

# EducateWorkforce: An Online Learning Platform for Technical Education (2017-011)

*Online learning solution focused on technician education for the advanced manufacturing sector*

## Market Overview

This online learning platform delivers technician education to both industry and educational institutions. According to Docebo, the eLearning market was estimated to be over USD 165 Billion in 2015 and is likely to exceed USD 240 Billion by 2021. Factors such as learning flexibility and cost are major contributors to the rise of online education. While online learning platforms are a great source for many, the industry lacks personalized, asynchronous learning content for high school and community college students, particularly in technical fields such as advanced manufacturing. To meet this need, Clemson University researchers have developed EducateWorkforce, an online technological curriculum tailored to the unique needs of two-year colleges and technicians. The EducateWorkplace website brings new perspectives and opportunities for an authentic workplace experience compared to traditional technical education. The platform utilizes Universal Design for Learning (UDL) standards to ensure students with multiple learning styles and disabilities can benefit from the instructional materials. The curriculum uses a combination of recorded video lectures, interactive assessments, open text, and virtual reality simulations to deliver a high quality learning experience.

## Application

Education, Advanced Manufacturing

## Stage of Development

Commercially available

## Advantages

- Integrates UDL principles and educational tools, making learning more accessible and efficient
- Uses open edX architecture for content delivery and tracking, allowing seamless integration with current institutional infrastructures
- Utilizes modular courses, enabling self-paced progress for ultimate flexibility

## Technical Summary

The EducateWorkforce site offers partnering technical colleges a successful blend of powerful online and digital solutions into their existing courses. The course offerings are designed based on sound pedagogical foundations to help students master basic engineering concepts quickly and effectively. Opportunities such as individualized grade reports, rubrics and self-grading tools, and modularized formats give students flexibility as they complete the learning activities. The streamlined interface of the courses' layout minimizes the learner's distractions when reviewing content. An individualized grade report including a summary analysis of overall course progress, as well as detailed analysis of individual module sections and problems within the course is provided. This allows the learner to quickly identify mastered sections and areas for improvement or remediation. On the grade report, each module section is linked to allow the learner to revisit the content more easily. Currently, the EducateWorkforce site has 16 unique courses.

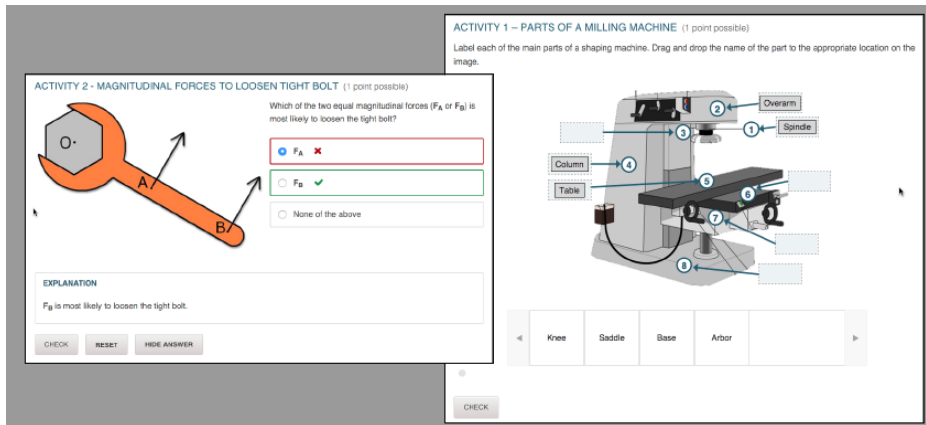


Figure 1: Examples of the interactive assessments used on EducateWorkforce

App Type	Country	Serial No.	Patent No.	CURF Ref. Number	Inventors
Copyright	United States	NA	NA	2017-011	Anand Gramopadhye, Chalil Madathil Kapil

## About the Inventors



Dr. Anand Gramopadhye is Professor and Dean of the College of Engineering, Computing and Applied Sciences at Clemson University. He earned his Ph.D. in Industrial Engineering/Human Factors from State University of New York at Buffalo. He has more than 300 publications and is a Fellow of the Institute of Industrial Engineers. His research focuses on solving human-machine system design problems and modeling human performance in technologically complex systems, such as health care, aviation and manufacturing.



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## For More Information

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