



App-based Educational Support in Somali Refugee Camps: A Cognitive Development Assessment Study

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Abstract

Somali refugee camps in Egypt present unique educational challenges due to language barriers and limited resources. A randomized controlled trial was conducted with 120 participants randomly assigned to either an intervention group (using apps for learning) or a control group (standard school curriculum). Cognitive assessments were administered at baseline and post-intervention. App users showed a statistically significant improvement in arithmetic problem-solving skills, with a mean increase of 36% on the pre-post test compared to controls. Confidence intervals around these findings are not provided here due to study limitations. The app-based education significantly enhanced cognitive development among Somali pupils in refugee camps, particularly their ability to solve arithmetic problems. Further studies should explore scalability and long-term effects of the intervention across different educational contexts. Somali refugees, Cognitive assessment, Educational apps, Egypt, Randomized controlled trial Model estimation used $\hat{\theta} = \operatorname{argmin} \{ \theta \} \operatorname{sumiell} (y_i, f\theta (\xi)) + \lambda l \operatorname{Vert} \theta r \operatorname{Vert} 2^2$, with performance evaluated using out-of-sample error.

Keywords: Somali, Refugee, Mobile, Intervention, Cognitive, Evaluation, Development

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