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Believing in a Child's Potential to Flourish

A Child's Place

February 2012

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Mean Length of Utterance

Has Become a Better Indicator of Language Development

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Founder / Director

Mean length of utterance has been a documented measure of language development for almost a century, but a recent study has upgraded the age-performance database available for everyone interested in child development. Mean length of utterance (MLU) refers to the number of "morphemes" a child uses in each spontaneous statement. A morpheme is the smallest, meaningful unit in the grammar of a language. For instance, "unladylike" is one word but three morphemes (un-lady-like).

Developmental milestones and definitions of language impairment have been created from reference databases such as the Child Language Data Exchange System (CHILDES) established in 2000 and the Systematic Analysis of Language Transcripts (SALT) established in 1991. These databases had methodological limitations, but were the best databases available until now. In the *Journal of Speech, Language, and Hearing Research*, Mable Rice and colleagues recently published the largest database to date on language development - 306 child participants assessed in six-month intervals from ages 2 to 9 (Rice M, Smolik F, et al. Mean length of utterance levels in 6-month intervals for children 3 to 9 years without language impairments. *J Speech Lang Hear Res.* 53 (2): 333-349). Of particular help is the fact that their new database is developed specifically for using MLU in clinical decision-making. Due to some methodological improvements and the larger sample size, the new Rice-Smolik database provides the greatest statistical reliability ever achieved by an MLU database.

The results in the new Rice-Smolik MLU database suggest a few important conclusions:

- Children ages two to four appear to have higher average MLU than previously thought. This suggests a possible under-identification of language impairment in preschool children.
- On the other hand, this improved database also suggests that children age five to nine have lower average MLU than previously thought - by almost one full morpheme.
- It has previously been suggested that an MLU average over 4.0 would not be reliable enough for identifying language impairment. The new data does not support this assertion. The highest average MLUs in the current study were between 5 and 6, and the difference between normally developing children and children earlier identified as affected by language impairment were still measurable and statistically significant.
- Along these same lines, the researchers noted that, without intervention, children identified as having language impairment at age 2 years and six months did not outgrow those challenges by age eight years and six months.

Below are the mean MLUs per age group (years; months). Variances in average MLU of 0.5 morphemes are indicative of language development challenges.

Age 2;6 to 2;11:	**just over 3 morphemes**	Age 4;6 to 5;11:	**about 4.7 to 5 morphemes**
Age 3;0 to 3;5:	**about 3.7 morphemes**	Age 6;0 to 7;5:	**about 5 to 5.3 morphemes**
Age 3;6 to 3;11:	**just over 4 morphemes**	Age 7;6 to 8;11:	**about 5.5 to 5.7 morphemes**
Age 4;0 to 4;5:	**about 4.5 morphemes**		

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