

**Exploratory Measures of Parenting  
Developed for the JOBS Descriptive Study**

**Martha J. Zaslow, Carrie L. Mariner, Kristin A. Moore,  
and Erin Oldham**

**Child Trends, Inc.**

**Methods Working Paper # 98.6**

*In this working paper, steps are taken to build beyond the HOME-Short Form as a survey measure of parenting and the home environment. In particular, a set of Exploratory Measures of Parenting were developed which (1) delineate specific aspects of emotional support in separate subscales rather than seek to address diverse aspects of the affective climate of the home in a single subscale; (2) go beyond consideration of physical punishment in measuring approaches to discipline; and (3) deemphasize material possessions as sources of cognitive stimulation for the child. Data come from the JOBS Descriptive Study, which was carried out in Fulton County, Georgia, with a sample of families in which the mothers had applied for or were receiving welfare benefits. All of the families in the sample had a preschooler of between about 3 and 5 years of age. The early childhood version of the HOME-Short Form and the set of Exploratory Measures of Parenting were both included in an interview carried out in the families' homes. Analyses examine the internal consistency and predictive validity (both concurrent and longitudinal prediction to child outcomes) for both the HOME-Short Form and the Exploratory Measures. Results indicate better internal consistency for the Exploratory Measures of Parenting, particularly for the scales delineating aspects of emotional support. The Exploratory Measures had better predictive validity (both concurrent and longitudinal) with respect to measures of child social development, but not with respect to measures of child cognitive development.*

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**Introduction**

In this paper, we examine and contrast the reliability and predictive validity of two sets of parenting measures: (1) the form of the Home Observation for the Measurement of the Environment (HOME) Inventory that has been adapted and abbreviated for use in surveys (the HOME-SF or short form); and (2) a set of Exploratory Parenting Measures developed for the JOBS Descriptive Study, a study carried out with the aim of describing the family circumstances and development of preschool-age children in a sample of welfare families.

The JOBS Descriptive Study provided an unusual opportunity for methodological work on parenting measures within a low income sample. In particular, it was possible to include in

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this study *both* the HOME-SF and the set of Exploratory Parenting Measures, and thus to contrast their functioning within a single sample. As we will summarize below, the Exploratory Parenting Measures developed for the JOBS Descriptive Study sought to address a series of specific issues and problems identified in the available survey measure of parenting when used in a low income sample. The Exploratory Parenting Measures built on the HOME-SF (incorporating selected items from this measure), but also went beyond the HOME-SF, including new items and organizing the scales differently, in order to address these issues. In this paper we ask whether there is any evidence of improved internal consistency or predictive validity with the Exploratory Parenting Measures relative to the HOME-SF, when both are used in the JOBS Descriptive Study sample.

#### **Specific Concerns That the Exploratory Parenting Measures Sought to Address**

The specific concerns that we sought to address in developing the Exploratory Parenting Measures for the Descriptive Study are based on a review of the evidence on the reliability and validity of the HOME-SF (Mariner and Zaslow, 1998: Methods Working Paper # 98.1 in this series), as well as on analyses that we and other researchers have completed, looking at the psychometric properties of the HOME-SF as it has been used in a national survey, the National Longitudinal Survey of Youth-Child Supplement (Baker, Keck, Mott and Quinlan, 1993; Mariner and Zaslow, 1998: Methods Working Paper # 98.2 in this series). There are three specific concerns that shaped the development of the Exploratory Measures:

**Poor internal consistency of the Emotional Support subscale of the HOME in its survey version.** The first concern that we sought to address was poor internal consistency of the

two HOME-SF subscales, and especially of the Emotional Support subscale, when used in a low income sample. As reported by Baker, Keck, Mott and Quinlan (1993), the internal consistency (Cronbach's alpha) for the HOME-SF subscales in the 1990 data from the National Longitudinal Survey of Youth-Child Supplement (NLSY-CS) ranged from .50 to .72 for the Cognitive Stimulation subscale across the three different age groups studied (infants/toddlers; preschoolers; school-age children), and from .35 to .61 for the Emotional Support subscale. This suggests that internal consistency is generally less strong for the Emotional Support subscale.

In Methods Working Paper # 98.2 in the present series, we examine the internal consistency of the preschool-age version of the two HOME-SF subscales separately for three major racial/ethnic groups (Hispanic-American, African-American and European-American) in the 1988 wave of the National Longitudinal Survey of Youth-Child Supplement. In these analyses we confirmed that internal consistency was uniformly higher for the Cognitive Stimulation subscale than the Emotional Support subscale *within each of these racial/ethnic groups* (see Table 4b of Methods Working Paper # 98.2). In addition, while the internal consistency for the Cognitive Stimulation subscale had a very narrow range (from .69 to .72) across the three racial/ethnic groups, the internal consistency scores were more divergent across groups for the Emotional Support subscale (.52 for African-American families; .57 for European-American families; .69 for Hispanic-American families).

Previous analyses with the Descriptive Study dataset indicate that internal consistency for the preschool version of the HOME-SF as used in this sample is generally lower than that reported on for the NLSY-CS. Not only is it the case, once more, that the internal consistency

for the Cognitive Stimulation subscale is higher than that for the Emotional Support subscale, but the alpha for the Emotional Support subscale is particularly low. In the Descriptive Study sample, Cronbach's alpha was .56 for the HOME-SF total score, .55 for the Cognitive Stimulation subscale, and .32 for the Emotional Support subscale (Mariner and Zaslow, 1998: Working Paper # 98.3 in the present series). Thus, in general but perhaps particularly when used in a low income sample, there are concerns about the internal consistency of the Emotional Support subscale of the HOME-SF.

Consideration of the particular items comprising the HOME-SF Emotional Support subscale suggests a possible explanation for these findings. Individual items do not address a particular, clearly delineated aspect of emotional support, but rather tap a wide range of issues. For example, the items of the Emotional Support subscale in the preschool version span the issues of use of physical punishment, expression of affection to the child, allowing the child choice in deciding what to eat at breakfast and lunch, how many hours the TV is on, how often the child eats a meal with both mother and father or a father-figure, and whether the mother conversed with the child and introduced the interviewer to the child during the course of the interview.

*In the Exploratory Parenting Measures, we delineated two specific aspects of emotional support to focus upon in separate scales: Warmth in the mother-child relationship, and Discipline. We sought to examine whether clarifying and narrowing the constructs in this way would improve internal consistency, particularly in the present low income sample. We also sought to examine whether focusing on these particular aspects of emotional support would*

*improve predictive validity within the sample.*

**Need to examine aspects of discipline beyond use of physical punishment.** Mothers' handling of discipline within the HOME-SF is examined in a delimited way. In the preschool version of the HOME-SF there are four items in the Emotional Support subscale that focus on discipline. These items all pertain to the use of physical punishment. Two interviewer rating items ask the interviewer to note whether (1) the mother physically restricted or shook/grabbed the child, or (2) slapped or spanked the child during the interview. A third item asks the mother how often she spanked the child in the past week. A fourth item asks the mother whether, if the child ever got so angry as to hit her, the mother would hit or spank the child back.

Mariner and Zaslow (1998: Methods Working Paper # 98.1 in the present series) note that the HOME-SF is a measure of risk in the environment for a young child's development. Scoring involves counting the number of items that are, or are not, in a range identified as posing risk to development. The focus on physical punishment reflects this orientation; that is, physical punishment is focused upon because this particular form of discipline is viewed as posing risk.

Yet we know from previous research that there are aspects of discipline beyond the use of physical punishment that are important to consider if we are seeking to examine how parenting behavior contributes to developmental outcomes in children, or attempting to detect whether family characteristics (such as parental marital status, or maternal educational attainment) are related to parenting and the home environment (see Chase-Lansdale, Mott, Brooks-Gunn, and Phillips, 1991). *In the Exploratory Parenting Measures, we sought to separate out a scale focusing specifically on the construct of discipline. This scale addresses not only the use of*

*physical punishment, but also the mother's consistency in enforcing rules, the mother's provision of explanation for rules, the mother's expectations for emotional and behavioral self-control in her child, and the use of harsh but verbal discipline (yelling/screaming).*

**Focus on material possessions in the HOME-SF Cognitive Stimulation subscale.**

Many of the items in the HOME-SF Cognitive Stimulation subscale ask about possession of particular materials or about the physical characteristics of the home. Questions asked of the mother include number of books the child owns, how many magazines the family gets regularly, whether the child has use of a record player/tape recorder and at least 5 children's records or tapes. Interviewers are asked whether the home is dark or perceptually monotonous, whether visible rooms of the house are reasonably clean and whether visible rooms are minimally cluttered.

A concern here is whether, with its strong reliance on items concerning material possessions and the physical characteristics of the home, the HOME-SF is measuring cognitive stimulation in a way that taps the full range of meaningful input that occurs in low income families. There are forms of cognitive stimulation that do not rely heavily on material possessions. *In the Exploratory Measures of Parenting, we introduced a number of items that involve parent-child interaction without relying on possessions (e.g., talking about what the child did that day, letting the child help prepare food, singing or playing games together, telling stories to the child), and diminished the proportion of items that rely on material possessions as sources of cognitive stimulation.*

## **Method**

### **Items in the HOME-SF and Exploratory Measures**

The items comprising the HOME-SF subscales and the Exploratory Measures of Warmth, Discipline, and Cognitive Stimulation are presented in Tables 1 and 2. It must be noted that the Exploratory Measures include selected items from the HOME-SF. In Table 2 we note which of the items in the Exploratory Measures are new, and which come from the HOME-SF. It should also be noted that in some instances in the Exploratory Measures, interviewer ratings have been composited rather than treated as individual items. The decision was made to composite interviewer rating items (1) when they were closely related in content, and (2) so as not to give excessive weight to observations of an interviewer from a home visit in which interactions were structured rather than open, and the interviewer had multiple demands to balance. We note that the open, unstructured interview that is carried out for the full HOME Inventory gives the interviewer a less constricted basis for observation of mother-child interactions and the home environment.

### **Sample for the Present Analyses**

The sample for the present analyses consisted of families who participated in the Descriptive Study. The Descriptive Study was carried out as a special substudy within the Child Outcomes Study of the National Evaluation of Welfare-to-Work Strategies (see Hamilton, Brock, Farrell, Friedlander, and Harknett, 1997; Moore, Zaslow, Coiro, Miller and Magenheim, 1995). The Child Outcomes Study of the National Evaluation of Welfare-to-work Strategies asks whether there are impacts on young children's developmental outcomes two and five years after



random assignment of their mothers within the evaluation. All the mothers in the evaluation had applied for or were receiving Aid to Families With Dependent Children (AFDC) at the start of the evaluation. The evaluation involves a contrast of a control group and two experimental groups. The two experimental groups take contrasting programmatic approaches to encouraging a transition from welfare to work: a labor force attachment approach, in which mothers are encouraged to make a rapid transition into the labor force; and a human capital development approach, in which mothers are encouraged first to pursue basic education and job skills training, in order to enhance their long-term employment prospects.

The Descriptive Study, as its name implies, was carried out soon after random assignment with the aim of describing the well-being of the families and children close to the start of the evaluation. While the Child Outcomes Study of the National Evaluation of Welfare-to-Work Strategies was carried out in three study sites (Atlanta, Georgia; Grand Rapids, Michigan; and Riverside, California), the Descriptive Study was completed only in the Atlanta site.

The analyses looking at the internal consistency and concurrent predictive validity of the parenting measures at the time of the Descriptive Study involve the full sample of 790 families who participated in the Descriptive Study. However, the analyses examining longitudinal predictive validity of the parenting measures include only the 181 families from the control group of the Descriptive Study from among the 732 families who participated in the Two-Year Follow-up. We restrict ourselves to control group families at the follow-up point because findings involving experimental-control group comparisons in the Child Outcomes Study have not yet been reported for the Two-Year Follow-up. Data from the experimental groups are

therefore not yet available for secondary analyses of the kind reported here.

In describing the sample for the present analyses we focus on the full sample of 790 families who participated in the Descriptive Study. Each of the families in the Descriptive Study had a youngest child between about 3 and 5 years of age at the time of enrollment in the study. This child served as the "focal" child for the Descriptive Study (i.e., the child focused upon in the interview measures with the mother, and given child assessments). Where there was more than one child between 3 and 5 years of age in the family at the time of enrollment, one was randomly selected to be the focal child. Nearly all of the mothers in the Descriptive Study sample (96 percent) were African- American. The Descriptive Study sample did not include mothers who were teenagers when they enrolled in the study. Indeed, most of the mothers in the sample were between 25 and 34 at baseline. However 40 percent of the mothers in the sample *had been* 19 or younger at the birth of the oldest child living in the household. Most of the mothers in the sample (61 percent) had completed high school, and a further 5 percent had obtained a GED. Twenty-seven percent of the mothers had only one birth child living in the household, while 38 percent had two. Only 35 percent of the mothers had three or more birth children living in the household. Approximately equal proportions of the focal children in the sample are males (48 percent) and females (52 percent). Thirty-four percent of the children in the sample were 3-year-olds at baseline, 42 percent were 4-year-olds, and 23 percent were 5-year olds, while a total of nine children were already 6 at baseline.

### **Strategy of Analysis**

Data for the present analyses come from three time points: baseline (the time of

enrollment in the study and random assignment to one of the research groups), the Descriptive Study (completed on average 3 months after baseline), and the Two-Year Follow-up (completed around 2 years after baseline). Background characteristics of the families that are used as covariates in analyses come from baseline. The measures of parenting (the HOME-SF, and the Exploratory Measures of Warmth, Discipline, and Cognitive Stimulation) all come from the Descriptive Study. We will examine the predictive validity of the parenting measures in relation to child outcomes collected concurrently (using measures of the children's development from the Descriptive Study, when both sets of parenting measures were obtained), as well as longitudinally (using measures of the children's development from the Two-Year Follow-up).

In analyzing both concurrent and longitudinal predictive validity of the parenting measures, we carry out ordinary least squares multiple regressions. In these analyses we control for child age and child gender. In the analyses involving concurrent predictive validity (which involve experimental as well as control group families), we also control for experimental group. As we have noted, the Child Outcomes Study of the National Evaluation of Welfare to Work Strategies, of which the Descriptive Study was one component, involves an experimental design to examine impacts on children of contrasting welfare-to-work program approaches. In the present analyses we are interested in patterns of prediction apart from the issue of any program impacts, and thus control for research group membership. In the analyses considering longitudinal predictive validity, because only control group members are included, no covariate for experimental group is needed.

Child outcomes measures from the Descriptive Study include (1) the Peabody Picture

Vocabulary Test-Revised (PPVT-R); (2) the Preschool Inventory (PSI); and (3) the Personal Maturity Scale (PMS). The PPVT-R (Dunn and Dunn, 1981) is a measure of receptive vocabulary that is a good predictor of IQ scores and academic achievement. The Caldwell Preschool Inventory is a measure of children's mastery of skills and concepts (e.g., knowledge of colors, shapes, numbers, ability to follow directions, and understanding of relationships such as "under" or "behind") that are important to know before entering school (Caldwell, 1970). The PPVT-R and PSI were direct assessments administered by interviewers to the focal children in their homes. The PMS as used in the Descriptive Study is a maternal report measure of the child's socioemotional development. This measure was adapted from the 1976 National Survey of Children. Mothers respond to descriptions of child behavior (e.g., "Doesn't concentrate, doesn't pay attention for long"), rating each item from 0 (my child is not at all like that) to 10 (my child is exactly like that). In previous work by Alexander and Entwisle (1988), teacher report of children's maturity using the PMS predicted first graders' end of year school grades net of their scores on standardized tests (see Moore et al., 1995 for further information about these child outcome measures).

Longitudinal analyses focus on two child outcomes from the Two-Year Follow-up: the Bracken Basic Concept Scale School Readiness Component (which we will refer to as the Bracken), and the total score of the Behavior Problems Index (BPI). The Bracken is a direct assessment of the focal child's school readiness. The School Readiness Composite measures children's knowledge of colors, letters, numbers/ counting, comparisons, and shapes. The BPI asks mothers to indicate whether statements are not true, sometimes true or often true about the

focal child. The statements describe such behavior as: the child has trouble getting along with other children, the child cheats or lies, the child is high strung, tense or nervous. In the present analyses we will focus on the total score from the BPI rather than on subscale scores.

Analyses predicting to the children's cognitive and social outcomes will control for the parallel measures of development from the time of the Descriptive Study. Our intent here is to focus on variation in development at the Two-Year Follow-up point, and the role of earlier parenting behavior in predicting these developmental outcomes, net of earlier developmental status within a particular domain. Predictions of Bracken scores will control for cognitive development at the time of the Descriptive Study by including the PSI score as a further covariate. We chose the PSI rather than the PPVT-R as a covariate because both the PSI and Bracken focus on school readiness. Analyses predicting the BPI control for socioemotional development at the time of the Descriptive Study by including the PMS as a further covariate. Inclusion of these earlier measures of the children's development results in a fairly stringent examination of the longitudinal predictive validity of the two sets of parenting measures with respect to subsequent development.

## Results

### Internal Consistency

As we have noted, internal consistency for the HOME-SF Cognitive Stimulation subscale and Emotional Support subscale are .55 and .32 respectively for the sample of 790 families included in the Descriptive Study. By contrast, the Exploratory Cognitive Stimulation measure has an alpha of .65 in this sample; Exploratory Warmth has an alpha of .58; and Exploratory

Discipline, .69. In general, it appears that the internal consistency for the Exploratory Measures surpasses that of the HOME-SF subscales within the Descriptive Study sample. The alpha for the exploratory measure of Warmth, however, is just under the threshold for strong internal consistency.

### **Predictive Validity: Concurrent**

Findings for the analyses examining the predictive validity of the two sets of parenting measures with respect to measures of the children's development collected concurrently (i.e., at the time of the Descriptive Study) are summarized in Tables 3, 4 and 5 (for prediction to the PPVT-R, PSI, and PMS respectively). In these tables, Model 1 includes only the covariates (child age and gender as well as experimental group)<sup>2</sup>. Models 2 and 3 each add to the covariates a single HOME- SF subscale (Model 2 the Cognitive Stimulation subscale, and Model 3 the Emotional Support subscale). Model 4 then considers the predictive power of the two HOME-SF subscales taken simultaneously. In a parallel manner, Models 5, 6 and 7 consider the Exploratory Measures separately (Model 5 adding the Exploratory Cognitive Scale alone to the covariates, Model 6 the Exploratory Warmth Scale alone to the covariates, and Model 7 the Exploratory Discipline Scale to the covariates), while Model 8 considers the ability of the three Exploratory scales considered simultaneously to predict the developmental outcomes above and beyond the covariates. A contrast of the proportion of variance explained in Models 4 and 8 will

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<sup>2</sup> The table does not present coefficients for the experimental group variable. Findings regarding program impacts on parenting are reported elsewhere (see Zaslow, Dion and Morrison, 1997) as part of the Child Outcomes Study of the National Evaluation of Welfare-to-Work Strategies.

indicate whether one or the other *set* of parenting scales (along with the set of covariates), explains a significantly greater proportion of the variance in the child outcome under consideration.

**Cognitive development.** Tables 3 and 4 present results for concurrent prediction to the PPVT-R and the PSI. The conclusion from these two tables is similar. The Exploratory Measures of Parenting, (considered as a set in Model 8 of each table), explain about the same proportion of variance in children's scores on the PPVT-R and the PSI as do the HOME-SF subscales (considered as a set in Model 4). While the Exploratory Measures do a *slightly* better job of predicting to the PPVT-R than the HOME-SF, in general, we do not see strong evidence that the Exploratory Measures have improved prediction to the concurrent measures of cognitive development.

In Table 3 we see that consideration of the HOME-SF subscales along with the covariates explains 8 percent of the variance in the PPVT-R. The parallel figure for the Exploratory measures of parenting is 10 percent of the variance, a small improvement in prediction of the outcome. It is interesting to note that when both of the HOME-SF subscales are considered simultaneously (in Model 4), the Cognitive Stimulation subscale is a significant predictor of the PPVT-R scores, while the Emotional Support subscale is only marginally significant as a predictor. By contrast, when the three Exploratory Measures of Parenting are considered simultaneously in Model 8, *both* the Cognitive Stimulation and Warmth measures are significant predictors of the outcome (though the Discipline measure is not).

In Table 4 we see no indication at all that the Exploratory Measures have improved

prediction to the PSI. Considered together with the covariates, both the HOME-SF subscales considered as a set (Model 4), and the set of Exploratory Measures (Model 8) explain 41 percent of the variance in the child outcome, with much of this variance accounted for by the covariates. The HOME-SF and Exploratory Measures each add 6 percent above and beyond the covariates to the prediction of the PSI. For this child outcome, *both* the Cognitive Stimulation and Emotional Support subscales of the HOME-SF remain significant in Model 4. In a parallel manner, both the Exploratory Cognitive Stimulation and Warmth measures are significant predictors of the PSI in Model 8. In Model 8 we also see that the Exploratory Measure of Discipline is a marginally significant predictor of the PSI, a different finding than in the parallel model predicting to the PPVT-R.

**Social behavior.** Table 5 summarizes results for concurrent prediction to the measure of the child's social behavior, the Personal Maturity Scale. Here the conclusion is different than that for the two measures of the child's cognitive development: the Exploratory Measures of Parenting do explain a greater proportion of the variance in the child outcome than the HOME-SF subscales. While in Model 4, the HOME-SF subscales (considered along with the covariates) explain 11 percent of the variance in the Personal Maturity Scale, in Model 8 the Exploratory Parenting Measures (considered along with the covariates) explain 20 percent of the variance. It is noteworthy that while knowledge of the covariates helped substantially in the prediction of the PSI, this is not the case for the PMS. It is also noteworthy that the Discipline subscale is a significant predictor to this child outcome in both Model 7 and Model 8. Inclusion of this broader measure of disciplinary approaches taken by the mother appears to make a



contribution to the prediction of the child's concurrent social behavior.

### **Predictive Validity: Longitudinal**

**Cognitive development.** Table 6 provides the results of the analyses predicting to the Bracken Basic Concept Scale School Readiness Composite, measured at the time of the Two-Year Follow-up. The findings indicate that the control variables (age, gender, experimental group, and child's score on the PSI) provide a strong basis for prediction of the child's Bracken score. In particular, PSI scores consistently and strongly predict to the outcome across the models considered. Neither set of parenting measures increases the proportion of variance explained in the outcome. We see no indication that either the HOME-SF or Exploratory Measures of Parenting help in the prediction of the measure of cognitive development assessed two years later, particularly when child age and earlier score on a measure of cognitive development are taken into account.

**Social behavior.** In this stringent examination of the ability of the parenting measures to predict to a measure of social development controlling for an earlier measure of development in this domain, we again see that the covariates are strong predictors of the outcome (see Table 7). Here, again, it is the earlier measure similar to the outcome that serves as a consistent predictor of the outcome, the total score on the Behavior Problems Index (with greater personal maturity earlier predicting fewer behavior problems two years later).

A contrast of Models 4 and 8 indicates that, as was the case for the concurrent prediction of the measure of social development, prediction to the Behavior Problems Index total score is better from the Exploratory Measures than from the HOME-SF subscales. In Model 4 we see

that consideration of the HOME-SF subscales improves prediction of the outcome beyond what is possible with knowledge of the covariates alone by only 1 percent. In Model 8, by contrast, we see that the parallel figure for the Exploratory Measures is 10 percent.

### **Summary and Discussion**

In sum, we see evidence here that the Exploratory Measures of Parenting have better internal consistency than the parallel HOME-SF subscales. It appears that clarifying and delimiting the construct underlying each of the parenting measures did contribute to improved reliability.

In addition, we see evidence that the Exploratory Measures of Parenting improve prediction to child outcome measures in the social, but not cognitive domain of development. This conclusion is consistent across the analyses involving concurrent as well as longitudinal prediction to the child outcomes. It is also consistent across both measures of cognitive development examined in the analyses of concurrent predictive validity. The finding that the Exploratory Measures explain a greater proportion of the variance in the longitudinal prediction to the social outcome is particularly noteworthy given that this set of analyses controlled for the earlier measure of social development.

At the same time, we must note the caveat that the measures of social development (both concurrent and longitudinal) relied on maternal report. By contrast, the measures of cognitive development were all obtained via direct assessment. Thus the improvement in prediction of the Exploratory Measures is confined to outcome measures that share a common measurement approach as the parenting measures (with many, although not all of the items in the Exploratory

Measures of Parenting also relying on maternal report).

Turning to consideration of the individual parenting measure, there is evidence that inclusion of a measure focusing specifically on discipline helps particularly in the prediction of the measures of social development. At the same time, we saw very little indication that the Exploratory Measure of Cognitive Stimulation provided a better basis for prediction to the child outcomes than the HOME-SF Cognitive Stimulation subscale. The fact that the Exploratory Measure of Cognitive Stimulation functioned about equally well as the HOME-SF Cognitive Stimulation subscale in predicting the child outcomes suggests that one can measure cognitive stimulation *about as well* following a strategy that places less emphasis on material possessions and the physical environment, in a sample involving low income families. If there are concerns about completing ratings of the home environment (for example, the possibility that interrater reliability may not be high for the ratings of cleanliness, clutter, etc.), it appears that the alternative approach taken in the Exploratory Cognitive Stimulation measure provides about as strong a basis for predicting to measures of development in a low income sample, and can be used as an alternative strategy.

Table 1  
HOME Short Form Items and Frequencies in Descriptive Study Data

	Item	Used in Exploratory Parenting	Scoring	Rater	% scored 1 in Descriptive Study
COGNITIVE STIMULATION ITEMS					
1	Child's play environment is safe		yes=1	Interviewer	92.4
2	Interior of the home is dark or perceptually monotonous		no=1	Interviewer	83.9
3	All visible rooms of house/apartment are reasonably clean		yes=1	Interviewer	89.5
4	All visible rooms of house/apartment are minimally cluttered		yes=1	Interviewer	86.3
5	About how often do you read stories to your child	yes	3+ times per week=1	Mother	45.3
6	About how many children's books does your child have of his/her own	yes	10+=1	Mother	59.2
7	About how many magazines does your family get regularly	yes	1+=1	Mother	43.2
8	Does your child have use of a record play/tape recorder here at home and at least 5 children's records or tapes		yes=1	Mother	45.2
9	How often does any family member take your child on any kind of outing (shopping, park, picnic, drive-in, and so on)	yes	2-3+ times per month=1	Mother	69.8
10	How often has any family member taken or arranged to take your child to any type of museum within the past year	yes	1+=1	Mother	53.7
11	Has anyone helped or is anyone helping your child learn colors here at home		yes=1	Mother	96.9

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Item		Used in Exploratory Parenting	Scoring	Rater	% scored 1 in Descriptive Study
12	Has anyone helped or is anyone helping your child learn numbers here at home		yes=1	Mother	97.5
13	Has anyone helped or is anyone helping your child learn alphabet here at home		yes=1	Mother	97.6
14	Has anyone helped or is anyone helping your child learn shapes and sizes here at home		yes=1	Mother	91.2
COGNITIVE STIMULATION SCALE			0-14, sum of 14 items		mean=10.51
EMOTIONAL SUPPORT ITEMS					
1	Mother conversed with child at least twice (excluding scolding or suspicious comments)	yes	yes=1	Interviewer	82.9
2	Mother caressed, kissed or hugged child at least once	yes	yes=1	Interviewer	41.0
3	Mother introduced interviewer to child by name	yes	yes=1	Interviewer	28.2
4	Mother physically restricted or shook/grabbed child	yes	no=1	Interviewer	98.3
5	Mother slapped or spanked child at least once	yes	no=1	Interviewer	98.6
6	Mother's voice conveyed positive feeling about this child	yes	yes=1	Interviewer	90.6
7	How much choice is your child allowed in deciding what foods he/she eats at breakfast		great deal/ some=1	Mother	77.6
8	About how many hours is the TV on in your home each day		0-4 hours=1	Mother	24.1

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	Item	Used in Exploratory Parenting	Scoring	Rater	% scored 1 in Descriptive Study
9	How often does your child eat a meal with both mother and father or father-figure		once per day+=1	Mother	12.8
10	Most children get angry at their parents from time to time. If your child got so angry that he/she hit you, would you hit the child back or spank him/her?	yes	no=1	Mother	28.6
11	About how many times did you spank your child in the past week?	yes	none/1=1	Mother	74.1
	EMOTIONAL SUPPORT SCALE		0-11, sum of 11 items		Mean=6.56

Table 2  
Exploratory Parenting Items and Scoring in Descriptive Study Data

	Item	from the HOME-SF	Scoring	Rater
COGNITIVE ITEMS				
1	About how often do you read stories to your child?	yes	never (0) several times a year (1) several times a month (2) once a week (3) at least 3 times a week (4) every day (5)	Mother
2	How often in the past week did you talk with your child about what she/he did that day?		Sum of 2 items, range 0 to 6	never (0) now and then (1) most days (2) every day (3)
	Mother conversed with child at least twice (excluding scolding or suspicious comments)	yes (emotional)		no (0) yes (1)
3	During the past week, how often did you let your child help you prepare food?		never (0) now and then (1) most days (2) every day (3)	Mother
4	How often do you do things with your child such as singing or playing games together?		never (0) now and then (1) most days (2) every day (3)	Mother

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	Item	from the HOME-SF	Scoring	Rater
5	In addition to reading stories in books, adults sometimes make up stories or fairy tales or tell stories about family members or about "olden times." How often in the past week did you do this with your child?		never (0) now and then (1) most days (2) every day (3)	Mother
6	Did mother explain to child what was happening, what the interview was about, or who the interviewer was?		Sum of 2 items, range 0 to 4	Interviewer
	Mother introduced interviewer to child by name	yes (emotional)		no (0) yes (1)
7	Could you tell me about any special talents, abilities, or interests that child has? (Code number of mentions)		none (0) one (1) two (2) three (3) four or more (4)	Mother
8	About how many children's books does your child have of his/her own?	yes	none (0) 1 or 2 (1) 3 or 4 (2) 5 or 6 (3) 7 to 9 (4) 10 (5) 11 to 15 (6) 16 to 20 (7) 21 to 30 (8) 31 to 49 (9) 50+ (10)	Mother



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	Item	from the HOME-SF	Scoring	Rater
9	About how many magazines does your family get regularly?	yes	Sum of 2 items, range 0 to 6 none (0) 1 (1) 2 (2) 3 (3) 4+ (4)	Mother
	Books, magazines, or newspapers were visible in the home.		no (0) yes (2)	Interviewer
10	How often does any family member take your child on any kind of outing (shopping, park, picnic, drive-in, and so on)?	yes	a few times a year or less (0) about once a month (1) about 2 or 3 times a month (2) several times a week (3) about once a day (4)	Mother
11	How often has any family member taken or arranged to take your child to any type of museum within the past year?	yes	never (0) once or twice (1) several times (2) about once a month (3) about once a week (4)	Mother
12	How often does your child go out with you to church for a service or for a church social event?		never (0) once or twice (1) several times (2) about once a month (3) about once a week (4)	Mother
WARMTH ITEMS				

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	Item	from the HOME-SF	Scoring		Rater
1	My child and I often have warm, close times together.		Range from 0-10 not at all true (0) completely true (10)		Mother
2	Most times I feel that my child likes me and wants to be near me.		Range from 0-10 not at all true (0) completely true (10)		Mother
3	Even when I'm in a bad mood, I show my child a lot of love.		Range from 0-10 none of the time (0) most of the time (10)		Mother
4	I'm never too busy to joke and play around with my child.		Range from 0-10 none of the time (0) most of the time (10)		Mother
5	Mother's voice conveyed positive feeling about this child.	yes	Sum of 2 items, range 0 to 4	no (0) yes (2)	Interviewer
	Mother showed warmth in tone when talking with child(ren).			no (0) yes (2)	Interviewer
6	Mother caressed, kissed or hugged child at least once	yes	Sum of 3 items, range 0 to 6	no (0) yes (2)	Interviewer
	Mother seemed to take pride and pleasure in her child(ren).			no (0) yes (2)	Interviewer
	Did mother spontaneously praise child for her/his behavior, helpfulness, looks or other positive qualities?			not at all (0) once (1) more than once (2)	Interviewer

	Item	from the HOME-SF	Scoring	Rater
	DISCIPLINE ITEMS			
1	Most children get angry at their parents from time to time. If your child got so angry that he/she hit you, would you hit the child back or spank him/her?	yes	total ranges 0 to 5 hit (+2) spank (+2) yell (+1)	Mother
2	About how many times did you spank your child in the past week?	yes	number of times, range 0 to 10+	Mother
3	I think children must learn early not to cry.		Range from 0-10 not at all true (0) completely true (10)	Mother
4	I teach my child to keep control of his or her feelings at all times.		Range from 0-10 not at all true (0) completely true (10)	Mother
5	If a mother never spanks her child, the child won't learn respect.		Range from 0-10 not at all true (0) completely true (10)	Mother
6	If we have to wait a good while to see a doctor, I expect my child to just sit quietly and wait.		Range from 0-10 not at all true (0) completely true (10)	Mother
7	When a parent asks a child to do something, the child should just do it without having to be told why.		Range from 0-10 not at all true (0) completely true (10)	Mother
8	I know I should always enforce my rules, but if I'm sad or tired, sometimes I let things go and other times I lose my temper.		Range from 0-10 not at all true (0) completely true (10)	Mother

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	Item	from the HOME-SF	Scoring	Rater	
9	It is sometimes necessary to discipline a child with a good, hard spanking.		Range from 0-10 not at all true (0) completely true (10)	Mother	
10	Even if I say no to something, my child knows I'll change my mind if they ask enough times.		Range from 0-10 not at all true (0) completely true (10)	Mother	
11	How often, if ever, have you had times when you lost control of your feelings and felt you might hurt your child (or one of your children)?		never (0) hardly ever (1) sometimes (2) often (3)	Mother	
12	Mother physically restricted or shook/grabbed child.	yes	Sum of 4 items, range 0 to 8	no (0) yes (2)	Interviewer
	Mother slapped or spanked child at least once.	yes		no (0) yes (2)	Interviewer
	Mother slapped or spanked any of her children other than the focal child during the visit.			no (0) yes (2)	Interviewer
	Did mother scream or yell at child in a harsh or hostile manner during the visit?			not at all (0) once (1) more than once (2)	Interviewer

Table 3: Predicting PPVT-R (concurrent) from Parenting Scales and HOME-SF

	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>	<u>Model 5</u>	<u>Model 6</u>	<u>Model 7</u>	<u>Model 8</u>
		HOME	HOME	HOME				All 3
	<u>Controls</u>	<u>Cognitive</u>	<u>Emotional</u>	<u>both</u>	<u>Cognitive</u>	<u>Warmth</u>	<u>Discipline</u>	<u>Parenting</u>
age	0.09*	0.08*	0.09*	0.08*	0.09*	0.11**	0.09*	0.10**
sex	0.08*	0.06+	0.06	0.06	0.06	0.07+	0.07+	0.06
HOME Cognitive		0.26**		0.24**				
HOME Emotional			0.13**	0.07+				
Cognitive					0.27**			0.23**
Warmth						0.19**		0.14**
Discipline							-0.08*	-0.06
Model Adj. R <sup>2</sup>	0.02**	0.08**	0.03**	0.08**	0.09**	0.05**	0.02**	0.10**
R <sup>2</sup> above controls	--	0.06	0.01	0.06	0.07	0.03	0.00	0.08

Note: significance levels are denoted + p<.10, \* p<.05, \*\* p<.01

Table 4: Predicting Pre School Inventory (concurrent) from Parenting Scales and HOME-SF

	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>	<u>Model 5</u>	<u>Model 6</u>	<u>Model 7</u>	<u>Model 8</u>
		HOME	HOME	HOME				All 3
	<u>Controls</u>	<u>Cognitive</u>	<u>Emotional</u>	<u>both</u>	<u>Cognitive</u>	<u>Warmth</u>	<u>Discipline</u>	<u>Parenting</u>
age	0.58**	0.58**	0.58**	0.58**	0.58**	0.59**	0.58**	0.59**
sex	0.10**	0.09**	0.08*	0.07*	0.09**	0.10**	0.10**	0.08**
HOME Cognitive		0.22**		0.19**				
HOME Emotional			0.18**	0.14**				
Cognitive					0.22**			0.18**
Warmth						0.18**		0.15**
Discipline							-0.07*	-0.06+
Model Adj. R <sup>2</sup>	0.35**	0.40**	0.38**	0.41**	0.39**	0.38**	0.35**	0.41**
R <sup>2</sup> above controls	--	0.05	0.03	0.06	0.04	0.03	0.00	0.06

Note: significance levels are denoted + p<.10, \* p<.05, \*\* p<.01

Table 5: Predicting Personal Maturity Scale (concurrent) from Parenting Scales and HOME-SF

	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>	<u>Model 5</u>	<u>Model 6</u>	<u>Model 7</u>	<u>Model 8</u>
		HOME	HOME	HOME				All 3
	<u>Controls</u>	<u>Cognitive</u>	<u>Emotional</u>	<u>both</u>	<u>Cognitive</u>	<u>Warmth</u>	<u>Discipline</u>	<u>Parenting</u>
age	0.01	0.01	0.01	0.01	0.02	0.03	0.02	0.04
sex	0.08+	0.06	0.05	0.04	0.06	0.07+	0.07+	0.05
HOME Cognitive		0.27**		0.23**				
HOME Emotional			0.25**	0.20**				
Cognitive					0.24**			0.13**
Warmth						0.25**		0.24**
Discipline							-0.34**	-0.34**
Model Adj. R <sup>2</sup>	0.00	0.07**	0.06**	0.11**	0.06**	0.06**	0.12**	0.20**
R <sup>2</sup> above controls	--	0.07	0.06	0.11	0.06	0.06	0.12	0.20

Note: significance levels are denoted +  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$

Table 6: Predicting Bracken at 2 Year from Parenting Scales and HOME-SF  
Control Group Only, N=181

	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>	<u>Model 5</u>	<u>Model 6</u>	<u>Model 7</u>	<u>Model 8</u>
		HOME	HOME	HOME				All 3
	<u>Controls</u>	<u>Cognitive</u>	<u>Emotional</u>	<u>both</u>	<u>Cognitive</u>	<u>Warmth</u>	<u>Discipline</u>	<u>Parenting</u>
age	0.15*	0.16*	0.15*	0.16*	0.15*	0.14*	0.15*	0.15*
sex	-.015*	-.015*	-.015*	-.015*	-.015*	-.015*	-.015*	-.015*
PSI	0.47**	0.46**	0.47**	0.46**	0.47**	0.48**	0.46**	0.47**
HOME Cognitive		0.04		0.04				
HOME Emotional			-0.01	0.02				
Cognitive					0.01			0.01
Warmth						-0.04		-0.04
Discipline							-0.07	-0.07
Model Adj. R <sup>2</sup>	0.31**	0.30**	0.30**	0.30**	0.30**	0.31**	0.31**	0.30**
R <sup>2</sup> above controls	--	0.01	0.01	0.01	0.01	0.00	0.00	0.01

Note: significance levels are denoted + p<.10, \* p<.05, \*\* p<.01



Table 7: Predicting Total Behavior Problems at 2 Year from Parenting Scales and HOME-SF Control Group Only, N=181

	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>	<u>Model 5</u>	<u>Model 6</u>	<u>Model 7</u>	<u>Model 8</u>
	<u>Controls</u>	<u>HOME Cognitive</u>	<u>HOME Emotional</u>	<u>HOME both</u>	<u>Cognitive</u>	<u>Warmth</u>	<u>Discipline</u>	<u>All 3 Parenting</u>
age	0.01	0.02	0.02	0.02	0.02	0.01	-0.02	-0.02
sex	-0.02	-0.02	-0.03	-0.02	-0.02	-0.03	-0.02	-0.01
PMS	-0.56**	-0.54**	-0.53**	-0.52**	-0.53**	-0.55**	-0.45**	-0.40**
HOME Cognitive		-0.10		0.07				
HOME Emotional			-0.15*	0.14*				
Cognitive					-0.17*			-0.13*
Warmth						-0.03		-0.08
Discipline							0.31**	0.32**
Model Adj. R <sup>2</sup>	0.30**	0.30**	0.31**	0.31**	0.32**	0.29**	0.38**	0.40**
R <sup>2</sup> above controls	--	0.00	0.01	0.01	0.02	-0.01	0.08	0.10

Note: significance levels are denoted + p<.10, \* p<.05, \*\* p<.01

## References

Alexander, K.L., & Entwisle, D.R. (1988). Achievement in the first 2 years of school: Patterns and processes. Monographs of the Society for Research in Child Development, 53 (2), Serial No. 218.

Baker, P.C., Keck, C.K., Mott, F.L., & Quinlan, S.V. (1993). The NLSY child handbook, revised edition: A guide to the 1986-1990 National Longitudinal Survey of Youth child data. Collumbus, OH: Center for Human Resource Research.

Caldwell, B.M. (1970). Cooperative Preschool Inventory. Monterey, CA: CTB/McGraw-Hill.

Chase-Lansdale, P.L., Mott, F.L., Brooks-Gunn, J., & Phillips, D.A. (1991). Children of the National Longitudinal Survey of Youth-Child Supplement: A unique research opportunity. Developmental Psychology, 27, 918-931.

Dunn, L.M., & Dunn, L.M. (1981). Peabody Picture Vocabulary Test-Revised: Manual. Circle Pines, MN: American Guidance Service.

Hamilton, G., Brock, T., Farrell, M., Friedlander, D. & Harknett, K. (1997). Evaluating two welfare-to-work program approaches: Two year findings on the labor force attachment and human capital development programs in three sites. Publication of the National Evaluation of Welfare-to-Work Strategies. Washington, D.C.: U.S. Department of Health and Human Services and U.S. Department of Education.

Mariner, C.L., & Zaslow, M.J. (1998). Extending the examination of the HOME-Short

Form to a further dataset: Factor analyses and examination of internal consistency reliability in the JOBS Descriptive Study. (Methods Working Paper # 98.3). Washington, D.C.: Child Trends, Inc.

Mariner, C.L., & Zaslow, M.J. (1998). Factor structure and predictive validity of the HOME-Short Form for three racial/ethnic groups in the National Longitudinal Survey of Youth-Child Supplement. (Methods Working Paper #98.2). Washington, D.C.: Child Trends, Inc.

Mariner, C.L., & Zaslow, M.J. (1998). Don't leave HOME without it: A review of the evidence on the reliability and validity of the long and short forms of the HOME Inventory, and discussion of implications for further survey work. (Methods Working Paper # 98.1). Washington, D.C.: Child Trends, Inc.

Moore, K.A., Zaslow, M.J., Coiro, M.J., Miller, S.M., & Magenheim, E.B. (1995). How well are they faring? AFDC families with preschool-age children at the outset of the JOBS evaluation. Washington D.C.: U.S. Department of Health and Human Services and U.S. Department of Education.