# How Technical Education is Evolving to Meet Workforce Needs

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## By Ken Midgett

Technology and the demands of an ongoing labor shortage are having a dramatic effect on technical training for the skilled trades. Artificial intelligence, 3D simulation technology and virtual reality now deliver scalable, immersive training solutions that are more engaging and more efficient than traditional learning methods.

Technology-based learning platforms are also more effective for skilled trades training, delivering measurably improved outcomes and retention rates compared to traditional methods. As training platforms continue to evolve and become

increasingly accessible and effective, organizations are facing difficult choices—as well as enormous opportunities.

Traditionally, industry training for the skilled trades has relied on classroom instruction and one-on-one training on the job. But those traditional methods don't always sync with today's workflows and often don't engage younger employees. Today's employers need solutions that quickly prepare new employees for the field and provide ongoing opportunities for team members to upskill.

With expert-led digital training platforms, however, workers can immediately start building skills and confidence with hands-on learning in a safe, risk-free and repeatable environment. They can practice skills on their own, at their own pace. At the same time, the platform guides them so they learn the right skills in the right order.

Decades of research have consistently demonstrated that simulations and VR help workers in the aviation and medical fields improve memory and performance and reduce errors. Studies are now revealing that similar technologies are just as effective in other areas, including skilled trades. With innovative simulation technology designed specifically for trades training, organizations throughout the PHC industry have access to the same enhanced efficiency and productivity other sectors have enjoyed for years.

The results are transforming the industry. Digital training solutions that streamline processes are simultaneously improving learner outcomes, empowering organizations to more effectively recruit and retain team members, and elevating technician and customer experience.

## Engage, customize and accelerate

Simulations can improve learning and training outcomes by better engaging learners. The members of today's young workforce learn best through doing and thrive on hands-on experiences that connect to real-world outcomes. Simulation and VR-based training increase their enjoyment, interest, and motivation to learn. More importantly, studies have shown simulation technology and VR improve retention rates, reducing the time it takes to learn. Ultimately, these workers learn more in less time.

Because different employees bring different skill sets and experience to the table, the most efficient training allows managers to customize pathways for each learner. With curated learning paths, technicians learn the right skills, in the right order and managers can identify skill gaps on their team and address them before they result in a callback.

In skilled trades industries, effective training can differentiate companies in competitive markets. Many companies are struggling to meet consumer demand because of critical staffing issues. With flexible digital training, organizations can recruit capable, trustworthy employees without specific trades experience and get them job ready faster.

Effective digital training programs include accurate assessments to identify skill gaps and measure what learners know before and after training. And advanced analytics help managers intercept challenges more quickly. When they can identify workers who are struggling and the skills that are challenging them, managers can offer support and create and implement personalized training paths.

Digital solutions like dashboards, assessments, and analytics tools enable managers to measure progress. The data can also provide invaluable insights to maximize engagement, reduce callbacks, and increase customer satisfaction.

New technicians who experience VR and simulation training are better equipped and more confident when they encounter real job sites. Their performance on the job tends to be more reliable, accurate, and faster than that of workers who have only experienced traditional training environments. Simulations won't replace real-world hands-on training and shouldn't be expected to. But virtual training and simulations are proven to be essential components of a well-rounded skills learning experience and can help companies maximize the effectiveness of their technical training.

*Ken Midgett serves as the plumbing market director at Interplay Learning. He has been in the plumbing and heating industry for over 40 years and has worked in every facet of the industry. Ken has owned two successful PHC businesses, is a licensed master plumber and is a two-time national award-winning educator in plumbing and heating CTE classrooms.*