

Various Measures of Socioeconomic Status As Predictors of Formal and Informal Home Literacy Environments

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INTRODUCTION

Individual differences in literacy during early childhood are important predictors of later reading ability (Sénéchal & LeFevre, 2002), numeracy (Melhuish et al. 2008) and cognitive achievements (Downer & Pianta 2006). These differences in early literacy have been shown to be associated with various forms of literacy opportunities in the home, collectively known as the home literacy environment (HLE; Sénéchal & LeFevre, 2002). The HLE includes both an informal aspect, which involves “those [activities] for which the primary goal is the message contained in the print, not the print per se,” and a formal aspect, which entails “those [activities] for which parent and child focus on the print” (Sénéchal & LeFevre, 2002, p. 1). In essence, informal HLE emphasizes exposure to language, whereas formal HLE emphasizes direct instruction on the skills necessary to decode and interpret language. Each of these aspects of HLE is correlated with different early literacy skills. Informal HLE is most strongly associated with oral and receptive language, whereas formal HLE is associated with print-specific skills such as decoding and alphabet knowledge (e.g., Burgess, Hecht, & Lonigan, 2002).

HLE, however, does not exist in a vacuum; it is associated with multiple family-level variables, most notably socioeconomic status (SES). Like HLE, SES is a multi-faceted construct that can be conceptualized in many ways, such as parental education or income (e.g. Erola, Jelonan, & Lehti, 2016), and different aspects of SES may be differentially related to aspects of HLE. For example, research evidence shows that low-income families have fewer resources such as books in the home (e.g. Erola, Jelonan, & Lehti, 2016), suggesting that income-related measures of SES may predict informal HLE. In contrast, parental education may have the greatest association with formal HLE, as having a higher level of knowledge about literacy is related to positive attitudes towards the importance of direct instruction (DeBaryshe, 1995) and the ability to teach the literacy content (Sénéchal & LeFevre, 2014). Using the definitions of formal and informal HLE set forth by Sénéchal & LeFevre (2002), we investigated the extent to which different conceptualizations of SES predicted the distinct aspects of HLE.

STUDY AIMS

1. To delineate the relations between various measures of SES and the Formal and Informal HLE.
2. To test the hypothesis that the Formal HLE is more strongly predicted by measures of parental education, whereas the Informal HLE is more strongly predicted by income-based measures of SES.

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METHOD

This study was conducted using data from a larger project evaluating the efficacy of an early childhood literacy curriculum. All data used in this study was collected via a Child Background Questionnaire (CBQ) and 2 sections of the Family Early Literacy Practices survey (FELP; Deniz Can, Ginsburg-Block, & Golinkoff, 2007) administered prior to curriculum use.

Participants (at study entry)

- $N = 393$ children over two cohorts
- Age ($M = 50.003$ months, $SD = 9.272$ months)
- Race and ethnicity (28.9% White/Caucasian, 50.8% Black/African-American, 4.7% Asian, 15.6% Other/Multiracial)
- Annual Family Income
 - 47.7% Less than \$25,000
 - 39.9% Between \$25,000 – \$75,000
 - 12.4% Greater than \$75,000
- Parental Education
 - High School Diploma or Less (27.8% Mothers; 42.2% Fathers)
 - Some College or Technical School (40.1% Mothers; 31.1% Fathers)
 - Associate’s or Bachelor’s Degree (23.4% Mothers; 20.0% Fathers)
 - Graduate Degree (8.7% Mothers; 6.7% Fathers)

Procedure

Participants were recruited from Columbus area preschools. Upon recruitment, each child’s parent or guardian was asked to fill out a packet including the CBQ, 2 sections of the FELP, and a consent form. These forms were returned to the child’s preschool teacher and picked up by the research staff.

Table 1: Measures

Construct	Measure
Informal Home Literacy Environment	Average of self-reported scores (range of 1-5) on the following items from the FELP: <ul style="list-style-type: none"> • “I try to make reading a fun time for my child” • “I read to my child” • “I tell my child stories” • “I read the same books to my child over and over” • “I provide books for my child to read”
Formal Home Literacy Environment	Average of self-reported scores (range of 1-5) on the following items from the FELP: <ul style="list-style-type: none"> • “I work on spelling words with my child” • “I help my child with reading” • “I teach my child the names of letters” • “I teach my child letter sounds” • “I teach my child to read words” • “I teach my child words that start with the same sounds”
Household Income	“Please fill in the circle that describes your overall annual household income level” (<i>Reported in blocks of \$10,000</i>)
Income to Needs Ratio	Household Income divided by the U.S. poverty line determined by family size (U.S. Dept. of Health & Human Services, 2017)
Maternal Education	“What is the highest level of education completed by this child’s mother/female guardian living in the household?”
Paternal Education	“What is the highest level of education completed by this child’s father/male guardian living in the household?”

Table 2: Unique Contributions of SES to HLE

Predictor	Informal HLE			Formal HLE		
	β	p	R^2	β	p	R^2
Model 1			.076			.001
Income	.182	.010*	-	.044	.541	-
Maternal Education	.207	.013*	-	.000	.997	-
Paternal Education	-.102	.232	-	-.032	.716	-
Model 2			.086			.003
Income to Needs Ratio	.179	.014*	-	.041	.586	-
Maternal Education	.221	.010*	-	.033	.713	-
Paternal Education	-.094	.277	-	-.013	.888	-

Note: Two separate models were estimated because of the high correlation between Income and Income to Needs Ratio ($r = .974$)
* $p < .05$

CONCLUSIONS

The results of this study suggest that income, income to needs ratio, and maternal education are unique, significant predictors of informal HLE. These results align with prior research suggesting relations between SES and HLE generally (e.g. Erola, Jelonan, & Lehti, 2016). However, no measures of SES were significant predictors of formal HLE.

Results only partially support the hypothesis of this study. As hypothesized, income-based variables significantly predicted informal HLE after controlling for parental education, but maternal education also remained a significant predictor of informal HLE after controlling for income-based measures. Moreover, the magnitudes of these associations were similar, around .2. Additionally, results do not support the hypothesis that formal HLE would be more strongly predicted by parental education, as no measure of SES significantly predicted formal HLE. This deviation from the hypothesis may be explained by a lack of understanding among parents about the importance of formal HLE. Whereas parents commonly view it as important to have books in the home and to read to children (Pillinger & Wood, 2014), they may view formal HLE as the responsibility of schools and teachers, regardless of SES.

These results, despite not completely aligning with the original hypothesis, do suggest the complexity of associations between SES and HLE. The results suggest that SES plays a role in informal HLE, but also suggest that SES is not a catch-all predictor of HLE and that other factors not explored in this study may predict both informal and formal HLE.

This study is limited by use of self-report data that may be influenced by social desirability. Despite this limitation, this study provides important information about predictors of HLE. Results suggest that children in households with lower incomes or lower maternal education levels might benefit from policy initiatives aimed at increasing the informal HLE and thus early language learning opportunities in the home. Future studies should determine variables predictive of formal HLE such that gaps in early literacy opportunities can be addressed to better support children before they ever set foot in a classroom.

ACKNOWLEDGEMENTS

The research reported here was supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R305A160261 to The Ohio State University. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.