

PATTERNING OF FAMILY RESOURCES FOR EDUCABILITY:
CONCEPTUALIZATION AND MEASUREMENT
IN COSTA RICAN FAMILIES

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
GEORGIANNE RUTH BAKER

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THESIS

This is to certify that the

thesis entitled

PATTERNING OF FAMILY RESOURCES FOR EDUCABILITY:
CONCEPTUALIZATION AND MEASUREMENT
IN COSTA RICAN FAMILIES

presented by

Georgianne Ruth Baker

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Leatrice Farlucci
Major professor

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ABSTRACT

PATTERNING OF FAMILY RESOURCES FOR EDUCABILITY: CONCEPTUALIZATION AND MEASUREMENT IN COSTA RICAN FAMILIES

By

Georgianne Ruth Baker

The problem of the study was two-fold. First was refinement of a conceptual framework and measurement model for a managerial construct, family resource patterns, related to a developmental construct, educability of the preschool child. Family resource patterns were operationalized by nine resource categories: space, movement, care and appearance, play, task and work, child's learning, family learning, child's social contacts and family social contacts. Educability referred to the goal of having the child prepared for successful participation in school. Second was investigation of hypothesized relationships between family resource patterns for educability and family status and structure characteristics, using a sample of 89 intact families with preschool children in Costa Rica, Central America.

For data collection in homes, original instruments were developed including an Occupation and Income Survey,

nine Resource Inventories, and nine sets of drawings of resource-related activities (involving preschool children and persons of their home environment) with focused questions (Picture Questions Instrument). Sources of items for inventories and activities for drawings included those used in a previously constructed instrument, observations in Costa Rican homes, consultation with informants and researchers, and the pertinent literature. The scoring system developed for the combined resource data provided numerical scores on four dimensions for each resource category: Availability-Quantity, Availability-Quality, Use-Quantity, and Use-Quality. Dimension scores were transformed to comparable ratings, then summed to resource ratings, and finally to total ratings for statistical and descriptive analyses.

Major findings were the following:

The managerial-developmental framework, originally conceptualized for, and applied in, another culture, demonstrated applicability in this cultural group of families. For scoring reliability, an approximation of 89 per cent consistency was found for 36 resource measures, based on results of one-way analyses of variance for different scoring treatments on two randomly assigned groups.

Evidence for construct validity included differential meaningfulness for each of four resource

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dimensions, ascertained by examination of significant partial correlation coefficients with total resource ratings (TRR). The fourth dimension (UQL) seemed unique in comparison with the other three because: first, its meaning was derived from the mother's verbalized perception of relations between current resource activities and future school success, based solely on the Picture Question Instrument; second, there was only one partial correlation coefficient with TRR significant at the .01 level; and third, the multiple correlation coefficient with TRR was smaller than those for the other three dimensions. The UQL dimension merits further study to decide whether it was poorly conceptualized, or irrelevant, in terms of the culture, or inadequately measured.

Validation for the interdependent-interrelated aspect of resource patterns was evident in the clustering of 33 of 36 intercorrelation coefficients of the resource measures, significant at the .01 level. Chi square analysis and contingency coefficients showed: first, a significant, substantial relationship existing between TRR and range of individual resource ratings, interpreted as indicating that extent and consistency of resources available were related in the child's environment; second, that the level of family resources for educability was significantly related to family status characteristics (education, income, residence), but not to

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family structure characteristics (nuclearity, size, age and sex of preschool children).

There appeared to be potential for use of the conceptual-measurement system in descriptive family analysis, demonstrated by a profile of family resource ratings. In an exploration of concurrent validity, the predictive contribution of the construct family resource patterns was limited; however, no conclusion was warranted due to the empirical, exploratory nature of the problem.

The study offered implications for theory of management in families, for cross-cultural research and action programs with families.

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By

Georgianne Ruth Baker

A THESIS

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in the homes of the participating families and I am grateful for their contribution.

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CHAPTER I

INTRODUCTION

Organizing resources for goal achievement is a process examined and discussed in home management as well as in many social science areas concerned with education, change and development. This capacity for arranging means to meet ends, when it operates within the family where the "ends" sought affect individual growth and potential, may play a significant intervening role in societal change. Hagan suggests that, viewed over long periods of time, families in their managerial-developmental capacities may add impulse or impediment to national social and economic goals (1). For this reason there is need for increased scientific understanding, prediction, and finally application of knowledge about resource organization at the family level in both developing countries and among subcultural groups in industrialized countries.

Home management focuses on how families manage, that is, organize or pattern, resources to mediate their specific goals and values. In this study this focus is oriented to an area of wide concern, that of family

environmental influences upon children's successful participation in the educational system.

The study follows current emphases in home management pointed out by Paolucci and others: concept definition, structural relationships and identification of behavioral and environmental variables related to family decision-making situations (2, 3, 4, 5). The theoretic orientation combines a managerial and a developmental point of view in support of the philosophy that optimal human development should be the criterion for family management, and that individual members actively participate in family managerial efforts (6, 7). When the family environment is unsupportive of human development, imaginative solutions may be required. However, in order to suggest action, there is need for theoretic and analytical orientations that help structure family observations and guide inter-family comparisons. This study explores such an orientation.

Problems of conceptual and measurement equivalence, as Straus has discussed them, are considered and a method of measurement proposed as a procedure which may index the construct "family resource patterns for educability" in various cultural groups or societies, although phenomenal identity (through use of the same questions and items as well as method of quantification) may not be completely possible (8).

Objectives

First, the study attempts to construct a conceptual framework and method of measurement and, second, explores relationships between family resource measures and selected family characteristics (see Figure 1 on the following page). Families rating high on resource patterns for educability are compared with those rating at middle and low levels. Specifically, answers are sought to the following questions:

1. Beginning from a managerial-developmental orientation, what generalized properties of family environment indicative of high educative capacity might one specify and attempt to operationalize?
2. Can conceptual and measurement equivalence of family resource patterns be approached by first developing operational definitions from data and then comparable measures through a procedure of transforming heterogeneous scores to standardized ratings?
3. What evidence can be found for both distinctive dimensions and interrelated patterning of resources?
4. What relation is there between how a family rates on a total resource measure and the variability in ratings it exhibits?

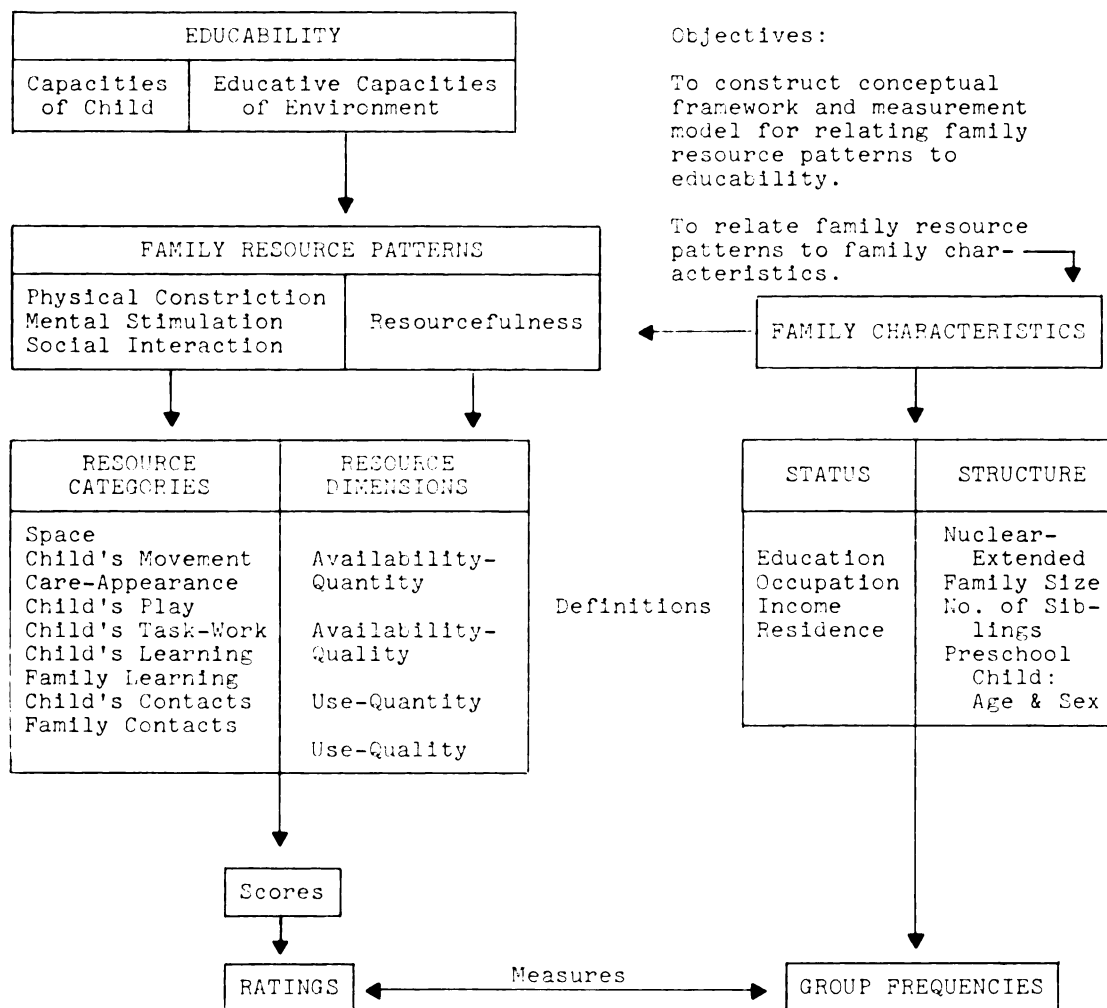


Figure 1.--Conceptual framework and measurement model for study of family resource patterns for educability of preschool child, and relations to family characteristics.

5. Do family resource patterns differ significantly with respect to certain status characteristics?
6. Do family resource patterns differ significantly with respect to certain structural characteristics?
7. What possibilities are there for descriptive and predictive use of the resource measures developed in the study?

Answers to the first three questions are explored through development of the conceptual framework and measurement model. The next three questions are explored by means of tests of hypotheses, and the last question by two additional analyses: a family profile using the framework of the study, and a regression problem using the resource and status measures as predictors to a criterion measure of family educational success.

Assumptions

1. Families in all cultures and at all status levels may organize available resources in ways that promote (or interfere with) the goal of the development of potential capacities of their members.
2. These organizational activities and resources present possibilities of observation and measurement.

3. Among Costa Rican families, educability is a relevant motivating goal for resource organization.
4. Mothers of preschool children are the persons most familiar with activities involving the children and can give accurate reports of such activities by means of enumeration, description and response to visual stimuli.

Hypotheses

1. Families at three resource levels (low, middle and high with respect to educability) will differ significantly in range of resource ratings.
2. The proportion of families at three resource levels (low, middle and high with respect to educability) differs significantly by certain status characteristics: education of parents, occupation, income and residence.
3. The proportion of families at three resource levels (low, middle and high with respect to educability) differs significantly by certain family structure characteristics: nuclearity, size, number of siblings, sex and age of preschool child.

Definitions

1. Educability. The concept as explicated by Hess and his research group (9, 10, 11) refers to preparation of the preschool child to participate in later school learning activities. Educability is a dynamic concept: it may represent not only the young child's performance and abilities, but also certain educative capacities of his environment as inferred from family characteristics, or from a combination of properties which seem to have special developmental importance at the preschool age (12, 13, 14). Also, educability may be viewed as a value and goal which depends upon the property of family resourcefulness for attainment.

This study, then, focuses upon environmental aspects of educability, and considers it to be a family goal mediated through family resource patterns.

2. Properties of special developmental importance for the preschool child. Physical-spatial constriction refers to crowding, movement levels and physical routines which might interfere with either learning and attention or activity and manipulative experiences. Cognitive stimulation refers to preparatory experiences and skills for later learning, such as problem solving tasks, dramatic play, culturally relevant knowledge, adult guidance, and opportunities for listening, remembering, and copying. In the social-emotional or interpersonal

realm, interaction refers to general non-cognitive experiences and exchanges which provide the child with opportunities for attention, feedback and encouragement from adults, older children and age-mates.

3. Resources. These are objects, events, activities or human beings within the child's environment that are available and that might function to influence educability. Operationally, resources are those present in the data for this sample of families, and which are summarized by means of nine resource categories and the above-mentioned properties of developmental importance:

| <u>Resource Categories</u> | <u>Properties</u> |
|--|-------------------|
| Space, Child's Movement, Care and Appearance | Constriction |
| Child's Play, Child's Task and Work, Child's Learning, Family Learning | Stimulation |
| Child's Contacts, Family Contacts | Interaction |

4. Resourcefulness. This managerial property represents a combination of dimensions considered in arriving at resource measures. The following typology indicates how the dimensions are combined:

| <u>Resourcefulness Dimensions</u> | | |
|-----------------------------------|----------|---------|
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| Use | UQN | UQL |

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Availability-Quantity refers to resource amounts actually or potentially accessible to the child and/or family. "Potentially available" indicates that the mother verbalizes (in response to questions about Picture stimuli) an awareness that certain objects, activities, or persons could be considered resources in a specific situation, even though she may not list them as presently accessible to the child or family in her Inventory responses.

Availability-Quality indicates particular, restricted and pervasive variety by which available resources may be described, categorized or delimited.

Use-Quantity refers to the amounts of actual, customary or regular, or expected involvement activities of child or family with resources.

Use-Quality indicates mother's verbalized perception of relations (or non-relations) between each resource category and the child's future participation (successful or unsuccessful) in school activities (as indicated by responses to Picture stimuli).

Definitions of the four dimensions as they relate to resource categories in this study are summarized in Table 1, page 10.

5. Family resource patterns for educability. Applied to the family as environment, this analytical

TABLE 1.—Summary of Distribution of Allocations by Resource Categories.

| Resource Category | Availability-Quantity (A_{QN}) | Availability-Quantity (A_{QL}) | Use-Quantity (U_{QN}) | Use-Quantity (U_{QL}) |
|-------------------|------------------------------------|------------------------------------|---------------------------|---------------------------|
| Species | Resource 1, Species 1, ... | | | |

TABLE 1.--Summary definitions of dimensions by resource categories.

| Resource Category | Availability-Quantity (AQN) | Availability-Quality (AQL) | Use-Quantity (UQN) | Use-Quality (UQL) |
|------------------------|--|--|--|--|
| Space | Household spaces in relation to persons | Variety in housing elements | Child's usual activities involving spaces and objects in household | Relation of child's activities to future school success |
| Child's Movement | Movement-related elements in household, neighborhood, or community | Restriction of elements to household | Child's actions involving movement elements | Relation of child's movement to future school success |
| Care and Appearance | Food and clothing items | Regularity of routine in care and appearance | Child's usual clothing and food consumption | Relation of child's care and appearance activities to future school success |
| Child's Play | Play objects and activities | Variety of objects and activities | Child's usual play | Relation of child's play to future school success |
| Child's Tasks and Work | Possibilities for personal tasks and work | Involvement of family in child's tasks and work | Child's usual participation in tasks and work | Relation of child's tasks and work to future school success |
| Child's Learning | Objects and activities for learning | Involvement of family in child's learning | Child's usual participation in learning | Relation of child's learning activities to future school success |
| Family Learning | Objects and activities for learning | School-relatedness of family learning activities | Family's usual participation in learning | Relation of family's learning activities to child's future school success |
| Child's Contacts | Contacts and social activities | Centered within the family | Child's usual contacts and social activities | Relation of child's contacts and activities to future school success |
| Family Contacts | Contacts and social activities | Centered within the family | Family's usual contacts and social activities | Relation of family's contacts and social activities to child's future school success |

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construct summarizes resource organization based upon previously defined properties, resource categories and dimensions, and variability in presumed relation to educability. Operationally, family resource patterns are measured by separate resource scores transformed into ratings, then summarized into high, middle and low levels of relation to educability.

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CHAPTER II

REVIEW OF LITERATURE

The literature is reviewed under the following general headings: management in the family, resources as a fundamental concept in management, and family as environment. Both theory-oriented and research literature are presented because both are pertinent to this study which constructs a theory-related framework for research purposes.

Management in the Family

A theoretical model of the managerial process, of propositions more or less accepted within the field of home management, and with some basis in empirical observation, has been summarized by Paolucci. This framework:

. . . assumes that management is a particular kind of behavior (managerial) consisting of some basic processes that relate to each other in discernable patterns. The components of this framework include the following processes: (1) formulating and selecting home-centered goals; (2) recognizing within the situation the presence of an opportunity or problem, and (3) achieving a goal by specifying and analyzing feasible alternative means, choosing the means to the goal, carrying out these means, and guiding the action toward the goal (2:339).

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One of several important ideas, discussed in relation to the framework, is that ". . . if a particular goal is to be managed, it must be conscious" (2:340). This idea of awareness, or of a perception which could be verbalized, is found repeatedly in the work of others in the management field. Another idea pertains to assessment of management: its effectiveness can be measured by the degree to which desired family activities and relationships are attained. To provide the knowledge needed for estimation of the consequences of particular activities for specific ends, measurement of means and ends is required. Lastly, Paolucci stresses the ". . . interplay and significance of a single family's private management on other families and social units such as schools, corporations, government" (2:342). This view of management suggests that the framework is not solely oriented to the family's internal life, but that at least equally significant are the consequences of family managerial activities for the larger society.

Liston has defined management similarly to Paolucci, as a cognitive process involving perception, of making resources productive to accomplish a family's discretely selected goals. In a dynamic formulation, management is viewed in the context of social process, originating in change and resulting in change:

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Perception of . . . internal or external change by the family may bring awareness of a problematic gap between the current situation and what is deemed necessary or desirable--a gap which calls for some form of adjustment. This gap may be perceived mainly as one involving . . . goal priorities or . . . kinds of resources considered relevant for the situation. The problematic gap may involve special attention to . . . reallocation of scarce resources among alternative uses in order to maintain or to improve productivity of these resources. It may be concerned primarily with . . . appraisal and reorganization . . . of activities involved in resource use. Or, finally, it may also be a problem of one or more forms of . . . interaction among family members . . . " (6:65).

Taking a developmental stance, Liston and Paolucci see management in the family as creating situations to foster growth and maturation of its members, setting up environments so that its members may move from less desired states such as poverty to more desired states such as productivity. Looking upon management as related to the productive functioning of the family in society, Liston has observed that:

. . . management by the family is much involved in the quality of give and take between the family and the other subsystems of its social environment--economic, political, community, cultural, and physical (6:66).

When changes occur in the family's environment, they occur not only within the family, but also in the family's relationships to the needs of other subsystems of society. The family exerts influence upon, and is influenced by, the larger society. Liston believes that:

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Too little attention has been given to the actual and potential impact of the quality of management in the family on various aspects of the general welfare of our nation (6:61).

For research purposes, Deacon suggests a more limited framework, emphasizing functional aspects of home management. The rationale for home economics proposed as basic to her conceptualization is:

. . . to study and interpret for families and for the larger society the interrelatedness and alternative possibilities for effective use of the available human and material resources in meeting . . . needs (15:760).

Viewed within this context home management concentrates upon ". . . the means by which the resources of individuals and families may be measured and managed purposefully," while other areas in home economics deal with nurture and personal development (15:760). In this framework attention is given to understanding decision-making processes by which resources are channelled to reach goals, and to values and goals as the motivating forces for effective management and bases for evaluation.

In a later conceptualization, Deacon and Maloch utilize a systems approach to focus on regulation or control aspects of management, presenting an organized collection of interrelated elements which have a boundary and functional unity (16). The family is viewed as a social system bounded by its membership, values and resources. In this system, inputs are demands (the goals and events

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requiring action), and outputs are resource-use. Effectiveness of management is to be indicated by examination of the relation of output to input within the system.

Functional unity of the system is provided by management (by which goals are responded to through use of resources). Internal managerial components of the system include planning, controlling, evaluation and decision-making. Planning includes the ability to perceive, or to foresee future needs or events, as well as objective appraisal of related current situations.

Schlater has suggested reducing the managerial process, or what may be viewed as Deacon's internal managerial components, to two major subprocesses: decision-making (linking values, alternative perception and selection) and decision-implementing (synonymous with organizing, and requiring non-mental activity as well as mental activity) (4). In viewing decision-implementing as organizing, Bell's definition is helpful. Organization is:

. . . the ordering of family life brought about by balancing means, techniques, and activities that are important to the family and to individuals that make up the family (17:65).

Organizing means coordinating, integrating or arranging strategies (such as planning, goal-setting, appraising, adjusting) and resources into patterns appropriate to the

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family's value system. Bell notes the interrelatedness and circularity between family values and organization:

Upon it [value system of the family] rests the choice of appropriate pattern of family life. The appropriate pattern will help determine resources and strategies to be used. Resources and strategies available may help determine the pattern chosen. . . . So, we have interrelationships and interdependencies. . . . One part leading into, and yet dependent upon, every other part (17:65).

Bell predicts that a family which is aware of its value system and the resources and strategies at its command can organize its life pattern effectively.

In research related to organizational patterns Walker reports a pilot study of a proposed classification for self-imposed standards for household tasks (18). More than one component of a task was considered and a scheme for relating standards to components was constructed. She says:

In the past, analysis of household work has focused upon a certain aspect of the task, holding other aspects as constant. The concept of self-imposed standards attempts to identify the many components of a task that influence the outcome and to study the way in which these components are combined. . . .

. . . a study of standards may be a means of helping . . . evaluate the manner in which they [homemakers] allocate their resources to household work . . . [and] recognize possibilities for change (18:460).

Here, "self-imposed" means that the person establishes the degree to which he will seek to incorporate standards into his efforts. Standards are explicit criteria which support evaluation of the extent of goal

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achievement: they are considered with respect to either the means of attainment (resources) or the accomplishment itself. The number of possible standards can be reduced by placing all tasks into three groups which differ in their major contribution to goal achievement.

A pattern for a task, according to Walker, is a person's individualistic approach. Underlying pattern is a common thread, or similarities, in groups of tasks. These common aspects or dimensions, when combined in some way, lead to a standard for that group of tasks. "Individuality" appears in how one orders these dimensions, and the degree to which one strives to achieve each (18:456).

In a factor-analytic study, Mumaw examined a particular value predisposition in relation to organizational patterns of families (19). She assumed that organization reflects a person's value of order (order need). Following a conceptualization by Nichols (5), organization was regarded in this study as a pattern, or structure of relationships, which results from design and implementation of plans for task completion at either the individual or group level of effort. In order to identify organizational patterns of each person, Mumaw factor-analyzed their responses to an activities index, ending with four principal factors. Individuals were classified low, moderate or high on each factor. The researcher observed forty-six different patterns of organizational components of task

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standardization, assignment, regularization and arrangement. These patterns were then examined by situational characteristics and order need (as measured by a check list of adjectives designed to serve as an index of the strength of the value).

Differences in organizational patterns were explained by a difference in value orientation. Low order need persons tended to be oriented to creativity in task organization, to be less conservative and more urbanized; high order need persons tended to be more conservative and rural. The high order need people scored significantly higher than the other group on the task standardization and regularization factors, both of which involved the person in his own activities, not with other persons. Mumaw suggests that this finding indicates that the predisposition towards order may be impeded when organizing involves participation of others in completion of tasks (19:3).

Likert has presented what he terms a newer theory of management based upon industrial research and which has isolated characteristics and organizational patterns of "high-producing" managers (20). Productivity, or performance, was measured in various ways including time standards met, job satisfactions, turn-over, costs and losses. His work, along with some thoughts of Fromm's which

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One of Likert's findings is that high producers supervise according to a different philosophy and set of motivational assumptions. They avoid what he describes as the fundamental deficiency of traditional management theory: the inadequate motivational assumption that people work only for economic goals, and that a manager controls those under him who in turn have the duty to obey (20:59-60).

The role of the work group is found to be of central importance. This is the group in which a person spends much time, the one in which the individual is most eager to achieve and maintain a sense of personal worth. The greater the skill of the person in the manager role in using group methods of supervision, the greater are productivity and satisfactions of the group. For example, findings indicate that freedom or independence in doing one's work or in making decisions leads to high performance only when there is much interaction between the individual, his peers, and superior (20:24).

In addition, the power of group goals is revealed in that they can push production down or up, depending upon the level of goals set by the group. Evidence of the influence of the group is further shown by the small deviations by members from goals set by the group (20:43).

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Quantity and quality of productivity correspond to the responsibility felt by the group. Thus, the high-producing managers make widespread use of participation, whereas traditional managers get compliance with their established performance goals by use of hierarchical and economic pressures (20:100).

Favorable attitudes as well as high performance goals must be present if organization is to achieve high productivity. Those managers whose pattern of leadership yields favorable attitudes think of those they supervise as human beings rather than just as workers. Characteristic of their management is a highly coordinated, highly motivated, cooperative social system. The different motivational forces in each person have coalesced into a strong force aimed at accomplishing mutually established objectives.

Likert summarizes many findings by stating an integrative principle of supportive relationships in which the individual is central:

The leadership and other processes of the organization must be such as to ensure a maximum probability that in all interactions and all relationships with the organization each member will, in the light of his background, values, and expectations, view the experience as supportive and one which builds and maintains his sense of personal worth and importance (20:103).

Fromm has formulated a basic principle of humanistic management, a principle which is recognized in the views

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of Likert and the preceding writers, although with varying emphases: that the individual asserts himself and takes an active part in the managerial process (7:105). He believes that the principles of the technological society negate the humanist tradition; for example:

Another general practice in organizing work is to constantly remove elements of creativity (involving an element of risk or uncertainty) and group work by dividing and subdividing tasks to the point where no judgment or inter-personal contact remains or is required (7:36).

He considers the present system (what Likert has called the traditional management orientation would be part of this) to be pathogenic and believes that the principle of maximum efficiency can be given up, if only for a time: "That is to say, man, not technique, must become the ultimate source of values; optimal human development and not maximal production the criterion for all planning" (7:100). It would not be necessary to polarize or dichotomize management and participation; optimal centralized decision-making and decision-implementing, and optimal participation could be done. This is the procedure of humanistic management.

Summary

In a family, managing is a process of deciding what is most important to the family and using selectively available means to achieve this. It is a control system for goal attainment. Such concepts as decision-making,

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organization, values and goals, and resources, apply to families at all status levels. However, management is likely to differ in control styles, in resource organization, in participation, and in outcome.

In decision-making, a family may either order alternatives to best maximize a goal and then select between alternative ways to do this, or mediate or create a new course of action out of conflicting or uncertain alternatives. The latter course of action may be the more realistic situation for many families at lower status levels. Decision processes may then be more of an ordering and directioning of change than a selecting and rejecting process. Because resources are the means for making change, they are also ordered and directed toward outcome. This balancing, adjusting feature appears to follow from actual decision situations families face.

The home environment is the setting for managerial activities, and within the families the parents (sometimes one parent only, or another person altogether) are the principal managers in that they organize resources and control situations and participation so certain outcomes result. From this framework, we turn to a more detailed explication of the concept of resource (5, 17, 21, 22, 23).

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Resources: Fundamental Concept in Management

This section surveys varying definitions of the concept of resources, economic and social psychological points of view about resources, and finally the conceptualization of resourcefulness.

Meaning of Resources

Dealing with concepts of family finance, Magrabi and McHugh discuss resources as a class concept which includes different properties held in common by a group of objects (3). In this view, resources may be identified in varying degrees of specificity: for example, resources could be defined to include all various forms of income and wealth available to the family.

Discussing family resources, Nickell and Dorsey say that they consist of tools, assets, capabilities, and ways and means possessed (24:82-85). With Gross and Crandall (25:124), they have suggested the division into nonhuman and human resources. Nonhuman resources would be tangible goods and facilities, while human resources would include time, energy, skills, knowledge, attitudes. The point is stressed that there may be potential human resources (potentially increased capability in a skill for example) which may not be presently available to the family.

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Deacon and Maloch, in a systems approach to researching home management, define resources of the family as:

. . . means which are available and recognized for their potential in meeting demands. Means are represented by those things which have "want-satisfying power" and are instrumental in the reaching of desired ends.

A resource . . . [is] anything - knowledge, abilities and skills, objects - which can be used or which has direct application in the meeting of demands. Resources are, therefore, the content of the solution (16:32).

They point out that the resources are specific to the situation: ". . . In one managerial situation an object may be instrumental [a resource] while in another it may be the self-sufficient end desired" (16:32). That is, objects function as values if the nature of the satisfaction is self-sufficient instead of instrumental.

Investigating perception of cultural alternatives, the Spindlers developed a conceptualization related to Deacon and Maloch's distinction of resources as instrumentals (26). In their anthropological study of acculturating communities among the Blood Indians, the Spindlers defined "instrumental" activities as those ". . . that an individual engages in for the achievement and maintenance of a life style and status in the social groups of which he is a member or aspires to be a member" (26:312). Instrumental roles of the Indians have prescribed for them certain activities related to fulfillment of

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specific and valued social goals. Thus, activities and roles could be added to the list of family resources.

In Blood society, instrumental activities are not occupations as usually thought of, but activities which contribute to earning specific rewards, subsistence and self-respect. The Spindlers developed an inventory of activities most relevant to the way in which a Blood behaves as he attempts to cope with everyday life in his environment. The instrument is intended to elicit specific operational perceptions of social reality organized normatively in means-end relationships.

In their work on resource mediation in interaction situations, Whiting and Longabaugh have chosen to define a resource simply as ". . . anything that a person wants" (27, 28). In economic terms this would be analogous to saying that a resource is anything that has want-satisfying power. In their conceptualization, common resources within the family and home would include food, water, sex, temperature, rest, privilege, information, freedom from restriction and pain, and derived resources such as love and praise. Operationally, Longabaugh limited resources ". . . to things of value to the actors and . . . likely to be salient (brought into inter-personal focus by one or another of the inter-actors) in the interaction" (28:322). In this view, resources not presently possessed by a particular

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In general we might say that a comprehensive description of resources in the family includes such factors as: the means-end relationship or instrumentality for goal achievement; consideration of possession, availability and potentiality; specificity with regard to common properties and the managerial situation; awareness, desirability and value; and both human and nonhuman elements. We now consider more specifically the economic and social psychological orientations toward resources.

Economic Point of View

This orientation emphasizes the processes of continuous adjustment, substitution and combination of resources. In addition, Deacon and Maloch have cited scarcity, measurability and alternative uses as attributes of economic resources, and Magrabi and McHugh have discussed value, efficiency and control as relational concepts regarding resources in the economic context (16, 3). The latter authors point out that:

One result of establishing value relationships among resources is that less-valued resources tend to be substituted into the use process for those having higher values (3:108).

A value measure imposes an ordering among goals or resources, and it is partly determined by the decision-maker and partly by environmental factors.

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Efficiency is the essential relationship between resources and goals:

If two resources are equally valued, the one resource is more efficient than the other if it obtains a higher goal. Or greater efficiency may be evidenced when one of two equally valued goals is achieved through the use of lesser valued resources. . . .

[A] combination of resources would be said to be the more efficient (3:108-109).

And concerning control, Magrabi and McHugh indicate that it implies a two-way relationship: a decision maker controls resources but in turn is likely to be controlled by them due to the fact that possession or nonpossession influences his attitudes towards them. (This point has been mentioned before under Whiting's and Longabaugh's meaning of resources, and will be discussed again.) Specifically, control is:

. . . the degree to which the decision-maker is able and willing to expend resources to attain goals or to adjust his valuation of goals in accordance with his resources (3:109).

A decision in the economic area involves choice of resources and goals having the best balance in value relationships as measured by efficiency, and this may change over time and space.

The utility function in terms of combinations of resources has been discussed by Clarkson, who indicates that any particular level of utility is derived by combining different amounts of goods, and that a large

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Hicks has stated the distinction and relation between complementarity and substitution applied to resources (30:44-46). Substitution is operative in a situation where one or more resources may replace another in goal attainment. Complementarity is operative when the effects of a resource are reinforced or supplemented by the presence of other resources. Concerning reciprocity Hicks explains that:

. . . the relation of substitution (and complementarity) is reciprocal. If Y is a substitute for X, X is a substitute for Y; and similarly for complements. Nevertheless it should be noticed that the theorem says something more than this mere reciprocity by classification. For substitutes to be substitutes both ways, and complements to be complements both ways, it is sufficient that the cross-effect should be the same in sign; they do not have to be equal, as the reciprocity theorem tells us that they are. The conditions for reciprocity by classification will clearly be less stringent than those for the equality of the cross-effects. So long as the degree of substitution (or complementarity) is considerable, we can relax the linearity condition quite considerably, and the reciprocity by classification will still hold. . . . (31:128)

Underlying individual economic conduct in handling resources is an assumed stability, according to

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Schumpeter's explanation of the theory of circularity and equilibrium (32). Based on the conditions surrounding the individual, there is an equilibrium between means on hand and wants to be satisfied. Economic life is a circular flow: there is continuity and constancy of values and resource-exchange processes. Individual valuations of resources are interdependent and interrelated. In the context of this theory, availability and use, quantity and quality of resources may be examined.

Fitzsimmons and Lancaster refer to the relation between production and consumption, as apparent in resource dimensions of availability and use (33, 34). Fitzsimmons says that production is the making of goods available (the creating of utilities at the time, in the place, and form desired) for consumption (which is the utilization of goods directly for satisfaction of human wants) (33: 164-172). In Lancaster's view of consumption, "Goods, as such, are not the immediate objects of preference or utility or welfare, but have associated with them characteristics which are directly relevant to the consumer" (34:18). He uses the more neutral term "characteristics" instead of "satisfactions." The consumer wishes to attain the most desired bundle of characteristics subject to situational constraints, and goods are needed to obtain these characteristics.) He points out the analogy to production theory: goods or resources are viewed as

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inputs into a process in which the characteristics are outputs. This is an analogy similar to the Deacon-Maloch framework for researching home management presented earlier.

Regarding efficient use of resources, Lancaster believes that:

In consumption, as in production, the prime reasons for inefficient use of the existing technology are ignorance and lack of managerial skill. The consumer may not be aware that a certain good possesses certain characteristics or that certain goods may be used in a particular combination to give a specified bundle of characteristics (34:18).

Then, in reference to efficiency and the state of technological development of the society, he comments:

A relatively static technology, in consumption as in production, will . . . probably lead to a situation in which the efficient activities become generally known and traditional. Traditional consumption patterns will be efficient only within a relatively unchanging choice situation and only optimal for consumers whose preferences on characteristics approximate the society mode. Tradition will be less useful when the technology is changing rapidly . . . or when the consumer's preferences diverge from the mode (34:19).

In the economic view of resources, the power of wealth and services to satisfy wants depends upon two things, according to Fitzsimmons (33). The productivity of goods and wealth depends upon their availability and possession, and the qualities they have or that are attributed to them. Burk has defined quality in relation to food as ". . . the combination of attributes of a product that have significance in determining the

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degree of acceptability of the product to the user" (35:117). Such quality is either composed of inherent attributes or may be developed in a commodity. Burk suggests that changes in quality may occur in one of three ways: more of a particular attribute, more consistency of an attribute (more standardization), or more availability over time. Concerning quality and quantity, NicMell and Dorsey have said that:

The quality and amounts of the resources that every individual or family has at its disposal are different from those of every individual or family. Each is constantly forced to work with different amounts and combinations of resources (24:84).

Certain factors related to the economic view of resources--usefulness, limitation, alternativeness, interdependence and assessment--will be mentioned again under the resourcefulness concept.

Social Psychological View of Resources

Those who view resources in the family from a social psychological stance are interested in such factors as: competence, perception and empathy as human resources; resource mediation and exchange as determinants of role learning and growth in children; and the motivational, reinforcing and qualitative properties of human resources.

Several investigators have been concerned with competence in the family setting, especially with regard to

optimal functioning of family members in large, urbanized, industrial or industrializing societies (36, 37, 38, 39). Competence includes the dimensions of problem-solving and of skill in mediating activities, as well as awareness and understanding of available alternatives and how to attain them.

Bronfenbrenner has commented that in order for children to function as productive, cooperative members of the community they need competence not only in cognitive functioning but also in the areas of a sense of control over the environment, capacity to defer immediate gratification, skills in working cooperatively with others, socially responsible patterns of behavior, and techniques for non-destructive resolution of personal and interpersonal problems (36:1-2). Scheinfeld has called for a shift in family culture from a primary emphasis on control in child-rearing to development of competence and emphasis on internal experiences in order to help children grow in it (37).

There is complexity and circularity in viewing competence as a resource: Scheinfeld sees it as a needed resource input in optimal family functioning, while Sussman stresses it as output:

The degree of competence exhibited by any individual or by a closely interacting primary group such as the family is an outcome of the totality of formal and informal socializing experiences to which he (or it) has been exposed (38:5).

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Apparently competence may be regarded as a multi-dimensional resource with both managerial and perceptual components, and in Sussman's view, its importance as a resource for goal attainment would be due to the fact that the:

. . . opportunities which a modernizing society makes available to its members become viable options for a given individual only when that individual demonstrates the requisite competence to recognize and pursue them (38:3).

Perception, as a component of competence, becomes a significant human resource in the managerial frame of reference. Hoyt offers the following definition:

Perception is the recognition of the significance (or lack of significance) to man of what his material and his non-material environment offer him. It includes not only his perception of separate things and ideas but of their relationships. . . . So for a man to perceive the significance of the various parts of his environment in relation to himself is the first step not only toward the solution of his problems but toward knowing what his problems are (40:76).

There are two aspects of perception: the mental-emotional set for something or against something which supports "insensitivity." Examples are wishful thinking, prejudices, and fears, as apparent in attitudes and expectations. The other less recognized but more important aspect is sensitivity: when a person fails to perceive he is not attending and listening. "Because of insensitivity, man simply does not notice at one period what, at a later period, is as obvious as the sun in the heavens" (40:77). Hoyt illustrates failure to perceive or

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insensitivity in three choice situations: when natural objects of major potential usefulness are present in the environment but not recognized as useful and not taken up; when ideas of major potential value in conducting life are either not consciously recognized or are at the conscious level but not used; or when consequences of actions are not seen (40:80).

Hagen has observed that one's value system may limit one's perception of alternatives--because of it one may just not be aware of any (1:117). He suggests that the heart of the human resource he calls creativity is a set of perceptions in a person which includes not only an awareness that the world one knows is understandable, but an "openness to experience" or a "capacity to be surprised." He says:

It is a perception that as life proceeds one will repeatedly meet phenomena that do not fit in the schema one knows to that point, and that if they interest one, one can count dependably on being able both to deduce the system in which they do belong and on finding satisfaction in the process of discovering and exploring it (1:138).

Hagen refers also to empathy as another index of creativity in discussing Lerner's research on modern, transitional and traditional types of individuals (1:253). Empathy is described as one's ability to project himself into another's position and express a judgment concerning what he would do or feel if he were the other person. It is a personality trait which includes need

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Another example of research into the perception component of competence is the Spindler instrumental activities inventory described on page 25 (26). It was applied to situations where two different social systems, one modern, one traditional, converged, and both were present and perceived by the Blood Indians. The IAI is a way of cataloguing perceptual and cognitive dimensions of behavior as the Indians move into an industrialized, urbanized world by asking them to make value-oriented choices between pairs of instrumental activities (26:321).

There is another social psychological view of resources also related to perception, although this component of competence is not treated specifically as a resource.

Whiting has proposed a framework utilizing value, control and administration of resources as a set of concepts by which social interaction may be described (27). These concepts, suggested as crucial determinants of learning by identification in parent-child interactions, were later operationalized by Longabaugh (28). Whiting's assumptions about resource value are stated in this way:

First, a resource is valued to the degree that its absence increases motivation and consumption provides satisfaction. Second, the value of any resource may be increased or enhanced by insecurity - threats that a resource already available may be taken away or that desired resources may be withheld. . . . A resource that is available whenever one wants it is perceived to be of little value compared to one that is sometimes available and sometimes not (27:114-115).

He cites the economic principle of the value of scarce goods (scarcity increases value) as an example of value enhanced by insecurity with respect to availability.

Persons and resources are related by control. Although one may have direct access and control over some resources there are many, especially for young children, that one can get only through others by such actions as begging, bargaining, attacking, obeying. Parents have direct control over many resources which children control only indirectly through them.

Socializers are resource mediators or administrators. In mediating activities, a socializer (a parent) gives, withholds, or deprives a person (a child) of a resource, for example: provides food, restricts freedom, withholds love, takes away a privilege. He may also threaten such actions, thus enhancing resource value by arousing insecurity, or he may promise a resource, thus creating reinforcement by reducing insecurity.

In Whiting's framework, the process of identification begins with socialization when the mother trains and

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controls her child by withholding resources. The mother may mediate some resources, the father others; the culture may specify the differences. Then, in adulthood social interaction, one both mediates, and accepts mediation, of resources. A major postulate is offered about the relation between social interaction as resource-mediation and learning by identification: the more a child envies another's status with respect to control of a given resource, the more will he practice that role, fantasizing himself as the person he envies controlling and consuming the valued resource of which he feels deprived.

In a pilot study of mother-child dyads, Longabaugh coded face-to-face interpersonal behavior, calling his category system "resource-process coding" (28). Acts were coded on two dimensions: the resource salient (of value to the interactors and prominent in their interaction), and the modes or modalities (ways in which resources become salient and are dealt with by the interactors: seeking, offering, depriving, accepting, not accepting). He assumed that all interpersonal behavior could thus be categorized.

Three resources, information, support, and control, were examined in terms of the extent of resource exchange occurring and the comparative control of the recipients over the resources. "Resource exchange" referred to the quantity of value passing between two interactors.

"Resource distribution" referred to the relative possession of salient resources by the two persons. Inter-correlations of these two factors revealed differential cluster patterns, suggesting two separate dimensions of interaction.

Concerning methodology in a study of this type, Longabaugh comments that resources may be narrowly and specifically defined (mother's smile) or broadly defined (information). However, there are minimal criteria for including resources: that they correspond to some extent to resources actually valued and exchanged by persons, and that the transmission of these resources be capable of being measured in observed situations. Conceptualization of resources is inadequate if either criteria is not met: empirical validity and reliable measurement. Inferential ability of the investigator plays an important role: he decides the salient resources after preliminary observations. Longabaugh suggests that it would be inefficient to rely solely on empirical measures when dealing with human subjects and to ignore purpose or meaning, perhaps the most significant variable in behavior. In his view, reliable inferences about interpersonal meanings based upon knowledge of the situation and the people make use of the experience and knowledge of the investigator about what he is studying: resource mediation actions in families.

Other researchers have defined factors which operate within the family as means to optimal growth and development. Baldwin, Kalhorn and Breese devised rating scales to appraise parental warmth, intellectual objectivity in attitudes towards children, and control (41). These were the three variables which formed a framework for describing and summarizing parent-child interaction.

In research fundamental to this study, Hess and Shipman studied urban black families in order to specify linkages between social structure and individual behavior. They investigated a particular cluster of human resources, a characteristic developing in the preschool years and of instrumental importance in attainment of the goal of successful school participation of the child (9, 10, 11). This concept, educability, referred to the child's ". . . readiness to use the teaching and learning resources of a formal school situation" (11:4), and to:

. . . a cluster of cognitive skills (e.g., language, concept formation, visual and auditory discrimination), to the child's motivation to learn in a classroom setting (curiosity, need for achievement, etc.), and to his acceptance of the role of pupil (11:171).

Gordon recently discussed demographic factors instrumental in children's development which have been isolated by various investigators, such as the degree of crowding in the home, quality of housing, ethnic membership, father absence, level of income, social class (42:1).

He also described parental cognitive factors which, when consistently available and utilized, have given evidence of functioning in achievement of goals related to intellectual and personality development of children. Many of these factors are included in the studies by Dave and Wolf, described under the section of this review on family as environment (page 52). Lastly he mentioned a set of emotional resources: consistency of behavior control, order in work habits, and perception of another as a separate person.

Bronfenbrenner has pointed out examples of social psychological resources which have specific quantity-quality limitations (36). The problems which a child may have when he begins school may be traced back to lack of stimulation, both cognitive and motivational, in his home. It is not necessarily true that the child has not had sufficient attention from the family; however, it has been so generalized and diffused, instead of appropriately discriminating, in quality, that it has not had an impact in selective reinforcement of school-related behaviors. He questions whether the parents lack ability, or motivation, to deal with children appropriately to their needs.

In addition, he also points out that there is research evidence that it is the quality of a child's school peers and/or older children with whom he interacts, and not the quality of the school itself, which may be more

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important to academic gains or losses (36:2). "Quality" here refers to social class standing of peers, and the constructive or destructive behaviors of older neighborhood children who serve as models for young children.

Resourcefulness

Within the framework of this study, people, objects, events and activities may possess the property of "resourcefulness" if they function as contributors or as means to obtaining some desired outcome. At a conference on values and decision making, Liston described this property:

To say that a person is resourceful is simply to say that he has a wide horizon as to--the things he has to work with. Take recreation, for example. You can get your recreation by doing things by yourself, by doing things in the home with other people with things you have in the home . . . or you can get recreation by going to a free movie or to an expensive concert. Similar interpretations could be given of various horizons for a long list of resources. . . . [Values are] . . . the original horizons from which stem our peculiar patterns of goals and standards and through which we view the potentialities of our resources . . . (43:64-65).

With especial recognition to discussions of family resources by Gross and Crandall and Paolucci and O'Brien, resourcefulness includes the following characteristics (25:126-147, 21).

Usefulness.--Utility is capacity to satisfy human wants. Without usefulness, or utility in action, possession of resources is insufficient for goal mediation.

That is, only when used, are so-called resources completely "resourceful." Usefulness seems to require a kind of balancing between conserving things and meeting demands people place upon them. Usefulness is a creative characteristic, a unique combination of perceiving demand and using means to meet demand (4, 23). In this connection, Deacon suggests that resources can be discovered, that uses for them can be expanded, and Schlater that resources can be created (15, 4).

Limitation.--Restrictions within a given time and space may cause some resources to become more important. There are always some limits on availability and use. Absence, or too little, of any single resource may be crucial in determining success or failure in goal attainment, even when there are other means available. In an affluent society, limitation is a changeable characteristic, and some resources appear endlessly plentiful. In a traditional or a modernizing society, however, resources may appear endlessly restricted. In either society, the actual situation is likely to be that there is both scarcity and abundance of resources. As limits upon some resources become less, they become more apparent on others. Amounts of some (income, capacity to work) vary greatly from family to family, from time to time, and are restricted by inherent capacity, by training, by status.

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Resources may be further limited by unavailability of some others (lack of education, for instance, may restrict work opportunities which in turn restrict income). Other restrictions are imposed by limits of quality, of excellence, of meeting standards in the makeup of the resource itself.

Hagen has given an example of how increase in quantity of personal resourcefulness may be related to available quantity and quality in other contributing resources such as social contacts and supportive situations:

It is a reasonable speculation that the child becomes more resourceful and more creative the greater the number of differing understandable models he comes in contact with in emotionally favorable contexts (1:139).

Substitution, complementarity.--Resources are interchangeable and transferable: one may serve in place of another or offer possibility of a course of action when others are committed elsewhere or nonexistent. There are two meanings for alternativeness: alternative uses of a given resource (it may be used for different ends), and use of alternate resources to reach a goal (if some means is missing, one finds or creates out of the possibilities at hand a substitute that will do in its place). Also, resources can reinforce or supplement one another in goal attainment.

Interrelatedness and interdependence.--According to

Gross and Crandall:

A philosophy which appears suitable for today is one which highlights the interrelatedness of resources . . . maintains that materials should be subordinate to people in importance. . . . Conservation of things should be balanced against the demands such conservation makes upon other resources, particularly the human resources (25: 132).

This element is suggested as a kind of summary with all preceding characteristics seeming to point to this aspect of resourcefulness. If availability and utilization can be categorized as two dimensions of resources, they appear to function in an interrelated manner, although conceptually distinct. Interrelatedness implies a reciprocity among means relevant to a specific outcome. Interdependence implies a mutual dependence: one resource does not function without another or others. The sum of resources available for a goal usually determines whether or not it will be mediated. Yet mediation is also dependent upon total interrelated use of resources. This combined pattern may be so complex that it is not easy to conceptualize and to operationalize problems from the point of view of resource-interrelatedness and -interdependence. Yet as separate resources are examined for their influence on a particular goal, this patterning aspect is likely to become apparent both to the families involved and to researchers.

Measurability.--Gross and Crandall have indicated that:

Resources are similar in that they are all useful; they are all limited; their use is interrelated; the managerial process is applicable to all resources; and finally, most important, the quality of life an individual achieves is dependent upon his use of them (25:125).

If the course of a person's or of a family's life may be determined by resource-availability and utilization, then both dimensions ^hould be carefully determined, and assessment based upon observed indicants. Limits, like uses, would need to be assessed in relation to specific goals, with recognition that resources vary in how they are limited and in the accuracy with which such differences can be measured.

The nearest to objective evaluation of use of specific material resources may be through inventories to determine length of life, but this is only part of effective utilization. Qualitative differences are particularly difficult to measure and require inferences by an experienced observer. Checks on use requiring inferences include: quality and quantity of imagination employed in using resources, continuing satisfactions people express from use, effect upon persons involved in resource exchange.

Some measurements (such as time used, total income, income allocation) are objective measures and common

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standards against which resource use has been compared. These leave much to be desired, perhaps because they fail to get at the interrelated-interdependent aspects of resources: their patterning for goal achievement. In this regard, Deacon has commented:

Other measures yet to be developed should have . . . comparative and additive attributes if they are to have significance for clarifying inter-relationships. . . . In addition to being able to compare and add resource potential within the measure under consideration is the need to be able to do so between and among the available measures (15:761).

Some studies already mentioned have attempted to develop measures of resources within the family environment and to assess resource patterning for goal achievement in different ways. In the last section we examine family as environment.

Family as Environment

This section presents several views of family as environment, and relates them to management and development within the family. In this regard, Paolucci has said:

Home management today deals with husbanding resources so that the more intangible as well as the tangible goals of the family are reached. Recognition that child rearing practices result in different personality types and that the possibilities for growth are enhanced if one acquires skills, knowledge and attitudes valued by a particular culture, obligates adults to so arrange the home environment for children so that it offers the best chances for optimum growth (44: 5-6).

To which Liston adds:

The degree to which the needs of family members are met will determine the character of the human resources on which the family may capitalize in its next round along the process of its development (6:66).

Sussman appears to be in agreement with the above premise when he discusses reciprocity, or some form of cooperation, in relation to superordinate goals in the family (45). The family can be viewed as an environment for both emotional exchange and socialization in the area of mental functioning, with the goal of developing ability to handle frustrations and competition in its members:

The family provides the psychological and physical territory in which one can be emotional, express one's feelings and both give and receive affective response unabashedly (45:7).

However, family needs and objectives also create linkages with bureaucratic organizations external to the family, and cooperation or reciprocity is again suggested as a guiding principle (instead of conflict) for these relationships. Thus, the family serves as an environment supporting linkages between its members and society. Societal conditions in turn influence the family environment and individual members' development.

An example of this process may be the research of Barry, Child, and Bacon into relations between occupation and child training (46). They compared societies, using ethnographic data, with different types of economies and

with differences in child rearing practices in the areas of obedience, achievement, and self-reliance pressures. Resulting associations led them to infer that how a family trains its children tends to be a suitable adaptation to the economy. Families in subsistence societies tended to insure their survival by arranging their child-rearing practices around the objectives of developing independent, venturesome adults, while in high accumulation economies (which stress animal husbandry and commercial agriculture) the families socialized children into responsibility and obedience because their goal was that of ensuring the continuity and protection of an assured food supply.

These findings seem supportive of Liston's view that:

". . . management in the family is much involved in the quality of give and take between the family and the other subsystems of its social environment--economic, political, community, cultural, and physical" (6:66).

The family as a specific environment mediating between individuals and the larger society, as suggested above, has not been widely studied in the past. Preliminary to offering his framework for viewing the family as a mediating environment, Hagen discusses this point: "The analysis of effects of conditions in the society at large on personality formation has been a no man's land of the social sciences" (1:200). In his attempt to synthesize knowledge from several disciplines into a theory

of social change, Hagen developed a model of the impact of the home environment on personality (1:200-217). He indicated specific causal sequences by which it seems possible that social pressures upon parents would lead them to create an environment conducive to personality change in their children, and that this would continue over successive generations. The historical sequence in the family, of progressive changes in personality over the generations, appears to be loss of status respect by authoritarian parents leading to retreatism and finally to creativity. As retreatism deepens over the generations, it creates circumstances of family life leading to development of innovational and creative personalities.

Family as environment for human development may be viewed also in the context of Bloom's proposition that:

Variations in the environment have greatest quantitative effect on a characteristic at its most rapid period of change and least effect on the characteristic during the least rapid period of change (47:vii).

Following this thesis, the family might be considered as an environment which represents a set of powerful persisting forces affecting human characteristics, such as the child's educability, which are undergoing rapid development at a particular period, in this case, at the pre-school age. Then, located within the home, the neighborhood and the community in which the young child carries

out his activities, would be found the resources or means for helping him to learn new concepts or discriminations preparatory to school experience. Operationally the environment would be bounded by the child's direct and indirect involvement with these resources, whether they be persons, activities or objects. The studies to be mentioned have taken this point of view.

Constancy, consistency, powerfulness and pervasiveness are suggested by Bloom as the principal environmental factors which converge to influence human characteristics (47:194-212). Constancy refers to the idea that the environment's effect becomes stabilized and reinforced only when it is relatively constant over a period of time. Consistency suggests that various contemporary aspects of the environment are similar and mutually reinforcing. Consistency is the element which distinguishes a powerful environment from one only moderately so, or one ineffectual in its consequences. Bloom specifies the relation between powerful environments and development thus:

. . . powerful environments represent rather extreme instances of abundance or deprivation and apparently involve most individuals in them in very similar ways. That is, they are relatively uniform in preventing individuals from securing the necessary nutriments, learning experiences, or stimulation necessary for growth, or they are so powerful in reaching all with the appropriate nutriments, experiences, and stimulation that all (or almost all) individuals are affected in similar ways and to a similar extent (47:212).

A major characteristic of such environments is their pervasiveness: an individual is engulfed in the situation which presses him from every side toward a particular development or outcome. Young children are especially affected by such extreme, sustained environments, while older, more experienced persons, dissatisfied with such surroundings, may produce appropriate modifications in the environment.

Wolf and Dave, students of Bloom's, were concerned with characteristics within homes which indicate educational environments related to general intelligence on the one hand and to educational achievement on the other, of fifth grade children (48, 49).

Wolf identified three environmental process variables contributing to intelligence development: Press for Achievement Motivation, Language Development and Provision for General Learning (48). His measurement scales appeared to represent particular patternings of resources within homes for the specific goal. He predicted positive and significant correlations between environmental measures and children's I.Q. scores, and found correlations between them of .69 to .76. Multiple correlations and a factor analysis showed even higher commonality among the three variables than predicted, perhaps indicating interdependence of the measured resources as well as an environment operating to develop intelligence.

Other findings included support for a prediction of a greater relationship between environmental variables and I.Q. than between social class and I.Q. He found that his scaling instrument appeared to be more sensitive in upper class homes than in lower class homes. Following Bloom, Wolf suggested the idea of a pervasive environment affecting all persons within it, as well as a specific one affecting a particular individual, indicating that perhaps some resources influence the goal (general intelligence development) directly for some family members, and indirectly for others.

Dave constructed an Educational Environment Index composed of six variables: Achievement Press, Language Model, Academic Guidance, Activeness of Family, Intellectuality in Home, and Work Habits in Family (49). As indicants of the variables, his rating scales assessed such aspects as parental aspiration for the child's education as reflected in goals and activities, materials in the home related to school learning, family activities and possessions which expose the child to a variety of experiences, thought-provoking situations related to toys and daily activities, habits of punctuality and perseverance as shown by family routines.

Dave predicted that he would find a greater relationship between his Educational Environment Index and a measure of the children's educational achievement than he would

between class status and the achievement measure. He reported correlations of .79 between the Index and achievement, and $-.02$ to $.27$ between four class measures and achievement. He predicted a positive but moderate relationship among the environment measures and showed that eleven of the fifteen values were interrelated at levels higher than $.50$ at the $.05$ level of significance. This finding suggests that there is an interdependence of these environmental dimensions.

Hess has commented that one of the most familiar findings in research related to education and development has been the association between learning and environment, conceptualized as social class and culture (50). Social class of itself is a probability statement of the likelihood that certain experiences will occur, and that they will have predictable effects upon behavior; however, this concept and that of ethnic culture and related behavior needs to be further refined and examined in detail. The involvement of family and community reference groups in the successful socialization and education of disadvantaged children is an issue under current investigation. He suggests that at early age levels the effects of both cognitive and noncognitive experiences of young children are likely to be diffuse and general, and that "the concept of the family as a socializer of cognitive behavior seems

likely to become one of the most thoroughly explored areas of early education in the next few years" (12:1-2).

Approaches to these questions have taken varied focus, such as the developmental-cognitive approach, the focus on social structure and socialization, the focus on deficits and lack of specific skills in children from disadvantaged families, or an approach centered on restructuring the environment of the child. In the "underdeveloped resources" model, the environment of the child is considered relatively restricted and his behavior lacks the qualities of complexity needed to allow him to participate fully in other parts of society, although his family culture may equip him to function within sub-cultural limits (50:35). A question for investigation would be: what are the mechanisms of exchange that mediate environmental pressures into cognitive behavior? Concerning mediated contacts, Hess says that:

. . . it does seem we have underestimated the extent to which direct (though diffuse) experience with the environment (interaction with peers, TV, newspapers, music, observation of community life, etc.) directly shapes the child's cognitive and behavioral strategies and resources (50:24).

The following table represents the influence of what may be called a measure of family as environment from the investigations of Hess, Shipman and their research group at Chicago (11:32). In the table are correlations between this variable and some measures of mothers'

TABLE 2.--Correlation of home resources factor with mother's behaviors and child's performance, by working class group and sex of preschool child.¹

| Correlation of Home Resource Factor with: | Working Class Group | | |
|---|---------------------------|------------------------------------|-------|
| | Total Group (N 143) | Group by Sex of Preschool Child | |
| | | Boys | Girls |
| <u>Mother's Behaviors</u> | | | |
| Expresses attitude of personal optimism to- wards the future (low score=high optimism). | .33 | .10 | .54 |
| Expresses attitude of powerlessness in rela- tion to the school (low score=low feeling of powerlessness). | -.39 | -.27 | -.51 |
| Exerts pressure for achievement upon her child (low score=high pressure). | .38 | .23 | .52 |
| Controls her child through giving him impera- tive commands and asserting authority. | .23 | .13 | .34 |
| Controls her child through encouraging his subjective consideration of his own or others' feelings. | -.27 | -.23 | -.34 |
| <u>Child's Performance</u> | | | |
| Sorts blocks correctly into groups by color, shape, height and mark. | -.23 | -.14 | -.30 |
| Shows behavior problems during mother's teach- ing of block sorting (resistance, non- response). | .18 | .02 | .32 |
| Explains his reason for sorting pictures in a scoreable manner. | -.25 | -.38 | -.14 |
| Unable to verbalize a reason for his picture- sorting choice. | .29 | .31 | .26 |
| Performance on Stanford-Binet IQ. | -.31 | -.06 | -.53 |

¹Table adapted from Table III-6, page 32, in: Robert D. Hess, et al., The Cognitive Environments of Urban Preschool Children (Chicago: The Graduate School of Education, University of Chicago, 1968). For Home Resources Factor, a low score indicates high availability and use of resources for educability of the child. Levels of significance are: for total group: $r \pm .19$: $p = .05$, $r \pm .24$: $p = .01$; for boys: $r \pm .27$: $p = .05$, $r \pm .32$: $p = .01$; for girls: $r \pm .26$: $p = .05$, $r \pm .34$: $p = .01$.

behaviors and preschool children's performance relative to educability. The Home Resources Factor is a score derived from a principal factor analysis of nine ratings of availability and use of family and child resources: space, physical movement, care and appearance, play, task and work, learning and social contacts. Basic methodology was developed and the scoring carried out by Baker, using data from the Chicago study (23; 11:229-246; 51:131-147).

There are significant relationships apparent between this family environment measure and mother-child measures for the total group and by sex groups of children (11: 33-34). Families which scored high on resource availability and use (the Home Resources Factor) were those in which mothers were optimistically oriented towards the future, expected achievement from their children, and did not feel powerless towards the school. These mothers also showed a significant tendency towards controlling their children's behavior by appeals to their feelings and internal states instead of by emphasis on their own authority and status, which would tend to cut off reflection over alternatives by children.

In addition, there are differential relationships for boys and girls. For girls, there are more significant relationships in total, suggesting that the Home Resource Factor may indicate a more pervasive, supportive family environment for them in the preschool years with

reference to helping them prepare for future school activities. For boys, the pattern of correlations in the table suggests more limited, specific influences of the family environment as indicated by the Home Resources Factor. For them, high scores on the resource factor are related only to two factors: having mothers who do not feel powerless in relation to the school, and being personally able to verbalize and explain their own sorting behaviors.

Analysis carried out after these children had been in school a year or two showed significant and fairly high correlations (.33 to .50) between the Home Resources Factor scores and selected school performance of the children. For boys there was also a consistently significant relation to their conduct grades at school (52:13-15). These results are suggestive that the Home Resources Factor is measuring what Bloom and others have called a powerful environment, or pattern of family resource management in the context of this study, affecting human resource development at a critical stage, in this instance, early childhood.

Summary

The search of the literature has revealed several varying but related views of management in the family; extensive conceptualizations of resources as a basic

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component of management from both the economic and social psychological points of view; and some research supportive of an integrative view of managerial and developmental components in the family as environment.

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CHAPTER III

PROCEDURE

The discussion of procedures is divided into four parts: selection and description of the sample; selection and description of instruments; data collection; and data analysis.

Selection and Description of Sample

Selection of Sample

The sample is a non-probability, purposive one selected to conform to established criteria. Selection criteria were: families living in a Latin American country experiencing intensive social and economic development, within an identifiable region where they would have access to public services such as schools, transportation and communications, and where they could be reached for home interviews and observation; intact families; heterogeneous status and structure characteristics among families; presence of a preschool child between three and six years of age in the home; and agreement of families to participate in the study.

Costa Rica was selected as a country which met the first criterion. It is the fourth smallest of the Latin American nations with 19,650 square miles of territory; only one other country has fewer people: Costa Rica had 1,651,000 in 1968 (53:19). Rate of population growth has been among the highest in the world; it was increasing at an annual rate of 3.6 per cent in 1968. The death rate is relatively low and life expectancy high. Ethnically, the population is more than 97 per cent white or mixed, about 2 per cent Negro and less than 1 per cent Indian. These ratios are quite different from other Latin American countries.

Urban centers of Costa Rica (defined as communities of 2,000 persons or more) account for one-third of the population, less than in other Latin American countries (54:51). These communities grow at a rate more than twice that of rural areas; however, this growth in Costa Rica is not as marked as in the rest of Latin America. As early as 1950, twenty-two per cent of the population was estimated as middle class, with only two other countries in Latin America having a higher percentage (55:108). Income per capita has been higher than in the rest of the Central American region (Guatemala, El Salvador, Honduras and Nicaragua); in 1960 it was \$341 per capita, increasing to \$385 per capita by 1968 (56:19; 57:92).

Agriculture is the most important part of the economy; however, industrial development is being encouraged by favorable prospects for exports both within the Central American Common Market and to markets outside the area (58:126-136). Agriculture alone employs almost half of the economically active population, but this is proportionately less than in any other country of Central America. It provides about 65 per cent of total exports. Half of the total production is in coffee and bananas. With a government traditionally sensitive to farm problems, Costa Rica has undertaken legislation and a number of programs to develop this sector. However, until very recently the majority of farm land was devoted to subsistence needs, as in the other countries of the region (52:20).

Results of a 1965 study based on a national probability sample indicated that mass-media use is firmly established in Costa Rica, and that there is high confidence among the people in formal education and health institutions. The people's perceptions of the future are favorable and relevant to modernity in that they have high educational aspirations for their children (47 per cent wanted university-level education) and they are optimistic about attaining these aspirations (59). Yet many families live in deprivation; they are basically more rural and thus more distant from new industries,

transportation, and advanced educational and medical facilities.

Costa Rica is eighth on a continuum of average development rank for ten selected nations, based on per capita income, per cent literary, per cent national income spent on education, and consumption of newsprint per inhabitant (60:64). Ranking above are various European countries, Japan and the United States, and below are Colombia and Peru in South America. In material development, Latin America as a whole may be closer to Asia and Africa. However, in ideas on education and culture it is viewed as closer to Europe and the United States. Although there are great differences from country to country, in Latin America:

From the social point of view education is held today, at least in theory, as one of the main elements of economic and social development and for nation-building. From the point of view of the individual, it is thought of and sought after as the surest means of personal advancement (61:43).

That education is valued in Costa Rica is evident from the basic education law of 1957-58 (62:313-336). Among its provisions is that all persons of the country have the right to education and that the state has the obligation to offer it in an adequate manner. Among the goals of primary education are: to stimulate and guide harmonious personality development of children; to provide basic knowledge and activities which favor

intellectual development, and the habits needed to act efficiently in society; and to instill abilities to live healthfully, to take a rational view of the universe, to prepare for work, to appreciate and create beauty, and to cultivate Christian customs. By law, parents have an obligation to cooperate with the schools, which in turn must provide for parents the opportunity to link themselves with the education process. Among other responsibilities, parents must be concerned about children's conduct in and out of school, and try to create adequate conditions at home for their development.

In Latin America, there are four countries in which illiteracy is less than 20 per cent; Costa Rica is one of them (53:20). Although the rate has been fluctuating in more recent years, the 1963 census reported that illiteracy in Costa Rica involved 15.6 per cent of the people over 10 years of age; this is 5.6 per cent of those living in urban areas and 21.8 per cent in rural areas. Average schooling of the total population was 3.5 years. Rate of student loss in primary school has been less than in other Central American countries but is a continuing problem. For example, the number of children (including those who repeat a grade) who remain in school of an initial group of 100 students who start the first grade (1957-1959 data) is the following: first grade, 100 per cent; second grade, 77 per cent; third grade, 61 per cent;

fourth grade, 49 per cent; fifth grade, 38 per cent; and sixth grade, 32 per cent (54:59). In 1968 eighty per cent of children five to 14 years of age, or 20 per cent of the population, were in school. The government gives high financial priority to public education, which in 1968 accounted for 30 per cent of total national expenditures (58:135).

Location of the sample families within an identifiable area of Costa Rica, as well as other control criteria of the study were met through assistance from the Institute of Nutrition for Central American and Panama (INCAP) in Guatemala City. The Institute provided a list of Costa Rican families who had participated in a 1966 nutrition survey conducted in Panama and the five countries of Central America (63, 64).¹ For that survey, communities of over 25,000 inhabitants were eliminated; then fifteen administrative subdivisions called cantóns in Costa Rica were chosen at random. The seat of local government in each cantón then became one of the survey communities, and one other community in each cantón was randomly selected, giving a total of thirty communities. A systematic random sample of twenty families was drawn

¹This research was supported by the Advanced Research Projects Agency (Project AGILE) and was monitored by the Nutrition Section, Office of International Research, National Institutes of Health, under ARPA Order No. 580, Program Plan No. 298.

in each community, resulting in a sample of some 600 families residing in both rural and urbanized areas of the country.

All communities located at altitudes of 3,000 feet or more above sea level, within the boundaries of the Meseta Central, were selected for the present study. There were 12 of these communities, representing 240 families or 40 per cent of the INCAP master sample in Costa Rica. The Meseta Central, a valley 60 miles long and 30 miles wide, is the most important and developed region of the country, although it accounts for only one-tenth of the land area. Heights above sea level range from 1,900 to 6,500 feet, and the valley is ringed by mountains and volcanic peaks (56:15). It is a productive agricultural zone, with large and small farms cultivating principally coffee and sugar cane, but also producing milk, beans, corn, vegetables and fruit.

It is also the most densely populated region of the country, containing seven-tenths of the total population. The city of San José, the capital, alone contains 71 per cent of the urban population (58:125). A 1962 report of a study of social class in San José estimated that probably not more than 40 per cent of that city was middle class, and that probably the rural middle class would be from one to three per cent (65:196). There are relatively few isolated communities; however, in the rural areas

roads are dirt and difficult to traverse by ordinary means of transportation (56:18).

Among the study communities, Cartago (Parte Oriental), Curridabat, Aserrí, Palmares, Santa Bárbara, and San Juan de Tibás are the seats of municipal government for the cantóns; as such they are also the most popular centers for commercial, recreational, educational and religious activities for surrounding areas. The other six communities (Quircot, Fincas de Sánchez, Vuelta de Jorco, Santiago, Santo Domingo El Roble, and Cinco Esquinas) are relatively more rural or rural-oriented than the administrative communities. The map which follows indicates the location of the Meseta Central and distribution of the twelve study communities, as well as others of the nutrition survey in Costa Rica.

INCAP data on the 240 families of the 12 communities were examined to locate families in which both parents were living at home at the time of the INCAP survey, and families with at least one child for whom it could be estimated that he would be in the three-to-six years of age (preschool) group at the time of field work. This selection process produced a projected possible sample of 123 families which met the study criteria. Attempts were made to contact all these families personally to verify their eligibility, and secure their agreement to participate in the study by allowing the investigator to

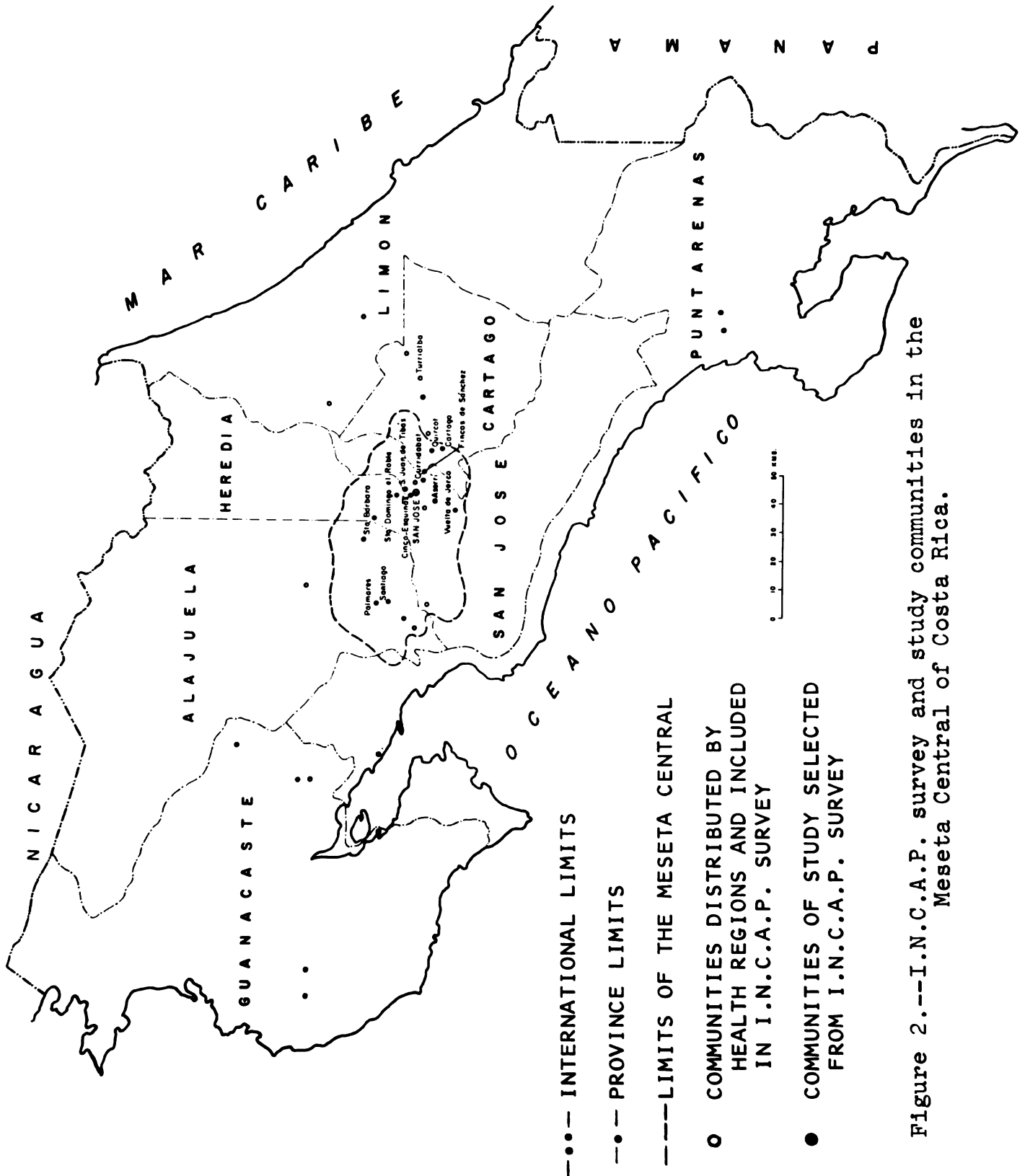


Figure 2.--I.N.C.A.P. survey and study communities in the Meseta Central of Costa Rica.

interview in the home in the succeeding months. Of the 123 families, 104 (85 per cent) were verified as eligible. Ninety-five families (91 per cent) of the group of 104 families agreed to participate. At the close of the field work, 89 families had provided complete data, representing 86 per cent of the group originally verified as eligible (or 94 per cent of those who agreed to cooperate).

Description of Sample

Residence and occupation.--Table 3 contains information on family status characteristics. Somewhat more than a third of the families (38 per cent) lived in urban centers and slightly less than two-thirds (62 per cent) lived in the more rural communities, a ratio similar to the national average. On a continuum suggestive of occupational movement, the families were divided between agricultural (36 per cent), mixed (34 per cent), and non-agricultural groups (30 per cent). Work of all family members in a year's time was considered in assigning families to the occupational groups. The agricultural families include small farm owners and renters, and families of farm day laborers, some of whom lived and worked on large farms and others with only irregular farm work and no other employment during the year. In many families other members worked for several months at the time of the coffee harvest.

TABLE 3.--Status characteristics of sample (N = 89).

| Characteristics | Number | Per cent of Total Sample | Total Sample | |
|---|--------|--------------------------------|--------------|------------|
| | | | Mean | Range |
| <u>Residence</u> | | | | |
| Urban | 34 | 38 | | |
| Rural | 55 | 62 | | |
| <u>Household Occupation</u> | | | | |
| Agriculture | 32 | 36 | | |
| Mixed | 30 | 34 | | |
| Non-Agriculture | 27 | 30 | | |
| <u>Yearly Household Income per Capita</u> | | | Ø947 | Ø137-Ø5680 |
| Less than Ø700 | 47 | 53 | | |
| More than Ø700 | 42 | 47 | | |
| <u>Educational Status of Parents of Preschool Child</u> | | | | |
| Father | | | 4 years | 0-14 years |
| 4 years or less | 53 | 60 | | |
| More than 4 years | 36 | 40 | | |
| Mother | | | 4 years | 0-14 years |
| 3 years or less | 36 | 40 | | |
| More than 3 years | 53 | 60 | | |

In the mixed occupational group is the family in which parents were teachers and also grew coffee; the family which owned and farmed coffee and tobacco lands while at the same time the household head worked as agent for a savings and credit cooperative; and the family in which the head was an unskilled farm laborer, his mother-in-law a school teacher, his son employed in a mattress factory, and others worked at harvest picking coffee. The non-agricultural category includes a family in which both parents were employed, the father as department head in a bank and his wife as a school teacher; and the family in which the father had a sales route and drove a truck while his wife worked in a clothing factory.

Income.--Yearly household income per capita is a summary of income available to the household from contributions of all who had earnings in 1967, divided by the number of family members. For the purposes of this study, seven Costa Rican colonies are considered equal to one U.S. dollar. (At the time of the study, the official value was ¢6.625 to the dollar; however, actual values were fluctuating between seven and eight colonies or more to the dollar.) In dollar terms, the lowest income (per capita per year) was \$19.57 (¢137) and the highest was \$811 (¢5680). More than half (53 per cent) the families actually had less than \$100 (¢700) per capita per year in income.

Education.--In considering educational attainment of the parents of the preschool children in the study, 60 per cent of the fathers had 4 years of schooling or less and 40 per cent of the mothers 3 years or less. The mean number of years of education for both parents was 4 years, similar to recent national averages for the population as a whole. The range for years of schooling completed, from none to 14 years, was identical for both parents. Those with the highest educational attainment had completed several years at the university.

Structure.--Table 4 presents additional family characteristics. In relation to family structure, 39 per cent of the 89 families were simple nuclear types: parents living with their own children. Seventeen per cent were three-generation-shared households. Another group, similar in percentage of the total sample to the nuclear families, is described as "modified extended." This structure is a modified form of extended familism in that it represents conjugal units with separate residences but strongly maintained relationships with kin networks (66: 4). Such families are often concentrated in certain neighborhoods or apartment houses. They perform political, economic, and status-ascribing functions for the conjugal units.

In the study, modified extended families were all parent-children units who maintained daily to weekly

TABLE 4.--Family characteristics of sample (N = 89).

| Characteristics | Number | Per cent of Total Sample | Total Sample | |
|--|--------|--------------------------------|--------------|-------|
| | | | Mean | Range |
| <u>Family Structure</u> | | | | |
| Nuclear | 35 | 39 | | |
| Extended | 15 | 17 | | |
| Modified Extended | 34 | 38 | | |
| Mixed | 5 | 6 | | |
| <u>Family Size</u> | | | 9 persons | 3-22 |
| 8 persons or less | 50 | 56 | | |
| More than 8 persons | 39 | 44 | | |
| <u>Number of Siblings of Preschool Child</u> | | | 5 siblings | 0-12 |
| 4 siblings or less | 44 | 49 | | |
| More than 4 siblings | 45 | 51 | | |
| <u>Sibling Educational Success</u> | | | | |
| One sibling (or more) has reached 6th grade or above | 37 | 42 | | |
| At least one sibling old enough for 6th grade but not in school | 7 | 8 | | |
| No sibling old enough for 6th grade | 44 | 50 | | |

contacts with relatives who usually lived nearby. For example, children played with cousins each day, the head of the household worked for his father, or the grandmother living next door was in and out of the home helping the mother. Five sample families could not be classified by any of the above three categories.

Family size and number of siblings.--Families ranged in number of members from 3 to 22 persons. Families of 8 persons or less made up 56 per cent of the sample, and families with more than 8 accounted for 44 per cent. Also included as members in computing size were servants or roomers who slept and ate in the home, as well as adolescent children who lived with relatives during the week while attending high school in a distant town. The preschool child, around whom the study focuses, was an only child in one family and had 12 siblings in two others, indicating the range of siblings observed. For the total sample, half the preschool children had 4 siblings or less and half had more than 4.

Sibling educational success.--Having at least one sibling of these preschool children attain the sixth grade of primary school indicates a minimal level of family educational success. Most families with one or more children old enough to be in this highest grade of primary school (42 per cent of the sample) reported that at least one of them had reached this level or beyond.

Only a few preschool children in the sample (8 per cent) had at least one sibling old enough for the sixth grade (12 years of age or older) who was not either presently enrolled in this grade or had already completed it. In the total sample, half the preschool children did not have a sibling old enough to be in the sixth grade.

Sex and age of preschool children.--Table 5 indicates that the 89 preschool children of the sample were fairly evenly divided by sex and age characteristics. Mean age for the total group was 54 months with a range of 36 to 70 months. There was about the same percentage of younger children (36 to 54 months) of both sexes, but a slightly larger percentage of boys in the older preschool age category (55 to 70 months) than of girls (28 per cent to 22 per cent).

Selection and Description of Instruments

Prior to instrument selection and development, researchers were consulted about indicants in Costa Rican families which might be comparable to, or different from, those used by Baker to operationalize the resource construct in the Chicago study (11). They were also consulted about family status and structure characteristics. Educators and public health officials arranged for the investigator to make observations of varied conditions of life of children and families in order to guide the

TABLE 5.--Characteristics of preschool children in sample
(N = 89).

| Characteristics | Number | Per cent of Total Sample | Total Sample | |
|--------------------|--------|--------------------------------|--------------|--------------|
| | | | Mean | Range |
| <u>Sex</u> | | | | |
| Boys | 46 | 52 | | |
| Girls | 43 | 48 | | |
| <u>Age</u> | | | | |
| | | | 54 months | 36-70 months |
| 36-54 months | 44 | 49 | | |
| 55-70 months | 45 | 51 | | |
| <u>Age and Sex</u> | | | | |
| Boys | | | 54 months | 36-70 months |
| 36-54 months | 21 | 24 | | |
| 55-70 months | 25 | 28 | | |
| Girls | | | 54 months | 38-69 months |
| 36-54 months | 23 | 26 | | |
| 55-70 months | 20 | 22 | | |

selection and development of instruments for measuring constructs of the conceptual framework and assessing the hypothesized relations of the study.

Visits to 16 homes were made by the researcher with a teacher, social worker, extensionist or nutritionist known to the families. Observations made by the researcher covered the nine resource categories developed at Chicago by Baker and used in this study. Also noted were frequently used vernacular expressions pertaining to activities and household objects, and patterns of questions and answers exchanged. These observations were informally discussed with the community worker or teacher who participated in the visit and who then acted as an informant about family interaction and communications patterns, socialization practices, use of household space, or community-related activities.

Families were visited who lived in "barrios" of San José of differing status levels, in other poor but upwardly mobile neighborhoods some distance from the center of the city, in a public housing project in a more remote area, or in farming communities. In addition, several health centers were visited to observe mothers and young children and to discuss family physical care routines with the staff. Also, observations were made of children and activities in first grade classrooms and kindergartens of four schools distributed

differentially by socio-economic and urban-rural characteristics. On the basis of the preliminary observations the conceptual framework was refined and selected instruments were developed: a Preliminary Questionnaire, an Occupation and Income Survey, Resource Inventories, and a set of Picture Questions. The instruments are in Appendix A, pages 165 to 216.

Preliminary Questionnaire

This instrument was employed to verify family eligibility for participation in the study. Using INCAP demographic data, some sections were filled out before contacting each family. The information was then revised with the family's help in relation to control variables, specifically that of intact family and the presence of a child between 3 and 6 years of age. If it was ascertained that the family did not meet the controls the questionnaire was not completed. The instrument provided data on characteristics relevant to the hypotheses such as occupation, education and residence, as well as number, sex and age of all persons living in the household and their relationship to the head of the family. It was used throughout the field work phase as a log because the first page contained family code information and address, a drawing of how to reach the house, a list of all contacts and appointments, and comments on the work to be done or revised.

Occupation and Income Survey

The survey was completed with the principal assistance of the head of the household. Questions were chosen after examination of schedules from several household and farm income surveys conducted in the Central American region (67, 68), and from the last national census of Costa Rica, and consultation with agricultural economists at the Interamerican Institute of Agricultural Sciences (IICA) and Michigan State University. The instrument consisted of questions about who in the family had worked during 1967, a description of all work, amount of time worked, remuneration received, plus income from rental property, bonuses, household industries or business investments. Farm operators were asked about crops grown in the preceding year, amounts sold, value received and percentage of that value contributed to family income, as well as any crops left for family consumption. Value of the sale of animals and animal products was similarly handled. If the respondent could not provide an estimated value, current market value and wage rates were used to estimate value of products used by the family and unpaid family labor, and these estimates were included in income.

A yearly household income per capita figure was computed by summing all sources of income and dividing this figure by the number of persons living in the household

in 1967. Occupation information was compared with earlier data on the Preliminary Questionnaire as a check. Income information of families with similar employment records were compared for inconsistencies which were then checked on the next visit, thus providing another source of internal control. In some cases it was also possible to verify reported income by comparison with family records maintained at community health centers.

Resources Inventories

The basic structure of this instrument was adapted with modifications from an experimental one developed by Baker (11, 23). That instrument, called Home Resource Patterns, was designed for assessing the degree to which the home provides and uses a variety of objects and experiences relevant to the educability of the preschool child. It consisted of scales with ratings from low to high on availability and use of resources for educability, converted to scores from one to five. Each scale and its rating points were described in terms of one of nine resource categories: physical space, physical movement, physical care and appearance, play, task and work, direct learning, indirect learning, direct social contacts and indirect social contacts.

Content to be rated was derived by examination of available data from home interviews and written

observations of the 160 mothers and children who participated in the study of the cognitive environments of urban preschool children (9, 10, 11). The lengthy lists of items were clustered to describe each of the resource categories. These data were rated on four dimensions: resources available in both their quantity and quality aspects, and quantity and quality of use of resources, always in relation to the child's educability and in comparison with other families of the sample. The four ratings (simple plus or minus ratings to indicate more or less of a relation to educability) were grouped together to form a pattern and converted to a numerical score thus: a pattern of 4 pluses was a score of five; 3 pluses and a minus was a score of four, and so on, to a pattern of 4 minuses which was a score of one.

Reported for this procedure are reliability coefficients for nine scales varying from .794 to .963 on cases rated twice by the same rater and by two raters (11:236). Content validation for the instrument is indicated by a principal component factor analysis in which each of the nine scales loaded very highly on the first of the nine unrotated factors, with loadings ranging from .558 to .821 (11:246). Construct validation is suggested by correlations between the resource measure and a socioeconomic status measure. For the nine resource variables, the correlation coefficients with status for the sample

of 163 families ranged from .375 to .621, and for a summary score (derived from the nine scores) the correlation coefficient with status was .658. Using the Home Resources Factor Score from the factor analysis, correlations with status for the total sample was .744 and for the working class families only was .457. These correlations are substantial and significant beyond the .01 level. They are suggested as validation for the conception that the resource measure might be substituted for a status measure when more precise information is sought about influences of the family environment relative to educability than that provided by the general status measure. Correlations reported for the working class mothers and children, Table 2, page 56, have shown that the instrument has the capability to discriminate between individuals, another indicant of validity.

For the present study, two instruments were developed for gathering data about both quantity and quality aspects of availability and use of the nine resources. The first was the set of Resources Inventories, divided into three parts for presentation to the mother of the preschool child. Final content and order of presentation was modified after pre-testing.

In Part I were five inventories pertaining to the preschool child. The first was Care and Personal Appearance which consisted of 15 items about eating,

bathing, sleeping and clothing. The second, Task and Work, consisted of 7 items pertaining to personal tasks and simple work the child does or tries to do, and problems and help he encounters. Direct Learning was the third inventory and included 11 items about objects at home which the child uses: pencils, paper, books, radio and television, and also whether he is read to and what happens if he has accidents with materials. The next inventory, Play, has 7 items about building, role-playing, creative and substitute play objects provided for the child, as well as indoor and outdoor play activities. The last inventory pertaining to the child was Direct Social Contacts, consisting of 5 items about family activities in which he participated, and contacts with small children, peers and non-family adults: the kind and amount of contacts with them.

Part II consisted of inventories which referred to family members other than the preschool child. The first was Indirect Learning, containing 7 questions about who in the family liked to do and did certain activities such as reading, listening to the radio, looking at television, visiting museums, parks, other communities, using the bank or studying in an informal education program, and with what frequency such activities were done. The other inventory, Indirect Social Contacts, consisted of 4 items about family participation

in activities in and out of the community, and contacts with friends and family members.

Part III covered the Space and Movement Inventories. Nineteen items made up Space, including a drawing of space distribution of the house, and descriptions of play space and sleeping arrangements for the child, utilities and sanitary facilities, equipment, furnishings, decoration, storage, windows and walls, presence of insects, waste or animals in the home. Physical Movement covered 8 items such as number and use of entrances, stairs, gates, outdoor play spaces near the house and in the neighborhood, amount and effect of traffic on child's activities, how far and how often he is allowed to go away from home and the immediately surrounding area, and what kinds of transportation he has used.

The scoring procedure of the Home Resources Patterns Instrument was modified for use in this study. Scoring is discussed after explanation of the Picture Questions, the second instrument developed for collecting data on resources. The supplementary data from that instrument was grouped with the Resources Inventories for scoring.

Picture Questions

This instrument was constructed to provide a means of gathering information about the mother's perception

of resources for the goal of educability, and the organization and control of the resources available to, and used by, the preschool child. It was used to supplement the Inventories to insure a maximum likelihood of securing valid information about resources. The assumption was that covert aspects tapped by the Picture Questions would prove valuable because what the mother says in response to visual stimuli bears some significant relationship to behavior with regard to resource control in promoting educability. The instrument provided additional qualitative data as well as a useful check on the researcher's use of the language and comprehension of responses.

The instrument consists of 21 drawings arranged in 9 sets to correspond with the Resource Inventories, with introductions and questions presented to the mother (see Appendix A, page 198). Table 6 is a list of the pictures grouped by order of presentation and resource category. In the design of the pictures and technique for their use, advice from researchers at Michigan State University, Merrill-Palmer Institute, and the University of Costa Rica was sought, and a search of the literature made for relevant studies and recommendations about development and use of picture-type instruments (26, 69-75).

TABLE 6.--Content of pictures by order of presentation and relevant resource category.

| Order of Presentation | Resource Category | Contents of Pictures |
|-----------------------|-----------------------|--|
| 1. | Care and Appearance | Child going to bed, eating |
| 2. | Child's Task and Work | Child taking care of little sister, buying bread at store, feeding himself. |
| 3. | Child's Movement | Child playing vigorously with football, sitting quietly in the house, going out into the neighborhood. |
| 4. | Space | Child "arranging" a radio in the living room, putting something into a refrigerator in the kitchen. |
| 5. | Child's Learning | Child trying to "write," asking mother a question, trying to paint. |
| 6. | Child's Play | Children playing house, mother giving child something to use for play. |
| 7. | Child's Contacts | Child walking with father, talking with older family members, greeting a stranger |
| 8. | Family Learning | Family members visiting a strange building, reading and writing. |
| 9. | Family Contacts | Older brothers and sisters talking to a friend, family members listening to a talk at a meeting. |

The drawings were planned to suggest activities instrumental in attaining educability. They include some traditional, contemporary, and Western-oriented activities, objects and events referred to in the literature reviewed in relation to the conceptual framework of the study or seen repeatedly during preliminary observations of Costa Rican children and families. Final selection for themes of the drawings was made from a list of some 50 resource-use actions indicative of the properties of constriction, stimulation, interaction and resourcefulness of the conceptual framework. Sets 1, 3 and 4 are intended to suggest constriction; sets 2, 5, 6, and 8 stimulation; and sets 7 and 9 interaction. All were selected to aid in operationalizing the resourcefulness aspect of family environment.

The researcher made preliminary drawings for a local artist to follow. Criteria for drawings were that they should be unambiguous, realistic, and present only essential aspects of activities and objects. For pictures in which a preschool child appeared, sex was randomly assigned, as well as the wearing of shoes by the child. The age of this child was stipulated to be about 4-5 years to guide the artist's renderings. Clothing was to be simple and similar to that worn in daily activities.

Introductions and questions were structured to attempt to insure that the respondents would see the same things in the drawings, but be encouraged to give varied interpretations. Based upon experiences in pre-tests, the pictures were revised and ordered in a sequence thought to be most natural and least confusing to the mother, and introductions and questions were further simplified and focused. Use of the tape-recorder was judged to be feasible with the respondents.

The introduction finally used in the field work explained to the mother that she is going to see some pictures of children like her child (name given) in which they are engaged in various activities, sometimes by themselves and sometimes with other people. She is asked to give her own reactions and opinions to some questions about the pictures and her responses will be tape-recorded. The purpose of the latter procedure is explained as being necessary because the investigator cannot remember the responses and wishes to check his own comprehension of language. The same pattern of presentation was maintained: each set of pictures was briefly explained, and then the mother was asked, first a question about actions of children involving the particular category of resources; second, a question about her reaction to these actions; and the last, a question about what relation, if any, she sees between such actions and the

child's future success when he begins to go to school. The last two sets of pictures were of family members and persons other than the preschool child; therefore, the questions were rephrased appropriately, with the last one inquiring about what the mother might think of the relation between these activities of the family and future school success of a preschool child from such a family. Probes used were limited to asking "Why?" and "What else?" or repeating the explanation or question already given.

These tape-recorded exchanges were later transcribed, but not translated, for scoring. The person who performed this task was a university-trained, bilingual North American secretary who had lived most of her life in Costa Rica in close interaction with families similar to those of the study. She transcribed the Picture Questions recordings verbatim and added written comments on content where necessary to explain local language idioms and apparent or possible misunderstandings between researcher and respondee. This procedure was viewed as an aid in assuring content validity.

Scoring

In Appendix B, pages 217 to 251, is the Scoring Manual developed for the data generated by the Resources Inventories and Picture Questions. Here are presented some clarifying and summary comments.

All scoring categories and procedures were developed by examination of the data and by comparison of families with one another. In some cases, the same items were used in developing scoring categories, but this procedure was avoided as much as possible. Reliability measures taken included masking identification of respondents; systematically scoring all protocols on one resource category, then the next and so on; comparison of protocols scored first with later ones; and discussion of two complete sets of protocols for 10 randomly selected families with a professor of home management in order to resolve ambiguities in definition and scoring.

For the Quality of Use (UQL) dimension, a standardized scoring system was developed and used basically with all resource categories (page 225, Scoring Manual). For each category, five protocols were scored twice, results compared, and differences resolved. In addition, protocols of this dimension scored at the end of the scoring period were compared with some scored early in order to check consistency of interpretation.

Reliability was further explored by randomly assigning all families to two groups; then scoring one group on the resource categories starting with the first one described in the Scoring Manual, Space, and proceeding to the last one; and then reversing this order for scoring the second group of families. These two groups were then

compared for significant variations in mean scores; this process is reported in the next chapter.

Among the 3,200 scores to be derived from the data were 15 cases in which data were missing. The cause was faulty operation of the machine used to tape-record responses to Picture Questions in several families and inadvertent recording over a completed tape in several others. In five families it was not possible to remake the tapes, although done in several others. In order to avoid complete loss of five families for analysis, scores were estimated where possible from other information. If a reasonable estimate could not be made, an arbitrary score was assigned: the group mean of that particular item. The effects of this procedure on subsequent analysis were judged to be negligible.

The completed scoring procedure yielded 36 scores for each family, divided into nine groups of four each, pertaining to four dimensions for each resource; these correspond to the definitions in Table 1, page 10. For three scores (the Availability-Quality dimensions (AQL) of Child's Movement and Contacts, and Family Contacts) a positive score is indicative of a low quality score, due to the way in which the scores are defined and measured, as explained in the Scoring Manual. A two-step procedure was employed to transform these scores into comparable numerical ratings which were summed

for analysis purposes. The procedure is outlined in the Scoring Manual on pages 249 to 251.

Summary of Method of Measurement

Measurement procedures were intended to answer questions posed under objectives one and two of the study (page 3). Summarizing the method used, stimuli presented were questions about inventory items and drawings related to nine resource categories. Content of stimuli was refined and expanded from that used in an earlier study by Baker, and made specific to the particular culture. Scoring instead of rating was the basic mode of quantification. In attempting conceptual equivalence, four scores for each resource category were derived, corresponding to four dimensions rated in the previous study. Scores were transformed to standardized ratings for analysis of variations among families. The basic structure of these ratings is illustrated in the following typology (Table 7). The type of measurement achieved relates to both culturally modified and culturally ipsatized measurement types described by Straus (8).

Data Collection

The assistance of the Ministry of Public Health in Costa Rica was sought to locate families selected for the study. With approval of the director of the

TABLE 7.--Typology of structure of ratings: Resource patterns for educability.

| Possible Patterns of Ratings Derived from Scores on Four Resourcefulness Dimensions | Resultant Scale of Summed Ratings | Ratings Grouped into Levels of Direction or Relation to Child's Educability |
|---|--------------------------------------|---|
| 2 2 2 2 | 8 | Highly related and directed (6 - 8) |
| 2 2 2 1 | 7 | |
| 2 2 1 1, 2 2 2 0 | 6 | |
| 2 1 1 1, 2 2 1 0 | 5 | Intermediate in relation and direction (3 - 5) |
| 2 2 0 0, 2 1 1 0, 1 1 1 1 | 4 | |
| 1 1 1 0, 2 1 0 0 | 3 | |
| 1 1 0 0, 2 0 0 0 | 2 | Low relationship and direction (0 - 2) |
| 1 0 0 0 | 1 | |
| 0 0 0 0 | 0 | |

Department of Nutrition, a supervisor introduced the researcher by letter to staff of the health clinics in the 12 study communities and requested that they help in making initial contacts in their areas. The supervisor also made similar arrangements in the community where pre-testing of the instruments was done.

At the initial visit, the researcher was introduced by the community nurse, the study was explained, as well as the cooperation desired. If the family agreed to participate and met eligibility criteria, a letter, signed by the researcher, was left with them as a reminder. It contained a statement of the purpose of the study and some information about the investigator (see Appendix C, page 253). Sections of the Preliminary Questionnaire were revised or completed at the time of this initial contact with the family. Before leaving, the family was informed about when to expect a second visit from the investigator.

The second visit, a few weeks to several months later, was a time when some more refusals were encountered, and some cautiousness and reluctance to participate began to appear. In one family, the researcher finally secured complete cooperation after several discussions with the head of the household. He agreed to let his family participate but only when he was present. In other families, too, cooperation was allowed only when the head of the household had been contacted personally, and only when

others were present to hear what the mother and researcher were discussing.

It is difficult to know what differentiated eligible families who dropped out of the study from those who finished. There are several possible explanations. That some had negative feelings or misunderstandings about research could be deduced from comments made about participation in the earlier nutrition survey. Other families expressed fears related to tax collection, loss of children, or recent law enforcement activities in the area. Several women mentioned an alcoholic husband as the reason for not participating; others would only say their husband refused them permission.

In succeeding visits, a set order was usually followed in presenting the instruments. First, Part I and II of the Resources Inventories were completed. Then followed Part III of the Resources Inventories and the Occupation and Income Survey, the latter filled out with the father if it could be arranged. At the last visit the Picture Questions were presented to the mothers, under the assumption that by this time the maximum level of rapport had been established. When data collection was terminated, the researcher presented the preschool child in the study a picture story book as a remembrance of his family's participation.

Presentation of the Picture Questions was sometimes made difficult because of the good rapport with the family. When the picture stimuli were shown to the mother, others present sometimes responded to the questions. It was usually possible to control this interruption unless it was caused by the woman's husband. She was often reluctant to express herself with him present, or looked to him to tell her what to say. In this case the researcher sometimes asked him to leave the room. Although use of a tape recorder was a novel experience for the women, most appeared to enjoy it.

Visits were made at the family's convenience on all seven days of the week, as early as 7 a.m., and as late as 7 p.m. Field work began in April and finished at the end of August, 1968, covering almost 5 months' time. This was about double the time estimated on the basis of pre-testing the instruments. That procedure, with four families, required about three visits and three hours per family. For the 89 families for whom the instruments were completed, there were 466 visits, averaging 5.24 visits and 3.73 hours per family. In addition, for the 15 families who either proved to be ineligible or did not complete the interviews, there were 37 visits made, averaging 2.46 visits and half an hour per family.

There were other factors contributing to the length of time required for the field work. One was travel time

in and between communities and the researcher's place of residence. For work in two of the more distant communities, the researcher lived with a family. It was the rainy season of the year, complicating travel on good roads, and making it difficult on the more rural roads, paths, and in the mountains because of mud and fog. However, there was another unforeseen and important addition to the field work which increased the time, but which was of great assistance in its successful completion.

The first woman visited alone by the researcher, after initial contacts were completed, refused to cooperate in the study, although she had expressed no hesitation previously. This situation was discussed with an Institute sociologist, available for consultation throughout this phase. He recommended that letters be requested from the director of the Institute and the parish priest in a community near the Institute introducing the researcher and attesting to her character. Copies of these letters are in Appendix C, page 254 and 255. Thereafter, the director's letter was presented in each community to the director of the primary school while explaining to him the nature of the study, the data sought from each family, and which families were to be visited. His help was asked in dealing with any problems which might arise in the course of work in the community. In a similar fashion, the letter from the parish priest was presented

during a visit to the priest in each community, at which time his support was requested.

That this step was beneficial is shown in the following illustrations. A school director personally visited and arranged for the investigator to interview a family which could not be located on first coming into the community. A family which met the investigator with polite evasiveness in repeated visits proved to be very cooperative after talking with the priest of the community. In a rural community, the first visit made was to the most isolated family who expressed suspicion of the study. A letter brought from the local priest convinced them that this was a worthwhile project and there was nothing to fear. Word of the letter spread to other families not yet visited and possibly accounted for their receptiveness. In another example, the priest was able to secure needed income data when a wife expressed concern about having her husband questioned.

Data Analysis

After scoring, data from collection instruments were transferred to data processing cards. The Control Data Corporation 3600 model computer was used to perform multiple correlation and regression problems, and the 6500 model computer for the remaining computations. Table 8 shows the complete analysis of the data including

statistical procedures used and the instrument associated with each of them.

TABLE 8.--Methods used in analysis of data.

| Purpose of Analysis | Data | Statistic and Computer Program |
|--|---|---|
| Description of family characteristics of sample. | Demographic data: Preliminary Interview, Occupation and Income Survey | Frequency count, per cent ¹ mean, range ² |
| Content analysis to establish scoring procedure. | Resource Inventories, answers to Picture Questions | |
| Random assignment of sample families to groups A and B for scoring. | Code number of sample families, Table of random numbers | |
| Analysis of groups to estimate existence of differences due to scoring procedure. | Resource scores in groups A and B | F statistic ³ |
| Description of resource scores. | Resource scores | Mean, range, standard deviation, skewness, kurtosis ⁴ Mean ⁵ |
| Transformation of resource scores to resource ratings. | Resource scores | |
| Relation of resource score dimensions to total resource rating. | Resource scores grouped by dimensions | Partial and multiple correlation coefficients ² |
| Interrelation of resource ratings. | Separate resource ratings, total resource ratings | Simple correlation coefficient ² |
| Test of hypothesis 1 | Resource range, level of total resource rating | Chi square, contingency coefficient ¹ |
| Preliminary: | | |
| Plotting of curvilinear relation between resource range and total resource rating. | Quadratic regression equation $y = a + b_1x - b_2x^2$ | Regression coefficients ² Plot XY6 |
| Transformation of total resource rating into levels of relation to educability. | Total resource rating | |

Tests of hypotheses 2 and 3

Preliminary:

Plotting of curvilinear relations between total rating and continuous variables: income, education, family size, number of siblings, age and sex of preschool child

Transformation of separate resource ratings into levels of relation to educability.

Description of a family to illustrate case study analysis.

Exploration of total resource rating in a prediction equation.

Demographic data, levels of total resource rating and of separate resource ratings

Quadratic regression equations

Separate resource ratings

Demographic data, total resource ratings, separate resource ratings

Demographic data, total resource rating, family educational success measure

Chi square, contingency coefficient¹

Regression coefficients²
Plot XY₆

Partial and multiple correlation coefficients²

¹Alan M. Lesgold, Analysis of Contingency Tables, Computer Institute for Social Science Technical Report, No. 14 (East Lansing, Michigan: Michigan State University, 1968).

²William L. Ruble, Donald Kiel, and Mary E. Rafter, Calculation of Least Squares (Regression) Problems on the LS Routine, STAT Series Description, No. 7, Agricultural Experiment Station (East Lansing, Michigan: Michigan State University, 1969).

³Donald F. Kiel, One-Way Analysis of Variance with Unequal Number of Replications Permitted (UNEQL Routine), STAT Description No. 13, Agricultural Experiment Station (East Lansing, Michigan: Michigan State University, 1969).

⁴Frederick J. Ball, William L. Ruble, and Donald F. Kiel, Calculation of Basic Statistics on the BASTAT Routine, STAT Series Description, No. 5, Agricultural Experiment Station (East Lansing, Michigan: Michigan State University, 1969).

⁵Hand-calculated statistic.

⁶Peter M. Schwinn, Data Plotting and Curve Drawing on the Calcomp Plotter (PLOTXY Routine), STAT Series Description, No. 16, Agricultural Experiment Station (East Lansing, Michigan: Michigan State University, 1966).

CHAPTER IV

FINDINGS

Results are presented in relation to stated objectives and specific questions under the following headings: method of measurement, dimensions of resourcefulness, interrelated patterning of resources, tests of hypotheses, relation of individual resources to status and structure, descriptive use of family resource patterns, and exploration of the prediction potential of the construct.

Method of Measurement

Significant differences between resource scores encountered in two scoring treatments, computed by one-way analyses of variance, are summarized in Table 9 (76; 77: 200). A non-directional hypothesis of no difference was specified and a probability level of .05 selected for support of the hypothesis. For 32 of the analyses, no significant differences were found. There were four instances in which the hypothesis could not be supported. Findings indicate that for scoring two groups, a maximum of 89 per cent consistency could be claimed.

Significant differences were encountered in three resource categories: Child's Movement, Care and

TABLE 9.--Summary of significant differences between resource scores in two scoring situations.

| Category | Resource Dimension | Variance Ratio (F) | Level of Significance ¹ |
|------------------|--------------------|--------------------|------------------------------------|
| Child's Movement | AQN | .29 | N.S. |
| | AQL | .30 | N.S. |
| | UQN | 7.79 | <.02 |
| | UQL | 3.73 | N.S. |
| Care-Appearance | AQN | 7.04 | <.02 |
| | AQL | .09 | N.S. |
| | UQN | 4.91 | <.10 |
| | UQL | 1.25 | N.S. |
| Child's Learning | AQN | 9.30 | <.01 |
| | AQL | .58 | N.S. |
| | UQN | 2.16 | N.S. |
| | UQL | 7.18 | <.02 |

¹Two-tailed non-directional test, df = 1/87, N.S. = not significant.

Appearance, and Child's Learning. In 2 of the 4 cases, the inconsistency in scoring was observed for the dimension of Availability-Quantity (AQN). Availability-Quality (AQL) did not present any scoring inconsistencies. Each of the other dimensions, Use-Quantity and Use-Quality (UQN and UQL), had one significant difference. In the following presentation of findings these abbreviations for the dimensions will be used.

Dimensions of Resourcefulness

Table 10 presents information relevant to the dimensionality of the resourcefulness property of family environment. It shows partial correlation coefficients for each set of nine resource category scores relating to each dimension (78; 79:165). Each coefficient is that between a resource score of a particular dimension and a measure called Total Resource Rating, with the influence of the other eight scores held constant or partialled out. Total Resource Rating is used here as an internal criterion. An index of validity is suggested by how well individual scores correlated with this criterion, abbreviated TRR (80:417). Also in the table are multiple correlation coefficients computed between TRR and the combined effects of the nine scores of each dimension (79:131).

TABLE 10.--Partial and multiple correlations for scores of each of four resource dimensions with total resource rating.

| Category of Resource | Resource Dimensions | | | |
|-----------------------|----------------------|----------------------|----------------------|----------------------|
| | AQN | AQL | UQN | UQL |
| Partial Correlations | | | | |
| Space | .31 | .52 | .27 | .08 |
| Child's Movement | .11 | -.26 | .28 | .16 |
| Care-Appearance | .26 | .24 | .45 | .18 |
| Child's Play | .35 | .40 | .35 | -.09 |
| Child's Task-Work | .20 | .38 | .28 | .29 |
| Child's Learning | .22 | .44 | .22 | .23 |
| Family Learning | .46 | .27 | .55 | .14 |
| Child's Contacts | .30 | -.19 | .25 | .23 |
| Family Contacts | .23 | -.23 | .20 | .08 |
| Multiple Correlations | | | | |
| | R = .93 | R = .90 | R = .93 | R = .66 |
| | R ² = .87 | R ² = .80 | R ² = .86 | R ² = .44 |

Levels of Significance

r ± .22: p = .05

r ± .35: p = .001

r ± .29: p = .01

r ± .40: p < .0005

Twenty-six of the 36 partial correlations (72 per cent) for the dimension scores were significant. By individual dimension, there were 7 significant relations for AQN, 8 for AQL, 8 for UQN, and 3 for the last, UQL. Examined by type of resource category, Child's Learning was the only one significantly related to TRR on all 4 dimensions. Seven categories showed significant relations for 3 of 4 dimensions. Movement and Family Contacts presented the fewest significant relations.

If .01 is selected as a conservative significance level, each dimension may be examined for the resource scores related to TRR with all others held constant. For AQN dimension, the resources would be Space, Child's Play and Contacts, and Family Learning; for AQL, Space, Child's Play, Task and Work, and Child's Learning. For UQN, the resources would be Care and Appearance, Child's Play, and Family Learning; for the last dimension, UQL, only Task and Work is significantly related to TRR. Child's Play emerges as the only resource category with significant relations on three dimensions.

Multiple correlation coefficients were highly significant. Coefficients of the first three dimensions were almost identical. The fourth dimension, UQL, accounted for the least amount of variation in TRR. The R^2 coefficient of the later dimension indicates that the

proportion of variation accounted for was only about one-half that accounted for by any of the others.

Interrelated Patterning of Resources

As evidence of the interdependent, interrelated patterning aspect, the intercorrelations of the nine individual resource ratings (IRR) are presented in Table 11 (78). There was found a significant clustering of 33 of the 36 coefficients. Ten of these intercorrelations were values of .50 or higher. All IRR shared in the latter cluster of values except Child's Movement. Child's Learning was the IRR most often associated with the others: it was so interrelated with six measures at .50 or more. Space and Child's Contacts each showed three significant interrelations at this level or above.

Hypothesis 1

Families at three resource levels, low, middle, and high with respect to educability, will differ significantly in range of resource ratings.

For all three hypotheses, relationships were determined by the chi square tests of independence with .01 the chosen level of significance, and the degree of association by the contingency coefficient (82, 83, 84, 79).

Table 12 reports findings for hypothesis one. TRR indicates the extent to which family resource patterns were oriented to educability of the preschool child.

TABLE 11.--Intercorrelation matrix for nine resource ratings.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------------|------|------|------|------|------|------|------|------|------|
| Space | 1.00 | .36 | .59 | .34 | .31 | .52 | .40 | .54 | .44 |
| Child's Movement | | 1.00 | .23 | .35 | .25 | .40 | .38 | .47 | .27 |
| Care-Appearence | | | 1.00 | .37 | .27 | .42 | .39 | .52 | .34 |
| Child's Play | | | | 1.00 | .24 | .50 | .45 | .45 | .37 |
| Child's Task-Work | | | | | 1.00 | .51 | .49 | .30 | .40 |
| Child's Learning | | | | | | 1.00 | .52 | .63 | .58 |
| Family Learning | | | | | | | 1.00 | .43 | .54 |
| Child's Contacts | | | | | | | | 1.00 | .41 |
| Family Contacts | | | | | | | | | 1.00 |

p = .01 if $r \neq .27$

Range of IRR suggests the consistency, as described by Bloom, with which resources of the family environment were oriented to educability (45:212). TRR varied from a low of 8 to a high of 71 among the families; the range of IRR from 1 to 8.

TABLE 12.--Relation between level of total resource rating and range of individual resource ratings.

| Total Resource Rating | Range of Individual Resource Ratings | | | | | |
|-----------------------------|--------------------------------------|----|----------|----|----------|----|
| | Low | | High | | Total | |
| | Per cent | N | Per cent | N | Per cent | N |
| Low | 46 | 12 | 54 | 14 | 100 | 26 |
| Average | 10 | 4 | 90 | 38 | 100 | 42 |
| High | 62 | 13 | 38 | 8 | 100 | 21 |

$$\chi^2 = 20.57, p = < .001, C = .43$$

Guided by visual inspection of the plotted relation between TRR and range, sample families were divided into three levels of association to educability: those with TRR of 24 or less; those with TRR of 25 to 48; and those with TRR of 49 and above (81). For range of IRR, there were 2 groups of families: 1 with scores of 4 or less (low) and the other with scores above 4 (high).

Results show that hypothesis one was supported: within the family environment, the extent of

resourcefulness was significantly and substantially associated with the consistency of this property.

Within-category differences show that families with low TRR levels were associated with either low or high IRR variation with about the same frequency. However, 90 per cent of the families in the middle TRR level showed high range scores. This group represented 43 per cent of the sample of 89 families. For families at high TRR level, almost two-thirds had low IRR range scores.

Hypothesis 2

The proportion of families at three resource levels, low, middle, and high with respect to educability, differs significantly by certain status characteristics: education of parents, occupation, income, and residence.

Table 13 shows that significant relationships were found between TRR levels and 4 of 5 family status measures. Contingency coefficients indicated a high degree of association. Only the relation with occupational status was not significant. Therefore, hypothesis one was supported with this exception.

Of interest are the associations within the individual contingency tables. The association with mother's educational status was highest. Low TRR families were most often those in which she had less education, and high TRR families were those in which she had higher education. For fathers, less education tended to be related with both

TABLE 13.--Relations between level of total resource rating and selected family characteristics.

| Total Resources Rating | Per cent | N | Per cent | N | Per cent | N |
|--|---------------------------------|----|------------------------------------|----|----------|----|
| Father's Educational Status ¹ | | | | | | |
| | 4 Years or Less Schooling | | More than 4 Years' Schooling | | Total | |
| Low | 77 | 20 | 23 | 6 | 100 | 26 |
| Middle | 69 | 29 | 31 | 13 | 100 | 42 |
| High | 19 | 4 | 81 | 17 | 100 | 21 |
| Mother's Educational Status ² | | | | | | |
| | 3 Years or Less Schooling | | More than 3 Years' Schooling | | Total | |
| Low | 69 | 18 | 31 | 8 | 100 | 26 |
| Middle | 43 | 18 | 57 | 24 | 100 | 42 |
| High | 0 | 0 | 100 | 21 | 100 | 21 |
| Income per Capita ³ | | | | | | |
| | Less than Ø700 | | More than Ø700 | | Total | |
| Low | 77 | 20 | 23 | 6 | 100 | 26 |
| Middle | 60 | 25 | 40 | 17 | 100 | 42 |
| High | 10 | 2 | 90 | 19 | 100 | 21 |
| Residence ⁴ | | | | | | |
| | Urban | | Rural | | Total | |
| Low | 12 | 3 | 88 | 23 | 100 | 26 |
| Middle | 36 | 15 | 64 | 27 | 100 | 42 |
| High | 76 | 16 | 24 | 5 | 100 | 21 |

$$^1\chi^2 = 19.13, p < .001, C = .42$$

$$^2\chi^2 = 23.31, p < .001, C = .46$$

$$^3\chi^2 = 22.62, p < .001, C = .45$$

$$^4\chi^2 = 20.78, p < .001, C = .44$$

low and middle TRR levels, and more education for him again with high TRR levels.

For economic status, less than \$100 (Ø700) per capita per year of family income appeared related to either low or middle levels of TRR (77 and 60 per cent, respectively, of the cases). Income above \$100 was related to high TRR (90 per cent of the cases at this level). The contingency table for residence suggests a relationship between urbanization and high TRR, and between rural residence and low to middle TRR.

Hypothesis 3

The proportion of families at three resource levels, low, middle and high with respect to educability, differs significantly by certain family structure characteristics: nuclearity, size, number of siblings, sex and age of pre-school child.

No significant relationships were found between TRR and any of the structure measures. Furthermore, there were no trends to significance at probability levels greater than .01. Therefore, the analyses offered no support for an hypothesized association between total family resource patterns for educability and family structure.

Relations of Individual Resources to Status and Structure

Secondary analyses were undertaken in order to investigate relations between individual resource categories

and status and structure measures. These are summarized in Tables 14 to 22.

Space

More significant relationships were encountered for this resource category than for any other (Table 14). There were significant associations between space levels and all five status measures, offering specific support for hypothesis two.

Of interest are the occupational categories. Low space families tended to be more agricultural (60 per cent of families at this level); families at the middle space level tended to be more mixed in occupations (45 per cent of the families); and high space families to be more non-agricultural in work orientation (44 per cent of those at this level).

Children from families with low space levels had parents with less educational attainment (90 per cent of fathers, 80 per cent of mothers of such children). When space levels were high, parental educational levels tended to be high also, although more frequently so for mothers than for fathers (91 to 62.5 per cent at this level).

Low income and rural residence most frequently accompanied low space resources (87 per cent and 93 per cent, respectively, of the cases at this level).

TABLE 14.--Relations between space level and selected family characteristics.

| Space | Per cent | N | Per cent | N | Per cent | N | Per cent | N |
|--|----------|----|------------------------------|----|----------|-----------------|----------|----|
| Father's Educational Status ¹ | | | | | | | | |
| 4 Years or Less Schooling | | | More than 4 Years' Schooling | | | Total | | |
| Low | 90 | 27 | 10 | 3 | | 100 | | 30 |
| Middle | 52 | 14 | 48 | 13 | | 100 | | 27 |
| High | 37.5 | 12 | 62.5 | 20 | | 100 | | 32 |
| Mother's Educational Status ² | | | | | | | | |
| 3 Years or Less Schooling | | | More than 3 Years' Schooling | | | Total | | |
| Low | 80 | 24 | 20 | 6 | | 100 | | 30 |
| Middle | 33 | 9 | 67 | 18 | | 100 | | 27 |
| High | 9 | 3 | 91 | 29 | | 100 | | 32 |
| Household Occupation ³ | | | | | | | | |
| Agriculture | | | Mixed | | | Non-Agriculture | | |
| Total | | | Total | | | Total | | |
| Low | 60 | 18 | 27 | 8 | | 13 | 4 | 30 |
| Middle | 22 | 6 | 45 | 12 | | 33 | 9 | 27 |
| High | 25 | 8 | 31 | 10 | | 44 | 14 | 32 |

Income per Capita⁴

| | Less than \$700 | More than \$700 | Total |
|--------|-----------------|-----------------|-------|
| Low | 87 | 26 | 100 |
| Middle | 52 | 14 | 100 |
| High | 22 | 7 | 100 |

Residence⁵

| | Urban | Rural | Total |
|--------|-------|-------|-------|
| Low | 7 | 93 | 100 |
| Middle | 44 | 56 | 100 |
| High | 62.5 | 37.5 | 100 |

Family Size⁶

| | 8 or Less | More than 8 | Total |
|--------|-----------|-------------|-------|
| Low | 40 | 60 | 100 |
| Middle | 48 | 52 | 100 |
| High | 78 | 22 | 100 |

Number of Siblings of Preschool Child⁷

| | 4 or Less | More than 4 | Total |
|--------|-----------|-------------|-------|
| Low | 33 | 67 | 100 |
| Middle | 41 | 59 | 100 |
| High | 72 | 28 | 100 |

¹X²=18.67, p<.001, C=.42
²X²=32.88, p<.001, C=.52
³X²=13.57, p<.005>.001, C=.36
⁴X²=26.10, p<.001, C=.48
⁵X²=21.09, p<.001, C=.44
⁶X²=10.16, p<.01>.005, C=.32
⁷X²=10.37, p<.01>.005, C=.32

Additionally, the space resource measure offered some evidence concerning relations with family structure characteristics. There were significant associations with family size and number of siblings of the preschool child. The relation was apparently a negative one: the lower these families rated on space the larger they were.

Movement

The only significant relationship found was with father's educational level (Table 15). When the preschool child's movement was held to a low or middle level, he apparently had a father with education of four years or less, in some two-thirds of the cases. If the child experienced high movement, his father (about 76 per cent of the cases at this level) had more than four years of education.

TABLE 15.--Relation between child's movement level and father's educational status.

| Child's Movement | Father's Educational Status | | | | | |
|---------------------|------------------------------|----|---------------------------------|----|----------|----|
| | 4 Years or Less Schooling | | More than 4 Years' Schooling | | Total | |
| | Per cent | N | Per cent | N | Per cent | N |
| Low | 69 | 20 | 31 | 9 | 100 | 29 |
| Middle | 67 | 29 | 33 | 14 | 100 | 43 |
| High | 24 | 4 | 76 | 13 | 100 | 17 |

$$X_2 = 11.34, p = <.005>.001, C = .34$$

Care and Appearance

Table 16 shows that levels of this resource were significantly associated with education, income and residence. Some evidence related to hypothesis three is the fact that number of siblings of the preschool child showed significant association with care and appearance. Low levels of the resource were in families with the larger number of siblings of the preschool child (71 per cent of the cases at this level); high levels were more often maintained in families with the smaller number of siblings (72 per cent frequency at this level).

Also in relation to hypothesis three was a trend, non-significant at the .02 level, to an association between care and appearance and age of female preschool children. Low ratings tended to be most frequently associated with younger-age girls and high ratings with older-age girls.

Child's Play

Family measures related to the child's level of play are presented in Table 17. Percentages of children with low to middle play levels and with fathers of lower educational attainment tended to be about three-quarters of those at these two levels. For children accustomed to high play levels, about two-thirds of their fathers had higher educational attainment.

TABLE 16.--Relations between care and appearance level and selected family characteristics.

| Care and Appearance | Per cent | N | Per cent | N | Per cent | N |
|--|---------------------------|----|------------------------------|----|----------|----|
| Father's Educational Status ¹ | | | | | | |
| | 4 Years or Less Schooling | | More than 4 Years' Schooling | | Total | |
| Low | 77 | 24 | 23 | 7 | 100 | 31 |
| Middle | 65 | 17 | 35 | 9 | 100 | 26 |
| High | 37.5 | 12 | 62.5 | 20 | 100 | 32 |
| Mother's Educational Status ² | | | | | | |
| | 3 Years or Less Schooling | | More than 3 Years' Schooling | | Total | |
| Low | 61 | 19 | 39 | 13 | 100 | 31 |
| Middle | 46 | 12 | 54 | 14 | 100 | 26 |
| High | 16 | 5 | 84 | 27 | 100 | 32 |
| Income per Capita ³ | | | | | | |
| | Less than \$700 | | More than \$700 | | Total | |
| Low | 84 | 26 | 16 | 5 | 100 | 31 |
| Middle | 54 | 14 | 46 | 12 | 100 | 26 |
| High | 22 | 7 | 78 | 25 | 100 | 32 |
| Residence ⁴ | | | | | | |
| | Urban | | Rural | | Total | |
| Low | 23 | 7 | 77 | 24 | 100 | 31 |
| Middle | 19 | 5 | 81 | 21 | 100 | 26 |
| High | 69 | 22 | 31 | 10 | 100 | 32 |
| Number of Siblings of Preschool Child ⁵ | | | | | | |
| | 4 or Less | | More than 4 | | Total | |
| Low | 29 | 9 | 71 | 22 | 100 | 31 |
| Middle | 46 | 12 | 54 | 14 | 100 | 26 |
| High | 72 | 23 | 28 | 9 | 100 | 32 |

$$^1\chi^2 = 10.94, p < .005 > .001, C = .33$$

$$^2\chi^2 = 14.13, p < .001, C = .38$$

$$^3\chi^2 = 24.30, p < .001, C = .46$$

$$^4\chi^2 = 19.82, p < .001, C = .43$$

$$^5\chi^2 = 11.72, p < .005 > .001, C = .34$$

TABLE 17.--Relations between child's play level and selected family characteristics.

| Child's Play | Per cent | N | Per cent | N | Per cent | N | Per cent | N |
|--|---------------------------|----|------------------------------|----|-----------------|----|----------|----|
| Father's Educational Status ¹ | | | | | | | | |
| | 4 Years or Less Schooling | | More than 4 Years' Schooling | | | | Total | |
| Low | 71 | 20 | 29 | 8 | | | 100 | 28 |
| Middle | 74 | 20 | 26 | 7 | | | 100 | 27 |
| High | 38 | 13 | 62 | 21 | | | 100 | 34 |
| Household Occupation ² | | | | | | | | |
| | Agriculture | | Mixed | | Non-Agriculture | | Total | |
| Low | 50 | 14 | 39 | 11 | 11 | 3 | 100 | 28 |
| Middle | 41 | 11 | 37 | 10 | 22 | 6 | 100 | 27 |
| High | 21 | 7 | 26 | 9 | 53 | 18 | 100 | 34 |
| Income per Capita ³ | | | | | | | | |
| | Less than ₦700 | | More than ₦700 | | | | Total | |
| Low | 71 | 20 | 29 | 8 | | | 100 | 28 |
| Middle | 63 | 17 | 37 | 10 | | | 100 | 27 |
| High | 29 | 10 | 71 | 24 | | | 100 | 34 |
| Residence ⁴ | | | | | | | | |
| | Urban | | Rural | | | | Total | |
| Low | 18 | 5 | 82 | 23 | | | 100 | 28 |
| Middle | 30 | 8 | 70 | 19 | | | 100 | 27 |
| High | 62 | 21 | 38 | 13 | | | 100 | 34 |

¹ $\chi^2 = 10.42$, $p < .01 > .005$, $C = .32$ ² $\chi^2 = 14.68$, $p < .01 > .005$, $C = .38$ ³ $\chi^2 = 12.48$, $p < .005 > .001$, $C = .35$ ⁴ $\chi^2 = 13.75$, $p < .005 > .001$, $C = .37$

Children at low to middle play levels appeared to come more often from agricultural or mixed occupation families, while those with high play levels apparently came more often from non-agricultural families.

Seventy-one per cent of children at low, and 63 per cent at middle play levels, came from families with lower incomes; while at the upper level 71 per cent of the children came from higher income homes.

Associations with residence tended to follow those with income. Children with either low or middle play levels appeared to live most frequently in rural areas (82 and 70 per cent, respectively), and those observed to have high play levels lived in urban communities (62 per cent of the children at this level).

Task and Work

Only mother's educational status was significantly related to child's involvement in personal tasks and small work efforts about the home (Table 18). Some two-thirds of the children with low involvement had mothers with low educational status; from two-thirds to almost three-fourths of the children with middle to high task and work participation had mothers with higher educational status.

It is also noted with reference to the hypothesized relation to family structure that slight trends to

significance at the .10 level were found between this resource category and the nuclear - modified-extended family characteristic, and with children's age, and age of male preschool children. No consistent trends were suggested by the data.

TABLE 18.--Relation between child's task and work level and mother's educational status.

| Child's Task and Work | Mother's Educational Status | | | | | |
|-----------------------------|------------------------------|----|---------------------------------|----|----------|----|
| | 3 Years or Less Schooling | | More than 3 Years' Schooling | | Total | |
| | Per cent | N | Per cent | N | Per cent | N |
| | | | | | | |
| Low | 67 | 16 | 33 | 8 | 100 | 24 |
| Middle | 33 | 13 | 67 | 26 | 100 | 39 |
| High | 27 | 7 | 73 | 19 | 100 | 26 |

$$\chi^2 = 9.64, p = <.01> .005, C = .31$$

Child's Learning Opportunities

Status categories of parental education, income, and residence were significantly related to this resource (Table 19). Children who had low to middle levels of learning opportunities apparently most often had fathers with lower educational attainment (76 and 70 per cent of the children at these two levels). Two-thirds of children with high learning opportunities in their home

TABLE 19.--Relations between level of child's learning opportunities and selected family characteristics.

| Child's Learning | Per cent | N | Per cent | N | Per cent | N |
|--|---------------------------|----|------------------------------|----|----------|----|
| Father's Educational Status ¹ | | | | | | |
| | 4 Years or Less Schooling | | More than 4 Years' Schooling | | Total | |
| Low | 76 | 22 | 24 | 7 | 100 | 29 |
| Middle | 70 | 21 | 30 | 9 | 100 | 30 |
| High | 33 | 10 | 67 | 20 | 100 | 30 |
| Mother's Educational Status ² | | | | | | |
| | 3 Years or Less Schooling | | More than 3 Years' Schooling | | Total | |
| Low | 59 | 17 | 41 | 12 | 100 | 29 |
| Middle | 50 | 15 | 50 | 15 | 100 | 30 |
| High | 13 | 4 | 87 | 26 | 100 | 30 |
| Income per Capita ³ | | | | | | |
| | Less than ₦700 | | More than ₦700 | | Total | |
| Low | 66 | 19 | 34 | 10 | 100 | 29 |
| Middle | 63 | 19 | 37 | 11 | 100 | 30 |
| High | 30 | 9 | 70 | 21 | 100 | 30 |
| Residence ⁴ | | | | | | |
| | Urban | | Rural | | Total | |
| Low | 21 | 6 | 79 | 23 | 100 | 29 |
| Middle | 27 | 8 | 73 | 22 | 100 | 30 |
| High | 67 | 20 | 33 | 10 | 100 | 30 |

$$^1\chi^2 = 13.12, p < .005 > .001, C = .36$$

$$^2\chi^2 = 14.27, p < .001, C = .37$$

$$^3\chi^2 = 9.48, p < .01 > .005, C = .31$$

$$^4\chi^2 = 15.75, p < .001, C = .39$$

environments had fathers with higher educational status, and also mothers with similar status in 9 of 10 cases.

Within-category differences for income and residence indicate that low to middle amounts of learning opportunities for children were related to less income and rural residence, and higher opportunities associated with higher income and urbanization.

A slight trend (at .10 significance level) was noted for an association between this resource and age of the girls among the preschool children. Low learning opportunities seemed related more frequently to younger age among the girls and high opportunities to older age.

Family Learning Opportunities

Contingency tables for this resource show significant relations between family learning and mother's education, family income, and residence (Table 20). In 65 per cent of the families with low learning opportunities, the mothers had less education. Evidence at the middle level was mixed, but at the upper level, 90 per cent of those in this category had mothers with more education.

Families with both low and middle levels of learning opportunities were in the lower income category with 67 per cent frequency, and those with higher levels were in the upper income group with 71 per cent frequency.

TABLE 20.--Relations between level of family learning opportunities and selected family characteristics.

| Family Learning | Per cent | N | Per cent | N | Per cent | N |
|--|---------------------------|----|------------------------------|----|----------|----|
| Mother's Educational Status ¹ | | | | | | |
| | 3 Years or Less Schooling | | More than 3 Years' Schooling | | Total | |
| Low | 65 | 22 | 35 | 12 | 100 | 34 |
| Middle | 46 | 11 | 54 | 13 | 100 | 24 |
| High | 10 | 3 | 90 | 28 | 100 | 31 |
| Income per Capita ² | | | | | | |
| | Less than ₦700 | | More than ₦700 | | Total | |
| Low | 67 | 16 | 33 | 8 | 100 | 34 |
| Middle | 67 | 16 | 33 | 8 | 100 | 24 |
| High | 29 | 9 | 71 | 22 | 100 | 31 |
| Residence ³ | | | | | | |
| | Urban | | Rural | | Total | |
| Low | 15 | 5 | 85 | 29 | 100 | 34 |
| Middle | 42 | 10 | 58 | 14 | 100 | 24 |
| High | 61 | 19 | 39 | 12 | 100 | 31 |

$$^1\chi^2 = 20.78, p < .001, C = .44$$

$$^2\chi^2 = 10.81, p < .005 > .001, C = .33$$

$$^3\chi^2 = 15.07, p < .001, C = .38$$

Rural residence was apparently more often associated with low family learning opportunities (85 per cent of families at this level) than was urban residence with high family learning opportunities (61 per cent of those at this higher level).

Child's Contacts

The extent of social contacts maintained by pre-school children in the study was associated with family status in the areas of parental education, per capita income, and residence, as reported in Table 21. Eighty-one per cent of children with low social contacts and 60 per cent of those with middle levels had fathers with low educational status. Some 67 per cent of those who experienced high social interaction had fathers who had achieved higher educational status.

Low contacts were frequently related to having a mother of minimal education (for 62.5 per cent of children at the low level). Moving from middle to higher levels was associated with increasing frequency to having mothers with more education (from 53 per cent of the middle level group of children to 93 per cent of children with high contacts).

Trends observed for relationships with income and residence were similar: low to middle levels of social contacts for preschool children were linked with less

TABLE 21.--Relations between level of child's contacts and selected family characteristics.

| Child's Contacts | Per cent | N | Per cent | N | Per cent | N |
|--|---------------------------------|----|------------------------------------|----|----------|----|
| Father's Educational Status ¹ | | | | | | |
| | 4 Years or Less Schooling | | More than 4 Years' Schooling | | Total | |
| Low | 81 | 26 | 19 | 6 | 100 | 32 |
| Middle | 60 | 18 | 40 | 12 | 100 | 30 |
| High | 33 | 9 | 67 | 18 | 100 | 27 |
| Mother's Educational Status ² | | | | | | |
| | 3 Years or Less Schooling | | More than 3 Years' Schooling | | Total | |
| Low | 62.5 | 20 | 37.5 | 12 | 100 | 32 |
| Middle | 47 | 14 | 53 | 16 | 100 | 30 |
| High | 7 | 2 | 93 | 25 | 100 | 27 |
| Income per Capita ³ | | | | | | |
| | Less than Ø700 | | More than Ø700 | | Total | |
| Low | 72 | 23 | 28 | 9 | 100 | 32 |
| Middle | 63 | 19 | 37 | 11 | 100 | 30 |
| High | 19 | 5 | 81 | 22 | 100 | 27 |
| Residence ⁴ | | | | | | |
| | Urban | | Rural | | Total | |
| Low | 19 | 6 | 81 | 26 | 100 | 32 |
| Middle | 33 | 10 | 67 | 20 | 100 | 30 |
| High | 67 | 18 | 33 | 9 | 100 | 27 |

$$^1\chi_2 = 13.96, p < .001, C = .37$$

$$^2\chi_2 = 19.18, p < .001, C = .42$$

$$^3\chi_2 = 18.74, p < .001, C = .42$$

$$^4\chi_2 = 14.70, p < .001, C = .38$$

income and rural living; high contacts with more family income per capita and urban residence.

Additionally, social contacts of the child tended to relate to his age (level of significance was .10). It appeared that older children more frequently had high levels of social interaction.

Family Contacts

This resource category was significantly associated only with status measures of parental education (Table 22). In comparison with the social contacts of the child, the strength of the associations as expressed in the contingency coefficients was not as pronounced. The degree of relation was reversed: that is, level of family contacts was more strongly related to the father's educational status, and the child's contacts to the mother's educational status. Trends in percentages at the various levels and within the two educational categories (of father and mother) appeared to be somewhat similar for both family and child's social contacts.

Descriptive Use of Family Resource Patterns

On page 129 is a profile of individual resource ratings for one household in the study, fictitiously named the Arias-Salazar family. It may be studied with reference to Table 24 in the Scoring Manual, Appendix C,

TABLE 22.--Relations between level of family contacts and selected family characteristics.

| Family Contacts | Per cent | N | Per cent | N | Per cent | N |
|--|---------------------------------|----|------------------------------------|----|----------|----|
| Father's Educational Status ¹ | | | | | | |
| | 4 Years or Less Schooling | | More than 4 Years' Schooling | | Total | |
| Low | 88 | 23 | 12 | 3 | 100 | 26 |
| Middle | 51 | 20 | 49 | 19 | 100 | 39 |
| High | 42 | 10 | 58 | 14 | 100 | 24 |
| Mother's Educational Status ² | | | | | | |
| | 3 Years or Less Schooling | | More than 3 Years' Schooling | | Total | |
| Low | 62 | 16 | 38 | 10 | 100 | 26 |
| Middle | 41 | 16 | 59 | 23 | 100 | 39 |
| High | 17 | 4 | 83 | 20 | 100 | 24 |

$$^1\chi^2 = 13.32, p < .005 > .001, C = .36$$

$$^2\chi^2 = 10.44, p < .01 > .005, C = .32$$

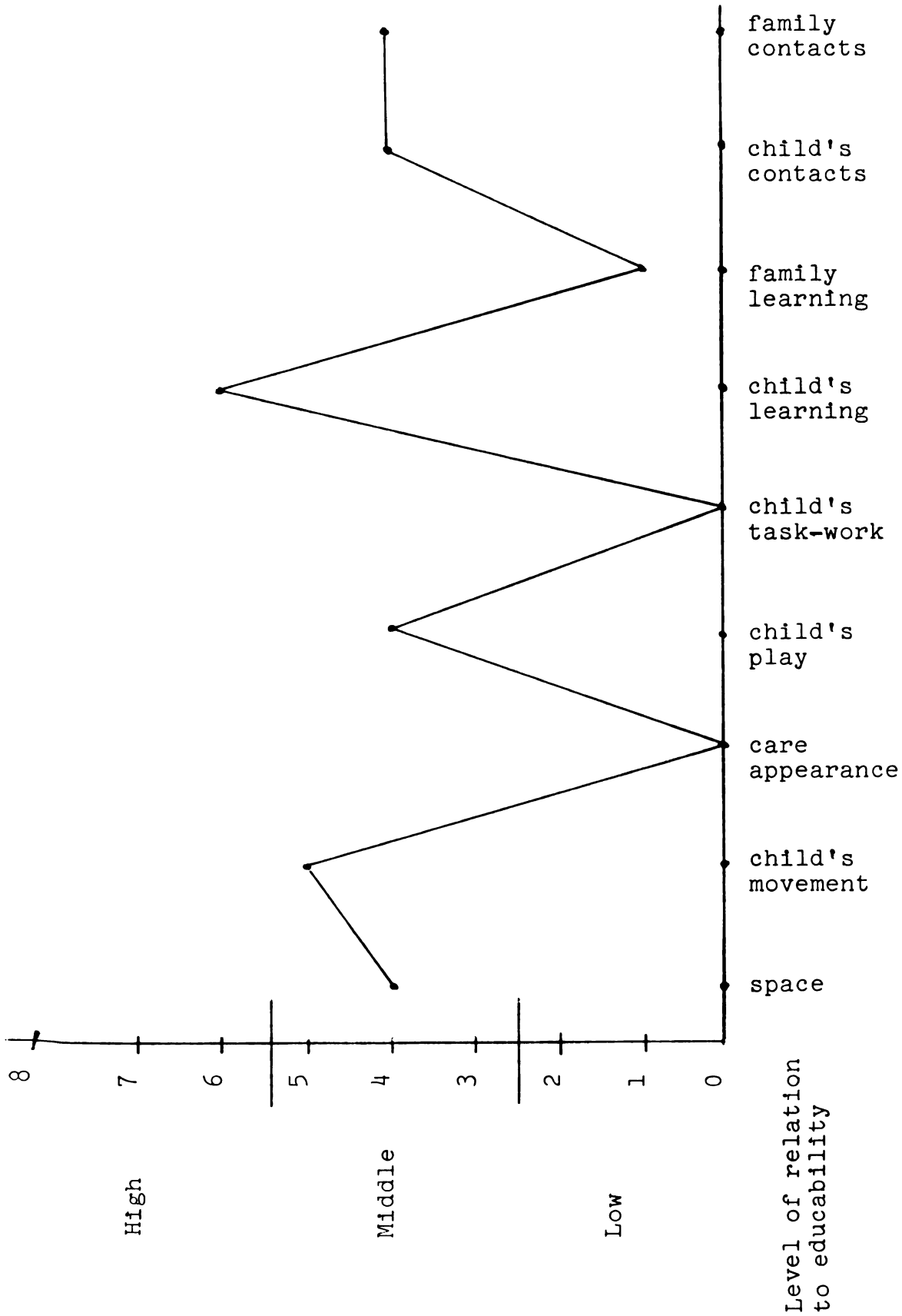


Figure 3.--A family profile: pattern of variability in resources for education.

page 251. In that table are ratings which this family received on each of four resource dimensions for all resource categories, then summed to the IRR in the profile.

Patterning of resources for educability in this family is evidenced by graphing IRR achieved and then connecting these ratings to illustrate the consistency, or lack of consistency, among them. Considered separately, 3 IRR were in the area of low relation to educability, 5 in the middle level, and 1, child's learning, at the high level. The range of IRR varied from 0 for care and appearance, and task and work, to 6 for child's learning. While IRR range for the family was 6, the TRR, Total Resource Rating, achieved was 28.

Two of 3 environmental properties related to educability (which guided selection of resource categories for the study), constriction and cognitive stimulation, were most affected by high inconsistency in range of IRR. Only the property of social interaction, indicated by social contacts, presented an appearance of consistency, although only the middle level of relation to educability was reached.

This family, with a middle level TRR and a high range of IRR, was representative of the group of families mentioned under hypothesis one, that group which made up 43 per cent of the total sample. This was a rural family, living in an agricultural workers'

community on a large coffee farm. It was a mixed occupation family. José Alberto, father of the preschool child around whom the study questions were focused, and head of the household, worked as a "jornalero," or contracted day worker on the farm. A son, Manuel, worked with him; another, Rafael, worked in a factory. Other older children contributed to family income by working during coffee harvest. Total family income for 1967 was Ø6936. With 14 members at the time, family income per capita amounted to Ø495 or \$74.72 per year.

The father had never attended school; his wife, Clara Luz, completed one year. Theirs was a nuclear family; although they had relatives on the same and nearby farms, they did not see them often enough to be classified as a modified-extended group. At the time of study, there was a new baby in the family; therefore, Oscar, the preschool child, had 12 siblings at home. He was 4 years and 5 months of age when family observation began. Two siblings, María and Luísa, were also in the 3-to-6 preschool age group; another in this age category had died recently. One older brother, Rafael, had completed six years of primary education at the elementary school on the "finca" grounds where the family lived.

Exploration of Prediction Potential
of Family Resource Construct

A tentative exploration was made of the use of TRR as a general indicator of family resources for educability, and other measures, in a regression equation to predict a criterion measure (78; 83:315). The latter measure, called "family educational success," was operationalized by presence or absence in each family of at least one sibling of the preschool child of the study who was old enough for the sixth grade of primary school, and who was presently in that grade (or who had already completed it or gone beyond).

The exploratory hypothesis was that, given information about TRR and some family characteristics, perhaps one could predict family educational success with a fair degree of accuracy. In addition to TRR, variables selected were parental education, residence, income, and occupation. Together, these were used as independent variables in calculating coefficients for the linear regression equation by the method of least squares, with the educational success measure as dependent variable. A special question was whether the TRR measure would make a larger contribution to the equation than the others.

Results were a multiple correlation coefficient of .509, significant at the .01 level. The R^2 coefficient

was .259, indicating that the equation accounted for about 26 per cent of the variability in family educational success, leaving the rest due to other factors. Partial correlation coefficients were very low, varying from $-.308$ for father's education to $.001$ for mixed occupation. That for TRR was very small-- $.167$. Father's education, residence, and mother's education were the measures which contributed most.

An idea of the success of prediction was obtained by using the regression equation to estimate educational success for families in the sample with at least one child old enough to have reached the sixth grade. For the 44 families who met this criteria, predictions were made incorrectly for seven, a 16 per cent error. On the basis of the findings, the tentative hypothesis was considered to have received some support; however, it was evident that the TRR measure did not contribute more to the prediction than the status measures under conditions of the experiment.

CHAPTER V

DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

The chapter discusses the findings and presents limitations, conclusions and implications of the research.

Discussion of Findings

Reliability

In relation to scoring reliability an approximation of 89 per cent consistency was claimed for 36 resource measures, based on results of one-way analyses of variance for two scoring treatments. In addition, there were also four resource scores for which significance of the difference of means for the scoring groups was less than the .10 level. One of these, UQN Care and Appearance, appears in Table 9. The other three were UQN dimension Child's Contacts, and AQN dimension scores for Child's and Family Contacts.

If these trends are accepted as evidences of further possible inconsistencies in scoring, then 8 of 36 measures were unstable in two scoring treatments (which differed superficially). This indicates that a more

conservative estimate of reliability of scoring would be 78 per cent. If more work is done with the conceptual and measurement system developed here, the inconsistencies for AQN and UQN dimensions should be examined closely. The resource categories which appear to require refinement are Child's Learning, Care and Appearance, and Child's Contacts. The task would be aided by study of the measures of central tendency and dispersion computed for each score for evidences of non-normal or curtailed distributions in Table 25, Appendix D (85).

Dimensionality

Given the caution needed with regard to interpretation of results, tentative ideas are offered. From examination of partial correlation coefficients of the four sets of scores with TRR (Table 10, page 105), the dimensionality of family resourcefulness for early educability may be specified to a degree. There appeared to be some evidence of differential composition of the dimensions, that is, of differential meanings for availability and utilization, and quantity and quality aspects of resourcefulness. Thus, support appeared for this property as described in the conceptual framework of the study (page 8, and 42 to 47).

For interpretive purposes, the convention might be adopted to consider only the three highest partial

correlations in order of their magnitude of relation to TRR. In this context, quantity of family resources available for educability might more rigorously be described as composed of, first of all, amount of family learning opportunities (excluding the preschool child); then amount of objects and activities for the child's play; then household space and the objects which are present within it.

Quality of resources available within the home environment in relation to attainment of educability probably ought to include particular attention to variety of household spaces and objects first, and then to variety of the young child's learning and play opportunities. For quantity of resource utilization for educability, one would consider, first, aspects of the family's (not the child's) actual involvement in learning activities; then the child's usual clothing and food consumption; and finally the child's usual play activities.

Quality of Resource Use

Some observations are offered specifically about the fourth dimension of resourcefulness. Partial correlations of these scores with TRR need interpretation keeping in mind that the source of data was different from the other three dimensions. It is based exclusively on picture stimuli with focused questions. The resulting measure is

one of the mother's verbalized perceptions of means-end relationships, inferred as indicating qualitative aspects of resource utilization. Size of partial correlation coefficients suggests that these mothers defined the dimension in terms of task and work efforts of the child, an emphasis indicating possibly a primary cultural stress upon goals of early independence and responsible participation. They then defined the dimension in terms of the child's learning and social contacts, indicating perhaps secondary cultural goals of early cognitive and social-emotional stimulation in the family.

The multiple correlation coefficients were smallest for UQL, indicating that this perception-oriented dimension may contribute less to family resource patterns for educability than any of the other three. However, it may be a most unique and important dimension, but one either inadequately conceptualized or measured, or one which had less importance in the particular families investigated than assumed. The data came exclusively from use of an instrument which may have been subject to unknown sources of non-validity or unreliability. It is pointed out that another investigator's ability to reproduce the scores was not ascertained. On the other hand, researchers have offered evidence that perception of means-end relations is an established managerial concept (2, 6, 40), and that it is, in turn, commonly viewed as a component

of competence, a human resource of particular value in linking individuals and families to society (1, 26, 38).

In research and discussions about the goal of early educability, this investigator noted a common reference to "the" preschool child of the family. As mentioned in the profile of the Arias-Salazar family, families may have more than one child in the preschool stage (even though only one is designated for research purposes). While the study concept is of "the preschool child," the family perception may be of "the children," with the mother holding a generalized, diffuse orientation towards them as a group. With the Picture Question data, it was observed (but no significance attached to the fact at the time) that, although the investigator carefully and consistently referred to the resource activities of the pictures in terms of a specific child, even naming him and his age to his mother, she often spoke of "them" in her answers, not of "him" or "her." The usual pronouns were plural.

Therefore, it may be that the concept of relations between the quality of a child's home activities and future school success was either poorly specified and operationalized in this study, or that it was not perceived as important to many Costa Rican families: that is, educability was not a culturally relevant goal. Within larger family groups, parents may have diffuse,

non-specific orientations toward a child: he is only one of a group, and this impedes perception of him as needing access to certain amounts and qualities of resources at critical periods of development.

Interdependent Functioning

While the partial correlation technique was explored for evidence about the meaning of distinctive dimensions of resourcefulness, another aspect was also examined by correlational analysis. This was the interdependent patterning, or interrelated functioning of resources, discussed by many in the field of home management (15, 17, 18, 21, 25, 33). In this study, the patterning or clustering nature of family resources related to educability was apparent from the matrix of resource ratings in Table 11. This finding is in agreement with the high commonality reported by Hess on similar resource measures, where all nine resources clustered on one principal factor (11).

That this is a differential patterning, with some resources contributing more strongly than others to the overall cluster of means in the family environment for the educability goal, is inferred from the sizes of the coefficients, and the fact that Child's Learning, a most specific resource category associated with future school

success for a child, was most often related to the other resource categories at .50 or above.

Extent and Consistency

A particular way of looking at resource quantity and quality is highlighted by findings relevant to hypothesis one, which supported the belief that level of resourcefulness attained would relate to consistency in amounts of resources present for educability. There appeared to be several qualitatively distinct family environments when both extent and consistency of resources were examined: families in which the resource environment was very consistent but either very low or high on total resources; and families in which the resource environment was highly inconsistent but not high in total resources. This interpretation might be studied in light of the assumption of the economic view of resources that there is continuity and stability in handling resources and that there is an equilibrium between means and wants to be satisfied (32, 34).

This possible distinction about family environments could be explored further in light of Bloom's hypothesis about powerful environments being those which have a pervasive stability (47). The effects of the first two environments may be more lasting than that of the third. Measurements on goal attainment, in this case, of

educability-related behaviors of the child himself, would be required both at the preschool age and after exposure to school influences, before a prediction could be supported.

Developmental Properties and Resources

Physical constriction, cognitive stimulation, and social interaction, the three developmental properties proposed in the conceptual framework of the study for guiding selection of resource categories for educability (page 7), might be examined with reference to the results of the chi square analyses. If resource categories are eliminated which showed three or less significant relations with family characteristics, then the five remaining ones may be organized according to these properties to judge whether, and how, each property was operationalized in the families studied. In this context, the results provide evidence that constriction would refer to household space, and physical care and appearance; stimulation to child's play and learning, and interaction would mean child's social contacts.

Resources, Status and Structure

Chi square analysis supported the hypothesized relationship between family resource patterns, measured by TRR, and status characteristics, measured by parental

education, income, and residence, but not occupation. The analysis did not support the hypothesized relationship with family structure measures, however. When the 9 resource categories were considered separately, there were 28 significant relationships with the various status measures, and only 3 with structure measures. Categories showing the greatest number of significant relations, and therefore highest discriminating ability, with the family characteristics measures were: Space with 7 significant relations; Care and Appearance with 5; Child's Play, Learning and Contacts, all with 4. The least discriminating resource measures proved to be Child's Movement and Task and Work, and Family Contacts and Learning.

Resource ratings in the contingency tables can be examined for information about the concept of levels of relation to educability. In addition, this would be necessary for the significant chi square tables in order to take the next analytical step which is to collapse the tables to 2 by 2 size for determination of the source of difference in each. As a guide to making decisions about how to combine the three resources levels, an inspection of trends is revealing. For all resource categories the evidence seemed to be that low and middle levels of resources were associated with larger family size, rural residence, less education for the father, and low income. At the high resources levels, the evidence suggested the

cluster of family characteristics of smaller family size, urban residence, more education for both parents, and higher income.

There are two family characteristics for which these level trends apparently do not hold true. For mother's education, divided slightly lower than for father's education, there was some evidence of relation between the middle resources level and higher education. This may be a function of how the group was dichotomized for analysis. For occupation, the low and middle levels of resources seemed to be either agricultural or mixed occupation groups; while high resources levels related to non-agricultural occupations.

The findings suggest that the resource measures may have use in specifying a more generalized concept such as the influence of family environment, defined as social status, upon human development. This specification is an urgent current need, according to other researchers (1, 6, 44, 47, 50).

Family Characteristics

The chi square results could also be examined from the point of view of the family characteristics. Parental education measures were both related significantly at the chosen .01 level with resource measures 8 times; residence and income had 7 such relationships. Occupation was

least important among the status measures with two cases of being significantly related to resources. Among family structure measures, only family size and number of siblings, similar measures, showed any significant relations, and the total was only three. It is of interest that little evidence was found in this study of preschool children and the family environment of relations between age and sex of the child and the resource measures. Either the measures were too gross to detect differences or the culture placed little emphasis on this developmental stage, a speculation related to the previous discussion about the UQN dimension. This question is of importance in view of the emphasis in theory and research currently being placed upon stage- and sex-related influences in the fields of human development and education (9, 11, 12, 13, 14). Also, it may be possible that the prediction of family educational success would be improved by addition of significant structure measures, if such could be found.

Family Profile

What might be said about the profile of resources for the goal of educability in Oscar's environment? That there was physical constriction present is evident from the extreme rating (in comparison with other children of the sample) on his usual food and clothing consumption and routine physical care. Lack of stimulation was

suggested in the extreme rating (again compared to other children of the sample) for doing things for himself and helping with little tasks at home. Influencing factors might be found in the pattern of family characteristics (for example, very low family income and educational attainments of parents, measures found to relate to low levels of resources for educability). Others might be such factors as family size or number of similar age siblings, indicating competition for scarce resources with Oscar.

In some ways, Oscar fared better compared to other children of the sample. He experienced only moderate physical constriction as far as level of household space and his own movements were concerned. He also experienced moderate amounts of stimulation through play, and social interaction through contacts with others.

The ratings suggest that Oscar's environment for educability varied from low to moderately pervasive. It was neither highly supportive nor consistently negative in relation to attainment of the goal of his educability. Its effects upon the child might be controlled or mediated either by improvement in status levels of the family, by direct efforts in relation to the low and moderately rated resource categories, or by efforts with the child but totally outside the family, or a combination of methods. The status characteristics of most influence

and possibly ammenable to societal alteration might be parental education levels or family income. Perhaps some resource ratings could be examined for improvement possibilities, for example, care and appearance for physical constriction, and either task and work or family learning for stimulation. These are especially suggested as all others were moderate to high in level compared with other families.

Limitations

The sample families were purposively selected. It is not known to what extent results based on this sample can be generalized to any population beyond it.

Level of measurement attained was ordinal; however, analyses were carried out under the assumption of at least equal-appearing intervals. It is not known to what extent the assumption was met. Other assumptions relevant to statistical models used were recognized but no assertion is made of rigorous compliance with them.

The process of combining items into scores and transforming them into ratings meant loss of information from the data; however, this may have been balanced by a gain in comparability through development of ipsatized ratings, that is, normalized ratings for intra-societal use.

Size of multiple correlation coefficients must be cautiously interpreted because they may be spurious due to use of TRR as internal criterion. The items themselves contributed indirectly to TRR. Without further analysis sources of differences appearing in the contingency tables could not be specified with confidence.

No attempt was made to directly measure and relate to the resource variables the educability-linked behaviors of the children, which are output behavior variables necessary for further specification of the input role of the resource categories as means for goal attainment.

Although the conceptual framework and measurement model appeared to be applicable cross-culturally, no claim of this nature is made for all of the individual resource scores because they represent culturally modified definitions which may be limited to the particular group of families studied.

Conclusions

Within the confines of this study utilizing a purposive sample of 89 intact families with preschool children, distributed heterogeneously by family status and structure characteristics, and geographically located within a recognized developing region of Costa Rica, the following conclusions are warranted.

The managerial-developmental framework for the construct family resource patterns for educability, originally conceptualized for, and applied in, one group of families, demonstrated applicability in another cultural group of families.

There was evidence for content validity. It was provided by a process of establishing an adequate representative sampling of items for the resource categories, based upon practices observed in families, suggested by cultural informants and researchers, or the developmental-managerial literature reviewed.

Evidence for construct validity included differential meaningfulness for each of the four dimensions in terms of the resource categories which showed significant partial correlation coefficients. The evidence also indicated that the fourth dimension, UQL, may be unique in comparison with the others, AQN, AQL, UQN, because its multiple correlation coefficient with the Total Resource Rating was the smallest. It requires further study for refinement of the definition in terms of the culture and measurement.

Additional evidence for construct validity indicated, by means of inspection of the intercorrelation matrix of nine resource ratings, that there was a patterning or clustering of the measures, significant at the .01 level. When only substantial coefficients were

considered (over .50), all resource categories expect movement contributed to the cluster.

Validation of the construct of family resource patterns for educability was further investigated by means of chi square analyses and the contingency coefficients for study of significant and substantial associations. An hypothesized relation between extent (operationalized by levels of TRR) and consistency (measured by the range of IRR) of resource patterns was supported.

Analyses using the general resource measure (TRR) and the individual resource measures revealed many significant relations with family status but very few with family structure characteristics. On the basis of the evidence the hypothesized association with status was considered supported; that with structure was not. An ordering of importance of the resources was suggested by secondary analyses: space, and care and appearance showed the most significant relationships; play, child's learning and contacts were intermediate; family learning and contacts were low; movement and task and work were lowest.

There appeared to be potential for use of the conceptual-measurement system in descriptive family analysis, demonstrated by an illustrative profiling of a family in order to be able to describe it in comparison with other families.

In an investigation of concurrent validity, contribution of the construct in a prediction system was found to be limited; however, due to the empirical and exploratory nature of the problem, no conclusion is warranted about the predictive potential of the construct without further investigation.

Implications

Theory

Resource patterns for goal attainment appears to be a fruitful construct for a theory of management in the family, especially the aspects of dimensionality, interdependent patterning directed to specific family goals, and the qualities of extent and consistency of resources at critical individual development periods experienced within the family environment.

Research

The study tests a framework developed within one culture and finds it meaningful in terms of another. It suggests a possible approach to use in constructing a system for comparison within, and perhaps, between, cultural groups of families.

Reliability and validity have been major foci of the study. The evidence for these criteria is supportive of the conceptual and measurement models; however, on the

basis of the present findings, refinement would be needed if the system is contemplated for other studies. The more significant measures, perhaps, were those better defined (space, learning, play) and not necessarily those most important for educability. Measurements on the children would be required for analysis in order to evaluate empirically the significance of the resources for educability. Additionally, measurements of managerial behaviors and value orientations might add significantly to predictability of goal achievement in the area of educability.

Extension and/or refinement of the meaning of family structure is needed in order to reexamine its associations with TRR. It is suggested that birth order of the pre-school child, or age of parents, might be measures worthy of investigation. The results indicated that status overwhelms structure as a significant variable in relation to resources for educability; it may truly be most important, or there may be an interaction between status and structure not uncovered in the study.

Action Programs

For possible application in programs carried out by change agents, there are suggested in the study both a conceptual orientation, or way of looking at a problem, and a system of data collection, which emphasize the

relation between the family system and a societal institution, the schools. Perhaps a simplified but more representative study might uncover some guidelines for action programs aimed at development of the parental resource as instrumental in guiding or mediating a goal such as educability, within the family environment. An outcome of this type would be of benefit to families and significant to societal goals.

If educability is a viable and important societal goal, then efforts in relation to it may need to be focused more on rural, lower income and less educated families, based on results of this study. It is a task which might receive the attention of extension workers or rural school teachers.

Some inputs to families may be needed from outside institutions in order to raise overall TRR to moderate or high levels, for categories of resources such as space and family learning opportunities, for example. If the direction of causality can be assumed to be from status to family resource levels for educability, then limited improvements only can be made by families without inputs in the areas of parental education and family income.

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APPENDICES

APPENDIX A
INSTRUMENTS

Preliminary Questionnaire
Occupation and Income Survey
Resources Inventories
Picture Questions

Código de la Familia _____

Niño _____

Sexo _____

Instituto Interamericano de Ciencias Agrícolas de la O.E.A.
Centro de Enseñanza e Investigación
Turrialba, Costa Rica

INVESTIGACION SOBRE RECURSOS FAMILIARES Y ACTITUDES EDUCATIVAS

-0-

Código del INCAP _____

Provincia _____

Cantón _____

Comunidad _____

Dirección _____

VISITAS A LA FAMILIA

| Fecha | Hora | Tiempo | Notas |
|-------|------|--------|-------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
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PREGUNTAS PRELIMINARES: (A algún adulto, miembro de la familia. Llene las preguntas con asterisco (*) antes de la primera entrevista).

*1. Estoy buscando a _____
(Padres del niño prescolar)

Usted es _____

1. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

2. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

3. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

4. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

5. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

6. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

7. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

8. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

9. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

10. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

11. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

12. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

13. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

14. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

15. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

16. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

17. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

18. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

19. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

20. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

21. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

22. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

23. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

24. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

25. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

26. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

27. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

28. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$

- ★2. Vive en esta casa el niño (o niños):

| | | |
|-------|----------|----------|
| _____ | Sí _____ | No _____ |
| _____ | Sí _____ | No _____ |
| _____ | Sí _____ | No _____ |

(De el nombre (o nombres) del niño (niños)
que tiene entre tres y seis años de edad,
según el INCAP).

Si dice que NO, pregúntele: Dónde vive el niño? _____

Ahora, continúe con las preguntas hasta el punto que se pueda y después
busque al niño en la otra dirección.

- ★3. Ahora este niño tiene _____ años? Sí _____ No _____

(De la edad según el INCAP, pero para este año).

4. Si dice NO, pregúntele: Cuántos años tiene el niño? _____
(Si no tiene entre 3-6 años, termine la entrevista).

- 5.Cuál es la fecha de nacimiento de _____?

- ★6. Los padres de _____ son:

| | | |
|--------|----------|----------|
| _____? | Sí _____ | No _____ |
| _____? | Sí _____ | No _____ |
| _____? | Sí _____ | No _____ |

(De los nombres de los padres según la lista del INCAP).

Si responde NO, pregúntele: Quiénes son los padres? _____

7. Viven ambos padres toda la semana, en esta casa, con _____?
- | | |
|----------|----------|
| Sí _____ | No _____ |
|----------|----------|

(NOTA: Si responde NO, pregunte si ellos viven parte de la semana en la casa. Si responde que uno u otro, o ambos de los padres no viven ni un día en la casa, termine la entrevista.)

8. Ya empezó _____ a ir al kinder? Sí _____ No _____
A la escuela? Sí _____ No _____

(NOTA: Si responde SI a la escuela, termine la entrevista).

Ahora, si queda más de un sujeto para el estudio, seleccione el que tenga la edad más aproximada de 4 a 5 años para enfocar el estudio y las preguntas siguientes. CONTINUAR LA ENTREVISTA CON LA MADRE O EL PADRE DE ESTE NIÑO Y PRESENTE LA CARTA QUE EXPLICA EL ESTUDIO.

9. Cuál es el lugar de nacimiento de ustedes, los padres de _____?
Padre _____ Madre _____
10. Durante cuánto tiempo han vivido ustedes y _____ en esta casa?

11. Dónde vivían ustedes antes de vivir en esta casa? _____
12. Por cuánto tiempo? _____
13. Para el padre de _____, cuál fue el primer trabajo que tuvo?

14. Cuál es la ocupación actual de él? _____
15. Desde cuándo? _____
16. Cuál fue la ocupación anterior a la presente? _____
17. Se considera que el padre de _____ es el jefe de esta familia?
Sí _____ No _____
- Si dice NO, pregúntele: Quién es el jefe? _____
18. Qué ocupación tuvieron los abuelos de _____?
(NOTA: Abuelo, no abuela).
De parte del padre _____ De parte de la madre _____
19. Los abuelos, saben (sabían) leer y escribir?
De parte del padre: Sí _____ No _____ De parte de la madre: Sí _____ No _____

20. Qué año o grado escolar más alto terminaron los abuelos?

De parte del padre _____ De parte de la madre _____

21. Piensa enviar a _____ a la escuela primaria? Sí _____ No _____

Si dice SI:

22. Qué distancia hay entre la escuela y la casa? _____

23. Cómo está la carretera o vía (material y condición) entre la escuela y la casa?

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a very important document, as it contains the President's annual message to Congress. The letter is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

2. The second part of the document is a report from the Secretary of the Interior, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

3. The third part of the document is a report from the Secretary of the Treasury, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

4. The fourth part of the document is a report from the Secretary of the War, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

5. The fifth part of the document is a report from the Secretary of the Navy, dated January 3, 1862. It is a very important document, as it contains the Secretary's annual report to the President. The report is written in a formal, dignified style, and it is one of the most important documents in the history of the United States.

24. PARA LOS MIEMBROS DE LA FAMILIA Y OTROS QUE VIVEN EN LA CASA:

| Nombre de la persona | Relación con el jefe | Sexo | Edad | Puede escribir? | Puede leer? | Grado o año escolar más alto aprobado? | | Ubicación de la escuela | Educación adicional |
|----------------------|----------------------|------|------|-----------------|-------------|--|------------|-------------------------|---------------------|
| | | | | | | Primaria | Secundaria | | |
| 1. | | | | | | | | | |
| 2. | | | | | | | | | |
| 3. | | | | | | | | | |
| 4. | | | | | | | | | |
| 5. | | | | | | | | | |
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| 9. | | | | | | | | | |
| 10. | | | | | | | | | |
| 11. | | | | | | | | | |
| 12. | | | | | | | | | |
| 13. | | | | | | | | | |
| 14. | | | | | | | | | |
| 15. | | | | | | | | | |

G.Baker/iss.-

AID/EE-426
7 Marzo 1968

Instituto Interamericano de Ciencias Agrícolas de la O.E.A.
Centro de Enseñanza e Investigación
Turrialba, Costa Rica

INVESTIGACION SOBRE RECURSOS FAMILIARES Y ACTITUDES EDUCATIVAS

OCUPACION E INGRESOS FAMILIARES

Georgianne Baker
Educadora para el Hogar
Economía y Ciencias Sociales

FAMILIA _____

INSTRUCCIONES

Si es posible, hable con el jefe de la familia sobre las siguientes preguntas. Tenga cuidado de obtener la información no solamente de la ocupación e ingresos de él, sino de todas las demás personas que contribuyeron trabajo, pagado o no, durante el año pasado; es decir, la esposa, los hijos, y cualesquiera otras personas que vivan en la casa. El período que cubren las preguntas es entre enero y fines de diciembre de 1967. No olvide averiguar si el trabajo actual de ellos es igual o diferente al del año pasado. Lea la siguiente introducción a la persona que contestará las preguntas:

QUIERO CONVERSAR CON USTED SOBRE LAS PERSONAS DE LA FAMILIA QUE TRABAJARON DURANTE EL AÑO PASADO Y LAS ENTRADAS (INGRESOS) QUE DIERON A LA FAMILIA. LE AGRADECERE MUCHO QUE ME CONTESTE ALGUNAS PREGUNTAS PARA QUE YO PUEDA ENFOCAR MEJOR LOS RECURSOS DE SU FAMILIA, QUE PROBABLEMENTE CONTRIBUYERON A HACER POSIBLES LAS ACTIVIDADES DE SU NIÑO, _____. TENGO INTERES PRINCIPALMENTE EN LOS TRABAJOS DEL AÑO 1967, DE USTED Y DE CUALESQUIERA OTRAS PERSONAS QUE TRABAJARON. NADIE QUE USTED CONOZCA VERA SUS CONTESTACIONES.-

PARTE I

FAMILIA _____

TRABAJO DURANTE 1967

Personas de la Familia

Jefe

| | | | | |
|--|----------------------------------|-------|-------|-------|
| 1. En la familia, qué personas trabajaron alguna vez el año pasado? | | | | |
| 2. Cuántas ocupaciones o trabajos diferentes tuvo usted (y _____)? | 1. _____ 2. _____ 3. _____ | _____ | _____ | _____ |
| 3. A qué se dedicaba el establecimiento(s) donde trabajó usted (y _____)? | 1. _____ 2. _____ 3. _____ | _____ | _____ | _____ |
| 4. Cuál trabajo fue la fuente de dinero o la entrada más importante para la familia? | | | | |
| 5. De los trabajos mencionados, cuál fue trabajo fijo? Trabajo temporal (fluctúa)? | 1. _____ 2. _____ 3. _____ | _____ | _____ | _____ |
| 6. Fue usted (o _____) patrón o trabajador por su cuenta? | | | | |
| 7. Fue usted (o _____) empleado y recibió dinero o _____? | | | | |

| | | | | |
|---|---|--|--|--|
| <p>8. Fue usted (o <u> </u>) un trabajador familiar? Si dice SI, pregúntele: Recibió dinero o remunera- ción por el trabajo? O contribuyó el trabajo sin pago?</p> | | | | |
| <p>9. Cuántos meses trabajó usted (y <u> </u>) durante el año pasado?</p> | <p>1. <u> </u> 2. <u> </u> 3. <u> </u></p> | | | |
| <p>10. Cuántas horas trabajó usted (y <u> </u>) por semana el año pasado?</p> | <p>1. <u> </u> 2. <u> </u> 3. <u> </u></p> | | | |
| <p>11. Cuál fue el salario o sueldo, o la entrada (semanal o men- sual) que recibió durante el año pasado?</p> | <p>1. <u> </u> 2. <u> </u> 3. <u> </u></p> | | | |

PART II

o cría de animales? Sí _____ No _____.

Si dice SI, preguntete:

Cuántas manzanas o hectáreas?

Es usted propietario o arrendatario?

Si la respuesta al # 12 es SI, continúe con esta Parte II.

CULTIVOS DEL AÑO 1967

[illegible]

VENTA DE ANIMALES DURANTE 1967

| 19. Vendió algún animal de la finca el año pasado? | 20. Cuántas veces por año vendió sus animales? | 21. Cuánto vendió? | 22. Cuál fue el valor por unidad? | 23. Cuánto recibió en total? | 24. Del valor recibido, cuánto contribuyó al ingreso (entrada) familiar? (Percent.) | 25. Dejó (regaló) algunos para la casa? Cuánto? |
|---|---|-----------------------|--------------------------------------|---------------------------------|--|--|
| No | Unidad | | | | | No |
| | | | | | | Unidad |
| | | | | | | |
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VENTA DE PRODUCTOS ANIMALES

| 26. Vendió algún producto animal (como leche, queso, huevos, etc.)? | 27. Cuántas veces por año vendió sus productos? | 28. Cuánto vendió el año pasado? | 29. Cuál fue el valor por unidad? | 30. Cuánto recibió en total? | 31. Del valor recibido, cuánto contribuyó al ingreso (entrada) familiar? (Percent.) | 32. Dejó (regaló) algunos para la casa? Cuánto? |
|--|--|-------------------------------------|--------------------------------------|---------------------------------|--|--|
| No | Unidad | | | | | No |
| | | | | | | Unidad |
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PARTIE III

OTROS INGRESOS O DINERO RECIBIDO POR LA FAMILIA EN EL AÑO 1967

| Tipo | De cuál persona? | Ultimo pago recibido? | Por qué período? | Cuántas veces por año? | Total por año |
|--|------------------|-----------------------|------------------|------------------------|---------------|
| 33. Alquiler de animales | | | | | |
| 34. Alquiler de maquinaria | | | | | |
| 35. Alquiler de tierras y/o edificios | | | | | |
| 36. Alquiler recibido por los cuartos alquilados de la vivienda | | | | | |
| 37. Bonificaciones (no incluidas en los sueldos) y agualados (gratificaciones) | | | | | |
| 38. Ganancias de negocios (préstamos, dividendos, regalos) | | | | | |
| 39. Ganancias provenientes de industrias caseras | | | | | |
| 40. Salarios o sueldos por horas extras | | | | | |
| 41. Otras fuentes (como jubilaciones, beneficios sociales, ayudas familiares) | | | | | |

9

PARTIE IV

42. Su trabajo actual es el mismo, o es diferente que el del año pasado?
En qué formas?

Instituto Interamericano de Ciencias Agrícolas de la O.E.A.
Centro de Enseñanza e Investigación
Turrialba, Costa Rica

INVESTIGACION SOBRE RECURSOS FAMILIARES Y ACTITUDES EDUCATIVAS

INVENTARIO DE RECURSOS

Georgianne Baker
Educatora para el Hogar
Economía y Ciencias Sociales

Familia _____

INSTRUCCIONES

1. En la investigación, se cree que el Inventario es muy extenso para ser presentado en su totalidad en una sola visita, debido a otros formularios que se usan al mismo tiempo en la entrevista. También hay la posibilidad de confusión por parte de la madre cuando se cambia el énfasis del Inventario, del niño a la familia y después a la casa. Por consiguiente, el Inventario se presenta en tres partes, en dos visitas.

2. Para evitar escritura adicional, cuando sea posible subraye las palabras contenidas en cada pregunta que indiquen la respuesta de la madre. Escriba los detalles que ella le de, usando las mismas palabras de ella si puede hacerlo. Agregue los detalles de su propia observación, e indique que son observaciones de usted.

PARTE I: EL NIÑO

1. Se incluyen los patrones de recursos que pertenecen al niño: 3, 5, 6, 4 y 8 en el mismo orden.

2. Haga la Parte I durante la primera visita con la madre, tal vez después de las Preguntas Preliminares y la presentación de los Dibujos de Actividades.

3. En las visitas siguientes, revise cualquier duda que haya.

4. INTRODUCCION: Explique a la madre:

AHORA, SEÑORA _____, COMO MADRE DE _____ USTED LO CONOCE MUY BIEN Y ME GUSTARÍA MUCHO QUE ME AYUDARA A CONOCER A _____ UN POCO, DICIENDOME ALGO SOBRE LAS COSAS QUE EL HACE DURANTE EL DÍA, AQUÍ, CON USTED Y LA FAMILIA. TENGO INTERES ESPECIAL EN CONOCER SUS ACTIVIDADES REGULARES, SUS JUEGOS, Y LAS COSAS QUE ESTA EMPEZANDO A APRENDER EN CASA.

PARTE II: LA FAMILIA

1. En la segunda visita se presentan las preguntas que pertenecen a la familia: los patrones de recursos 7 y 9.

2. INTRODUCCION: Explique a la madre:

SEÑORA _____, SIENTO QUE AHORA CONOZCO A _____ MUY BIEN. PERO SERIA MUY BUENO CONOCER MEJOR AL RESTO DE LA FAMILIA. POR CONSIGUIENTE, TENGO ALGUNAS PREGUNTAS QUE SE REFIEREN A USTEDES Y NO AL NIÑO _____. SERIA MUY AMABLE SI ME CONTESTARA ESTAS PREGUNTAS, DE ACUERDO CON EL CONOCIMIENTO QUE USTED TIENE DE LA FAMILIA.

PARTE III: LA CASA Y EL VECINDARIO

1. En la última visita se presentan a la madre las preguntas que pertenecen a los patrones de recursos 1 y 2.

2. INTRODUCCION: Explique a la madre:

LE AGRADEZCO MUCHO LA OPORTUNIDAD DE CONOCER UN POCO DE LAS ACTIVIDADES DE _____ Y DE SU FAMILIA. AHORA, PODRIA USTED DECIRME ALGUNAS COSAS SOBRE LA CASA Y EL VECINDARIO? HAY COSAS EN LAS CASAS DE COSTA RICA QUE SON EXTRAÑAS PARA MI, O QUE TIENEN NOMBRES QUE NO ENTIENDO. ASI QUE ALGUNAS VECES PEDIRE QUE SE ME MUESTREN, PARA NO EQUIVOCARME.

FAMILIA _____

INVENTARIO DE RECURSOS: Parte I: EL NIÑO

CLASIFICACION: 1 2 3 4 5

3. PATRON DE CUIDADO Y APARIENCIA PERSONAL

RESUMEN: Disponibilidad: Cantidad _____ Calidad _____

Utilización: Cantidad _____ Calidad _____

Pregunta

1. Cuántas veces come el niño por día? Come el niño a distintas horas cada día, o a la misma hora cada día? Por qué?

2. Come el niño algunos de estos alimentos: leche, carne o pescado, frutas, legumbres?

3. Cuántas veces por día o semana? Qué cantidades?

4. Qué alimentos de todos los que ustedes comen le gustan más al niño? Por qué le gustan más?

5. Cuándo se baña el niño? Dónde? Cuántas veces por semana? Le agrada o no? Por qué?

6. Cuándo se lava las manos y la cara el niño? El pelo? Los dientes?

7. Cómo duerme el niño? Bien o mal? Por qué?

8. Cuándo se acuesta el niño en la noche? Cuándo se levanta en la mañana? Esto es regular o diferente toda la semana?

9. El niño toma siestas durante el día? Cuándo y cuántas veces? Le gusta la siesta o no?

10. Qué ropa usa el niño regularmente durante un día como éste? Durante la noche?

11. Además de la ropa del día, qué otros tipos de ropa tiene el niño? Qué cantidad? El niño usa actualmente esta ropa?

12. Tiene el niño algunos problemas en vestirse? Como cantidades, reparaciones, compras?

PARA OBSERVACION SOLAMENTE:

13. La clase y cantidad relacionada con el clima; condición; reparación; zapatos, medias, etc.

1. The first part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

2. The second part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

3. The third part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

5. The fifth part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

6. The sixth part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

7. The seventh part of the document is a list of the names of the persons who have been appointed to the various positions of the Board of Directors of the Corporation.

14. Suciedad del cuerpo; presencia
de piojos o no.

15. La apariencia de la madre.

FAMILIA _____

INVENTARIO DE RECURSOS: Parte I: EL NIÑO

CLASIFICACION: 1 2 3 4 5

5. PATRON DE TAREA Y TRABAJO

RESUMEN: Disponibilidad: Cantidad _____ Calidad _____
 Utilización: Cantidad _____ Calidad _____

 Pregunta

1. Puede el niño hacer por sí mismo estas tareas personales: niño vistiéndose, lavándose, tomando agua, comiendo?

2. Tiene el niño algunos problemas para hacerlas? Cuáles son?

3. Qué ayuda debe él tener para cumplirlas?

4. Hace el niño algún tipo de trabajo en la casa o fuera de la casa, como: niño barriendo, lavando ropa, cuidando a un bebé, comprando pan, etc.?

5. Tiene el niño algún problema para hacerlo? Cuáles?

6. Qué ayuda debe él tener para cumplirlas?

-
7. Qué otros trabajos son realizados o intentados por el niño, como ayudar al padre, o acarrear leña, o cosechar café, etc.
-

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

FAMILIA _____

CLASIFICACION: 1 2 3 4 5

INVENTARIO DE RECURSOS: Parte I: EL NIÑO

6. PATRON DE APRENDIZAJE DIRECTO

RESUMEN: Disponibilidad: Cantidad _____ Calidad _____
 Utilización: Cantidad _____ Calidad _____

 Pregunta

1. Hay en la casa cosas que el niño puede usar, como: papel, lápices, pizarra, tiza, libro alfabético para colorear, números, letras? Cuáles?

2. Entre éstas, qué prefiere usar el niño? Qué hace él con esa cosa?

3. Cuántas veces por semana lo hace el niño?

4. Hay en la casa algunos libros, revistas, periódicos u otros materiales escritos que el niño trata de "leer" o le gusta mirar? Cuáles son?

5. Entre estas cosas, hay algo que el niño prefiere?

6. Cuántas veces por semana lo usa el niño?

7. Hay alguien en la casa, como usted, que lea al niño? Cuántas veces por semana?

8. Si lee al niño, qué material usa?

9. Tiene el niño accidentes con estos materiales, como perder el lápiz, o arrancar hojas del libro durante intentos de dominar la técnica? Qué ocurre?

10. Le gusta al niño oír o usar el radio, el televisor, o discos? Instrumentos musicales?

11. Tienen ustedes algunos de éstos en la casa? Cuántas veces por semana los usa el niño?

FAMILIA _____

CLASIFICACION: 1 2 3 4 5

INVENTARIO DE RECURSOS: Parte I: EL NIÑO

4. PATRON DE JUEGO

RESUMEN: Disponibilidad: Cantidad _____ Calidad _____
 Utilización: Cantidad _____ Calidad _____

Pregunta

1. Tiene el niño algún juguete, tal como bloques (cubos, tucos), cuentas, tableros agujereados? Cuál prefiere usar?
2. Tiene el niño algún juguete, tal como muñecas, animales, vaqueros, carros, aviones, vajillas, escobas, teléfono, cocina, herramientas, maletín de médico o de enfermera? Cuál prefiere usar?
3. Tiene el niño algún juguete, tal como papel de color y tijeras, crayones, libros para colorear, pinturas y caballete, plasticina o arcilla, instrumentos para costura, para trabajo en cuero, musicales...? Cuál prefiere usar?
4. Tiene usted algunos sustitutos de juguetes que usa el niño, tales como ollas y cacerolas, piedras y palos, barro y agua, etc ?
5. Qué juguetes tiene el niño para jugar al aire libre? (Tales como caja de arena, casa de muñecas, casa en un árbol, columpios, bicicleta, patines).
6. Qué juguetes usa el niño regularmente dentro de la casa?

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861. It is a very important document, as it sets out the President's policy for the new year.

2. The second part of the document is a report from the Secretary of the Treasury, dated January 1, 1861. It contains a detailed account of the financial state of the country at the beginning of the year.

3. The third part of the document is a report from the Secretary of the Interior, dated January 1, 1861. It contains a detailed account of the state of the interior of the country at the beginning of the year.

4. The fourth part of the document is a report from the Secretary of the Navy, dated January 1, 1861. It contains a detailed account of the state of the Navy at the beginning of the year.

5. The fifth part of the document is a report from the Secretary of the War, dated January 1, 1861. It contains a detailed account of the state of the War at the beginning of the year.

6. The sixth part of the document is a report from the Secretary of the State, dated January 1, 1861. It contains a detailed account of the state of the State at the beginning of the year.

7. The seventh part of the document is a report from the Secretary of the War, dated January 1, 1861. It contains a detailed account of the state of the War at the beginning of the year.

7. Qué juguetes hay que el niño
disfruta especialmente?

FAMILIA _____

INVENTARIO DE RECURSOS: Parte I: EL NIÑO

CLASIFICACION: 1 2 3 4 5

8. PATRON DE CONTACTOS SOCIALES DIRECTOS

RESUMEN: Disponibilidad: Cantidad _____ Calidad _____

Utilización: Cantidad _____ Calidad _____

 Pregunta

1. En qué actividades y celebraciones de la familia participa el niño? Qué hace el niño en estas actividades? Con qué frecuencia participa el niño?

2. Qué actividades hace el niño con niños pequeños o bebés? Con qué frecuencia?

3. Qué actividades hace el niño con otros de su edad (sus iguales)? Hay algo especial que le gusta al niño hacer con ellos? Con qué frecuencia lo hace?

4. Tiene el niño contactos con algunos adultos extraños? Qué? Con qué frecuencia?

5. Participa el niño en algunos grupos grandes (como la iglesia)?Cuál es la participación de él? Con qué frecuencia?

FAMILIA _____

INVENTARIO DE RECURSOS: Parte II: LA FAMILIA

CLASIFICACION: 1 2 3 4 5

7. PATRON DE APRENDIZAJE INDIRECTO

RESUMEN: Disponibilidad: Cantidad _____ Calidad _____
 Utilización: Cantidad _____ Calidad _____

 Pregunta

PARA USTED Y EL RESTO DE LA FAMILIA:

1. Le gusta a alguien en la familia leer algunas cosas? Qué? Quién? Con qué frecuencia?

2. Le gusta a alguien de la familia oír el radio o mirar el televisor? Qué cosas oye o mira regularmente durante la semana? Quién lo hace? Tiene un radio o televisor siempre en la casa?

3. Le gusta a alguien la música? A quién? Oye la música? Toca algún instrumento? Cuál y con qué frecuencia?

4. Va alguien a lugares como el museo, biblioteca, zoológico, cine, parque o la plaza? A cuál? Quién? Con qué frecuencia?

5. Además de éstos, ha hecho alguien viajes fuera de la comunidad? A dónde? Quién? Con qué frecuencia?

6. Usa alguien los servicios del Banco? Para qué? Quién? Con qué frecuencia?



7. Además de los niños que están en la escuela primaria, sigue alguien algún programa de educación? Qué? Quién? Con qué frecuencia?

.....

.....

FAMILIA _____

INVENTARIO DE RECURSOS: Parte II: LA FAMILIA

CLASIFICACION: 1 2 3 4 5

9. PATRON DE CONTACTOS SOCIALES INDIRECTOS

RESUMEN: Disponibilidad: Cantidad _____ Calidad _____
 Utilización: Cantidad _____ Calidad _____

 Pregunta

PARA USTED Y EL RESTO DE LA FAMILIA:

1. Qué participación tienen ustedes en actividades u organizaciones de la comunidad (tales como la iglesia, cooperativas, patronatos escolares, junta de deportes, etc.)? Quién? Con qué frecuencia?

2. Qué contactos tienen ustedes como parte de actividades u organizaciones fuera de la comunidad? Quién? Con qué frecuencia?

3. Qué contactos tienen miembros de la familia con amigos que no son familiares? Quién? Con qué frecuencia?

4. Qué contactos tienen ustedes y qué actividades hacen ustedes con familiares (como tíos, abuelos, sobrinos, etc.)? Quién? Con qué frecuencia?

FAMILIA _____

INVENTARIO DE RECURSOS: Parte III: LA CASA

CLASIFICACION: 1 2 3 4 5

1. PATRON DE ESPACIO

RESUMEN: Disponibilidad: Cantidad _____ Calidad _____
Utilización: Cantidad _____ Calidad _____

Pregunta

1. Dibujo de la distribución del espacio y el contenido de la vivienda.

-
2. Qué clase de vivienda? (Casa individual, casa de una hilera de casas, casa anexa).

-
3. Cuántas personas duermen y comen en la casa? Cuántas habitaciones hay en la vivienda?
-

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861. It is a very important document, as it sets out the President's views on the state of the Union and the course of action he proposes to take.

2. The second part of the document is a report from the Secretary of the Treasury, dated January 1, 1861. It contains a detailed account of the financial state of the country and the measures proposed to meet the government's needs.

3. The third part of the document is a report from the Secretary of the Interior, dated January 1, 1861. It contains a detailed account of the state of the public lands and the measures proposed to manage them.

4. The fourth part of the document is a report from the Secretary of the War, dated January 1, 1861. It contains a detailed account of the state of the military and the measures proposed to strengthen it.

5. The fifth part of the document is a report from the Secretary of the Navy, dated January 1, 1861. It contains a detailed account of the state of the navy and the measures proposed to improve it.

6. The sixth part of the document is a report from the Secretary of the State, dated January 1, 1861. It contains a detailed account of the state of the foreign relations of the United States and the measures proposed to improve them.

7. The seventh part of the document is a report from the Secretary of the Education, dated January 1, 1861. It contains a detailed account of the state of the public schools and the measures proposed to improve them.

8. The eighth part of the document is a report from the Secretary of the Agriculture, dated January 1, 1861. It contains a detailed account of the state of the agriculture of the United States and the measures proposed to improve it.

9. The ninth part of the document is a report from the Secretary of the Commerce, dated January 1, 1861. It contains a detailed account of the state of the commerce of the United States and the measures proposed to improve it.

10. The tenth part of the document is a report from the Secretary of the Fisheries, dated January 1, 1861. It contains a detailed account of the state of the fisheries of the United States and the measures proposed to improve them.

11. The eleventh part of the document is a report from the Secretary of the Mining, dated January 1, 1861. It contains a detailed account of the state of the mining industry of the United States and the measures proposed to improve it.

12. The twelfth part of the document is a report from the Secretary of the Public Works, dated January 1, 1861. It contains a detailed account of the state of the public works of the United States and the measures proposed to improve them.

13. The thirteenth part of the document is a report from the Secretary of the Public Lands, dated January 1, 1861. It contains a detailed account of the state of the public lands of the United States and the measures proposed to manage them.

14. The fourteenth part of the document is a report from the Secretary of the Public Buildings, dated January 1, 1861. It contains a detailed account of the state of the public buildings of the United States and the measures proposed to improve them.

15. The fifteenth part of the document is a report from the Secretary of the Public Printing, dated January 1, 1861. It contains a detailed account of the state of the public printing of the United States and the measures proposed to improve it.

4. Cuál es el nombre de las habitaciones? (Sala, cocina, etc.)

5. Tiene corredor, patio interior, patio?

6. Hay espacio para que el niño juegue en la casa? Cuál es?

7. Qué facilidades hay para que duerma el niño? (Y con quién duerme?)

8. Cuál es la fuente de suministro de agua? (Tubería (cañería) dentro de la casa, pozo, río, etc.)

9. Qué tipo o tipos de iluminación usan ustedes? (Si usa la electricidad: Cuántas bombillas usan en cada cuarto? Tiene lámparas?

10. Qué combustible usa usted para cocinar? (Canfín, leña, carbón, electricidad, etc.)

11. Cuáles son las facilidades sanitarias? (Tanque séptico, pozo negro, letrina, inodoro). Las usa el niño con alguna dificultad?

12. Qué equipo eléctrico tiene? (Radio, refrigerador, cocina, tocadiscos, televisor, licuadora, etc.)

13. Qué tipo de artefactos no eléctricos tiene? (Ollas y sartenes, trastos, escobas, herramientas, radio con batería, etc.)

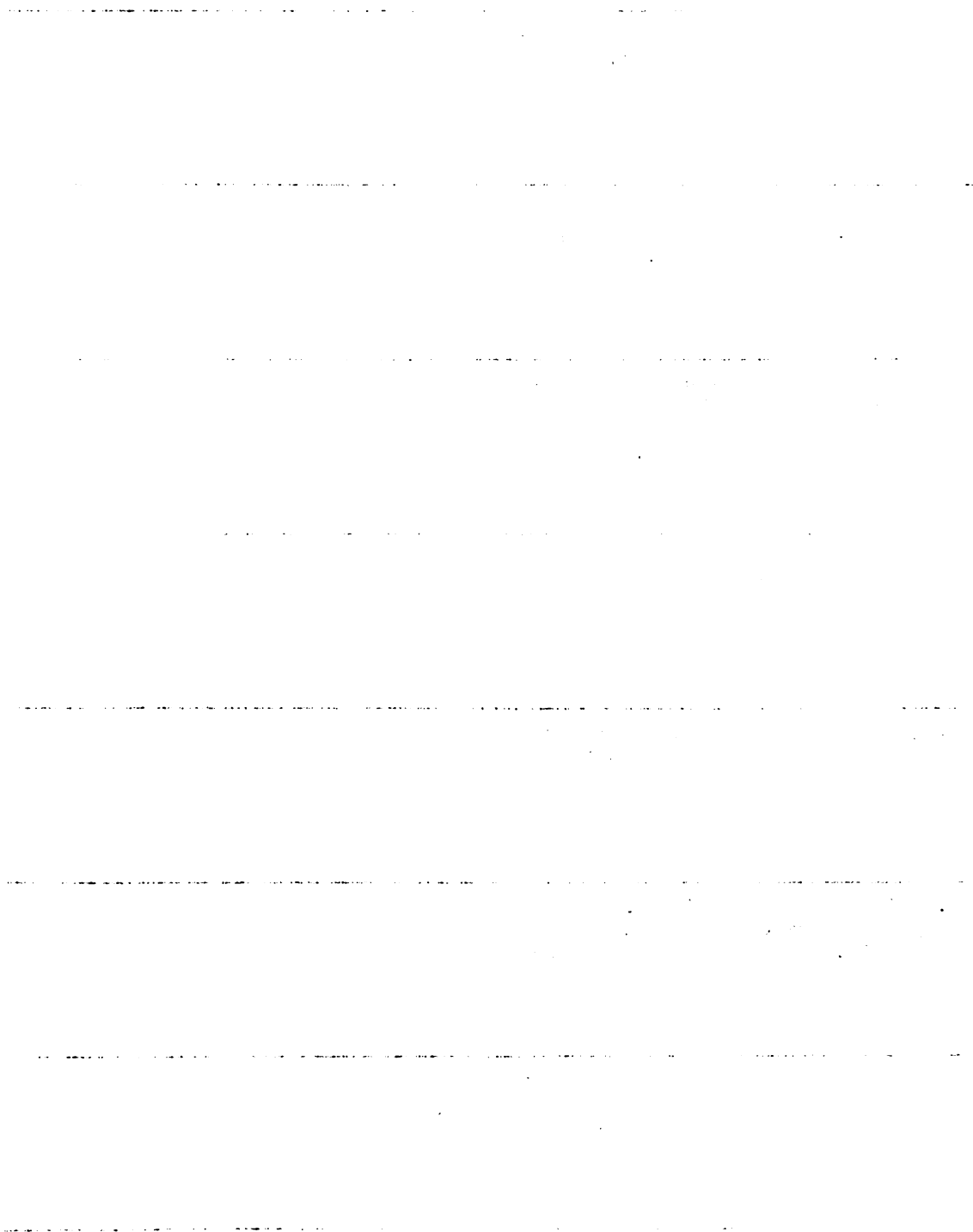
14. Qué plantas y adornos tiene? (Cuadros, floreros, etc.)

15. Qué almacenamiento (para ropas, alimentos, vajilla) usa usted?

16. Cuántas ventanas tiene la casa, y de qué tipo? (Vidrio, sin vidrio, cedazo; número y tamaño).

/

17. Terminado de las paredes: madera sin pintar, repello, pintada, empapelada, encalada, etc.)



18. Hay basuras o insectos dentro de
la casa?

19. Hay animales en la casa?
De qué tipo?

FAMILIA _____

INVENTARIO DE RECURSOS: Parte III: LA CASA

CLASIFICACION: 1 2 3 4 5

2. MOVIMIENTO FISICO

RESUMEN: Disponibilidad: Cantidad _____ Calidad _____
 Utilización: Cantidad _____ Calidad _____

 Pregunta

1. Cuántas entradas o salidas hay?
 Las usa el niño?

2. Hay escaleras? Las usa el niño?
 Tiene dificultad o miedo en
 usarlas?

3. Hay cercas y portones? Cómo se
 efectúan las actividades del
 niño?

4. Qué espacios hay para activida-
 des del niño al aire libre?
 (Para jugar; qué juguetes - como
 bolas).

5. Qué áreas y facilidades de juego
 hay en el vecindario (como colum-
 pios)? Las usa el niño?

6. Qué cantidad de tráfico y de qué
 tipo hay en el vecindario?
 Cómo afecta al niño?

1. The first part of the document is a list of the names of the persons who were present at the meeting.

2. The second part of the document is a list of the names of the persons who were present at the meeting.

3. The third part of the document is a list of the names of the persons who were present at the meeting.

4. The fourth part of the document is a list of the names of the persons who were present at the meeting.

5. The fifth part of the document is a list of the names of the persons who were present at the meeting.

6. The sixth part of the document is a list of the names of the persons who were present at the meeting.

7. The seventh part of the document is a list of the names of the persons who were present at the meeting.

7. Qué distancia recorre el niño
fuera del hogar y el vecindario
inmediato? Con qué frecuencia?

8. Qué uso de autobús, automóvil,
bicicleta, caballo, recorrido
a pie, hay por parte del niño?

AID/EE-427/68
GBaker/iss
1 April 1968

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Instituto Interamericano de Ciencias Agrícolas de la OEA
 Centro de Enseñanza e Investigación
 Turrialba, Costa Rica

INVESTIGACION SOBRE RECURSOS FAMILIARES
 Y ACTITUDES EDUCATIVAS

PREGUNTAS PARA LOS DIBUJOS DE ACTIVIDADES SOBRE
EL USO DE LOS RECURSOS FAMILIARES

Georgianne Baker
 Educadora para el Hogar
 Economía y Ciencias Sociales

INSTRUCCIONES

Hay nueve (9) juegos de dibujos. Cada uno corresponde a cada uno de los patrones de recursos (véase el Inventario de Recursos). El propósito de los dibujos es usarlos como estímulos visuales para obtener ideas adicionales y opiniones personales de la madre, además de sus respuestas directas al Inventario.

El intercambio entre el entrevistador y la madre se graba en una cinta magnetofónica. Así, se puede considerar que estas respuestas verbales a material semejante del Inventario pueden servir como control o "check" de la comprensión por parte del entrevistador del idioma y palabras de la madre. Se sugiere que se use este instrumento con la madre antes del Inventario o al final de la recolección de todos los datos, pero no inmediatamente después del Inventario.

Primero, lea las ideas de la Introducción a la madre. Después, muéstrole el primer juego de dibujos y explíquele la acción o acciones que se ven. Hágale las preguntas que pertenecen a este juego de dibujos en particular. No agregue más preguntas específicas, pero puede preguntar "Y qué más?" o algo así. Continúe así con los otros grupos de dibujos. Tenga cuidado de grabar toda la conversación y revise después para saber si la cinta está bien.

INTRODUCCION

AQUI TENEMOS DIBUJOS EN QUE HAY NIÑOS PEQUEÑOS, QUE TIENEN MAS O MENOS LA MISMA EDAD QUE _____; ES DECIR, _____ AÑOS. EN LOS DIBUJOS VEMOS AL NIÑO, ALGUNAS VECES A SU MAMA, A SUS AMIGOS U OTROS MIEMBROS DE LA FAMILIA, U OTROS ADULTOS. VEMOS ACTIVIDADES COMO LAS QUE PUEDEN OCURRIR EN CUALQUIER FAMILIA, TAL COMO LA SUYA. YO QUIERO QUE USTED, COMO MADRE DE UN NIÑO DE _____ AÑOS, ME DIGA SUS IDEAS Y REACCIONES A LAS ACTIVIDADES PRESENTADAS EN LOS DIBUJOS. USAMOS ESTA GRABADORA DURANTE NUESTRA CONVERSACION PARA QUE YO PUEDA RECORDAR MEJOR SUS IDEAS DESPUES.

1. NIÑO ACOSTANDOSE, COMIENDO (Patrón No. 3: Cuidado y Apariencia Personal)

A la madre:

"HAY ALGUNAS ACTIVIDADES QUE LOS NIÑOS HACEN DIARIAMENTE; ACTIVIDADES QUE CONTRIBUYEN A SU CREDIMIENTO Y SALUD FISICA Y QUE DEMANDAN LA ATENCION DE LA MADRE MUCHAS VECES. POR EJEMPLO, AQUI HAY UN NIÑO ACOSTANDOSE Y OTRO EMPEZANDO A COMER."

Preguntas:

1. Qué pensamientos o preocupaciones podría la madre tener con las comidas, el descanso, la limpieza o el vestuario de su niño?
2. Qué está diciendo la mamá a su niño en estos dibujos?
3. Le parece que niños que actúan como estos dos tendrán éxito en la escuela cuando empiecen?
Por qué?

2. NIÑO TRABAJANDO, HACIENDO TAREAS (Patrón No. 5:
Tarea y Trabajo)

A la madre:

"AQUI HAY NIÑOS HACIENDO TRABAJOS O TAREAS PEQUEÑAS PARA LA FAMILIA. RECUERDE QUE SON NIÑOS DE MAS O MENOS ____ AÑOS, COMO _____. ESTE NIÑO ESTA CUIDANDO A SU HERMANITA QUE ESTA LLORANDO: ESTE OTRO ESTA COMPRANDO PAN. ESTE ESTA COMIENDO -- QUE ES UNA TAREA QUE TODOS LOS NIÑOS DEBEN DOMINAR, PERO AQUI LA NIÑA HA TENIDO UN ACCIDENTE."

Preguntas:

1. Qué otras tareas o trabajos pueden hacer los niños pequeños?
2. Qué hace la mamá cuando su niño pequeño tiene problemas o accidentes durante sus intentos de aprender las tareas?
3. Piensa usted que niños como éstos van a tener éxito en las actividades futuras en la escuela?
Por qué?

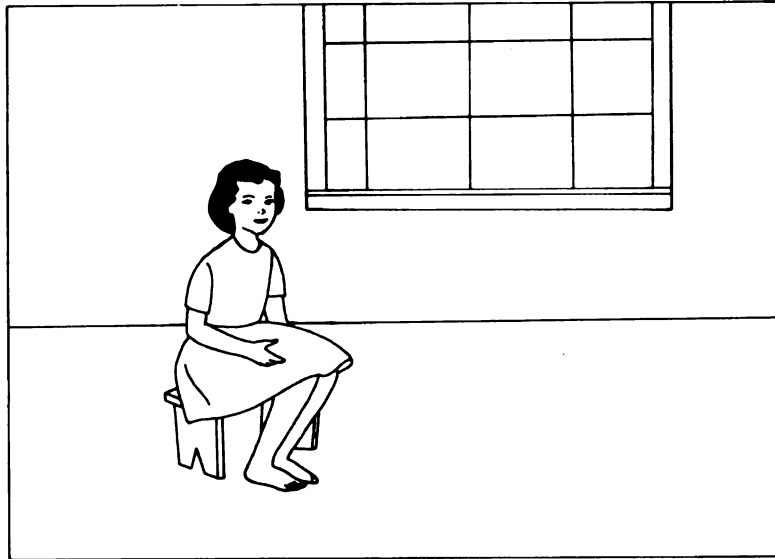
3. MOVIMIENTOS DEL NIÑO (Patrón No. 2: Movimiento Físico)

A la madre:

"VEMOS AHORA A UNOS NIÑOS REALIZANDO ACCIONES FISICAS:
UNO ESTA CORRIENDO Y JUGANDO VIGOROSAMENTE AL FUTBOL.
OTRA ESTA SENTADA DENTRO DE LA CASA, SIN HACER NADA.
Y OTRA NIÑA ESTA SALIENDO DE LA CASA HACIA UN LUGAR EN
EL VECINDARIO."

Preguntas:

1. Piensa usted que estos niños actúan en forma muy parecida a niños de edad preescolar? Por qué?
2. De estos niños, cuál está actuando más parecido a _____? Cómo?
3. De estos tres niños, cuál piensa usted que podrá ir a la escuela con buen éxito? Por qué?



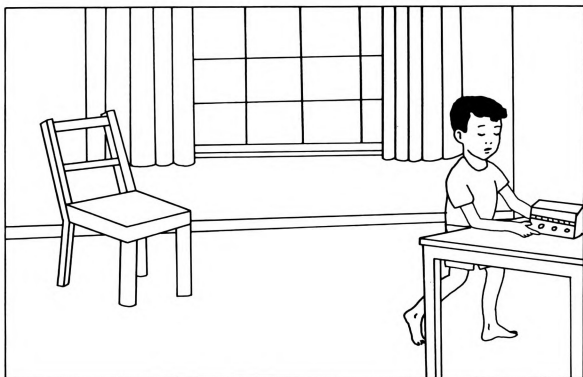
4. NIÑOS USANDO EL ESPACIO Y OBJETOS (Patrón No. 1:
Espacio)

A la madre:

"AQUI HAY DIBUJOS QUE REPRESENTAN A NIÑOS PRESCOLARES USANDO ALGUNAS COSAS DE LA CASA. HAY UN NIÑO EN LA SALA ARREGLANDO EL RADIO. HAY UNA NIÑA EN LA COCINA Y ELLA YA HA PUESTO ALGO EN EL REFRIGERADOR."

Preguntas:

1. Qué cosas de la casa le gusta usar o trata de usar el niño pequeño?
2. La mamá de estos niños está contenta de que sus niños realicen actividades como éstas dentro de la casa? Por qué?
3. Le parece que los niños que están acostumbrados a usar las cosas de la casa son aquellos que tendrán éxito cuando vayan a la escuela? Por qué?



5. APRENDIZAJE DEL NIÑO (Patrón No. 6: Aprendizaje Directo)

A la madre:

"TENEMOS AHORA UNOS NIÑOS QUE NO TIENEN EDAD SUFICIENTE PARA IR A LA ESCUELA PERO QUE, SIN EMBARGO, ESTAN TRATANDO DE "APPRENDER": UN NIÑO QUE QUIERE "ESCRIBIR"; UNA NIÑA QUE PREGUNTA ALGO A SU MAMA; Y UN NIÑO TRATANDO DE PINTAR Y QUE HA DEJADO CAER LA PINTURA!"

Preguntas:

1. En la familia, hacen los pequeños usualmente cosas para aprender, como en la escuela, por ejemplo?
2. Qué hace la mamá de la familia sobre estas actividades de su niño?
3. Cree usted que actividades como éstas tendrán importancia para niños de 3 hasta 6 años, que todavía son demasiado pequeños para ir a la escuela? Por qué?

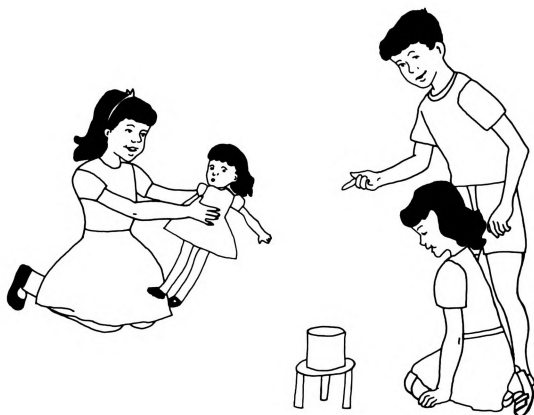
6. JUEGOS DEL NIÑO (Patron No. 4: Juego)

A la madre:

"HABLEMOS AHORA DE NIÑOS JUGANDO. COMO EJEMPLOS, AQUI TENEMOS NIÑOS DE _____ ANOS DE EDAD, COMO _____, JUGANDO DE CASITA. Y AQUI VEMOS A LA MAMA DANDO A SU NIÑA ALGO PARA USAR COMO JUGUETE."

Preguntas:

1. Qué actividades de juego son más comunes para los niños pequeños?
2. Qué cosas podría ofrecerles la mamá para jugar?
3. Le parece que a los niños que juegan mucho cuando son pequeños les gustará la vida escolar?



7. CONTACTOS SOCIALES DE LOS NIÑOS (Patrón No. 8:
Contactos Sociales Directos)

A la madre:

"AHORA PENSEMOS EN LAS OPORTUNIDADES QUE TIENEN LOS NIÑOS PARA CONOCER, Y HACER ACTIVIDADES, CON OTRAS PERSONAS. HASTA AHORA HEMOS VISTO A ALGUNOS NIÑOS PRESCOLARES CON SU MAMA, CON EL PANADERO, CON UNA HERMANITA Y CON SUS AMIGOS. Y AQUI HAY: UNA NIÑA CON SU PAPA, UN NIÑO CON SU TIO Y ABUELOS, Y OTRO CON UN EXTRAÑO - TAL VEZ UN MAESTRO."

Preguntas:

1. Hay ocasiones especiales cuando el niño pequeño podría tener oportunidad de contacto con otras personas?
2. De los contactos sociales, cuáles serían más parecidos a las actividades de niños de _____ años de edad?
3. Podrían contribuir las experiencias sociales del niño a su éxito en la escuela, más tarde?
Por qué?

8. OTRAS PERSONAS DE LA FAMILIA: APRENDIZAJE (Patrón 7: Aprendizaje Indirecto)

A la madre:

"HEMOS TERMINADO DE DISCUTIR LAS ACTIVIDADES DE LOS NIÑOS. PERO QUIERO TENER SU REACCION A DOS GRUPOS DE DIBUJOS QUE REPRESENTAN A OTRAS PERSONAS DE LA FAMILIA. EN PRIMER LUGAR, AQUI HAY MIEMBROS DE UNA FAMILIA ENTRANDO A UN EDIFICIO PARA VISITARLO; Y AQUI ELLOS ESTAN LEYENDO Y ESCRIBIENDO. TAL VEZ ELLOS ESTEN APRENDIENDO MUCHAS COSAS."

Preguntas:

1. Puede nombrar otras actividades que esta familia podría realizar si quiere aprender?
2. Con qué frecuencia piensa usted que esta familia realiza actividades que podemos llamar "educativas"?
3. Cuando los niños de esta familia vayan a la escuela, cree usted que serán mejores alumnos que los niños de una familia que tiene pocas oportunidades de aprender?

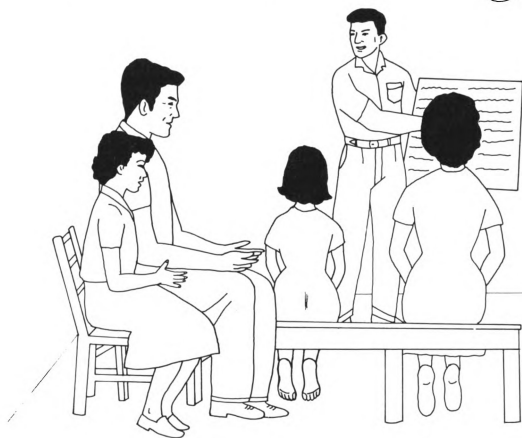
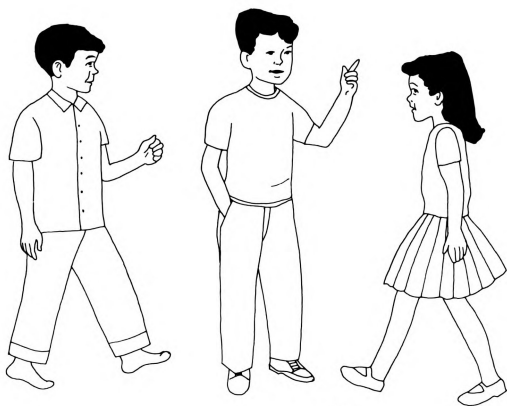
9. OTRAS PERSONAS DE LA FAMILIA: CONTACTOS SOCIALES
(Patrón 9: Contactos Sociales Indirectos)

A la madre:

"OTRA VEZ VEMOS A OTRAS PERSONAS DE UNA FAMILIA,
PARTICIPANDO AHORA EN ALGUNOS ACTOS SOCIALES. AQUI
ESTAN LOS HERMANOS DEL NIÑO PRESCOLAR HABLANDO CON
UN AMIGO. Y TAMBIEN HAY MIEMBROS DE LA FAMILIA
ESCUCHANDO UNA CHARLA EN UNA REUNION."

Preguntas:

1. En qué otras actividades sociales puede participar esta familia?
2. Con qué otras personas de la comunidad podría tener contactos la familia?
3. Los niños de familias con muchos contactos sociales tendrán mayor o menor éxito en la vida escolar?



APPENDIX B

SCORING MANUAL

SCORING MANUAL

Purpose: The manual provides instructions for computing scores and subsequent ratings for nine Resource categories. The measures are derived from a variety of data: mothers' answers to questions on Resource Inventories, to questions about visual stimuli in the form of drawings of Resource-related activities (called Picture Questions), as well as written observations of the investigator. Illustrations of scoring are provided where they contribute to a general understanding of procedures.

Preparation of data: To increase objectivity in scoring, all family identification is removed from both Resource Inventory and Picture protocols, code numbers assigned, and then protocols are assembled into groups by code number and Resource category.

Order of scoring: Because the scoring procedure is developed by examination of the data, it is essential to identify ambiguities in operational definitions and interpretations early in the scoring process. Therefore, two groups of ten randomly selected families are first scored and problems discussed and resolved by the scorer and another person familiar with the data and scoring

procedure. Then all families are scored on each Resource category, one category at a time.

The scores: This procedure results in thirty-six scores divided into groups of four scores which pertain to nine Resource categories. Each group of scores is intended to operationalize four dimensions of a Resource: Availability-Quantity (AQN), Availability-Quality (AQL), Use-Quantity (UQN) and Use-Quality (UQL). Each score is named by the Resource category and dimension to which it refers.

A standardized procedure is used to score one of these dimensions, UQL, for all Resource categories. It is discussed immediately following the first Resource category, Space, on page 225.

Transformations: The scores do not sum to a total Resource score. However, they may be transformed to ratings by means of a standardized logical procedure, such as that explained on page 249. Then the ratings can be used for comparative family analysis.

RESOURCE CATEGORY 1: SPACE

I. Availability-Quantity (AQN). This dimension refers to household spaces available in relation to the number of persons present. Sources of data are the house floor plan and number 3 of the Space Resource Inventory. The score is obtained by summing items under A and then dividing by B.

A. Count the total number of individual household spaces. Such a space is defined as an area for family-related activities or use which is "roomlike" in that it has a roof and is divided off from surrounding spaces by means of walls, half-walls, a doorway or archway. The space may be attached to the main house or separate, but it must be used for a family-related purpose. Thus count a storage area used for kitchen firewood, household tools, or the family jeep, but not one used for animals such as a chickenhouse. Count each of the following as individual spaces:

- A covered porch,
- An attached enclosure separate bath and/or toilet space,
- An enclosed toilet or bath facility detached from the house but on the house grounds,
- A roofed-over sink area if detached from the house but on the house grounds,
- A hall or inside stairway.

B. Count total number of persons who are members of the group living in and using the house: all eat and sleep there. Include roomers or servants, and adolescent children who may board away during the week but return on weekends.

II. Availability-Quality (AQL). This dimension refers to total variety available in five kinds of housing elements. The score is obtained by summing items under A, 1 to 5, and then subtracting negative descriptors under B.

A. Count the different kinds, or amounts if more than one, of these variety elements. "Kind" refers, for example, to electric light bulb:

"amount" refers to 4 electric light bulbs.

1. Materials and surfaces. Data are the house floor plan plus 13, 14, 15, 16 and 17 of the Inventory. Some illustrations are: plastic curtains, chicken wire, glass windows, cement floor, red painted wall, china dishes, aluminum pan. The underlined words (red, painted, etc.) represent variety in metals, fibers, colors or other substances present in the house.

2. Machines, tools and food containers. Sources of data are the house floor plan and 10, 12, and 13 of the Inventory. Some illustrations are: television set, radio, car, washing machine, "machete," corn grinder, cooking stove, forks, set of dishes.

3. Storage facilities. Sources of data are the house floor plan and number 15 of the Inventory. Illustrations include: dish cabinet, clothes cabinet, trunk, basket for clothes, nails in walls for hanging clothes or tools, shelf. Do not count tables as storage facilities.

4. Utilities and fuels. Sources of data are the house floor plan and 8, 9, 10 and 11 of the Inventory. Illustrations are: water source(s) within the house, electric light bulbs, fluorescent light fixture, cooking oil or keroscene, firewood, flush toilet. Count each different item only once.

5. Adornments. Sources of data are the house floor plan and number 14 of the Inventory. Illustrations are: small figurines, a doll used as decoration (not for play), flowers, fancy doilies, photographs, calendars, diplomas displayed on the wall.

B. Count descriptors which indicate limits on quality of the variety elements. These will be found in the observer's notes on the house floor plan and 8 to 19 of the Inventory, for example:

Light bulbs are all burned out.
 Sanitary facility is far away from house.
 There are no ceilings in the rooms.
 The paint is peeling (faded).
 The windows do not have glass.
 There is no floor in the kitchen.
 The walls are unpainted.
 There are chickens (insects) in the house.

III. Use-Quantity (UQN). This dimension refers to objects and spaces of the house which the child uses, and his use-actions involving these objects and spaces, minus constraints or limits upon either of these two elements

by his mother or others. Sources of data are Picture Questions 1 and 2, and 6, 7 and 11 of the Inventory. The score is obtained by summing items A through B.

A. Objects of the house used and actions related to use, minus constraints. From Picture Questions 1 and 2, count response units which indicate objects the child may use. Count and add response units which indicate child's actions involving the objects. Count and subtract response units which indicate constraints on either the objects or actions. A "response unit" refers to the presence of the element being scored: in this instance, of an object, a use-action, or a constraint on either of these two. One sentence may contain several scoreable response units. Some illustrations are:

| Response of Family A | Unit | Score |
|--|--|-------|
| "Well, he is interested in everything, like the radio, the typewriter, and tools like knives and hammers. He tries to use everything." | Objects: radio, typewriter, knives, hammer | 4 |
| | Use-actions: tries to use | 1 |
| | Constraints: | 0 |
| | Total: | 5 |
| Response of Family B | Unit | Score |
| "Sometimes I let her turn on the radio if she is careful, but also I have to be very careful because she could get a shock" | Objects: radio | 1 |
| | Use-actions: turn on, carrying it around | 2 |

| Response of Family B, cont. | Unit | Score |
|-----------------------------|------|-------|
|-----------------------------|------|-------|

| | | |
|---|--|----|
| from the current, or because of carrying it around she might drop it, so I don't let her for fear of damage." | Constraints: one related to shock for child; one to damage for radio | -2 |
| | Total: | 1 |

| Response of Family C | Unit | Score |
|----------------------|------|-------|
|----------------------|------|-------|

| | | |
|---|-------------------------------------|----|
| "The only thing he plays with are boxes or benches because that's all there is in the house, inside." | Objects: boxes benches | 2 |
| | Use-actions: plays with | 1 |
| | Constraints: that's all there is | -1 |
| | Total: | 2 |

B. Child's sleeping. Count weighted items which pertain. Source of data is number 7 of the Inventory.

| Item | Score |
|---|-------|
| Child has a bed to himself | 2 |
| Child sleeps with one other person in the bed | 1 |
| Child sleeps with more than one other person in bed | -1 |
| Child and no more than two other persons sleep in the same room | 1 |
| More than two persons sleep in the same room with the child | -1 |

C. Child's use of sanitary facilities. Count the following weighted items which apply. Source of data is number 11 of the Inventory.

| Item | Score |
|---|-------|
| Child uses facilities with no problem. | 1 |
| Child has problem in using facilities. | -1 |
| There are no facilities available for child to use at the family's house. | -1 |

D. Child's use of play spaces within the house only. Source of data is number 6 of the Inventory. Count spaces which the child is permitted to use for playing in the house. If mother says he plays "everywhere" or "anywhere," count this (3); if she says "only out-of-doors," count this a (-1) response.

IV. Use-Quality (UQL). Consult general scoring instructions and illustrations which follow.

USE-QUALITY (UQL)

Scoring Instructions

A basic procedure was used to score this dimension for all Resource categories except for Child's Movement, where it forms part of this dimension score. Illustrations of the procedure are listed where necessary for consistent interpretation under each Resource category, except for Child's Learning, Family Learning, Child's Contacts and Family Contacts included here.

The UQL dimension refers to mother's perceptions of the relation of the Resource category to probable success of the child when he goes to school. It allows the respondent to verbalize the quality of school-relatedness for actions involving each of the Resource categories. Source of data is the mother's response to Picture Question 3, of the general form:

"Do you think that a child who (whose family) acts like the ones we see in these pictures (does these things, uses things like these) will be successful in the activities of school when he (she) goes? Why?"

To score, count and add or subtract the five response units described below. A response unit refers to the presence of the particular Resource category, resource-actions and school relationship qualities being scored. Such a unit might be a sentence, a single word, a phrase or a paragraph.

I. Positive. Score each response (1) and sum the total. Three common units occur:

A. (SP) Simple positive, with or without an immediately following phrase, such as: "Yes, I think so," or "I hope so." Be careful in scoring because the mother may say "No," but the response is actually positive because she proceeds to give an illustration which indicates that she does see a relation between the Resource and future school success for the child.

B. (GR) A general relation is expressed between the Resource of the question and future school success.

C. (SR) The response gives a specific illustration of the simple positive response (SP). It may be one word or a whole paragraph, but it clearly relates to the Resource category under discussion

and is neither vague nor repetitious. It may entail a characteristic of the child.

II. Not Positive. Score each such response unit (-1), and sum the total. Three common units appear:

A. (SN) A simple negative response which is of the order: "I don't think so," or simply: "No."

B. (NR) The unit states a reason that is not related to the Resource category of the question even though it may indicate a favorable relation to school success or a favorable characteristic of the child.

C. (NR) The response unit states a reason why the relationship would not exist between the Resource category and school success, or it expands the reason already given for the non-relationship by giving a specific example.

III. Vague (V). Score each illustration (0). Common vague responses do not arrive at a generalization or a bringing together of several concepts or ideas in terms of the Resource category of the question. The unit represents a series of incomplete phrases which could be either positive or negative if they were completed or which cannot be clearly interpreted in the context of the total response given. Illustrations are: ". . . with the same teachers . . . ," and "Well . . . at times."

IV. Repetitious (R). Score each response (0). A repetitious unit says the same thing more than once, using slightly altered words; it does not add a new specific idea to illustrate a preceding statement.

V. Inability to respond (I). Score these forms of response as (0). Two illustrations of (I) are:

A. Statements like: "I don't know," "Who knows?" or "One can't really tell."

B. No response is made after several explanations of the question and general probes have been offered.

Illustrations

The following are illustrations of response units and scoring decisions for four Resource categories.

1. Child's Learning (and future school success)

| Response of Family A | Unit | Score |
|---|--------------|-------|
| "Yes, they (child's learning actions) can have much importance." | SP | 1 |
| "That is, reading, and drawing can have much importance, and the same with writing . . ." | SR, SR SR | 3 |
| "Because from the time they are small they like to study." | GR | 1 |
| | Total: | 6 |

| Response of Family B | Unit | Score |
|---|--------|-------|
| "Yes, it's important." | SP | 1 |
| "This one likes to paint and, already, all those things." | SR | 1 |
| "It's a good thing for them." | R | 0 |
| "When they enter school they'll already . . . " | V | 0 |
| | Total: | 2 |

2. Family Learning (and future school success)

| Response of Family C | Unit | Score |
|---|--------|-------|
| "Yes, it could be. . . ." | SP | 1 |
| "The small child . . . it has to be the big one, who has studied much, and already has more experience than the smaller . . . " | NR | -1 |
| "All that she (the big one) is learning, it will serve her more because she has already studied more." | R | 0 |
| | Total: | 0 |

| Response of Family D | Unit | Score |
|---|--------|-------|
| "This . . . maybe." | V | 0 |
| "It's that I don't know, I don't know." | I, R | 0, 0 |
| | Total: | 0 |

3. Child's Contacts (and future school success)

| Response of Family E | Unit | Score |
|--|------|-------|
| "Well, there are children, perhaps, already educated, they are cultured . . . " | GR | 1 |
| "It's like this child . . . she is this way: comes to the house and doesn't talk at all. She'll go to school and do the same." | SR | 1 |

| Response of Family E, cont. | Unit | Score |
|--|--------|-------|
| "They are that way as older children. They go to school this way, and I think they are this way the same as in the house." | R | 0 |
| | Total: | 2 |

4. Family Contacts (and future school success)

| Response of Family F | Unit | Score |
|---|--------|-------|
| "If he'll have more success if he sees these things, you ask me?" | R | 0 |
| "Well, I think that always the child who has more chances to go out, | SR | 1 |
| to contact other people, | SR | 1 |
| has more chances to develop himself than the child who is always kept closed in." | GR | 1 |
| | Total: | 3 |

| Response of Family G | Unit | Score |
|--|--------|-------|
| "It seems to me that he should have greater success because of everything for learning . . . " | GR | 1 |
| "The children are intelligent and they pay much attention to what another person says and explains." | SR | 1 |
| "When they go to school perhaps that will serve them." | GR | 1 |
| "One day the teacher will ask if they have ever been in a discussion and they can say, yes, that they have heard a doctor explain that fruits have to be washed before eating; that if they have fallen from a tree the fruits then have to be washed so they can be eaten; that before eating they should wash their hands and brush their teeth. Well, many things . . . " | SR | 1 |
| | Total: | 4 |

RESOURCE CATEGORY 2: CHILD'S MOVEMENT

I. Availability-Quantity (AQN). This dimension refers to movement-related elements present within the house, neighborhood or community that are listed under 1 to 8 of the Movement Resource Inventory. The score is obtained by summing the items. Include "traffic" as a movement-related element unless the respondent has said that there is none. Include as an element such items as river, train crossing, cliff or hill if mentioned.

II. Availability-Quality (AQL). This dimension refers to movement elements which are "housebound." Sources of data are 1 to 8 of the Inventory, and Dimension AQN. The score is obtained by summing items under A and then dividing by B. The higher the score is, the more "housebound" are the movement elements, and therefore the lower is the movement variety available.

A. Count total number of elements which are restricted to the house and the immediately surrounding household property. Do not count a "cafetal" (coffee field) as part of household property because it is often not possible to know if it pertains to the household.

B. Use the score from Dimension AQN, (total movement elements present within the house, neighborhood or community).

III. Use-Quantity (AQN). This dimension refers to the child's actual movements: his actions involving the movement elements minus constrictions he experiences. Sources of data are numbers 1-3 and 5-8 of the Inventory and Picture Question 2. The score is obtained by summing items under A and then subtracting those under B.

A. Count each movement which is performed, allowed, or encouraged for the child. Sources of data are those listed above. Illustrations are:

Child uses all entrances and exit of the house.
 Child's movements are not endangered by traffic.
 Child uses public transportation, rides a horse, goes for a walk often.
 Child plays vigorously, goes out of the house and around the neighborhood, and also sits quietly at times.

B. Subtract number of different constrictions placed upon the child's movement. These may be evidences of movements hindered, prevented or discouraged. Sources of data are all those listed above. Some illustrations, with indicants of constriction underlined, are:

Child is afraid of stairs.
 Child does not go to the other side of the fence; he stays within.
 Child does not use a neighborhood play area which is available.
 Traffic is a danger; it stops or limits the child's movements.
 Child seldom goes away from home, or not alone, or he is afraid of animals or a bicycle.
 Mother prevents a certain action by the child.

IV. Use-Quality (UQL). This dimension refers to mother's perception of the school-success-relatedness of the child's movement. Source of data is her response to Picture Question 3. The score is obtained by summing A and B.

A. Score the mother's weighted estimation of movement relevant to school success according to the following scheme:

| Response | Score |
|--|-------|
| "I don't know." | 0 |
| "Only the seated child." | 1 |
| "Either the child playing ball or the one going out of the house." | 2 |
| Any two examples, such as: "both the child playing ball and the one going out of the house." | 3 |
| "All three children." | 4 |

B. Count each reason given for the choice under A and subtract each reason given against other possible choices, against the one actually chosen, or unrelated responses. Follow the basic procedure set up for the UQL dimension. Due to the way this question is stated:

"Of these three children we see here, which do you think will be able to go to school with good success? Why?"

count as positive responses general qualities of a child such as "bigger," or "more lively."

RESOURCE CATEGORY 3: CARE AND APPEARANCE

I. Availability-Quantity (AQN). This dimension refers to food and clothing items usually available for child and mother. Source of data is the Care and Appearance Resource Inventory. The score is obtained by summing A, B, and C.

A. Count whatever items mother mentions as food in 2, 3 and 4 of the Inventory. Include "agua dulce" (sugar water), coffee, bread and tortillas.

B. Count items of clothing for the child in 10 and 11 of the Inventory. These are items used every day, at night, and "for good." If socks and shoes have not been mentioned but they are found listed under clothing observed on the child (13), count them also. However, do not include the clothes which the child is observed to be wearing; these will be counted under the UQN dimension.

C. Count items of the mother's clothing which are listed under number 15. Include two observations only. If there is no second observation, repeat the first one.

II. Availability-Quality (AQL). This dimension refers to available daily routines in household activities of eating, personal care, sleeping, and changing

clothes. The score is obtained by summing items A through D.

A. Count the number of meals plus the number of regular snack times (small meals often called "coffee" times) which mother says the child has everyday. Data is number 1 of the Inventory.

B. Count and sum the following weighted items pertaining to personal care. Sources are numbers 5 and 6 of the Inventory.

| Item 1 | Score |
|--|-------|
| Daily bath | 2 |
| Bath every other day, or 3-4, 2-3 times per week | 1 |
| Bath less than the above | 0 |

| Item 2 | Score |
|--|-------|
| Teeth brushed every meal, at meals, or several times a day, or twice a day | 2 |
| Teeth brushed once per day, or "everyday" | 1 |
| Teeth brushed hardly ever, very little, sometimes, never | 0 |

| Item 3 | Score |
|--|-------|
| Hands washed before eating, or at every meal | 2 |
| Hands washed several times, often, twice per day, "when dirty" | 1 |
| Hands washed once per day, hardly ever | 0 |

| Item 4 | Score |
|--|-------|
| Hair is washed daily | 2 |
| Hair is washed every other day, or 3-4, 2-3 times per week | 1 |
| Hair is washed less than the above | 0 |

C. Count and sum the following items which refer to the child's sleep. Sources of data are 7 and 8 of the Inventory.

| Items | Score |
|---|-------|
| Sleeps "well" or a regular number of hours each night | 1 |
| Naps usually during the day | 1 |
| Goes to bed by 7 p.m. at night | 1 |
| Sleeps 10 hours or more each night | 1 |
| None of the above occur | 0 |

D. Count number of regular changes of clothes provided, using these weighted items from 10 and 11 of the Inventory.

| Items | Score |
|---|-------|
| Clothes changed both for going to bed and for "good" or other reasons | 3 |
| Clothes changed for going to bed | 2 |
| Clothes changed for "good" or other reasons | 1 |
| Same clothes worn all the time | 0 |

III. Use-Quantity (UQN). This dimension refers to the child's use of foods and clothing minus limits placed upon use. Score by summing items under A and B and then subtract items under C.

A. Sum only the foods which the child eats from the food groups of milk (cheese, ice cream), meat (fish, poultry, eggs), fruits and vegetables. Sources of data are 2, 3, and 4 of the Inventory. Count illustrations given, not general terms such as meat, unless no illustrations are given.

B. Sum items of clothing observed on the child. Source of data is number 13 of the Inventory. If the child is observed to wear shoes and socks on more than one visit, count them twice

in order to allow for cases where the child does not wear them each time, or at all. Count only two observations of the child's clothing.

C. Count number of illustrations of limits on the child's use of food and clothing in the Inventory. Illustrations of limits are:

Signs of soil on child or his clothing
No shoes worn
Some foods are not liked or not eaten at least weekly, or only irregularly
Clothes are ragged
There are problems in getting clothes or food for the child

IV. Use Quality (UQL). Follow general scoring instructions set up for the dimension. Note that a characteristic response of the mother to the question of the relation between the Resource category and later school success of the child is: "No, this child will not be successful." Then she gives illustrations which are characteristics of the child ("lazy about getting dressed," "not paying attention to his eating") specifically related to both the Resource category and to school success, thus indicating that she sees a relationship. In this case, her response is scored positively.

RESOURCE CATEGORY 4: CHILD'S PLAY

I. Availability-Quantity (AQN). This dimension refers to elements and situations for play, either available or possible as indicated by the mother's perceptions. Score by summing A and B.

A. Number of play objects and situations mentioned in numbers 1-7 of the Play Resource Inventory. Be careful not to repeat items.

B. Number of common play situations, and objects which mother might offer the child for play. Count here only those items which are different from those counted under A. Sources of this data are Picture Questions 1 and 2.

II. Availability-Quality (AQL). This dimension refers to variety of play usually available, that is, the presence of building, role-playing and creative play things and situations for the child at home. Sources of data are 1-3 of the Inventory. Do not count such items as mud, water, stones and sticks here unless the mother has mentioned them. Score by summing A, B, and C.

A. Count number of items mentioned under the building category of number 1 of the Inventory.

B. Count number of items mentioned under the role-playing category of number 2 of the Inventory.

C. Count number of items mentioned under the creative category of number 3 of the Inventory.

III. Use-Quantity (UQN). This dimension refers to the child's usual play (objects and actions) minus any restrictions on his play. Sources of data are 4-7 of the Inventory and Picture Questions 1-2. Score by summing

A, B and C, and subtracting D. Do not repeat items once they have been mentioned under A or B.

A. Count play substitutes which mother gives the child or which he encounters by himself, such as sticks, water, and mud.

B. Count number of outdoor and indoor play objects which the child has.

C. Count number of limits on his play, either mentioned under the above three items, or in the mother's responses to Picture Questions 1 and 2. Illustrations are:

Child uses no play substitutes or has no favorite toy.

Mother will not let him use substitutes for toys.

Child has nothing to play with out-of-doors, or nothing for indoor play.

Toys are sex-typed by mother: only boys play with certain toys or only girls play with certain toys.

IV. Use-Quality (UQL). Follow general scoring instructions set up for the dimension (page 225).

RESOURCE CATEGORY 5: CHILD'S TASK AND WORK

I. Availability-Quantity (AQN). This dimension refers to situations at home which might allow the child to have experiences in personal tasks or work efforts of the family. Not only the child, but mother or other family members may be engaged in these activities. Source of data are the Task and Work Resource Inventory,

especially 1, 4 and 7, and Picture Questions 1 and 2 for additional illustrations. Score by summing A and B.

A. Count personal tasks which mother mentions such as the child getting himself dressed or being dressed by his sister.

B. Count work experiences available in the home, whether or not the child himself participates.

II. Availability-Quality (AQL). This dimension refers to family involvement in children's task and work experiences leading to press for or against the child's participation. Sources of data are the Inventory and Picture Questions 1 and 2. The score is obtained by summing items under A and then subtracting items under B.

A. Count number of illustrations of family involvement, support, allowance for error, help offered, expecting or allowing the child to do (try) something in the way of a task or small job for himself or the family. Do not count here an illustration of someone doing a task instead of the child.

B. Count number of illustrations of punishment, warnings to the child, stopping him from engaging in a task, or deprecating his efforts at doing a task.

III. Use-Quantity (UQN). This dimension refers to the child's usual participation in task and work. Score by subtracting B and C from A.

A. Total number of task and work available in the home: use score from Dimension AQN.

B. Count number of problems which the child himself encounters in his efforts to do a task, such as not being able to put his shirt on right, or tie his shoes, or having an accident when he does something for his father. Sources of data are 2 and 5 of the Inventory, plus Picture Question 1 and 2.

C. Count illustrations in the Inventory and Picture answers of someone doing a task instead of the child.

IV. Use-Quality (UQL). Follow general scoring instructions and illustrations for the dimension, page 225.

RESOURCE CATEGORY 6: CHILD'S LEARNING

I. Availability-Quantity (AQN). This dimension indicates objects and activities for learning which are available or possible for a preschool child. Sources of data are the Child's Learning Resource Inventory and Picture Questions 1 and 2. The score is obtained by summing A and B.

A. Count number of objects available, such as books, paper for drawing, pencils.

B. Count number of activities the mother mentions which the child might do "to learn" before going to school, such as "writing," making lines, drawing, being read to, reciting.

II. Availability-Quality (AQL). This dimension refers to family's involvement in learning for the child before school. Inventory and Picture Questions 1 and 2 are data sources. Count items under A and then count and subtract the items under B.

A. Sum number of evidences of family's (and others') active participation in learning opportunities for the child, as well as evidences of the family "allowing" these opportunities. Illustrations are: the mother reading to the child or letting him take a page from a notebook to use for writing.

B. Sum and subtract evidences of family's and others' non-involvement or negative involvement, such as preventing the child from looking at his older brother's school books.

III. Use-Quantity (UQN). This dimension refers to amount of learning activities in which the child actually engages. Data is from the Inventory except number 9. The score is the sum of each weighted activity times the score assigned to the frequency of its occurrence, under A and B.

A. Activities assigned (2) are those most directly related to school activities, such as drawing, plays school, looks at pictures, is read to.

B. Activities assigned (1) are those less directly related to school activities, such as dances to music, watches TV, uses musical instrument.

For each of the above activities, multiply its assigned weight by the score assigned to the frequency with which it occurs:

| Frequency | Score |
|--|-------|
| Daily, all the time | 4 |
| Weekly, several times a week, almost every day, less than daily | 3 |
| Less than weekly, every 15 days, 1-2 times a month, very often | 2 |
| All others (every 3 months, 1-2 a year, sometimes, once in a while, in the past) | 1 |
| Never, almost never, very little | 0 |

IV. Use-Quality (UQL). Follow general scoring instructions and illustrations for this dimension, page 225.

RESOURCE CATEGORY 7: FAMILY LEARNING

I. Availability-Quantity (AQN). This dimension refers not to the young child, but to family learning activities: all those which the mother mentions in her responses to the Family Learning Resource Inventory and Picture Questions 1 and 2. The score is the sum of A, B and C.

A. Count number of activities mentioned which refer to school-related learning, such as reading, writing, arithmetical transactions (such as use of bank services), informal study. Do not include regular school attendance for the purpose of securing a grade school, high school or university diploma or degree.

B. Count number of activities mentioned which refer to travels or visits to places such as to the zoo, museum, park, library, school, or other towns or parts of the country or a foreign country.

C. Count number of activities mentioned which indicate entertainment facilities, such as television, radio, music or movies.

II. Availability-Quality (AQL). This dimension refers to the extent that family learning activities are primarily school-related. The score is obtained by dividing A of AQN by the total score of AQN.

III. Use-Quantity (UQN). This dimension refers to regularity with which the family actually engages in learning activities. To score it, sum the weighted frequencies of the activities under A, B and C of AQN. Frequency categories are the same as those listed under UQN of Child's Learning.

IV. Use-Quality (UQL). Follow general scoring instructions and illustrations for this dimension, page 225.

The question is worded in a slightly different way for this Resource category and the following one; it asks the mother not about the preschool child, but about other family members and then how their activities might influence the child's later school success. An illustration showing how mother might respond is the following:

"Because the older ones have learned they teach those who are moving up. I find it has to be so. The older person teaches the younger; because the family has helped him (the child); he has developed . . . "

RESOURCE CATEGORY 8: CHILD'S CONTACTS

I. Availability-Quantity (AQN). This dimension refers to total possible social contacts and events in which the child might be able to participate. Sources of data are the Child's Contacts Resource Inventory and Picture Questions 1 and 2. The score is the total of A and B.

A. Count the contacts which a preschool child might have, for example, with his parents, his brothers and sisters, an adult friend of his father, a teacher who comes to visit, a cousin with whom he plays, uncles and aunts.

B. Count events in which the child might be included, such as a children's birthday party, conversation with grandparents, going for a walk with father, going to church with a sister, shopping in town, attending a party at the school.

II. Availability-Quality (AQL). This dimension refers to the extent to which the child's social contacts and activities are centered within the family. Sources of data are the same as for dimension AQN. The score is the sum of A and B, divided by C. The higher the score which results the more restricted is the variety of the child's contacts.

A. Count number of persons with whom the child interacts who are within the family. "Padrinos" (godparents) are not listed as family members.

B. Count number of activities which involve the child and other family members. Each activity encountered in the data is scored only once: either as involving family members or non-family persons. An activity involving the child with a family member is scored here even though it may also occur with non-family persons. To illustrate, if the child usually "plays with his brother," play as an activity is scored here even though the child also plays with a neighbor. However, "goes to church with mother" is scored as a non-family activity and is not counted here.

C. Divide by the total score from dimension AQN.

III. Use-Quantity (UQN). This dimension refers to amount of social activity in which the child usually

participates. The Resource Inventory only is the source of data. The score is the sum of the weighted frequencies for activities in which the child engages from the following categories;

Family celebrations and activities
 Activities with smaller children
 Activities with the peer group
 Contacts with non-family adults
 Participation in large groups

The frequencies are the following:

| Frequency | Score |
|--|-------|
| Activity done every day | 4 |
| Activity done weekly, several times a week, almost every day | 3 |
| Activity done less than weekly, every 15 days, 1-2 a month, very often | 2 |
| Activity done less than monthly; every three months, 1-2 a year, sometimes, once in a while, in the past | 1 |
| Activity never done, almost never, very little, hardly ever | 0 |

IV. Use-Quality (UQL). Follow the general scoring instructions and illustrations for this dimension, page 225.

RESOURCE CATEGORY 9: FAMILY CONTACTS

I. Availability-Quantity (AQN). This dimension refers not to the preschool child, but to the total possible social contacts and events in which other family members might be able to participate, either by themselves or with others. Sources of data are the Family Contacts Resource Inventory and Picture Questions 1 and 2. The score is the total of A, B and C.

A. Count family members who engage in social activities, for example, mother and father, brothers and sisters, grandparents.

B. Count persons with whom the family has contacts, such as friends of the parents or brothers and sisters, teachers, employer.

C. Count the events, organizations and activities in which the family participates, such as meetings in the community, visits with friends, the village cooperative, picnics or trips on weekends.

II. Availability-Quality (AQL). This dimension refers to the extent to which the family's social contacts and activities are centered within the family. The score represents the total number of family members engaging in social activities plus the family activities engaged in. Source of data are the same as for dimension AQN. The score is the sum of A and B, divided by C. The higher the score the more restricted is the variety of family contacts.

A. Count number of persons in the family participating in social contacts.

B. Count number of social activities or contacts which occur within the family group.

C. Divide the sum of A and B by the total score of dimension AQN.

III. Use-Quantity (UQN). This dimension refers to amount of social activity in which the family usually participates. Source of data are 1 to 4 of the Inventory only. The score is the sum of the weighted frequencies for activities in which the family engages from the following categories:

Community contacts
 Contacts outside the community
 Contacts with friends who are not extended
 family members.
 Contacts with family members.

The frequencies are the same as those listed under dimension UQN of Child's Contacts.

IV. Use-Quality (UQL). Follow the general instructions and illustrations for scoring this dimension, page 225.

TRANSFORMATION OF SCORES

The investigator may desire to compute a summary value for all or any of the Resource categories explained in the Scoring Manual and then use this value for comparative family analysis, similar to that undertaken or suggested in this study. If so, it is necessary to transform the scores according to some set of logical rules or a statistical procedure in order to permit arithmetic operations and comparisons. As one approach, the transformation procedures used in this study are summarized in Tables 23 and 24.

TABLE 23.--Procedure for first transformation and illustrations: from Resource scores to ratings.

| Category | Resource Dimension | Procedure | | | Illustrations of Transformation | |
|------------------|--------------------|---|--|--|---------------------------------|---------------------------|
| | | 1. Compute mean of the distribution of scores: (k indicated if less than 89). | 2. Determine mean interval by adding and subtracting a constant value: | 3. Change Resource score to rating according to the appropriate rule: | If dimension score is: | Dimension rating becomes: |
| Space | AQN | .93 (N=88) | $.93 \pm .05 = .88 \text{ to } .98$ | Rule 1: If score is greater than mean interval, rating is 2. If score equals mean interval, rating is 1. If score is less than mean interval, rating is 0. | 1.20 | 2 |
| | AQL | 32.43 (N=86) | $32.43 \pm .50 = 31.93 \text{ to } 33.93$ (33 to 34) | Rule 1 | .35 | 2 |
| | UQN | 5.40 | $5.40 \pm .50 = 4.90 \text{ to } 5.90$ (5 to 6) | Rule 1 | .35 | 1 |
| | UQL | 1.88 | $1.88 \pm .50 = 1.38 \text{ to } 2.38$ (1 to 2) | Rule 1 | .35 | 0 |
| Child's Movement | AQN | 11.20 | $11.20 \pm .50 = 10.70 \text{ to } 11.70$ (11 to 12) | Rule 1 | 17 | 2 |
| | AQL | .52 | $.52 \pm .05 = .47 \text{ to } .57$ | Rule 2: If score is less than mean interval, rating is 2. If score equals mean interval, rating is 1. If score is greater than mean interval, rating is 0. | 12 | 1 |
| | | | | | .35 | 0 |
| | | | | | .55 | 2 |
| | UQN | 3.34 | $3.34 \pm .50 = 2.84 \text{ to } 3.84$ (3 to 4) | Rule 1 | .75 | 1 |
| | UQL | 3.39 | $3.39 \pm .50 = 2.89 \text{ to } 3.89$ (3 to 4) | Rule 1 | .75 | 0 |
| | | | | | 6 | 2 |
| | | | | | 3 | 1 |
| | | | | | -4 | 0 |
| | | | | | 7 | 2 |
| | | | | | 4 | 1 |
| | | | | | 1 | 0 |

TABLE 24.--Procedure for second transformation and illustration using scores from one family: from Resource ratings to levels of relation to educability.

| Procedure | | | | | | | | | |
|-------------------|---|-----|-----|-----|---|--|--|----------------|--------------|
| Category | 1. Obtain ratings for scores on all dimensions for each Resource category and assemble into patterns: | | | | 2. Sum each pattern to a Resource rating: | | 3. Assign Resource ratings to levels of relation to educability: | | |
| | AQN | AQL | UQN | UQL | | | Low (0-2) | Middle (3-5) | High (6-8) |
| Space | 0 | 2 | 1 | 1 | 4 | | | x | |
| Child's Movement | 1 | 1 | 2 | 1 | 5 | | | x | |
| Care-Appearance | 0 | 0 | 0 | 0 | 0 | | x | | |
| Child's Play | 0 | 1 | 1 | 2 | 4 | | | x | |
| Child's Task-Work | 0 | 0 | 0 | 0 | 0 | | x | | |
| Child's Learning | 0 | 2 | 2 | 2 | 6 | | | | x |
| Family Learning | 0 | 1 | 0 | 0 | 1 | | x | | |
| Child's Contacts | 0 | 2 | 0 | 2 | 4 | | | x | |
| Family Contacts | 0 | 2 | 2 | 0 | 4 | | | x | |
| | | | | | Total Resource Rating: 28 | | Low (0-24) | Middle (25-48) | High (49-72) |
| | | | | | | | | x | |



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TURRIALBA, COSTA RICA

Marzo de 1968

Estimados señor y señora:

Desde hace casi dos años tengo el placer de vivir en Costa Rica, donde estoy trabajando como educadora para el hogar y profesora en el Departamento de Economía y Ciencias Sociales del Centro de Enseñanza e Investigación de Turrialba.

Durante este tiempo he tenido oportunidades muy valiosas para aprender algo de la vida costarricense, tanto en las áreas rurales como en las urbanas. He visitado varias familias, algunas escuelas y he conversado con padres, maestros y personal de algunos ministerios y de la Universidad sobre el crecimiento, la educación y el futuro de nuestros pequeños niños de Costa Rica.

Ahora quisiera solicitar la ayuda de su familia en mi estudio de las familias de doce comunidades de la Meseta Central. Estoy pidiéndoles muy especialmente su cooperación por el interés demostrado por ustedes y a la vez su amable paciencia durante la encuesta nutricional llevada a cabo el año antepasado, o sea en 1966, por el Ministerio de Salubridad Pública y el Instituto de Nutrición de Centro América y Panamá (INCAP).

Desearía solicitar la cooperación del señor jefe de la familia en cuanto a alguna información sobre la ocupación actual y los ingresos de la familia. También solicito cooperación a la señora madre del niño "pre-escolar" en cuanto a algunas informaciones e ideas sobre el niño joven y sus actividades, y el sistema educativo en esta área.

Como soy extranjera, ustedes me podrían enseñar muchas cosas durante nuestras conversaciones, que serán de mucha importancia en mi futura labor como profesora a nivel universitario, y ojalá también muchas cosas importantes para tantas otras familias, así como instituciones dedicadas al desarrollo social en Costa Rica.

Les agradezco mucho su participación en este proyecto de investigación científica y suscribo de ustedes,

Atentamente,

Georgianne Baker
Educadora para el Hogar
Economía y Ciencias Sociales

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research.

2. The second part of the report is a detailed description of the methodology used in the study. It includes information about the sample size, the data collection methods, and the statistical analysis techniques.

3. The third part of the report is a discussion of the results of the study. It presents the findings of the research and compares them with the previous studies in the field.

4. The fourth part of the report is a conclusion and a list of recommendations. It summarizes the main findings of the study and provides suggestions for future research.

5. The fifth part of the report is a bibliography of the sources used in the study. It lists the books, articles, and other references that were consulted during the research process.

6. The sixth part of the report is an appendix containing additional information related to the study. It includes tables, figures, and other data that are not included in the main text of the report.



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Centro de Enseñanza e Investigación

TURRIALBA, COSTA RICA

Cable: IICA - Turrialba

CT/DT-575

2 de mayo de 1968

Estimados señores:

Por este medio quiero presentarles a la señorita Georgianne Baker, profesora en nuestro Centro de Enseñanza e Investigación aquí en Turrialba.

Como parte de sus responsabilidades, la señorita Baker está encargada de una investigación de la familia costarricense: sus recursos y sus actividades, y las opiniones de la familia en cuanto a la educación. Esperamos que los resultados de esta investigación, aunque no beneficiarán directamente a cada familia participante, ayudarán a que los estudiantes de ciencias sociales del Centro y los profesionales de Costa Rica en el desarrollo comunal, la extensión agrícola y la educación, conozcan la vida real de la familia costarricense.

Le damos todo nuestro apoyo al desarrollo de esta investigación y solicitamos la cooperación de ustedes durante los días en que la señorita Baker estará trabajando en esa comunidad.

Aunque cada familia no recibirá nada concreto por su participación, esperamos que sentirá una satisfacción profunda por haber contribuido a un trabajo que puede ayudar a mejorar los sistemas de educación y de servicios rurales en Costa Rica.

Agradecemos anticipadamente toda la colaboración que se preste a la señorita Baker y suscribimos atentamente,

Fernando Suárez de Castro
Subdirector del Centro de
Enseñanza e Investigación

1 de Mayo de 1968

Para el que concierne:

Como sacerdote de la Parroquia de _____
me es grato reconocer y recomendar a la Srta. Profesora
Georgianne Baker, Educadora para el Hogar y Economía y
Ciencias Sociales. Ella es católica y practica amplia-
mente su credo, siempre se ha mostrado con muy buena
voluntad para ayudar en la comunidad, en todos los campos,
religioso, social, etc. Por dicho motivo la recomiendo
para que su labor pueda ser efectiva y para que todo lo
que Uds. puedan hacer para ayudarla en su trabajo. Reciba
la más amplia aprobación de este humilde servidor y amigo.

Agradeciéndoles anticipadamente todo lo que hagan
en este respecto, y con sumo gusto reciban una bendición
sacerdotal de quién les estima y quiere.

Padre _____

Coadjutor - _____

APPENDIX D

TABLE ON BASIC STATISTICS

TABLE 25.--Basic statistics for resource dimension scores.

| Category | Resource Dimension Scores | Basic Statistics | | | | | |
|--------------------------|---------------------------------|------------------|------------------|-------|-----------------------|----------|----------|
| | | Minimum Value | Maximum Value | Mean | Standard Deviation | Skewness | Kurtosis |
| Space | AQN | 0.29 | 3.00 | 0.96 | 0.46 | 1.54 | 6.83 |
| | AQL | 8.00 | 65.00 | 33.15 | 11.97 | 0.30 | 2.60 |
| | UQN | -4.00 | 16.00 | 5.41 | 4.16 | 0.24 | 2.72 |
| | UQL | -5.00 | 7.00 | 1.88 | 2.06 | -0.77 | 4.30 |
| Child's Movement | AQN | 5.00 | 19.00 | 11.20 | 3.09 | 0.36 | 2.59 |
| | AQL | 0.11 | 0.88 | 0.52 | 0.14 | -0.18 | 3.18 |
| | UQN | -5.00 | 11.00 | 3.34 | 2.03 | -0.12 | 3.30 |
| | UQL | -1.00 | 8.00 | 3.39 | 1.93 | 0.24 | 2.85 |
| Care- Appear- ance | AQN | 12.00 | 35.00 | 22.14 | 5.03 | 0.20 | 2.46 |
| | AQL | 5.00 | 20.00 | 13.55 | 2.92 | -0.45 | 2.97 |
| | UQN | -3.00 | 20.00 | 9.51 | 5.11 | -0.06 | 2.83 |
| | UQL | -1.00 | 7.00 | 1.74 | 1.83 | 0.48 | 2.44 |
| Child's Play | AQN | 4.00 | 38.00 | 18.91 | 6.51 | 0.59 | 3.23 |
| | AQL | 1.00 | 20.00 | 8.99 | 4.01 | 0.41 | 2.99 |
| | UQN | 0.00 | 18.00 | 6.60 | 3.20 | 0.62 | 4.17 |
| | UQL | -3.00 | 6.00 | 0.60 | 2.12 | -0.23 | 2.22 |
| Child's Task- Work | AQN | 2.00 | 16.00 | 9.23 | 2.70 | 0.11 | 3.52 |
| | AQL | -5.00 | 8.00 | 1.91 | 2.31 | 0.12 | 3.30 |
| | UQN | 0.00 | 14.00 | 6.73 | 2.85 | -0.06 | 2.96 |
| | UQL | -3.00 | 5.00 | 1.53 | 1.73 | -0.25 | 2.72 |
| Child's Learning | AQN | 4.00 | 26.00 | 14.65 | 4.85 | 0.20 | 2.65 |
| | AQL | -2.00 | 10.00 | 3.30 | 2.41 | -0.19 | 2.76 |
| | UQN | 1.00 | 49.00 | 22.47 | 9.99 | 0.17 | 2.95 |
| | UQL | -3.00 | 7.00 | 2.60 | 1.90 | -0.54 | 3.83 |
| Family Learning | AQN | 5.00 | 33.00 | 14.65 | 5.64 | 0.52 | 3.02 |
| | AQL | 0.00 | 0.60 | 0.33 | 0.12 | -0.05 | 2.99 |
| | UQN | 5.00 | 45.00 | 22.18 | 8.40 | 0.45 | 2.84 |
| | UQL | -3.00 | 6.00 | 1.89 | 1.89 | -0.26 | 2.70 |
| Child's Contacts | AQN | 2.00 | 29.00 | 13.91 | 5.42 | 0.51 | 2.75 |
| | AQL | 0.20 | 1.00 | 0.58 | 0.18 | -0.07 | 2.51 |
| | UQN | 2.00 | 27.00 | 12.90 | 4.96 | 0.46 | 3.03 |
| | UQL | -3.00 | 8.00 | 2.44 | 2.14 | -0.39 | 3.24 |
| Family Contacts | AQN | 7.00 | 36.00 | 14.47 | 5.24 | 1.24 | 5.17 |
| | AQL | 0.19 | 1.00 | 0.55 | 0.15 | 0.49 | 3.28 |
| | UQN | 1.00 | 26.00 | 8.70 | 4.40 | 0.80 | 4.60 |
| | UQL | -4.00 | 9.00 | 1.71 | 2.33 | -0.03 | 3.64 |

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