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# INTEREST OF PHYSICAL SCIENCE GRADE 12 LEARNERS TO UNDERTAKE STUDIES AND CAREERS WITHIN THE FIELD OF SCIENCE

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Investment in Research and Development results in economic growth. Not selecting Science as part of one's school curriculum places learners at a disadvantage in terms of the range of tertiary qualifications accessible to them when they enter university, and in terms of their career choices.Literature has reported repeatedly that South African learners have the poorest literacy and numeracy skills according to global standards.Studies at Wits University indicate that unlike most subjects that learners take in Grade 12 in South Africa, Physical Science acts as a predictor for academic success at the level of first year.It is crucial to determine factors that learners perceive as supportive and constraining to their choice of qualification and career post-secondary school.

This study sets out to determine the extent to which career guidance at school, support from the home environment, peer-influence, and the students' aspiration to enter into Sciences as a career influence the Grade 12 Physical Science students to make this choice. Data collected in the form of a questionnaire from 75 learners across three schools, i.e. private school, fee-paying public school, and no-fee Dinaledi public school. A Dinaledi school receives a grant to improve the number and quality of passes in Mathematics and Physical Sciences.

Learners indicated their family would support their decision to attend university (60% of learners from no-fee school, 79% from fee-paying public school, 100% from private school).67% of learners from the no-fee school indicated they learnt about career options and requirements based on watching television, 55% from the fee-paying public school and 25% from the private school alluded to this. 81% of learners from no-fee schools indicated that their friends supported their choice of career, 75% of learners from the private school and 45% from the fee-paying public school expressed a similar belief.There is a substantial pool of students who would like to study Science at University (69-81%) but either do not believe that they have the grades to enter (25% from private school, 52% from fee-paying public school, and 57% from no-fee public school), the financial resources for their studies (17% from the fee-paying public school and 31% from the no-fee public school), and are concerned about their work ethic (17% from fee-paying public school and 40% from no-fee public school).Compared to learners in the private school (75%) and fee-paying public schools (83%),only 31% of learners taking Physical Science at the no-fee public school believe that a career in Science is accessible to them. This means that there is a reduction in the pool of potential talent available for the R&D industry that stems from the level of secondary school.If current trends in Science in the South African landscape continue, the research and development industry in South Africa will be negatively impacted. Thus the deep-seated reasons for students studying Physical Science at school need to be investigated.

## Apply to be<br> considered for a student <br>   award (Yes / No)?

No

## Level for award<br> (Hons, MSc, <br>   PhD, N/A)?

N/A

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