

The Remote Infant Studies of Early Learning (RISE) Battery - A scalable assessment of cognitive development in infancy

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Abstract

Capitalizing on advances in remote developmental testing and automated gaze detection, we established a battery of tasks for comprehensive evaluation of cognitive development in infancy. The Remote Infant Studies of Early Learning (RISE) Battery allows for large-scale assessment of skills hypothesized as building blocks of cognitive development. RISE assesses attention, memory, prediction, multimodal processing, word comprehension, social evaluation, and numeracy, all with established predictive value for developmental outcomes. Using childrenhelpingscience.com, we recruited 111 infants for participation from home, at their convenience. Results were consistent with preregistered predictions for attention, memory, prediction and word comprehension tasks, but not for multimodal processing, numeracy, and social evaluation tasks. Results support the use of this battery to investigate mechanisms of infant cognition in relation to early developmental trajectories, with implications for early identification of developmental delays, evaluation of interventions to enhance early development, and testing of computational models of infant cognition and learning.