BRIDGING THE SKILLS GAP IN CTE:

WHY VIRTUAL REALITY IS CRITICAL TO THE FUTURE OF HIGH SCHOOL AND COMMUNITY COLLEGE WORKFORCE TRAINING

The logistics, advanced manufacturing, and warehousing industries are facing a severe shortage of skilled workers, creating a massive demand for highly trained forklift operators. While the industry desperately needs younger talent, significant barriers remain: federal regulations limit interstate driving for those under 21, insurance companies are hesitant, and most high schools lack the curricula or equipment to prepare students for these career paths.

For High School and Community College Career and Technical Education (CTE) programs, this presents a unique opportunity. By actively bridging the gap between classroom instruction and real-world application, CTE programs can help students gain the skills and confidence they need to secure competitive, well-paying jobs in their local communities.

The key to unlocking this pathway is **Virtual Reality (VR) Simulation**.

THE VIRTUAL REALITY ADVANTAGE IN EDUCATION

VR is revolutionizing how students learn. A comprehensive PwC study on VR training effectiveness found that VR-trained learners completed their training **4 times faster** than classroom learners and were **up to 4 times more focused** than e-learners, as the immersive headset eliminates external distractions. Furthermore, VR learners were **275% more confident** in acting on what they learned.

Forklift Simulator (FLS) brings this technology directly to the classroom, providing an immersive, hands-on platform designed specifically for workforce readiness.

Key features designed for educational environments include:

- **Simulated Work-Based Learning (WBL):** FLS provides a zero-risk environment where students can make mistakes and experience the consequences without causing injury or equipment damage.
- **Authentic OEM Controls:** By integrating genuine Hyster-Yale or Crown controls, students build real-world muscle memory that seamlessly translates to actual warehouse equipment.
- **Ultimate Portability for School Districts:** FLS units are lightweight, fit in the trunk of a standard car, and can be set up in under five minutes. This allows school districts to

easily share the technology across multiple high school campuses or mobile career trailers.
- **Objective, Rule-Based Scoring:** An industry-first scoring engine tracks over 30 validated rules, providing instant corrective feedback without subjective instructor bias—ensuring fair, standardized evaluation for every student.

ALIGNMENT WITH CTE ACCOUNTABILITY AND REPORTING

Modern CTE programs must adhere to strict accountability standards. **Perkins V** requires states and local educational agencies to report on core performance indicators, including the attainment of postsecondary credentials and participation in Work-Based Learning (WBL).

FLS comes equipped with a robust Learning Management System (LMS) and RFID tracking. This LMS streamlines record-keeping, tracking each student's progress and performance metrics in real-time. For educators, this effortlessly meets the data-collection requirements for regulatory, accreditation, and Perkins V compliance.

Furthermore, Perkins V officially defines WBL to include "simulated environments at an educational institution that foster in-depth, firsthand engagement". FLS perfectly fits this definition, providing equitable access to high-quality WBL for all students.

CASE STUDIES: EMPOWERING YOUNG ADULTS & HIGH-NEED LEARNERS

VR simulation is already creating powerful career pathways in educational and community-based settings:

Bakersfield College & The Wonderful Career Center

In California's Central Valley, young adults (aged 18-25) face significant barriers to securing competitive logistics jobs because they lack experience. Partnering with Bakersfield College, the Wonderful Career Center implemented Forklift-Simulator to offer free technical training.

- **The Result:** The game-like simulation strongly appealed to the younger demographic, easing their nervousness before operating a real forklift. The program has trained approximately 50 local residents, equipping them with formal certificates of competency and placing many into full-time employment.

Goodwill Industries of Central Oklahoma

Goodwill uses FLS to upskill individuals facing significant barriers to employment, including homelessness and prior incarceration.

- **The Result:** The simulator provides an unbiased evaluation, which helps disadvantaged students feel more comfortable, as the machine does not discriminate based on their past. In three years, Goodwill has upskilled over 400 people, with **60-70% of participants** successfully finding gainful employment.

FUNDING YOUR VIRTUAL REALITY PATHWAY

State and federal initiatives actively support the modernization of CTE programs and the acquisition of simulated environments:

- **Perkins V Funding:** Perkins V provides stable, formula-based funding explicitly allowing the purchase of technology for simulated work environments, including VR platforms, augmented reality tools, simulators, and portable equipment for mobile labs.
- **ESSA Title IV, Part A:** These funds are designed to provide a well-rounded education and improve the use of technology for academic and digital literacy, making them a viable source for acquiring educational simulators.
- **DOL RESTART Grant:** The Department of Labor's RESTART initiative awards between $1M and $5.1M to develop training programs for youth (15-17) and young adults (18-24), particularly focusing on industry-recognized credentials. Forklift-Simulator aligns perfectly, as its training culminates in an OSHA-aligned, employer-recognized certification through a partnership with United Rentals.

SUMMARY

High schools and community colleges are uniquely positioned to solve the logistics industry's labor shortage while providing students with lucrative, debt-free career paths. By integrating **Forklift Simulator** into CTE programs, educators can offer safe, highly engaging, and objectively measurable Work-Based Learning.

With readily available federal funding supporting educational technology and simulated work environments, adopting VR training is a strategic, accessible, and cost-effective way to build the next generation of America's workforce.