
ENHANCING STUDENT ENGAGEMENT IN LABORATORIES: IMPLEMENTING PASS/FAIL LAB SKILL COMPETENCIES

Chantal Hoppe^a, Julia Young^a, Reyhan Akhtar^a, Julia Choate^b, Kim Catania^a and Sonja McKeown^a

Presenting Author: Chantal Hoppe (Chantal.Hoppe@monash.edu)

^a Department of Anatomy & Developmental Biology, Monash University, Clayton VIC 3156, Australia

^b Department of Physiology, Monash University, Clayton VIC 3156, Australia

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SUBTHEME: Assessment

PROBLEM

Within the evolving educational landscape, traditional bioscience laboratory education struggles to keep students engaged, with poor lab attendance leading to poor skills development. This study explored a novel approach that addresses this by incorporating essential lab competencies, fostering a relaxed learning environment, and equipping students with valuable skills.

PLAN & ACTIONS TAKEN

We took a transformative approach to laboratory education in a large cohort first-year Biomedical Science and second year Science course, with the potential to be applied more broadly. Here are the key elements:

Focus on Lab Competencies: Instead of traditional lab activities and assessments, the focus shifted to mastering essential lab skills like Light Microscopy Basics, Pipetting, Scientific Drawing and Professionalism.

Relaxed Learning Environment: The aim was to create a less stressful atmosphere enabling students to focus on their lab skill development.

Simple Pass/Fail Assessment: Traditional lab assessment was replaced with a pass/fail system based on rubrics, reducing pressure and emphasizing skill acquisition.

Increased Student Engagement: By incorporating these elements, the plan aimed to make lab education more engaging and relevant for students.

REFLECTION

The anonymous feedback received from students was overwhelmingly positive and attendance rates were high. As a result, we plan to extend this methodology to other academic units characterized by poor engagement and low lab attendance. This could be further integrated into non-vocational degrees to structure skill building relevant to the workplace. This case study underscores the potential of laboratory competencies as a valuable tool in transforming assessment practices, fostering student engagement, and promoting relevant skill development in diverse academic settings.

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