

# **A Sequential Exploration of the Effects of ASEI-PDSI on Students' Affective Learning in Chemistry and Teacher –Student Rapport in Mbooni West Sub-County Kenya**

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## **Abstract**

This study explores teachers' level of implementation of ASEI-PDSI and the effects of ASEI-PDSI on the effective learning and teacher-student rapport .As a teaching methodology ASEI-PDSI being constructivism, requires much of student-teacher interaction greatly related to effective features of learning and teacher-student rapport, yet these factors are underrated in the methodology a possible cause for persistent poor performance in chemistry.

The study was guided by theory of social constructivism which proposes that knowledge is co-constructed through social interactions .sequential explorative multi-level mixed methods design was used ,where data was obtained from 8 chemistry teachers through interviews, lesson observations and document analysis followed by quasi-experiment using two-group pretest-posttest design involving one teacher and students in form two classes. The control class had 61 students and experimental class had 64 students.

It was established that implementation of ASEI-PDSI was inadequate due to poor planning resulting from heavy workloads, understaffing, lack of ICT skills, and appropriate ICT facilities among other challenges, nevertheless ,the results of the experiment revealed the effectiveness of the treatment ASEI-PDSI on improving students' attitude towards chemistry, motivation in learning chemistry, self –efficacy in chemistry, and teacher-student rapport in chemistry classes regardless of students' gender.

**Keywords:** Sequential Exploration, ASEI-PDSI, Learning in Chemistry, Teacher –Student Rapport, Mbooni West Sub-County, Kenya.