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A STUDY OF STUDENT TEACHERS' MISCONCEPTIONS ON UNIFORM CIRCULAR MOTION

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Uniform circular motion is one of the key mechanics topics in Physics that students fail to comprehend and master. In South Africa, uniform circular motion is currently not taught to Physical Sciences Matriculate learners and thus students are only introduced to it at university level. It is common cause that poor comprehension of fundamental concepts and tenets of uniform circular motion leads to difficulties in understanding related topics such as Rotational Kinematics and Rotational Dynamics. This study aims at investigating student teachers' misconceptions about uniform circular motion and its pertinent underlying concepts such as tangential acceleration and centripetal acceleration. The study will also attempt to figure out the source(s) of the ensuing misconceptions. The sample of the study consists of 45 second-year Physical Sciences student teachers at a South African university. A multiple-choice test consisting of 20 questions on uniform circular motion will be administered. Simple and explanatory statistical techniques will be employed to analyse the data and appropriate intervention methods will be proposed to curtail the identified misconceptions.

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