

Contribution ID: 127 Type: Oral Presentation

GRADE 11 PHYSICAL SCIENCES LEARNERS' PERCEPTIONS OF SCIENTIFIC INQUIRY

Tuesday, 27 July 2021 15:15 (15 minutes)

This study explored South African Grade 11 Physical Sciences learners' perceptions of scientific inquiry within the context of science classrooms. The study adopted a mixed method approach as part of an exploratory descriptive survey design and involved 50 purposively selected Grade 11 physical sciences learners from 3 South African township schools. The empirical investigation is underpinned by inquiry in school science as the underlying theoretical framework. Quantitative data was collected by administering a validated Learner Perceptions of Classroom Inquiry (LPCI) instrument with the participants. Qualitative data was collected through semi-structured interviews. The study revealed that the learners held mixed conceptions about the nature of scientific inquiry. A substantial number of learners held naïve and incoherent views about the nature of scientific inquiry. Lack of practical laboratory lessons, lack of well-equipped science laboratories, inadequate teacher professional competence when conducting scientific investigations, and limited opportunities for meaningful engagement in inquiry-based learning activities were perceived to be contextual factors that serve to hinder meaningful enactment of scientific inquiry in science classrooms. The findings have profound implications for meaningful enactment of contemporary pedagogic approaches such as inquiry-based learning in diverse contexts. Theoretical implications for coherent development of scientific literacy through meaningful enactment of scientific inquiry within the broader South African educational context are discussed.

Apply to be considered for a student; award (Yes / No)?

Yes

Level for award; (Hons, MSc, PhD, N/A)?

MSc

Primary authors: Mrs ZUNGA, Rosemary (University of Johannesburg); RAMAILA, Sam (University of

Johannesburg)

Presenter: Mrs ZUNGA, Rosemary (University of Johannesburg)

Session Classification: Physics for Development, Education and Outreach

Track Classification: Track E - Physics for Development, Education and Outreach