

PERCEPTIONS OF VIRTUAL LABORATORIES AMONG JAMAICAN GRADE 10 STUDENTS

Nicole Kerr-Walker

This study presents findings of students' perceptions of Virtual Laboratories in Chemistry. A multi-method sequential design was used with primary focus on an intervention. A group of 14 students were trained in the use of four Chemistry laboratory exercises using CoreSciences Virtual Laboratories. After the intervention, 92.9% of the students believed that virtual laboratories will help them with laboratory instructions, 71.4% believed that virtual labs can help them to do real labs and learn how to do real labs. The significance of this research is that students are open-minded to the use of virtual laboratories as tools to develop their confidence in laboratory skills. The positive perception about virtual laboratories suggests that they can be used to assist students and teachers during the assessment process for skills required for the school based assessment for the sciences. More research is needed to determine the effect of integrating virtual laboratories on the development of experimental skills for the school based assessment as an assessment for learning tools in the post covid era. Virtual laboratories can be implemented to assist teachers and students in gaining experimental skills for scientific assessments.

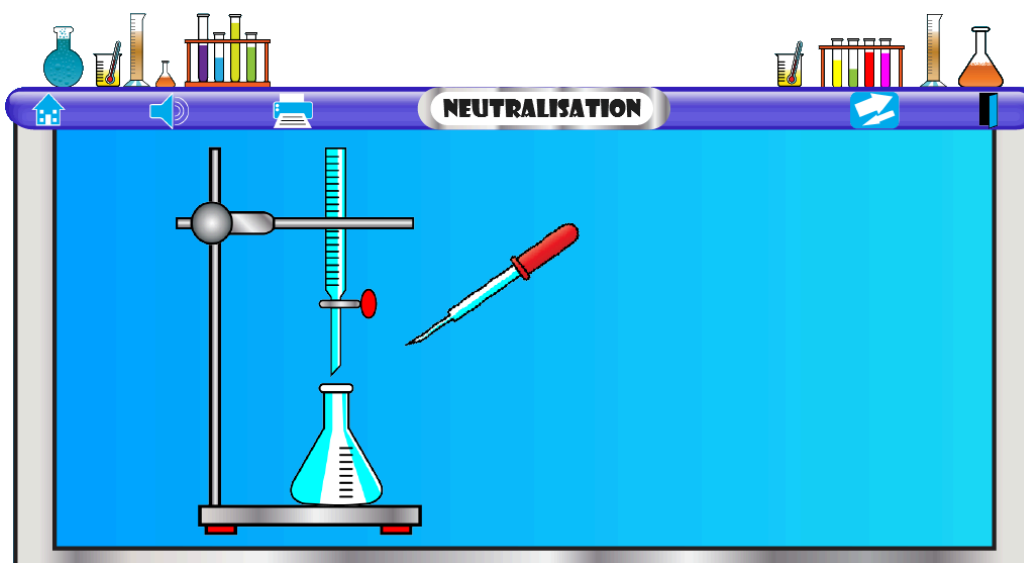


Figure 1

©Virtual Laboratory Experiment

Contributed by CoreSciences / CORE Data Systems Limited

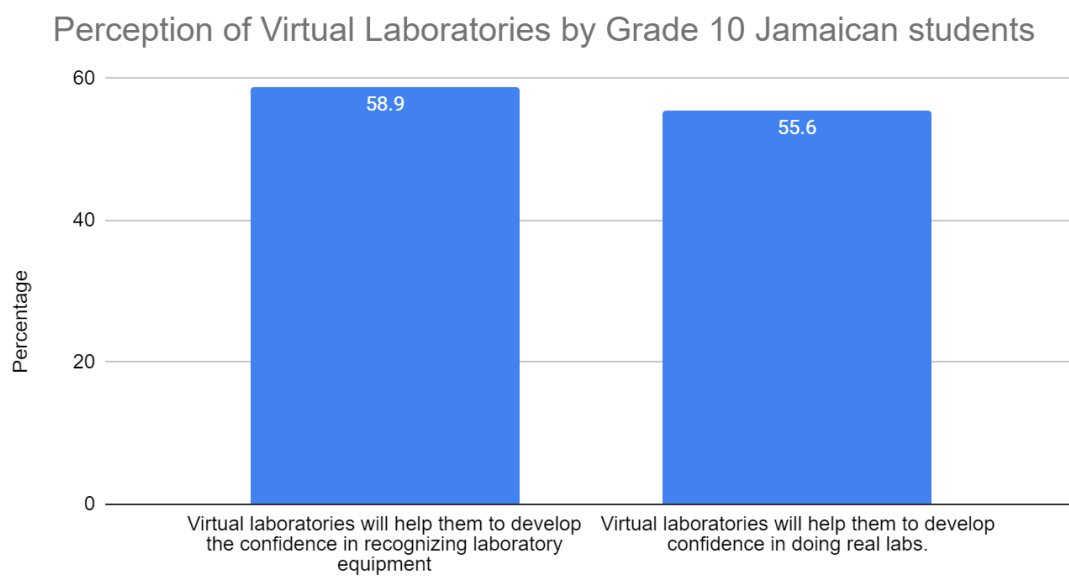


Figure 2

Perception before Intervention

Perception of Virtual Laboratories by Grade 10 Jamaican students after intervention

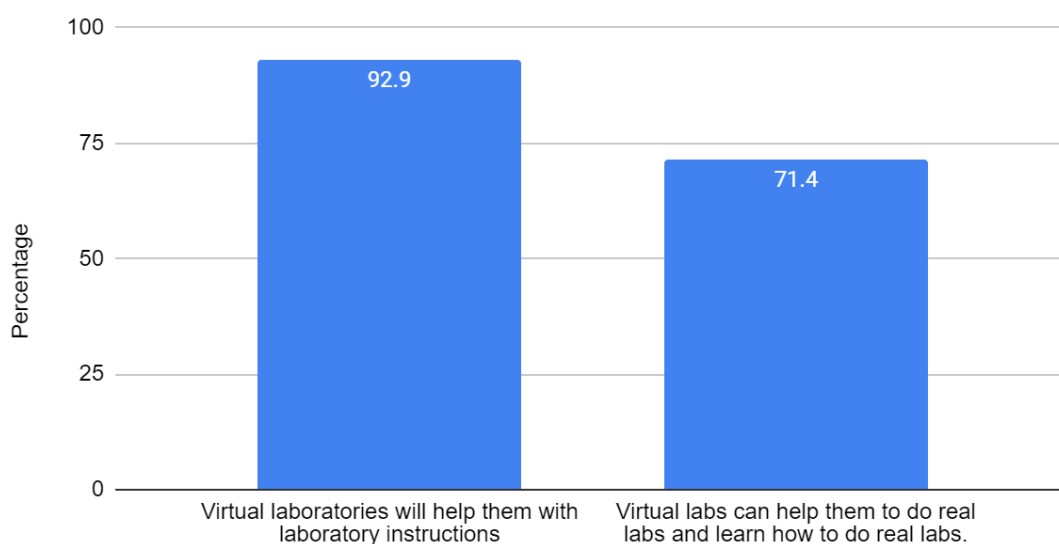


Figure 3

Perception after Intervention

References

Greggory, S., Dalgarno, B., Campbell, M., Reiner, T., & Masters, M. (2011). Changing directions through VirtualPREX: Engaging pre-service teachers in virtual professional experience.

https://www.researchgate.net/publication/230854740_Changing_directions_through_VirtualPREX_Engaging_pre-service_teachers_in_virtual_professional_experience.

CoreSciences is an online science learning platform for GCSE science focused on the Required Practicals element of the GCSE syllabus.

www.coresciences.co.uk