AN ASSESSMENT OF THE READABILITY OF RECOMMENDED PHYSICS TEXTBOOKS IN OSUN STATE SECONDARY SCHOOLS

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ABSTRACT

This study examined the readability, relevance, acceptability and appropriateness of recommended Physics textbooks used in Osun State secondary schools. It also determined the extent at which the books complied with approved guidelines for secondary school physics curriculum. These were done with a view to determining the quality and usability of the recommended physics textbooks.

Four of the fourteen Physics textbooks recommended for Senior Secondary Schools (SSS) students in Osun State were randomly selected for the study. Twelve secondary schools offering Physics were purposively selected from five Local Government areas of Osun State. Twenty-five SSS III Physics students were then selected from each school by simple random sampling, resulting in a total sample size of three hundred. All the twenty five Physics teachers, in the selected schools also participated in the study. Two instruments "Teachers' Questionnaire" (TQ) and "Students' Questionnaire" (SQ) were used for the study. The instruments were administered by the researcher with the assistance of Physics teachers while the Fry graph readability method was employed to determine the readability of the textbooks using three chapters on the same topic from each textbook. Data collected were analyzed using descriptive statistics

The results showed that the four Physics textbooks were appropriate for secondary schools students in Osun State in terms of age (Fry graph mean age = 17 years, students' mean age = 15years). The books had the highest ratings by students on illustrations (X = 4.32, S = 0.97) and clarity of prints

(X = 4.27, S = 1.03) and the lowest ratings on sentence structure (X = 3.47, S = 1.30) and examples (X =3.32, S = 1.50). The teachers rated the vocabulary as appropriate (X = 5.37, S = 1.08) while exercises were considered least appropriate (X = 3.65, S = 1.57). The overall readability ratings of the textbooks by students were as follows Senior Secondary School Physics (SSP) (68%); Ordinary Level Physics (64%); Principles of Physics (60%) and Science Teachers Association of Nigeria Physics (STAN-P) (54%). Further, the overall readability ratings of the textbooks by teachers showed that SSP was rated as best (50%); STAN-P was second (45%); Principles of Physics was rated third (43.5%) and "0" Level Physics was fourth (40%). On the acceptability level of the four textbooks, teachers rated Senior Secondary School Physics higher than other textbooks and most relevant to the students' level. The result of the study also revealed that the structure and objectives of the four selected physics textbooks had a high level of conformity (90%) with the approved guidelines for secondary school physics curriculum.

The study concluded that the four textbooks were within the comprehension level of the students. The Senior Secondary School Physics textbook was found to be most readable and relevant to the students level. It was also acceptable to both students and teachers.

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No. Of Pages: 81