Physics Research in School Environments: A template programme of deep engagement with schools

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School students rarely experience science in the same way as researchers and educational research has highlighted the limited impact of typical STEM outreach interventions. However, to address this there are a number of growing efforts for school students to undertake independent project work with direct links to current scientific research.

Queen Mary University of London’s Physics Research in School Environments (PRiSE) programme is one such example. Aimed at 14-18 year olds, the programme currently consists of four projects whereby students and teachers are supported by active researchers. 50 schools have participated in these 6-month long projects thus far. Unlike for example citizen science, the projects’ independent, exploratory nature aim to give participants an authentic research experience, rather than crowdsourcing a set of prescribed tasks.

We present our template for these projects that can easily be adopted by other institutions. Our evaluation has shown the benefit such experiences have on both students and teachers, reporting increased confidence in scientific topics and methods as well as developing skills through work on the project. Furthermore, these efforts can impact upon the researchers, giving new context to their research topic and, in a small number of cases, producing novel and unexpected scientific results. We finally highlight some elements of good practice which may be relevant to others currently (or interested in) running similar projects/programmes.