

Exploring the Teaching of Physical Science through Inquiry

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ABSTRACT Inquiry-based instruction has not been widely adopted by secondary school science teachers, inspite of decades for research and curriculum design. This paper aimed at contributing to the documentation of the use of inquiry in Physical Science classrooms. In this case study, the data from the four participants about their classroom practice was gathered using qualitative research methods of observation protocol and individual interviews. Analysis of results showed that majority of these teachers held fairly limited views of inquiry making them use teacher-centered approaches. Elements and essential features of inquiry were observed in less than half their lessons. The remaining teacher used a combination of both traditional classroom activities and inquiry-based activities with more abilities to do inquiry and essential features of inquiry in their lessons, leading to a guided type of inquiry. This paper documents that even the experienced teachers struggle to enact inquiry-based teaching and therefore recommends professional development programmes (PDPs) that will enrich teachers' knowledge of inquiry.