for employees or trainers, meals and expenses, paid training days, lost work days, and other expenses that result in loss of productivity, increased expense, and could possibly be cost-prohibitive for small to medium-sized companies. Consequently, there is an emerging trend whereby companies rely more on a web-based Learning Management System to provide training.

THE LEARNING MANAGEMENT SYSTEM (LMS)

A basic LMS is a website that houses training and testing content can include many additional features, such as a secure login to track courses. A supervisor or training manager can assign courses to the trainee, the LMS can track how many courses the trainees have completed, remind them with email alerts when courses need to be finished, and alert supervisors before trainees fall out of compliance.

Almost 80 percent of American companies now use some type of e-Learning to train and mentor employees.[a] One perceived disadvantage of this training is that face-to-face feedback of in-person training can be lost. Although this can somewhat be compensated for by the line supervisor as part of normal work, research shows that trainees retain more information, long-term, from gamified e-Learning than from reading, in-classroom training, or even in-person mentoring as shown in the graph below.

Retention Rate After Training

Actual/Simulated Experience	
Personal Observation	
Audio/Visual Presentation	
Listening	
Reading	

Source: Talent LMS   0% 20% 40% 60% 80% 100%

Within e-Learning there is a trend toward gamification. By turning learning into a game, the amount of information retained can be increased. As shown in the graph on the right, there is far greater retention of information through gaming than other forms of learning.

By leveraging the internet, learning management systems and videogame technology, companies can reduce the cost of training and mentoring employees by up to a factor of 10, while increasing the effectiveness of skills and knowledge transfer

GAMIFICATION – INTERACTIVE LEARNING

Gamification can be implemented in a number of ways to maximize its effect. Within an LMS a trainee can be awarded trophies, prizes, and merit points as they complete tasks. Trainees can then be ranked with their fellow employees based on their relative performance in the simulation. As humans are naturally competitive, participants are driven to achieve the highest score resulting in increased knowledge of the rules and procedures and thus greater compliance with training requirements.

Engagement and Productivity

Source: Talent LMS

Gamification can also take place in the training content itself, from simple matching games or "Jeopardy"-style games to actual first-person video games. Training content can be brought to life and engage many different senses in order to make it memorable. Making the content more entertaining increases employee engagement, increases retention of information, and ultimately makes the training supervisor's job easier. The latest gaming content includes equipment simulations with video game mechanics to engage trainees.

APPLICATIONS OF GAMIFICATION IN OTHER INDUSTRIES

Simulators have seen widespread use in the aviation and military markets for decades. Pilots and astronauts log thousands of simulator hours to help with equipment design and to reduce incidents in actual aircraft. Military personnel practice convoy movements and weapon use in safe environments prior to combat. Marine vessel captains and crews practice dockside and waterborne activities in simulators. Traditional training techniques require a static environment, expensive hardware, and cannot be deployed to the field.

GAINING RISK FREE OPERATIONAL EXPERIENCE THROUGH SIMULATED EXERCISES

In this game-like training, hazardous situations can be recreated, with incorrect decisions leading to possible catastrophic consequences. For instance, if an incident were to cause a flash fire, the trainee can see the flash fire and the carnage left behind in the safety of a simulator.

The advantage of gamification is that high-risk tasks such as working at heights, lifting operations or haulage can be recreated safely in a simulation mimicking on-site conditions. Errors or mistakes can then be made in the simulation without real life consequences, but with valuable experience gained.

With advances in videogame technology and computing capability, simulators can now be replicated on any device. Videogames are ubiquitous, and their development costs have been reduced significantly.

Gamification training may still need to be supplemented by in person training since simulated training cannot always replace real life training, however it does reduce the time required for on the job training and its associated risks. Reduced on the job training can also increase the productivity of the equipment used.

Gamification is at the forefront of employee mentorship. By leveraging the internet, learning management systems and videogame technology, companies can reduce the cost of training and mentoring employees by up to a factor of 10, while increasing the effectiveness of skills and knowledge transfer. In-person mentoring, on the job training and classroom training will continue to be important learning modalities, however companies will benefit greatly by implementing a blended learning program that includes e-Learning and gamification.

(a) Source: ELEarning Industry

Steve Verhardt has worked in the resources industry for 37 years, mainly in the areas of marketing, joint ventures and risk management. He is currently Managing Consultant with NorthArm Advisory Services specializing in risk management and joint ventures.