A 3-year-old can make the complex task of acquiring language seem simple. But what if there’s a problem? Without an easy test to assess early language development, preschoolers may miss out on these critical years.

“Mastery of a first language is the crowning achievement of the preschool years. It forms the basis for schooling, literacy, and social relationships,” said Jill de Villiers, Sophia & Austin Smith Professor of Psychology. She is part of a team of researchers who are collaborating to develop an early-intervention language assessment tool based on the latest research in developmental science.

“Without special training, a child’s difficulties may not be noticed easily. It is vital to have careful and subtle assessments to catch problems early before they multiply.”

With $2.8 million in funding from the Institute of Education Sciences, De Villiers is working with a team that includes language-development expert Mary Sweig Wilson ’61, founder of Laureate Learning, a company that develops software for special-needs individuals; other researchers are from the University of Delaware and Temple University. They aim to design a computer tool that will allow presentation of dynamic stimuli and a touch screen for the child’s response.

The new tool will not require a skilled examiner to administer, will take only twenty minutes to complete, and will be designed for both English and Spanish speakers.

Research has found that children with poor communication skills tend to fall behind and develop poor self-esteem at a very young age. At the same time, scholars have identified various language milestones that all children should achieve.

“Typically developing children are savants at language,” said de Villiers. “The more I know about linguistics, the more astonishing their achievements seem to me. Natural language is much more complex than calculus, so why are 4-year-olds so good at it?”

The team has begun developing a test that will provide information on both a child’s competency in vocabulary and word-learning strategies, and the child’s grammar and use of syntax in comprehension.

The assessment tool will be able to provide both individual data, to identify children who need extra assistance, and group data, to provide a baseline to assess the effectiveness of specific classroom strategies.

Throughout the next several years, the researchers will test more than 300 children in preschools, day-care and Head Start programs.—Kristen Cole

SUNDAIL RECREATED

A bronze sundial on a marble pedestal may have seemed like a timeless gift when the class of 1883 gave it to the college in 1923. But the intricately designed timepiece fell prey to vandals, and soon nothing remained except a faded rubbing and a single photo. Thanks to the Kahn Institute and a team of faculty and students from the class of 2010, the sundial was recreated in its original design, cast in bronze, and in July was placed atop a new granite pedestal in the Morris House courtyard. To calibrate it, astronomy professor Suzan Edwards created a plumb bob and marked the exact line of the shadow on the pedestal at 12:46 p.m. The next day the sundial was affixed to the pedestal with the gnomon following the line traced along the transit of the sun.