

CURRICULUM KNOWLEDGE OF SCIENCE TEACHERS AND ITS EFFECTS ON ACADEMIC PERFORMANCE OF PUPILS

**Stephen Twumasi Annan^{1*}, Collins Owusu-Fordjour¹, Charles Kwesi Koomson¹, Collins Agyemang¹,
Roseline Addae² and David O. Anim²**

¹Department of Integrated Science Education, University of Education, Winneba, P. O. Box 25,
Winneba, GHANA

²New Juaben Municipal Education Office, P. O. Box FW 120, Effiduase-Koforidua, GHANA

*Corresponding author email: stwumasiannan@yahoo.com

ABSTRACT

The study investigated the curriculum content knowledge of science teachers and its effects on the academic performance of pupils. Theory of teachers' knowledge and constructivist learning theory formed the framework that guided the study. The study used a mixed methods design, incorporating both quantitative and qualitative techniques to collect data. The sample consisted of 59 public Junior High school science teachers. A questionnaire on science teachers' curriculum knowledge (STCK) and science teacher's assessment practices (STAP) was used to collect quantitative data while a classroom observation schedule was used to collect qualitative data on teachers' classroom science instructional practice (STIP). The study revealed that the teachers have weak science background knowledge. The teachers' curriculum knowledge influenced science teachers' instructional and assessment practices thus contributing to the pupils' poor performance in science. Also, the Junior High School science teachers' curriculum content knowledge was weak. The Junior High School science teachers' preferred teaching method was teacher-centred instead of learner – centred. A number of implications for science teachers' curriculum knowledge instruction and assessment practices and its relation to pupils' academic performance were made. The study therefore recommend that teachers' background and science curriculum knowledge should be assessed before assigning them to teach science at the junior high schools but not just a trained teacher.

Keywords: Curriculum knowledge, assessment practices, instructional practice, curriculum materials.