

**THE EFFECT OF PARENTING STYLE, BILINGUAL SCHOOL,  
SOCIAL ENVIRONMENT, ON SPEECH AND LANGUAGE  
DEVELOPMENT IN PRESCHOOL CHILDREN  
IN SURAKARTA, CENTRAL JAVA**

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**ABSTRACT**

**Background:** Childhood speech and language development is considered an important predictor of their future achievement. This study aimed to analyze the effect of parenting style, bilingual school, social environment, on speech and language development in preschool children in Surakarta, Central Java.

**Subjects and Method:** This was an analytic and observational study with a cross-sectional design. The study was conducted at 25 preschools in Surakarta, Central Java, from February March 2018. A sample of 200 preschool children was selected by simple random sampling from 25 preschools selected by stratified random sampling. The dependent variable was speech and language development. The independent variables were sex, nutritional status, parental education, parenting style, family income, bilingual school, and social environment. The data of speech and language development were measured by pre-screening development questionnaire. Other variables were collected by questionnaire. The data were analyzed by a multilevel logistic regression using Stata 13.

**Results:** Speech and language development increased with age ( $b= 2.03$ ; 95% CI= 0.38 to 3.68;  $p= 0.016$ ), nutritional status ( $b= 2.44$ ; 95% CI= 0.38 to 4.08;  $p= 0.003$ ), maternal education ( $b= 1.50$ ; 95% CI= 0.14 to 2.86;  $p= 0.031$ ), democratic parenting style ( $b= 2.76$ ; 95% CI= 1.16 to 4.08;  $p<0.001$ ), family income ( $b= 1.69$ ; 95% CI= 0.15 to 3.23;  $p= 0.031$ ), bilingual school ( $b= -4.46$ ; CI= -6.53 to -2.39;  $p= 0.001$ ), and social environment ( $b= 1.80$ ; 95% CI= 0.10 to 3.50;  $p= 0.038$ ). Intra-class correlation= 28.06% indicating considerable contextual effect of preschool.

**Conclusion:** Speech and language development increases with age, nutritional status, maternal education, parenting style, family income, bilingual school, and social environment.

**Keywords:** speech and language development, parenting style, bilingual school, pre-school children

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