UNDERSTANDING THE RELEVANCE OF SCIENCE IN REAL LIFE THROUGH GROUP PROJECTS

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PROBLEM
Finding effective ways to assess the practical component of science courses can be challenging as they have a wide range of learning objectives.

PLAN
Rather than using written exams to asses practicals, a new structured enquiry-based task was designed to foster a deeper understanding of laboratory learning.

ACTION
The students were put into groups and assigned a metabolic condition related to biochemical pathways they studied in lectures. They had to design and present an experiment to diagnose a patient with their assigned condition using an experimental technique learned in the laboratory. This assignment targeted essential skills such as teamwork, communication, relevance of biochemistry in real life, experimental design, peer assessment, critical thinking and problem solving.

REFLECTION
Dynamic ongoing assessments such as these give insights into how students understand concepts and when is the perfect time to add interventions and scaffolding when they are struggling. Moving away from an individual exam to a group project also add value as the students are naturally more inclined to become competent at a task as mastery occurs together and their sense of community grows over time. Current data collected through student surveys and mark comparisons suggest that the group project was effective in teaching the essential skills mentioned above.

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