CAROLINE THOMPSON and KRISTY HENSON, Dept of Forensic Science, Fairmont State University, Fairmont, WV, 26554. Comparing Virtual and Face-to-face Forensic Science Labs.

Due to Covid-19 and the recent demands for virtual options, this project was designed to investigate potential forensic science online resources and virtual labs and compare these to similar in-person classroom experiences, specifically with regard to student performance on assessments and student perceptions about learning. This project is being conducted by teaching middle schoolers, both in person and virtually, and comparing the different environments. Two virtual software programs are being compared; Learn Engine's Diablo Highway and Cengage's virtual forensic science lab. In addition, surveys have been given to participating students for them to provide feedback about the methods. This research found that students who were taught fully in person produced an average test score of 76.67% and lab assignment averages of 83.33% on glass fracture and hand writing analysis lessons; when the students were taught using Learn Engine Virtual on their own, they received an average quiz score of 81% and average lab score of 76% on blood typing and fingerprint comparison lessons; when students worked on Learn Engine virtual lessons with a teacher present, their average quiz score was 72.9% and the average lab score was 86.78% on hair analysis and DNA analysis lessons. The preliminary data suggests that teaching virtually obtains comparable results to teaching in person.