

## **South African High School Students' Experiences of Inquiry During Investigations: A Case Study**

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**ABSTRACT** This paper investigated Physical Science students' experiences of the nature of classroom inquiry during investigations. The paper followed a mixed method research design. One hundred and sixty-seven Grade 11 students were surveyed. The students were sampled from five schools in one of South Africa's 9 educational provinces. Students' experiences of the nature of inquiry in Chemistry practical investigations were assessed through a 20-item Likert-type questionnaire. Semi-structured interviews were conducted with five students from each Grade 11 class at each of the 5 schools. The interviewed students (25) were selected following the stratified random sampling technique. As a group, the majority of the surveyed students (82%) were found to experience generally moderate levels of inquiry in their Grade 11 Chemistry practical investigation. The nature of student experiences of laboratory experiences was found to be associated with gender. Implications for both the theory and practice of science education are raised.