

# Adaptation of the Communicative Development Inventory (CDI) into Mandinka, a language spoken in West Africa



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Background	Method	Results
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The Brain Imaging for Global Health (BRIGHT) project is a longitudinal study, following infants from The Gambia and UK from birth to 24-months of age.

The aim is to establish brain-function-for-age curves in these settings and examine the impact of undernutrition and other factors associated with living in a low-resource setting on infant development.

Language development is one of they key areas of interest.

## Aims

The Communicative Development Inventory (CDI; Fenson et al., 2007) has been developed to measure knowledge of vocabulary and grammatical markers among children in a multitude of languages.

The aim of the present study was to adapt the CDI by creating an inventory of words and grammatical markers to be used with Mandinka speakers.

An inventory of 239 words was developed using the English, Malawi and Senegal versions of the CDI. Mandinka speaking field workers translated these words into Mandinka and suggested appropriate words for the local dialect. Pilot testing of this inventory was undertaken in 2 phases:

**Phase 1:** 30 mothers of infants aged 24-48 months were interviewed. They were asked to indicate how many words their child knew, as well as grammatical markers and complex sentences that they used. Mothers were also asked for suggestions of relevant words not on the inventory.



**Phase 2:** From these interviews, an updated list of words and grammatical markers was developed for further piloting. Interviews were conducted with 30 newly recruited mothers of infants aged 24-48 months.

## Results

Final Inventory Development

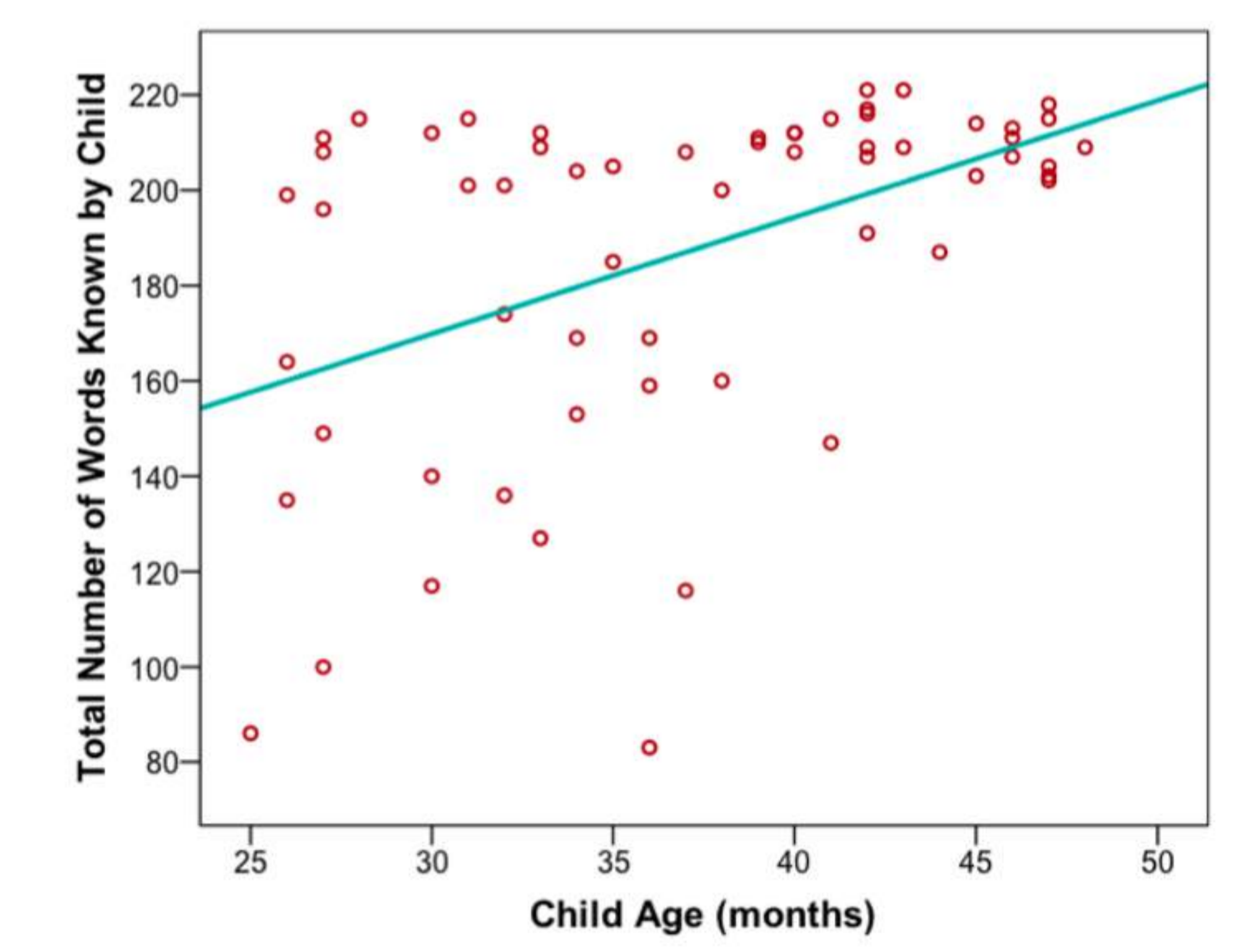
Final inventory was developed based on data collected from younger infants (aged 24-36-months) in both phases. The younger age group was used because older children were scoring at ceiling level and more variation was observed among younger children.

**90 items** were selected in the following categories:

- Easy: 18 words known by 70-100% of children**
- Moderate: 54 words known by 40-70% of children**
- Hard: 18 words known by 10-40% of children**

Association between vocabulary and age

Children’s vocabulary expands as they become older. Thus, one way to validate our measure was to examine whether it was sensitive in detecting increases in vocabulary with age within our sample. This was examined in the entire sample.



$R^2(60)=.22, p<.001$

## Conclusion

The CDI was adapted for use with Mandinka speakers aged 24-28 months and exhibits sensitivity to increasing vocabulary with age.

The development of this measure will allow for the measurement of language acquisition and development of norms for Mandinka speaking populations

See our adaptation on the CDI website:  
<https://mb-cdi.stanford.edu/adaptations.html>

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