

THE FEASIBILITY AND APPLICABILITY OF COMPUTER –BASED ASSESSMENT IN COMPETENCY-BASED CURRICULUM IN KENYA

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Langat Gilbert Cheruiyot *, Gyöngyvér Molnár **

** Doctoral School of Education, University of Szeged*

*** Institute of Education, University of Szeged, MTA-SZTE Digital Learning Technologies Research Group*

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Kenya's competency-based curriculum (CBC) was introduced in Kenya in 2017, with an emphasis on key competencies that are learned through a learner centered approach focusing on developing skills. In evaluating learner's mastery of specific skills, the assessment process plays a critical role. Large-scale assessment benefits the most from the application of technology. More particularly, computer-based assessment enhances the efficiency, reliability, validity and accuracy of evaluating learner's knowledge and skills (Csapó et al., 2012). The aim of the study is to examine the feasibility and applicability of computer-based assessment in Kenya under the competency based curriculum, focusing on learners in junior secondary school. Data was collected from Grade 7 learners in Kenya, as they are the first cohort enrolled under the competency based curriculum (27 boys; 33 girls; mean age = 13.10). The tests were administered in school computer labs using the eDia platform (Csapó & Molnár, 2019), where students accessed the platform and logged in using personal codes assigned to them. The students completed the tests in four sessions, with each session lasting 60 minutes. The tests included assessments of inductive reasoning, deductive reasoning, and control of variables; beyond a newly developed scientific reasoning test we have also administered the internationally widely used Lawson test and a collaborative questionnaire. The reliability of the instruments was determined using Cronbach's alpha (inductive reasoning: $\alpha = .923$, deductive reasoning: $\alpha = .701$, control of variables: $\alpha = .780$, collaborative skills: $\alpha = .935$, scientific reasoning: $\alpha = .700$), indicating a high level of internal consistency and reliability. However, the internationally widely used Lawson test proved to have limited applicability ($\alpha = .255$). The results of the study confirm that the instruments provided reliable and consistent measures, establishing their applicability for assessing cognitive skills related to reasoning and science learning. Furthermore, the reliability of these instruments highlights the potential of computer-based assessment in evaluating cognitive skills within the competency-based curriculum in Kenya. The findings of the study indicate that computer-based assessment is feasible and applicable in Kenya for competency-based assessments. These findings play a significant role for curriculum developers by supporting the integration of digital skills into the curriculum and providing tools and approaches for monitoring and evaluating curriculum implementation.

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