**Is the cost of home experiments a potential barrier to learning? Experiences from two level one science modules**

Louise

A previous eSTEeM project into awarding gaps between Black students and White students yielded unexpected feedback. When discussing home experiments, a student made the following comment "The experiment, it assumed that you had certain things in your house. It assumed that you had everything in your house and they don't support you." This comment initiated this follow-up eSTEeM project on home experiments and the expectations and assumptions that students should have or should be required to source all the materials and facilities necessary to carry these out.

Zoë

Whilst the comment stemmed from research focused on Black and White students, access to suppliers needed to carry out home experiments is not an issue specific to ethnicity. Therefore, it was decided to broaden the target group to include all students who are required to participate in home experiments.

With a broader approach, we set out to look at potential barriers that have been seen by students in modules where home experiments are mandatory and contribute to assessment, as well as overall module outcomes, namely S111 and S112.

Louise

Our research aims to identify barriers experienced by students, including theÂ

potential lack of access to alternative resources, as to why they may, or may not, participate in home experiments.

We're hoping to use the outcomes of this research to formulate a reformed approach to home experiments, where alternative resources are better developed to support students meeting learning outcomes. For example, producing videos of home experiment set-ups, which although still lacking in practical skill development, students can still observe, they can still collect data and can still analyse results.

Zoë

We've developed a questionnaire in Jisc to obtain both quantitative and qualitative data from students about their engagement with home experiments in S111 and S112. This is scheduled to go out in April 2023 to students who have previously completed both S111 and S112. Whilst the questionnaire will remain anonymous, students have an option to provide their name and contact details ahead of potentially holding interviews and or focus groups for further data gathering.

Louise

Once we've collected and analysed the data, we will disseminate our findings more widely across the University to improve wider students experience of practical work. Thank you for listening.