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Zola Bongo: Enabling Offline Tablet-Based Cognitive Testing in Diverse Populations

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Peer reviewed

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Diversifying cognitive science through including understudied populations requires testing participants in their communities. In our work with different populations in Africa, touch screen tablets are an excellent tool for this. However, developing tablet-based cognitive tasks that function without internet typically requires programming skills beyond that available to many researchers. To fill this gap, we created ZolaBongo, a tablet-based application supporting tasks created in the open-source experiment builder, PsychoPy (enabling remote data management via Pavlovia). We tested ZolaBongo with children (age 4+, N = 170) and adults (N = 178) at two sites, in the Democratic Republic of the Congo and in South Africa. We used a set of short cognitive tasks chosen by our community of practice, The African Brain and Cognitive Development Network (AfriBCD). Our hope is that ZolaBongo will make it easier to translate, adapt, or create new measures, all necessary steps to facilitate research with diverse populations and contexts.