

INFLUENCE OF TEACHER SELF-EFFICACY ON TRANSFER OF STRENGTHENING OF MATHEMATICS AND SCIENCE IN SECONDARY EDUCATION (SMASSE) PEDAGOGICAL SKILLS IN KENYA

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ABSTRACT

Teachers form a pivotal pillar in curriculum implementation. The pedagogy employed by the tutors to achieve effective teaching and learning has been of great concern to actors of education since time immemorial. Studies have shown that governments worldwide dispense with huge financial and human resources to attempt to discharge professional development with a view to impart relevant pedagogical skills meant to have a more competent teaching force. Such has been the case for SMASSE training for science teachers in several African countries (Kenya included) but not much is known about the contribution of teacher self-efficacy in enhancing application of Activity, Student-oriented Experiments and Improvisation (ASEI) using Plan Do See and Improve (PDSI) approach which is a modern pedagogy in science instruction. The purpose of this study was therefore to investigate the influence of teacher self-efficacy in the transfer of SMASSE pedagogical skills in secondary schools in Kenya.

The study was delimited to Kisii County and adopted ex post facto research design. A sample of 230 science teachers, 87 principals, and 750 forms four students comprised the informants. Data were collected by the use of questionnaires, lesson observation, and document analysis. Descriptive and inferential statistics were used to analyze data. Hypotheses were tested using the Pearson product moment correlation coefficient at a level of significance $p < 0.05$. The study found teacher self-efficacy to be moderate. The null hypotheses relating to the association between teacher self-efficacy and transfer of ASEI-PDSI pedagogy was not rejected implying that teacher self-efficacy did not influence the use of this pedagogy in Kenya. This research recommended that principals should henceforth work towards enriching their tutors with self-efficacy through harnessing the four sources of teacher efficacy namely; Mastery experience, vicarious experiences, verbal persuasion, and psychological and affective states.

KEYWORDS: *Self-Efficacy, Pedagogical Skills, Transfer, Sciences, Practical Activities, Performance*

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