Home Observation for Measurement of the Environment: Development of a Home Inventory for Use with Families Having Children 6 to 10 Years Old

ROBERT H. BRADLEY, BETTYE M. CALDWELL, STEPHEN L. ROCK, HOLLY M. HAMRICK, AND PANDIA HARRIS

Center for Child Development and Education, University of Arkansas at Little Rock

This study describes the development of a new version of the Home Observation for Measurement of the Environment (HOME) Inventory for families with children ages 6 to 10. The new Elementary version of the HOME is similar to earlier versions of the HOME and measures aspects of the quantity and quality of social, emotional, and cognitive support made available to the child in the home environment. The item analyses for Elementary HOME indicated that internal consistency ranged from reasonably high levels for the longer subscales to modest levels for the shorter subscales. Correlation analyses showed low to moderate correlations between the HOME and family demographic variables and low to moderate correlations between the HOME and measures of children's academic achievement and classroom behavior. Overall, the data indicated that the Elementary HOME may be a useful method of screening the developmental environments of elementary age children. © 1988 Academic Press, Inc.

The U.S. Commission on Excellence in Education recently reiterated concerns about the high percentage of school-age children who demonstrate poor academic performance and who show adjustment problems in school. Underachievement, classroom behavior problems, and other indicators of school failure have been of major concern to federal policy makers for quite some time.

Because of the high cost of school failure to the child, to the family, and to society at large, a number of attempts have been made to identify children who are at high risk for school problems. The risk factor most commonly identified with school failure is lower socioeconomic status. However, while children from the lower social strata are represented in higher proportion among those students who show school achievement and school adjustment problems, socioeconomic status indices are not very precise predictors of school performance for individual cases. As Bloom (1964) stated over two decades ago, the experiences of children at

every social class level vary widely. It is unfair to characterize all low income homes as unresponsive or unstimulating. It is also inaccurate to assume that all middle class homes are warm and stimulating for children.

The elementary grades are also a time when antisocial behavior patterns begin to consolidate. Longitudinal studies indicate little stability for antisocial and delinquent behavior patterns prior to age 14 (Gersten, Langer, Eisenberg, Simcha-Fagan, & McCarthy, 1976). As with school problems, delinquency is more common in poor neighborhoods, but most children from lower class homes do not manifest significant antisocial tendencies. Nor are the abusive, neglectful, or overly permissive patterns of parenting which frequently lead to antisocial behavior present in most lower class homes.

Over the past two decades there have been a number of efforts directed at developing more sensitive measures of children's home environments (Bradley and Caldwell, 1978). Rather than utilizing structural and status indices such as parental occupation, parental education, size of family, location of family residence, and type of dwelling, the newer types of environmental measures assess "processes" within a child's environment, processes which are assumed to play a more direct and immediate role in children's development. The types of processes most commonly contained in the newer environmental measures include specific transactions between parent and child, the types and quantity of objects available in the environment, specific events that occur in the home or at the direction of the parents, and specific features of the physical environment of the house. These measures of more specific elements of a child's developmental environment appear to be more strongly related to school achievement than SES indices (Moore, 1968; Marjoribanks, 1972; and Bradley, Elardo & Caldwell, 1977). The discrepancy may be particularly evident among minority populations where ethnicity and social status are often confounded and there has not been equal opportunity for advancement across several generations (White, Watts and associates, 1973; Havighurst, 1976; and Bradley, Caldwell, & Elardo, 1977). Relatedly, the development of antisocial- deviant behavior patterns appears more directly related to specific parenting practices than to structural or status characteristics of the family (Block & Block, 1980).

In sum, SES can be a rather efficient means of establishing risk for an elementary school child. However, it tends to be inexact. On the average, lower class homes are less stimulating and less supportive than middle class homes. But, not all the lower class homes share equally the general attributes of a "lower class" home. The degree and nature of risk for particular developmental problems varies from home to home, thus the need for more detailed measures to identify more specifically the partic-

ular risk for a given developmental problem and for making plans for
preventive or ameliorative strategies.

The purpose of this report is to describe the development of a new
version of one of the most widely used environmental process measures,
the Home Observation for Measurement of the Environment (HOME)
Inventory (Caldwell and Bradley, 1984). The version described is de-
signed for use with families having children between 6 and 10 years old.
Throughout the remainder of this report it will be referred to as the Ele-
mentary HOME. The two previously developed versions of the HOME
Inventory were designed for children ages birth through three and chil-
dren ages three to six. A substantial amount of reliability and validity
information is available on these two versions (Bradley, 1982; Bradley &
Caldwell, 1976, 1977, 1979; Caldwell & Bradley, 1984; Elardo, Bradley, &
Caldwell, 1975, 1977; Gottfried, 1984; Hollenbeck, 1978; Ramey, Mills,
Campbell, & O'Brien, 1975; Wulbert, Inglis, Kriegsmann, & Mills, 1975).

METHOD

Procedures

The Elementary HOME is similar in design and intent to the Infant and Preschool ver-
sions of the Inventory. It attempts to sample aspects of the quantity and quality of social,
emotional, and cognitive support made available to the child in the home environment.
Three principles guided the construction and analyses pertaining to the Elementary HOME:
(1) relevance for development among children ages 6 to 10, (2) the ability to identify envi-
ronments that pose a risk for development, and (3) continuity with the Infant and Preschool
versions of the Inventory with respect to content and style of administration. This last
principle was used in an effort to make scores on the three versions of HOME as compa-
rable as possible given that there is an evolution in the relationship between environment
and development. This results from increasing competence on the part of the child and
changes in cultural expectations that accompany advances in age.

Construction of the Elementary HOME proceeded through a series of stages that in-
cluded the development and field testing of a preliminary 91-item version of the instrument.
The first stage consisted of a review of literature on child growth and development during
the early elementary years. The purpose of the review was to identify specific experiences
that might influence behavioral development. This review suggested that children's devel-
opment was facilitated by such things as an environment which contains a stable cluster of
supportive adults; an emotional climate that is not harsh, punitive, or stressful; the avail-
ability of toys and learning materials that promote joy and challenge; a physical environ-
ment that is both stimulating and responsive, offering a variety of sensory and cultural
experiences; a milieu which encourages independence and social maturity; freedom to ex-
plore and master the environment; a schedule of activities that is orderly, predictable, and
designed to take care of social and physical needs; encouragement to encounter and deal
responsibly with the larger environment; and the opportunity to assimilate and interpret
experience within a consistent cultural framework (Bradley & Tedesco, 1982; Caldwell,
1968).

After the review of the literature was completed, a lengthy item generation process fol-
lowed. An attempt was made to create a set of items that were broadly representative of

those elements in the home environment that were found to be related to children's development. In generating items for the Elementary HOME, an attempt was made to construct items that required direct observation of events and objects to the greatest extent possible. However, because the development of elementary age children is influenced by aspects of the environment that extend over a wider time and space than is typically the case with younger children, direct observation of all important home factors was not deemed feasible within a brief home visit (i.e., one lasting only about an hour). Thus, much of the information needed to score items is obtained through interview with the child and the primary caregiver.

The administrative procedures for the Elementary HOME scale were modeled after those used for the Infant and Preschool versions of the scale. Specifically, the Elementary HOME is administered in the home with both the child and the primary caregiver present. No attempt is made to exclude other family members or visitors since the intent of the visit is to capture "normal" or "typical" behavior. Care is taken to set up the home visit at a time that is convenient to the parent. The content of the instrument and instructions for administration provide structure for the visit; however, informality is stressed so as to reduce threat and increase the probability of realistic responses. The guidelines for administering the instrument stress that the administrator should try to elicit the information needed to score items using a few broad, open-ended probes rather than rely on many direct questions. The structure for the visit also allows the child, parents, and others in the household to go about normal routines and to move about the home as they choose. In essence, the person conducting the home visit attempts to intrude into the home as little as possible, to have interactions be as "natural" as possible under the circumstances. Typically, the instrument requires about 1 h to administer. Care is taken not to rush administration so as to allow sufficient opportunity for normal transactions of parents and child to transpire.

Scoring for the Elementary HOME was also modeled on the earlier versions of the Inventory. All items are binary-choice format. A "Yes" indicates that the family is credited with providing the kind of input required by the item. A "No" indicates no credit. The number of "Yeses" are simply totaled to get a score.

The 91-item preliminary version of the Elementary HOME was administered to 101 families with children ages 6 to 10. The children were generally representative of children of that age. Scores on the 91 items were then subjected to both factor analysis and item analyses. In this context, factor analysis was seen as a useful way of reducing scale length without sacrificing important areas of content. The ratio of cases to items was not optimal for factor analysis. However, it was not intended that factor analysis would be the sole basis for subscale construction, but rather that it would help in the construction of consistent, interpretable item clusters (see Walberg and Marjoribanks, 1976, for a discussion of this point).

Since information on individual items was needed to eliminate those that were least productive, the factor analysis used individual items as the unit for computation even though items are scored in a dichotomous fashion. In essence, factor analysis was employed in a heuristic rather than a strict decision-making manner. It seemed that such a procedure would be helpful in the development of interpretable item clusters and was defensible in that the underlying distribution for individual items was assumed to be normal. A varimax rotation was used in an effort to obtain item clusters that were reasonably independent. However, due to the fact that some items had significant loadings on more than one factor, intercorrelations among subscales range from .0 to .5.

Information from item analyses was used in a rather conventional fashion to help with scale reorganization. The difficulty index (i.e., pass rate) for each item was examined, as was the discrimination index (i.e., item score to total score on subscale correlation). Additionally, the correlations between the item score and SRA achievement test score and item score and SES were examined.

Development of the Current 59-Item Scale

Using information obtained from the item analyses and factor analysis of the 91-item preliminary version of the Elementary HOME the current 59-item scale was constructed (see Table 1). The chief intent in reducing the number of items was to increase efficiency since the HOME is intended to be a relatively quick and easy to use measure of the quality of the home environment. The 59 items are clustered into eight subscales: (1) Emotional and Verbal Responsivity of Caregiver; (2) Encouragement of Maturity; (3) Emotional Climate of the Home; (4) Growth-Fostering Materials and Experiences; (5) Provision for Active Stimulation; (6) Family Participation in Developmentally Stimulating Experiences; (7) Paternal Involvement with Child; and (8) Aspects of the Physical Environment. Of the 59 items retained for the scale, 18 are also found on the Preschool version of HOME and 7 are minor adaptations of items from the Preschool HOME. Unfortunately, it was not possible to obtain enough children ages 5 to 7 to attempt to calibrate the Preschool and Elementary versions of HOME. Such a calibration would have both theoretical and practical advantages.

Sample

Several reliability and validity studies have been done on the current 59-item version of the Elementary HOME. These studies are based on a sample of 124 children and their families. Children were volunteers and were obtained using letters to parents of children attending the Little Rock public schools. The children are broadly representative of students, ages 6 to 10, that were attending public schools in Little Rock, Arkansas. Characteristics of the sample are displayed in Table 2. As the table shows, there was an over representation of black children as compared to the actual percentage of black children in the Little Rock population.

RESULTS

Item analyses and reliability estimates for the Elementary HOME were computed for the sample of 124 participants. Reliability estimates from these analyses can be seen in Table 3.

Item Analysis

Item to total scale score correlations were computed for each subscale. The coefficients ranged from .1 to .8, with most in the range of .4 to .6.

The percentage of tested families that received credit for each item was also calculated. For about two-thirds of the items, A moderate percentage of families was given credit for "passing" the item (30 to 80%). Such a range of difficulty level is generally considered good from a psychometric point of view. However, over 80% of the families received credit for the remaining one-third of the items. An examination of these items reveals that many involve events that, if they occurred, would be indicative of a rather serious deficiency (e.g., "House is not overly noisy. . . ," "Parent has not cried or been visibly upset in the child's presence more than once in the past week"). Other items involve transactions that, if they did not occur, would be indicative of a potentially serious problem (e.g., "When speaking of or to child, parent's voice conveys positive feelings," "Child is encouraged to read . . .").

TABLE 1
ITEMS FROM ELEMENTARY HOME

I. Emotional and Verbal Responsivity
1. Family has fairly regular and predictable daily schedule for child (meals, bedtime, TV, homework, etc.).
2. Parent sometimes yields to child's fears or rituals (allows nightlight, accompanies child on new experiences, etc.).
3. Child has been praised at least twice during past week for doing something.
4. Child is encouraged to read on his own.
5. Parent encourages child to contribute to conversation during visit.
6. Parent shows some positive emotional response to praise of child by visitor.
7. Parent responds to child's questions during interview.
8. Parent used complete sentence structure and some long words in conversing.
9. When speaking of or to child, parent's voice conveys positive feelings.
10. Parent initiates verbal interchanges with visitor, asks questions, makes spontaneous comments.
II. Encouragement of Maturity
11. Family requires child to carry out certain selfcare routines (e.g., makes bed, cleans room, cleans up after spills, bathes self). (A "yes" requires 3 out of 4.)
12. Family requires child to keep living and play area reasonably clean and straight.
13. Child puts his outdoor clothing, dirty clothes, night clothes in special place.
14. Parent sets limits for child and generally enforces them (curfew, homework before TV, or other regulations that fit family pattern).
15. Parent introduces interviewer to child.
16. Parent is consistent in establishing or applying family rules.
17. Parent does not violate rules of common courtesy.
III. Emotional Climate
18. Parent has not lost temper with child more than once during previous week.
19. Mother reports no more than one instance of physical punishment occurred during past month.
20. Child can express negative feelings toward parent without harsh reprisals.
21. Parent has not cried or been visibly upset in child's presence during past week.
22. Child has special place in which to keep his possessions.
23. Parent talks to child during visit (beyond correction and introduction).
24. Parent uses some term of endearment or some diminutive for child's name when talking about child at least twice during visit.
25. Parent does not express overt annoyance with or hostility toward child (e.g., complains, describes child as "bad," says child won't mind).
IV. Growth-Fostering Materials and Experiences
26. Child has free access to record player or radio.
27. Child has free access to musical instrument (piano, drum, ukulele, guitar, etc.).
28. Child has free access to at least ten appropriate books.
29. Parent buys and reads newspaper daily.
30. Child has free access to desk or other suitable place for reading or studying.
31. Family has a dictionary and encourages child to use it.
32. Child has visited a friend by self in the past week.
33. House has at least two pictures or other type of art work on the walls.
V. Provision for Active Stimulation
34. Family has a television, and it is used judiciously, not left on continuously (No TV required an automatic "no," any scheduling scores "yes").

TABLE 1—*Continued*

35. Family encourages child to develop or sustain hobbies.
36. Child is regularly included in family's recreational hobby.
37. Family provides lessons or organizational memberships to support child's talents (YMCA, YWCA, gymnastic lessons, music lessons, art lessons, membership to art center).
38. Child has ready access to at least two pieces of playground equipment in the immediate vicinity.
39. Child has access to library card, and family arranges for child to go to library once a month.
40. Family member has taken child, or arranged for child to go to scientific, historical, or art museum within the past year.
41. Family member has taken child, arranged for child to take a trip on a plane, train, or bus within the past year.

VI. Family Participation in Developmentally Stimulating Experiences
42. Family visits or receives visits from relatives or friends at least once every other week.
43. Child has accompanied parent on a family business venture 3–4 times within the past year (e.g., garage, clothing shop, appliance repair shop).
44. Family member has taken child or arranged for child to attend some type of live musical or theater performance.
45. Family member has taken child or arranged for child to go on a trip of more than 50 miles from his home (50 miles radial distance, not total distance).
46. Parents discuss telvision programs with child.
47. Parent helps child to achieve motor skills (e.g., ride a 2-wheel bicycle, roller skate, ice skate, play ball).

VII. Paternal Involvement
48. Father (or father substitute) regularly engages in outdoor recreation with child.
49. Child sees and spends some time with father or father figure 4 days a week.
50. Child eats at least one meal per day, on most days, with mother and father (or mother and father figures). (One parent families receive automatic "no.")
51. Child has remained with this primary family group for all his life aside from 2–3 week vacations, illnesses, or parent visits from grandparent, etc. (A "yes" requires no changes in mother's, father's, grandparents' presence in the home since birth.)

VIII. Aspects of the Physical Environment
52. Child's room has a picture or wall decoration appealing to children.
53. The interior of the house or apartment is not dark or perceptually monotonous.
54. In terms of available floor space, the rooms are not overcrowded with furniture.
55. All visible rooms of the house are reasonably clean and minimally cluttered.
56. There is at least 100 square feet of living space per person in the house.
57. House is not overly noisy (e.g., TV, shouts of children, radio, nearby roads or thoroughfares).
58. Building has no potentially dangerous structural or health defects (e.g., plaster coming down, stairway with boards missing, paint peeling, rodents).
59. Child's outside play environment appears safe and free of hazards. (No outside play area requires automatic "no.")

TABLE 2
DESCRIPTION OF SUBJECTS

Age	
6 years	21
7 years	29
8 years	29
9 years	19
10 years	26
$\bar{X} = 8.0$	
Race	
White	49
Black	75
Lower class	22
Working class	51
Middle-upper	51

In sum, not all the items included in the scale were retained on the basis of typically used criteria for item selection for norm-referenced tests. The same problem was encountered in selecting items for the Infant and the Preschool versions of HOME. It is difficult to meet standard criteria when the "pass rate" (difficulty level) is high for an item. In this regard, HOME shares attributes of some criterion-referenced tests. It is designed to be sensitive to only a certain portion of the total range of scores possible (in this case, the lower end of the range of scores). As stated in the Introduction, HOME is primarily intended to help identify potentially inadequate environments. It is not primarily designed to discriminate between a generally adequate environment and a highly enriched, supportive environment. Thus, many families make rather high scores and many items have high pass rates. However, when a family *does* make a low score or does not receive credit for items that most families "pass," it is usually indicative of a potential problem. To offer an analogy: Many medical screening measures are designed to be sensitive to the range of scores indicative of disease or ill health. There is little concern in discriminating between those who are "healthy" and those who are "super healthy," only in discriminating the "healthy" from the potentially "unhealthy." Thus, most people screened "pass" the test. In this sense, the HOME is a limited instrument. However, the intent in selecting items was to develop a measure sensitive to the potentially inadequate environment—a measure that is reasonably efficient in terms of the time needed for administration and scoring. To date, no attempt has been made to establish an exact "cutoff" score that is indicative of a high risk environment. For the Infant and Preschool HOME Inventories, scores one or more standard deviations below the mean have often been associated with poor developmental outcomes. However, the precise

TABLE 3
MEANS, STANDARD DEVIATIONS AND RELIABILITY COEFFICIENTS FOR
ELEMENTARY HOME

HOME Scales	No. item	Mean	SD	Reliability coefficient
Parental Responsivity	10	8.4	2.3	.80
Physical Environment	8	6.8	1.7	.76
Materials and Experiences	8	5.2	2.0	.68
Active Stimulation	8	3.4	2.2	.72
Encouraging Maturity	7	4.8	1.6	.65
Emotional Climate	8	6.0	1.6	.60
Paternal Involvement	4	2.4	1.2	.57
Family Participation	6	4.1	1.4	.52
Total score	59	41.6	9.0	.90

"cutoff" found most useful in particular instances tends to vary some-
what by culture.

Reliability

Internal consistency. Internal consistency estimates were made for the
total scale and each subscale based on the alpha coefficient formula. The
coefficients ranged from .52 to .80 for the subscales and was .90 for the
total scale. Considering the length of the subscales, these coefficients
appear reasonably good.

Inter-observer agreement. Inter-observer agreement among four re-
search assistants was calculated for 40 cases. The average inter-observer
agreement across the four research assistants was 93%. The kappa coeffi-
cient was .88. As with the other two forms of the Inventory, it takes about
10 visits with a trained interviewer to reach this level of proficiency.

Validity

Correlations with demographic variables. As part of the procedure for
establishing the validity of the Elementary HOME, correlations were ob-
tained between HOME scores and five demographic indices: mother's
education, mother's occupation, father's education, father's occupation,
and socioeconomic status. Correlations were also obtained between
HOME and the Coddington (1972) Life Events Record, a measure of
stressful life events (see Table 4).

Almost all of the correlations between HOME scores and the demo-
graphic indices were in the expected direction. The majority of coeffi-
cients ranged from .2 to .5. Overall, the pattern of correlations appeared
in line with patterns observed between the same demographic indices and
the versions of HOME designed for infants and preschoolers. Mother's

education, for instance, was more highly correlated with home factors such as Responsivity of Caregiver and the Provision of Growth-Fostering Materials and Experiences than it was with the Emotional Climate of the Home or Paternal Involvement with the Child. Paternal Involvement, on the other hand, was more highly correlated with father's occupation than with mother's education or occupation. None of the HOME subscales was significantly correlated with the total life events score.

Correlation with academic achievement and classroom behavior. One of the most important criteria used to assess the validity of the Elementary HOME was its correlation with academic achievement. Children's scores on the Science Research Associates achievement battery were used as the measure of academic achievement. These tests are given routinely to all students yearly in Little Rock. Correlations are displayed in Table 5. Most were low to moderate in strength (.3 to .4). These coefficients were somewhat lower than those obtained between the Infant HOME or the Preschool HOME and children's IQ scores, but still indicate a significant relationship (see Elardo, Bradley, & Caldwell, 1975; Bradley and Caldwell, 1976, 1979). The four subscales showing the strongest relationships were Responsivity of Caregiver, Aspects of the Physical Environment, Provision of Growth-Fostering Materials and Experiences, and Provision for Active Stimulation.

HOME scores were also correlated with teacher's ratings of classroom behavior. The Classroom Behavior Inventory (Schaefer and Aaronson, 1977) was used to assess classroom behavior. The CBI has 18 items that assess three bipolar dimensions: introversion/extroversion, task orientation/distractability, and consideration/hostility. Correlations were generally low but statistically significant (.2 to .3).

SUMMARY AND CONCLUSIONS

The following is a list of key points pertaining to the development of the Elementary HOME: (a) items were based on both theoretical propositions and empirical research concerning aspects of the environment that facilitate the cognitive, social, and emotional development of young children; (b) factor analysis was used as a partial basis for scale organization, but the eight subscales are not measurements of "pure" environmental factors; (c) item analyses indicate a reasonably high level of internal consistency for the HOME—albeit the shorter subscales show only modest internal consistency; (d) the HOME scores of families with boys and girls do not appear to differ appreciably; and (e) low to moderate correlations obtain between HOME scores and measures of children's academic achievement and classroom behavior.

The data developed regarding the Elementary HOME suggest that the instrument may be a useful way of identifying environments that may pose a risk to children ages 6 to 10. Correlations between HOME and

TABLE 4

CORRELATIONS BETWEEN ELEMENTARY HOME SCORES, SOCIOECONOMIC STATUS, FAMILY STRUCTURE, AND FAMILY HISTORY

HOME scales	Mother's education	Mother's occupation	Father's occupation	SES[a]	Father's presence	Life events
Parental Responsivity	.44	.39	.40	.46	.24	.11
Physical Environment	.36	.39	.26	.45	.14	.01
Materials and Experience	.46	.42	.29	.51	.18	.03
Active Stimulation	.45	.27	.39	.43	.23	.08
Encouraging Maturity	.24	.28	.14	.24	.07	.05
Emotional Climate	.29	.24	.25	.29	.24	.09
Paternal Involvement	.07	-.03	.35	.14	.62	-.12
Family Participation	.40	.35	.23	.39	.13	.13
Total score	.53	.46	.43	.58	.32	.05

Note. r ≥ .16, $p < .05$; r ≥ .20, $p < .01$.
[a] Based on Hollingshead four-factor Index of Social Position.

TABLE 5

CORRELATIONS BETWEEN ELEMENTARY HOME SCORES AND SRA ACHIEVEMENT TEST SCORES

HOME scales	Academic achievement			Classroom behavior		
	Reading	Math	SRA total	Extraversion	Task orientation	Consideration
Parental Responsivity	.33	.37	.37	.27	.23	.38
Physical Environment	.34	.41	.35	.18	.19	.19
Materials and Experience	.38	.31	.32	.19	.22	.23
Active Stimulation	.38	.39	.40	.27	.30	.32
Encouraging Maturity	.12	.09	.09	.19	.26	.24
Emotional Climate	.30	.23	.27	.16	.31	.32
Paternal Involvement	-.03	-.02	-.09	-.03	.10	.20
Family Participation	.24	.19	.28	.25	.08	.17
Total score	.41	.41	.41	.30	.31	.37

Note. r ≥ .16, $p < .05$; r ≥ .20, $p < .01$.

sociodemographic measures were similar to those found for the Infant and Preschool versions of HOME. Correlations with achievement and behavioral measures were modest but in the appropriate direction, suggesting that the instrument may be a valid indicator of the level of support for intellectual/academic development. Correlations with measures of social and emotional development are needed to help establish construct validity for the HOME.

While the evidence gathered to date suggests that the Elementary version of the HOME may function in much the same manner as the Infant and the Preschool version, it is, nonetheless, important to stipulate some of the instrument's limitations. First, it is not as sensitive to differences between adequate and enriched environments as between unstimulating and adequate environments. Second, it is not detailed enough to be labeled a "diagnostic/prescriptive" instrument. It helps identify probable areas of strength and weakness from which more detailed data gathering can help to formulate appropriate interventive strategies. Third, the scale does not conform in all respects to instruments with ideal characteristics from the standpoint of classical test theory. In some respects, it has attributes more like those of some criterion-referenced tests. It has a clear focus on identifying homes that pose a risk for developmental problems; and, thus, it is more sensitive to the lower range of the total distribution of scores.

One of the more fruitful areas for future research concerns examining the relationship between subscales of the Elementary HOME and aspects of development among handicapped children since the developmental patterns of many handicapped children are somewhat atypical and many of the children may be more vulnerable than their nonhandicapped peers to inconsistencies, uncertainties, and limitations in the environment. In this regard, it may be valuable as a source of information in designing IEPs.

Most importantly, information such as that provided by the Elementary HOME may prove useful to school social workers and elementary school counselors. It may help in understanding problems of underachievement and poor adjustment among children who otherwise have enough talent to do well in school. It may even prove useful in helping identify some children who could profit from placement in programs for gifted and talented students, children with significant talent who show only average achievement due to limitations in their home environments. In sum, for elementary school children, information from detailed home environment measures may offer a beneficial supplement to information obtained from measures of achievement and classroom behavior—especially for children who already show evidence of difficulty in school.

REFERENCES

BLOCK, J. & BLOCK, J. (1980). The role of ego-control and ego-resiliency in the organiza-
tion of behavior. In W. Collins (Ed.), *Minnesota Symposium on Child Psychology*. New
York: Erlbaum.

BLOOM, B. (1964). *Stability and change in human characteristics*. New York: Wiley.

BRADLEY, R. (1982). The HOME Inventory: A review of the first fifteen years. In N. Anas-
tasiow, W. Frankenburg, & A. Fandal (Eds.), *Identifying the Developmentally Delayed
Child*. Baltimore: Univ. Park Press.

BRADLEY, R., & CALDWELL, B. (1976). Early home environment and changes in mental
test performance in children from six to thirty-six months. *Developmental Psychology*,
12, 93–97.

BRADLEY, R., & CALDWELL, B. (1977). Home Observation for Measurement of the Envi-
ronment: A validation study of screening efficiency. *American Journal of Mental Defi-
ciency*, 81, 417–420.

BRADLEY, R., & CALDWELL, B. (1978). Screening the environment. *American Journal of
Orthopsychiatry*, 48, 114–130.

BRADLEY, R., & CALDWELL, B. (1979). Home Observation for Measurement of the Envi-
ronment: A revision of the preschool scale. *American Journal of Mental Deficiency*,
84, 235–244.

BRADLEY, R., & CALDWELL, B. (1981). The HOME Inventory: A validation of the pre-
school scale for black children. *Child Development*, 52, 708–710.

BRADLEY, R., CALDWELL, B., & ELARDO, R. (1977). Home environment, social status,
and mental test performance. *Journal of Educational Psychology*, 69, 697–701.

BRADLEY, R., & TEDESCO, L. (1982). Environmental correlates of mental retardation. In J.
Lachenmeyer & M. Gibbs (Eds.), *Psychology of the Abnormal Child*. New York:
Gardner Press.

CALDWELL, B. (1968). On designing supplementary environments for early child develop-
ment. *BAEYC Reports*, 10, 1–11.

CALDWELL, B., & BRADLEY, R. (1984). *Home Observation for Measurement of the Envi-
ronment*. Little Rock, AR.

CODDINGTON, R. (1972). The significance of life events as etiologic factors in the diseases of
children. II. A study of a normal population. *Journal of Psychosomatic Research*, 16,
205–213.

ELARDO, R., BRADLEY, R., & CALDWELL, B. (1975). The relation of infants' home environ-
ments to mental test performance from six to thirty-six months: A longitudinal analysis.
Child Development, 46, 71–76.

ELARDO, R., BRADLEY, R., & CALDWELL, B. (1977). A longitudinal study of the relation of
infants' home environments to language development at age three. *Child Development*,
48, 595–603.

GERSTEN, J., LANGER, T., EISENBERG, J., SIMCHA-FAGAN, & MCCARTHY, E. (1976). Sta-
bility and change in types of behavioral disturbance of children and adolescents.
Journal of Abnormal Child Psychology, 4, 111–127.

GOTTFRIED, A. W. (1984). *Home environment and early cognitive development*. Orlando,
FL: Academic Press.

HAVIGHURST, R. (1976). The relative importance of social class and ethnicity in human
development. *Human Development*, 19, 56–64.

HOLLENBECK, A. (1978). Early infant home environments: Validation of the Home Obser-
vation for Measurement of the Environment Inventory. *Developmental Psychology*, 14,
416–418.

MARJORIBANKS, K. (1972). Environment, social class, and mental abilities. *Journal of Edu-
cational Psychology*, 43, 103–109.

MOORE, T. (1968). Language and intelligence: A longitudinal study of the first eight years. II. Environmental correlates of mental growth. *Human Development*, 11, 1–24.

RAMEY, C., MILLS, P., CAMPBELL, R., & O'BRIEN, C. (1975). Infants' home environments: A comparison of high-risk families and families from general population. *American Journal of Mental Deficiency*, 80, 40–42.

SCHAEFER, E., & AARONSON, M. (1977). *Classroom Behavior Inventory*. Unpublished manuscript. University of North Carolina.

WALBERG, H., & MARJORIBANKS, K. (1976). Family environment and cognitive development: Twelve analytic models. *Review of Educational Research*, 45, 517–552.

WHITE, B., & WATTS, J. (1973). *Experience and environment*. Englewood Cliffs, NJ: Prentice–Hall.

WULBERT, M., INGLIS, S., KRIEGSMANN, E., & MILLS, B. (1975). Language delay and associated mother/child interactions. *Developmental Psychology*, 2, 61–70.