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ABSTRACT

Cost and quality issues are analyzed as they relate to provision of group day care. A series of assessment tables for self-evaluation of centers is presented. Three specific aspects are considered: cost of care, quality of care delivered to children and staff use in day care centers. Cost analysis focuses on: (1) the total cost of care per child-day and (2) the cost of salaries of personnel involved in child care per child-day. Staff use information is obtained through: (1) a day care center task survey, (2) a teacher task survey, and (3) a child care task survey. Quality of care is assessed by an analysis of: (1) the near environment of the child, (2) child-teacher interaction, and (3) exhibition of child curiosity. The instruments have been field tested and descriptions of the tests are given. The emphasis is on functional assessment which can lead to program and administrative changes which are cost-effective without endangering quality of life for children. Copies of the self-analysis procedure, teacher task survey, day care task survey, child care task sheet, near environment inventory, teaching staff summary and cost analysis work sheet are included. (Author/CM)

# Cost and Quality Issues in Day Care: a Practical Approach to Assessment

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a working paper

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## The Situation

Quality day care is fast becoming like a college education. More and more frequently it is available only to the rich who can afford high fees and the poor who can qualify for government subsidies. In addition, since government funding for day care is in short supply, even the needs of those who qualify for government subsidization are not being met.

The need for national support for day care is now more widely recognized than in years past, but adequate funding of such a program has not been politically feasible. At least five million children under the age of six need care while their parents work. (Goldman, June 1975). Especially critical is the need of families headed by females as evidenced by a report by the University of Wisconsin Institute for Research on Poverty (1975) which stated that families headed by females now represent 43 percent of all poor families, up from 28 percent in 1965. Yet U.S. News (1975, p.27) stated that "training efforts and other aid designed to improve the lot of poor families are often ineffective for this segment of the population since mothers are locked into childcare responsibilities." Title XX regulations recognized the need for day care by low income families who are not recipients of Aid for Dependent Children, by permitting states to use federal funds to partially subsidize day care for families earning between 80% and 115% of the state median income adjusted for family size. In actual practice, however, sufficient funds are available to assist only a few of the eligible families.

There are other constraints on day care budgets. Many families who are expected to pay the full cost of care when they have incomes above the 115% of the state median, find this difficult. Day care costs are affected by inflation as well. The cost of care in a day care center in a small town in Pennsylvania in the spring of 1973 was approximately $6.00 per child-day; by the spring of 1976 costs were $7.88 per child-day. Traditionally, the gap between the cost of quality child care and money available from parental and governmental sources has been filled by funding from private sources which are limited. For example, according to the Abt Associates Study, (1971) the expansion of day care services in a community resulted in a scarcity of volunteers and donated space and equipment.

The Problem

The goal of making the most of available resources by increasing the amount of quality day care facilities available at reasonable cost suggested that we develop measures to analyze the situation in day care centers. Three aspects were considered: cost of care, quality of care delivered to children and staff use in day care centers. The measurement tools developed form the basis of a self-analysis package to be used by day care administrators in making decisions related to quality and costs.

Accountability and evaluation of day care programs is a comparatively new field. There are measures available for evaluation of structural features of day care programs such as the adequacy of space and other physical characteristics, but there are few measures available suitable for measuring total programs including educational development of on-line,

nondestructive, objective measures of process in day care centers. We limited our effort to the development of key measures of cost, staff-use, and quality which were non-interactive in an on-going program and objective in their design. The measures were evaluated to determine their feasibility for use in the field situation and their validity. For some measures, reliability was established. Normative data which can give predictive reliability to the measures requires further testing.

Cost Analysis

Two comparable cost figures from each center were desired: (1) the total cost of care per child-day, (2) the cost of salaries of personnel directly involved in child care per child-day.

Many factors combine to obstruct obtaining comparable figures for cost of care for day care centers. Computing cost of care may be done either by enrollment or attendance. Cost of care may be figured from budgeted expenditures or actual expenditures or both. Some centers receive donated items in the form of goods, services, or space, for which other centers must budget. The number and scope of services provided to the children and their families varies, with some centers providing only on-site care while others may provide such services as a social worker, transportation, or health care. Fringe benefits provided for the staffs vary widely and may or may not include such things as hospital insurance, retirement benefits, vacations, and sick leave.

Few centers use a cost analysis system which separates the costs for various components of the program. Cost-benefit analysis of financial control processes is especially necessary when several sources of income

and accountability are required by a center to survive. Each funding agency requires different procedures and categories. The design of a system bridging these requirements and providing useful planning information to the center is a challenge.

Two examples of such systems came to our attention. A system of accounting adopted in Pennsylvania to meet federal requirement apportions costs to seven cost centers: (1) Administrative and General, (2) Plant and Maintenance, (3) Child Care, (4) Food and Nutrition, (5) Social Services, (6) Transportation of Children, and (7) Health. This system is very similar to one developed by the Southeastern Day Care Project (1971) which uses the same cost centers. In addition, the Southeastern Day Care Project system makes provision for apportioning the value of donated goods and services to the various cost centers. Such cost analysis can provide valuable information for program planning and budget making. The benefits of the cost analysis must be weighed against the costs of the system. For example, one Pennsylvania center which was studied indicated that such a system was going to require additional bookkeeper time and this additional expense.

As a result of our study two worksheets were developed. The cost analysis worksheet uses information from expenditure and attendance records. The teaching staff summary includes a listing of all staff members engaged directly in child care by job title, the number of hours each works per week, the number of hours spent in direct child care and the hourly rate of each. From this information it is possible to compute the costs in four ways:

- Cost per child-day by attendance
- Cost per child-day by enrollment
- Cost per child-day for all personnel
- Cost per child-day for child care personnel.

Staff Use Analysis

Staff use was selected for attention since it was critical to both cost and quality outcomes. Salaries comprise 70-80% of most day care budgets (Abt Associates, Inc., 1972). Staff is the component of day care which ultimately determines the quality of a given program once basic physical requirements are met (Abt Associates, Inc., 1972). The psychological atmosphere which a staff develops in a given center is of central importance in determining the actual quality of care being delivered to the children (Fein and Clarke-Stewart, 1973). There are many descriptions of models for high quality day care centers and suggested staff utilization (Prescott and Jones, 1972), (Abt Associates, Inc., 1971), but there is little indication that the high quality centers observed or the models advocated are necessarily economically viable. For example: Some high quality centers which were originally included in a Prescott study went out of business or diminshed in quality during the course of the study (Prescott, Milish and Jones, 1972). In Illinois, the half-life of licensed day care centers has been estimated at three years, i.e., half of all the centers in existence on any given date will no longer be in operation three years later (Rowe, 1972). The model suggested by Abt Associates, Inc. (1972) for a facility with an average daily attendance of 25 children cost $9.30 per child-day in 1972 dollars. Yet few parents today can afford a price tag of $9.00 per child-day. Upon closer examina-

tion the $9.30 price tag is even more unrealistic because wages upon which it was based included teachers at $2.88 and aids at $1.66 per hour. At the present time, the federal minimum wage is $2.30. To provide a program comparable to the Abt Program meeting federal specifications in 1976 would have cost well over $11.00 per child-day.

The tasks to be performed in day care have been typically divided to make teachers generalists and other staff members such as cooks, nurses, housekeepers, specialists (Host and Heller, 1971). Fein and Clarke-Stewart (1973) suggest specialists such as group activities specialists, materials specialists, and language specialists. They make a case for analysis of day care settings in terms of functional rather than traditional roles. They point out that while day care should not consist of merely custodial care, neither should it consist entirely of formal education. Rowe (1970), by implication, advocates the use of a formal education specialist: He states that the addition of a preschool equivalent of a period of "educationally" programmed hours to the day care day can be made for a small increase in budget if the increase is used to provide the increased increment in salary required for a trained teacher who is fully utilized for this function, since, typically, preschool programs are held in short daily sessions.

When the child has sufficient opportunity to explore a stimulating environment in the home setting, White (1973) believes that the child learns from brief, dispersed interchanges between the caretaker and child which are usually instigated by the child.

One factor in staff use which is critical to cost of programs is the

number of children per staff member, the staff-child ratio. Sjølund (1973) in an international review of research in the field of nursery school and day care education found little actual research on desirable teacher-child ratios. The few existing studies agreed that too few teachers reduced the amount of individual attention given the children. In the Abt Study (1972) of actual day care centers, a favorable staff-child ratio correlated significantly with warmth and thus tended to be indicative of program quality. However, Evans, Shub, and Weinstein (1971) point out that "too many teachers are also a hazard. Not only do [they] make a classroom too adult centered, they also dilute the coordination possibilities in planning, the extent to which independence can be effectively encouraged among children, and the development of peer relationships. Prescott and Jones (1973) did not find programs with staff-child ratios of 1:5-8 predictably better than those with ratios of 1:10-12. Centers defined as quality centers have had staff-child ratios which varied from 1:3 to 1:15 (Abt Associates, 1972).

Other factors determine whether a given staff-child ratio results in a quality program. The Abt (1971) Study found some evidence that change of pace activities involving responsibilities not directly involving children improved the quality of the time staff spent with children. The distribution and combinations of tasks and functions expected of the teachers, the time of day, the time allowed for staff breaks, and psychic remunerations may all affect the operation of the staff-child ratio. A study (Prescott, 1965; Prescott and Harris, 1964) cited by Sjølund suggests that the training and attitude of the school principal influence the teachers and the psychological climate in the school

relative to the degree of warmth and authoritarianism.

Three instruments were developed and tested to obtain staff use information:

- The Day Care Center Task Survey
- The Teacher Task Survey
- The Child Care Task Survey

The Day Care Center Task Survey is designed to be answered by the director of a center. It consists of a list of 130 tasks which are performed in day care centers. Educational Projects, Inc. (1973) did an analysis of day care center tasks in a study of day care centers in Pennsylvania. The inventories prepared by EPI were used as a basis for the Day Care Center Task Survey. Additional items were added from suggestions received from staff and students at the University of Delaware. After each task, the director is asked to write the job title, in the appropriate column, of the person who usually performs the task, the person who frequently helps perform the task, and the person or persons who occasionally perform the task. This survey determines the planned degree of specialization of function in the center and how the director of the center perceives the division of responsibilities. The version of the survey included in this paper has been organized to correspond to the Teacher Task Survey.

The Teacher Task Survey consists of 108 items identical with those on the Day Care Center Task Survey. Twenty-eight items were omitted since they would very rarely be performed by staff members other than the director, bookkeeper, or secretary. The form included in this working paper eliminates some of the detail in the original EPI study since it

was found an excessive amount of time was required for all teaching staff to respond. However, one facet of information which was included on the EPI task inventories for some items only was expanded to apply to all items on the Teacher Task Survey. This was the determination of the degree to which the staff believed the children participated in performing each task of the center. An examination of child participation is useful in a self-analysis for evaluating the extent to which a center is utilizing child participation opportunities to further such goals as providing a variety of experience, developing responsibility, and developing self-reliance. The Teacher Task Survey determines the actual degree of specialization, how staff perceive their responsibilities, and how staff time is being utilized.

The Child Care Task Survey is designed for all staff members, teaching and non-teaching, who have any contact with the children, to assess the amount of adult-child interaction. Twenty-two tasks were identified for this survey from our own experience and that of colleagues in child development and family life. Each individual working in a center who even occasionally had contact with the children is asked to indicate the frequency with which he/she performs each task by checking the appropriate column.

The Child Care Task Survey revealed wide variations in the tasks performed by individuals employed in the same capacity within a given center. It does not lend itself easily to gathering data for comparisons of centers, but it should be very helpful in a self-analysis study. The information given on what staff members are actually doing may point up strengths and weaknesses in program or staff. In addition, it can draw

attention to desirable staff behaviors and be used to encourage a higher incidence of such behaviors.

Quality Measures

Objective measures for the quality of a day care program are needed to use with the cost and staff data obtained to do a cost-benefit analysis. Subjective judgements of quality are often suspect when done by outsiders and are even more suspect in a self-evaluation context. Lengthy observations are not feasible for persons acting as licensors. Objective measures overcome these difficulties. Used in self-evaluation they also provide direction for programming and staff training to increase the quality of child care.

Expectations about what a day care center or nursery school should accomplish affect the definition of quality. Do we expect positive effects or is the absence of negative effects all that is required? As Sjølund states (1973, pp. 34-35),

> If the object in placing a child ... is to attain some educational aim, the expectation is presumably some positive effect which the institution can give, but which the home cannot; ... If, on the other hand the object is to have the child looked after while, for instance, the mother is out at work, it must be sufficient simply to expect the absence of negative effects, that is to say that the child will develop in the same way as it would at home.

Sjølund (p. 35) further points out that,

> It is not established that the appearance of positive effects or the absence of a negative one should be related to how the child develops at home. In cases where the child cannot be at home, it

is reasonable to relate the effect ... not to the child's development at home, but to the alternatives available, i.e., some way of having the child cared for by someone other than the mother.

She draws attention to the fact that there can be both immediate and subsequent effects. Educational philosophies vary greatly in specifying as to how this is to be done. Burton White, (1973) states that nobody at the present time has definitive information as to how best to educate the young child.

Some concensus exists in the expectation that a quality program should produce the future positive effects of competence in the children who participate in it. The criterion for quality for the purpose of this study was the production of competence in the child using R. White's (1959, in Cohen, 1971, p. 162) definition of competence as "an organism's capacity to interact effectively with its environment."

Federal government standards attempt to insure that the child's social, emotional and cognitive developmental needs as well as his physical needs are nurtured.

States, also, in regulating day care have requirements pertaining to health and safety requirements, staff-child ratios and space requirements. Generally, they assure that the minimum adequate physical plant which is prerequisite to a good program is achieved. Sjølund (1973, pp. 57-58) notes that the existance of a good physical plant is not a guarantee of quality:

> Unsuitable process ("the personality of the teacher, the behavior of the teacher, the educational climate, the principal, etc.") can explain why institutions with a suitable structure ("layout,

materials, space, etc.") may not be able to achieve a positive effect, and conversely suitable educational processes can result in an institution achieving a positive effect despite an unsatisfactory structure.

Therefore, we chose to focus upon process since the federal and state policies appear adequate for assessing the quality of the physical plant.

In looking for measures of process, White's work seemed useful. He studied caretakers of young children over an extended period of time, identifying differences between caretakers of children who developed into competent individuals and caretakers of less competent children. He concluded that it might be advisable to emulate successful parents. The degree to which a day care program simulated the environment provided by a successful parent might well be taken as an indication of the quality of the day care program. Three variables which appeared to be amenable to assessment and which might tap the characteristics of an environment provided by White's successful parent were selected: (1) the near environment of the child, (2) child-teacher interaction, (3) exhibition of child curiosity.

Near Environment Measure

One important function of a caretaker is to design the physical environment by providing access to many objects and diverse situations. Sjølund (1973) notes also that many research studies have confirmed the importance of having sufficient stimulating material available. Prescott (1973) found that an index which indicated the responsiveness of the environment to the child on a "sensual-tactile" level differentiated

between better and poorer quality environments in open type programs. This index, the "softness rating", was used as a basis for compiling an inventory of items known as the Near Environment Inventory to measure this aspect of a program. Colleagues in the field suggested additional items which they looked for when assessing a program.

The Near Environment Inventory can be used for a quick check of classroom resources, keeping in mind that the presence of an item does not mean it is used, and the occurrence of an activity, does not mean it occurs frequently. For self-analysis purposes, the inventory can be used to assist a center staff in evaluating their program in terms of the accompanying explanation of the value of each item. (See Appendix).

Child-Teacher Interaction Measure

A second function of the effective caretaker is that of "consultant." White (1974) in a study of children under three, found that in the consulting capacity, the competent caretaker responded promptly to the child when the child initiated a contact even if the response served only to delay action. The response of ten to thirty seconds in duration, was prompt, enthusiastic and considered the purpose of the child. The response provided some language at a level the child could handle and perhaps added a related idea but did not prolong the exchange beyond the child's desire. However, the caretaker did not always drop everything to attend to the child's request thereby "probably giving the child a realistic, small taste of things to come" (White & Watts, 1973, p. 243). Spaulding, (1964) observing school age children, found indications that such responses are important for older children as well. He found correlations between positive pupil self-concepts and a high degree of private or semi-private communications

with children and attentiveness to pupil needs by teachers. A low degree of self-esteem correlated with negative evaluation, domination by "rough threat", "harsh taskmaster behavior", and "grim domination." Height of self-concept correlated with the degree to which teachers were calm, acceptant, supportive and facilitative. He also found a negative relationship with cognitive performance with dominating, threatening teacher behavior and the use of shame, ridicule and public admonition.

Observation of teacher responses to child-initiated contacts was used to measure interaction. The responses of the adults were coded as positive or negative. In the study, no response was coded as a negative response and a neutral response was considered positive since it would qualify as "calm and acceptant." This observation technique was pilot tested in three centers. Although some observers noted more child approaches to adults than others, over 95% agreement between observers in coding of response as positive or negative was achieved.

The observation of child-teacher interaction was field tested in eight centers. The measure was applied by observing the regularly present adults in the children's environment on a rotating basis observing each adult for a three minute interval for a total of twenty-seven minutes. The observation was planned for a total of three adults present. If less than three adults were present, an interval of three minutes of no observation was substituted in the rotation for each absent adult. All child initiated contacts of the adult under observation were noted and coded. The children were designated by some distinguishing characteristics as were the adults.

The responses to the children's contacts were mostly positive in

all the centers. Most negatively coded responses were actually due to a lack of response. When a lack of response occurred, it was often because the teacher was busy with another child. This suggested that for self-analysis purposes, the coding of no response should be separate from that of a negative response. Variation occurred between teachers in the amount which children contacted them. The contacts were concentrated on one teacher in some centers. Other adults present in such cases were "extra hands," but, as far as the children were concerned, were not extra voices with language and affect input. In the program where the staff-child ratio was 1:16 the number of positive responses per child was higher than in the program where the ratio was 1:6 and was almost as high as in the program where it was 1:4.7. It was noted that children made no contacts with a teacher in some instances because the teacher was so active in giving instructions that the children had no opportunity. For this reason, noting the number of teacher initiated contacts during the same observation period could be a valuable additional piece of information.

The child-teacher interaction observation emphasizes the importance of prompt, positive response to child-initiated contacts. It may be used to spot problems with individual children or staff members and to identify children who have little contact with adults. From tests of this measure, it appeared that true negative responses were elicited more frequently by certain children. These children may already be known to staff as children with problems. However, the technique highlights the contribution which negative adult reaction makes to the child's difficulties. Similarly, certain staff members appeared to be more prone to respond negatively to children's overtures. In a self-evaluation study, if such

a situation were discovered, or if many negative responses were generally found, the center could then consider whether the individual or individuals had more responsibilities than could be comfortably handled, whether there was a lack of appreciation of the importance of the caretakers, or whether there were other factors involved which could be remedied.

Manifest Curiosity Measure

White & Watts (1973) noted that curiosity is one of the developmental processes which is affected by the caretaker. The effective caretaker provides opportunity for the exercise of curiosity. Others also have found that the exercise of curiosity correlated with the development of competence. In Piaget's (Ginsberg & Opper, 1969) scheme of development of cognitive structures, the child takes in new experience, i. e., *assimilates* it and then adjusts his thinking of actions, i. e., *accommodates* to fit what he has experienced. Free exercise of curiosity enables the child to assimilate many and varied experiences thus forcing him to develop through increased accommodation. McNamara, Murphy and Harrell (1964, p. 976) tested children for curiosity motivation and reality contact and found that "curious individuals are in more veridical contact with reality and acquire information from the environment more effectively." They suggest that curiosity is a system of responses necessary to the "efficient acquisition of information." Maw and Magoon (1971) found that high curiosity children as compared with low curiosity children were more intelligent, creative, socially secure, tolerant of ambiguous situations and had a higher sense of personal worth and responsibility.

Since the manifestation of curiosity apparently correlates with abilities prerequisite to academic learning, effective dealing with environment

and the development of high self esteem, the degree of curiosity manifested in a day care environment may be an indication of the degree to which these other qualities are developing the same environment and thus becomes an indication of quality. This study used the operational definition of curiosity of Maw and Maw (1970) which describes the manifestation of curiosity in a child as occurring when he:

(a) Reacts positively to new, strange, incongruous or mysterious elements in his environment by moving toward them.

(b) Exhibits a need or a desire to know more about himself and/or his environment.

(c) Scans his surroundings seeking new experience, and/or

(d) Persists in examining and/or exploring stimuli in order to know more about them.

There are several studies which used the manipulation of objects to measure curiosity (McNamara, Murphy and Harrell, 1964; McReynolds, Acker and Pietila, 1961; Pielstick and Woodruff, 1964, p. 836). In the test situations of these studies each subject was examined individually in a controlled environment. In our approach the use of objects to measure the curiosity of children was adapted for use in the natural environment.

A complex stimulus (busybox) was pilot tested in several centers, and, from the pilot test results, a "surprise-drawer box" was constructed to capitalize on the feature to which the children had shown the most interest. The "surprise-drawer box" resembles a small chest of drawers. The top drawer of the chest is a sham and does not open when the knob is pulled. The second drawer is a bonafide drawer. The knob on the third

drawer does not open the drawer to which it is attached but, when pulled, opens the fifth or bottom drawer which has no knob. The fourth drawer is a sham and does not open. The box as a measure of curiosity was field tested in five centers. It was placed in a classroom upon a table which was commonly used by the children during a free activity period for a total of forty minutes. The children were observed as they approached the box. Each child who came within a foot of the box was noted by recording an identifying description and indication of sex. If the child began investigating the box, the number of pulls on the drawer knobs were counted and recorded. The "measure of curiosity" coded was the number of drawer pulls by each child.

The manifest curiosity measure has demonstrated face and construct validity from the literature and from observation in the field where children's behaviors which fit the definition for curiosity were noted. (See Table 1 for data from the pilot test.) The measure can now be used to develop a normative data base. The measure in its present form is an ordinal measure. Scores for individual children are required which enable median scores and ranges to be ascertained. Average scores are unduly affected by extremes in scores (See Table 2). For example, the average number of knob pulls in Center A was higher than the average for all centers but the median number of pulls was lower than the average while the situation in Center E was the reverse.

An important field variable to be controlled to maximize reliability between centers is the location of the surprise-drawer box. The best location appears to be on a table commonly used by children. The lower participation by children in Center C may be partially explained by the

Table 1

Number of Male and Female Subjects Manifesting Curiosity With Approach and Knob Pulling Behavior by Center

| | Center A N=15 | | | | Center B N=13 | | | | Center C N=9 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Approach Subjects | | Knob-Pulling Subjects | | Approach Subjects | | Knob-Pulling Subjects | | Approach Subjects | | Knob-Pulling Subjects | |
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Male | 7 | 77 | 6 | 67 | 4 | 67 | 2 | 33 | 0 | 0 | 0 | 0 |
| Female | 5 | 83 | 5 | 83 | 7 | 100 | 7 | 100 | 5 | 100 | 3 | 33 |
| Total | 12 | 80 | 11 | 73 | 11 | 85 | 9 | 69 | 5 | 56 | 3 | 33 |

| | Center D N=18 | | | | Center E N=32 | | | | All Centers N=87 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Approach Subjects | | Knob-Pulling Subjects | | Approach Subjects | | Knob-Pulling Subjects | | Approach Subjects | | Knob-Pulling Subjects | |
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| Male | 7 | 70 | 7 | 70 | 11 | 79 | 10 | 71 | 29 | 67 | 25 | 58 |
| Female | 7 | 88 | 7 | 88 | 13 | 72 | 13 | 72 | 37 | 84 | 35 | 80 |
| Total | 14 | 78 | 14 | 78 | 24 | 75 | 23 | 72 | 66 | 77 | 60 | 69 |

Table 2

Total, Average and Median Number of Knob Pulls by Center

| | Center A | Center B | Center C | Center D | Center E | All Centers |
|---|---|---|---|---|---|---|
| | N=15 | N=13 | N=9 | N=18 | N=32 | N=87 |
| Total Knob Pulls | 202 | 178 | 47 | 301 | 308 | 1,036 |
| Average No. Knob Pulls | 13 | 14 | 5 | 17 | 10 | 12 |
| Median No. Knob Pulls | 3 | 19 | 0 | 6-9 | 10 | 6 |
| Range | 0 -59 | 0 -73 | 0 -29 | 0 -65 | 0 -35 | 0 -73 |

fact that, while the box was located on a stand from which the children commonly took manipulative toys, it was not placed on the table where they were used.

In a self-evaluation context, low scores on the manifest curiosity evaluation would be a signal to examine the environment carefully and to explore the presence of the various factors which might affect the manifestation of curiosity.

Use of the Surprise Drawer Box in the field is feasible. The length of time required to test it in a center appears to be about forty minutes. Observation requires the tabulation of only one manipulation. There is no need to limit the use of the box since scores for more than one child can be kept while they are investigating the box simultaneously. This minimizes the distortion of the environment by the measure thus producing an appropriate on-line measure.

Evaluation and Implications

This field study was devoted to the development of measurement tools designed to study cost, quality and staff-use in day care programs for the purposes of both research and day care center self-study. It was undertaken because of the identified need for developing realistic hypotheses for maximizing quality and minimizing costs in child care centers. The tools were designed to be used in a self-analysis study under field conditions.

The instruments can be utilized in several ways:

- To facilitate a comparison between the director's perception of who is performing which tasks and the staff perception of who is actually performing the tasks.

- To draw attention to tasks for which no one is adequately responsible.
- To reveal lack of understanding by staff members as to what their jobs involve.
- To emphasize desirable staff behaviors, thus encouraging a higher incidence of such behaviors.

The quality measures tap different aspects of the process in the day care center. The child-teacher interaction observation emphasizes the importance of responding to the child and the importance of positive response, reveals the patterns of teacher attention to the class as a whole and to individual children, highlights patterns of negative response.

The Near Environment Inventory identifies components of a day care environment. This inventory can stimulate discussion of these curriculum tools and result in additions to or modifications of programs.

The surprise-drawer box focuses attention on the importance of the atmosphere which fosters the exercise of curiosity in a child's environment. Use of this measure can stimulate the day care center to identify practices which promote or inhibit the manifestation of curiosity and can lead to curriculum change.

Using the staff and quality assessments in conjunction with a cost study, centers can make a cost-benefit analysis congruent with their goals. Such an analysis can lead to better decision-making, planning, and development of staff and curricula.

There are several implications for policy makers in the findings of this study:

- Requirements for accountability in terms of record keeping,

e.g., accounting procedures and inventory control, should be evaluated in terms of the cost of maintaining such accountability compared to the cost of savings to the program.

- Staff-child ratio requirements should be re-examined. The premise that more staff is always better does not hold up under close examination.
- Basic goals and objectives for progess need to be developed and a range of additional acceptable goals identified before accountability in terms of quality of programs can become practicable.
- Measures of quality can document the existing quality of programs and provide incentives for broader participation in better quality programs.
- Identification of behaviors associated with quality can be used both as tools in measurement and in in-service training programs to increase quality.

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# SELF ANALYSIS PROCEDURE

1. Develop with your staff and advisory groups some goals for self analysis:

   a) What do you want to know?

   b) How much time and funds can be devoted to understanding the costs and quality of your facility?

   c) Which areas are most important to your group to begin the analysis?

   d) How will the information be used within the program?

   e) What safeguards will be given to participating staff to assure them of appropriate confidentiality to prevent any nervousness or unease developing from the process of self-study?

2. Set up and operate a workable schedule for using the various measures which relate to your goals:

   a) Do not attempt too ambitious a schedule for your resources. Most child development centers do not have a surplus of uncommitted time and must take energy away from other important matters.

   b) Make sure everyone is included in each area in which they are involved.

   c) Identify a leader(s) for each portion, so that someone is coordinating the effort to assure usable information.

   d) Plan a way to feed back the information to the groups involved and get their reaction.

3. Summarize the findings and develop a program to use the information:

   a) A short written summary is helpful to use for discussing your finding and planning for the future.

   b) Involve everyone in the planning who must participate in any changes made.

   c) Any changes made after the analysis is done should also be regularly evaluated. Do not assume that changes will be improvements.

d) It is important for staff and advisory groups to see results clearly from a self-study, otherwise, it seems like so much more paper work and bureaucracy.

e) Remember to include changes that were made immediately after reading the self study guidelines in your results. Often simply asking a question stimulates changes in a group.

f) Decide on a time to check back and compare. Evaluation is most useful when it becomes systematic; when measures are repeated; and when trends can be identified.

g) Use your goals for self analysis to evaluate the self study itself. Discuss the information obtained.

Possible Discussion Questions to be Used in Part B-b:

COST:

A. How do your cost figures compare with other centers in your area?

B. Does your fee schedule relate directly to reflect the sources of income and cover all costs?

C. Do your costs reflect your program goals, that is are your spending money on those things you think are important? Do you avoid spending money on less important items?

D. Can you get the facts you need about finances easily, quickly and accurately?

QUALITY:

Staff

A. Does the staffing plan reflect your program goals? Do you have enough staff to do the things you consider important? Is there any time being spent on maintaining standards not important to your group?

B. Do your job descriptions and activity records parallel each other? Are staff members actually doing what their job descriptions specify?

1. Are there any tasks not done to your satisfaction?

Why? The Tasks:
- not assigned to anyone?
- does not recognize the assignment?

- pressing tasks?
- assigned to person(s) without background, training, skill or motivation to do it?
- overloads the person(s) assigned to it

How could this be changed?
Is it worth it to change it?

2. Is anyone spending too much time on tasks not a primary part of their job description?

3. Is anyone becoming skilled at tasks which could be part of a new job description?

4. Are there any needs for training or education of staff to be able to meet their goals and expectations?

5. Can some tasks be reduced or combined?

6. Does each staff member have a good mix of activities to encourage his or her best performance?

7. Are there any new staff positions needed?

PROGRAM:

A. Take each measure of the program used:

1. What did you find?

2. Which of your goals are being met?

3. Which goals were not met satisfactorily?

4. What would these changes mean to the children? the staff? the costs?

B. Are there any program areas which should be studied further or developed?

i.e., parent involvement, cognitive curriculum, health and social services.

COST AND QUALITY:

A. What are the strengths of the center in terms of quality and cost factors together?

B. In what areas are the costs not commensurate with the quality delivered?

are there areas where you are getting a lot for your money?

are there areas where you get very little for the amount you spend?

are there any high cost, high quality items which must be preserved and funding found?

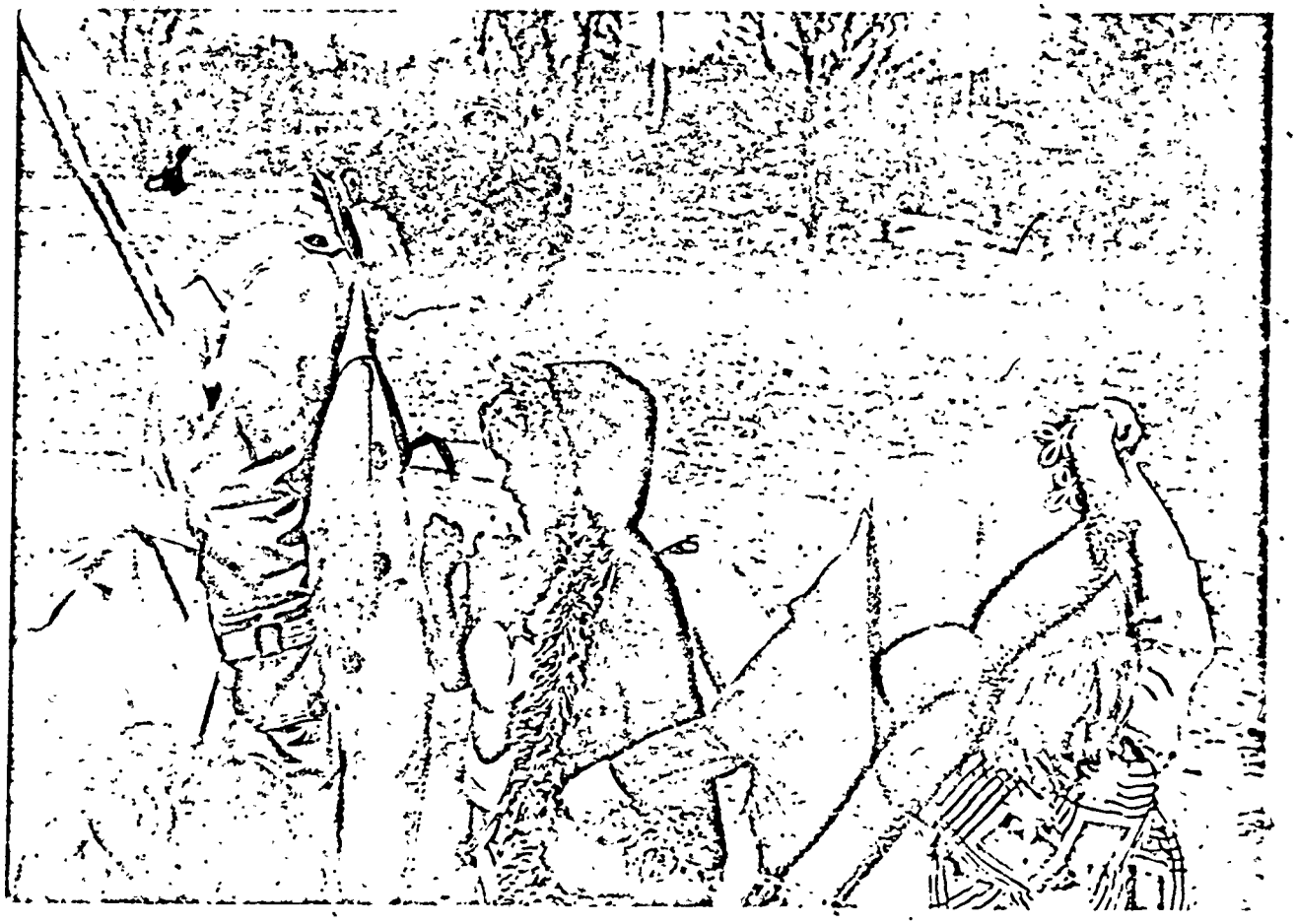
are there any under-developed areas which deserve further investment?

C. Are there aspects of the program staff, and cost management which deserve greater community recognition?

can the information you have obtained be used in a community outreach for public relations?

D. How soon can any needed changes be made? How long do you wish to experiment with the change before evaluating it?

TEACHER TASK SURVEY



TEACHER TASK SURVEY

The following tasks are usually done by someone in a day care center one or more times a day. For each task below, check whether you are usually, sometimes, or never, a person who does this daily task.

| Task | How Often Do You Do This? | | | Do the Children Help? | | |
|---|---|---|---|---|---|---|
| | Usually | Sometimes | Never | Usually | Sometimes | Never |
| 1. Make sure classroom and playground are safe. | | | | | | |
| 2. See to it that equipment and materials are put away in proper places. | | | | | | |
| 3. Choose activities to offer to children which are not available every day. | | | | | | |
| 4. Prepare to give a lesson or to lead an activity. | | | | | | |
| 5. Be responsible for keeping class on daily schedule or changing daily schedule if necessary. | | | | | | |
| 6. Conduct lesson or activity with entire class. | | | | | | |
| 7. Observe child to determine his progress. | | | | | | |
| 8. Enforce the rules. | | | | | | |
| 9. Have charge of entire class. | | | | | | |
| 10. Supervise outside play. | | | | | | |
| 11. Put furniture and equipment in place in classroom. | | | | | | |
| 12. Put away materials and equipment. | | | | | | |
| 13. Clean tables. | | | | | | |
| 14. Drive bus or otherwise provide transportation for children. | | | | | | |
| 15. Regulate heat, light, and air in classroom. | | | | | | |
| 16. Maintain informal communication with parents. | | | | | | |
| 17. Encourage staff members. | | | | | | |

Now look over each of the above tasks and check whether the children, usually, sometimes, or never help with this task.

The following tasks are usually done by someone in a day care center every day. For each task below, check whether you are usually, sometimes, or never, a person who does this daily task.

| Task | How Often Do You Do This? | | | Do the Children Help? | | |
|---|---|---|---|---|---|---|
| | Usually | Sometimes | Never | Usually | Sometimes | Never |
| 1. Keep attendance records. | | | | | | |
| 2. Plan daily lessons and activities. | | | | | | |
| 3. Plan goals for each child suitable to his needs. | | | | | | |
| 4. Put equipment in place on playground. | | | | | | |
| 5. Prepare paints, make playdough or other materials. | | | | | | |
| 6. Get out and/or put away children's cots or mats. | | | | | | |
| 7. Prepare lunch. | | | | | | |
| 8. Prepare snack and/or breakfast. | | | | | | |
| 9. Serve lunch. | | | | | | |
| 10. Serve snack and/or breakfast. | | | | | | |
| 11. Set tables. | | | | | | |
| 12. Clean up after lunch. | | | | | | |
| 13. Clean up after snack and/or breakfast. | | | | | | |
| 14. Wash dishes. | | | | | | |
| 15. Clean kitchen area. | | | | | | |
| 16. Sweep, dust, vacuum. | | | | | | |
| 17. Clean bathrooms. | | | | | | |
| 18. Note problems and report to supervisor or remember to bring to staff meeting. | | | | | | |

Now look back over each of the above tasks and check whether the children usually, sometimes, or never help.

The following tasks are usually done by someone in a day care center every day. For each task below, check whether you are usually, sometimes, or never a person who does this task in your center.

| Task | How Often Do You Do This? | | | Do the Children Help? | | |
|---|---|---|---|---|---|---|
| | Usually | Sometimes | Never | Usually | Sometimes | Never |
| 1. Make weekly lesson plans. | | | | | | |
| 2. Go over teaching plans with staff. | | | | | | |
| 3. Display new materials to attract attention of the children. | | | | | | |
| 4. Keep written record of child's progress. | | | | | | |
| 5. Assign tasks to volunteers. | | | | | | |
| 6. Attend staff meetings. | | | | | | |
| 7. Plan and/or conduct staff meetings. | | | | | | |
| 8. Learn of staff members needs and problems. | | | | | | |
| 9. Assist staff with their needs and problems. | | | | | | |
| 10. Greet and give information to visitors. | | | | | | |
| 11. Plan menus. | | | | | | |
| 12. Choose or make up recipes. | | | | | | |
| 13. Prepare shopping list for food purchase. | | | | | | |
| 14. Purchase food. | | | | | | |
| 15. Decide what should be done for an ill or injured child. | | | | | | |
| 16. Call someone to come and get an ill child. | | | | | | |
| 17. Wash and/or wax floors. | | | | | | |

Now look over each of the above tasks and check whether the children usually, sometimes, or never help.

The following tasks may be done by someone in a day care center every two or three weeks. Check whether you are usually, sometimes, or never, a person who does this task in your center.

| Task | How Often Do You Do This? | | | Do the Children Help? | | |
|---|---|---|---|---|---|---|
| | Usually | Sometimes | Never | Usually | Sometimes | Never |
| 1. Decide what educational materials are needed. | | | | | | |
| 2. Select educational materials to be purchased. | | | | | | |
| 3. Purchases educational materials. | | | | | | |
| 4. Substitute for absent staff member. | | | | | | |
| 5. Find out more about the background of an individual child. | | | | | | |
| 6. Evaluate educational program. | | | | | | |
| 7. Straighten shelves and cupboards. | | | | | | |
| 8. Plan field trips. | | | | | | |
| 9. Plan games or other equipment to be made to use with the children. | | | | | | |
| 10. Maintain application and medical records. | | | | | | |
| 11. Maintain outside grounds. | | | | | | |
| 12. Encourage parent groups and parent activities. | | | | | | |
| 13. Involve parents in helping in the center. | | | | | | |
| 14. Make minor repairs. | | | | | | |
| 15. Do major kitchen cleaning, e.g., oven, cupboards, refrigerator. | | | | | | |

Now look back over the above tasks and check whether the children usually, sometimes, or never help.

The following tasks may be done by someone in a day care center every month. Check whether you are usually, sometimes, or never a person who does this task in your center.

| Task | How Often Do You Do This? | | | Do the Children Help? | | |
|---|---|---|---|---|---|---|
| | Usually | Sometimes | Never | Usually | Sometimes | Never |
| 1. Decide upon the rules and limits to be set for the children's behavior. | | | | | | |
| 2. Make equipment to be used with the children. | | | | | | |
| 3. Formally test a child when entering program. | | | | | | |
| 4. Conduct parent interview for new child. | | | | | | |
| 5. Refer families to other agencies. | | | | | | |
| 6. Accompany child or other family member to get service from another source. | | | | | | |
| 7. Provide encouragement to family in time of special need. | | | | | | |
| 8. Make home visits. | | | | | | |
| 9. Formally test a child to determine his progress. | | | | | | |
| 10. Observe other teachers teach in classroom. | | | | | | |
| 11. Plan and develop educational program. | | | | | | |
| 12. Arrange for staff training to meet staff needs. | | | | | | |
| 13. Conduct staff training. | | | | | | |
| 14. Model teaching for other staff members. | | | | | | |
| 15. Evaluate staff training. | | | | | | |
| 16. Evaluate staff. | | | | | | |

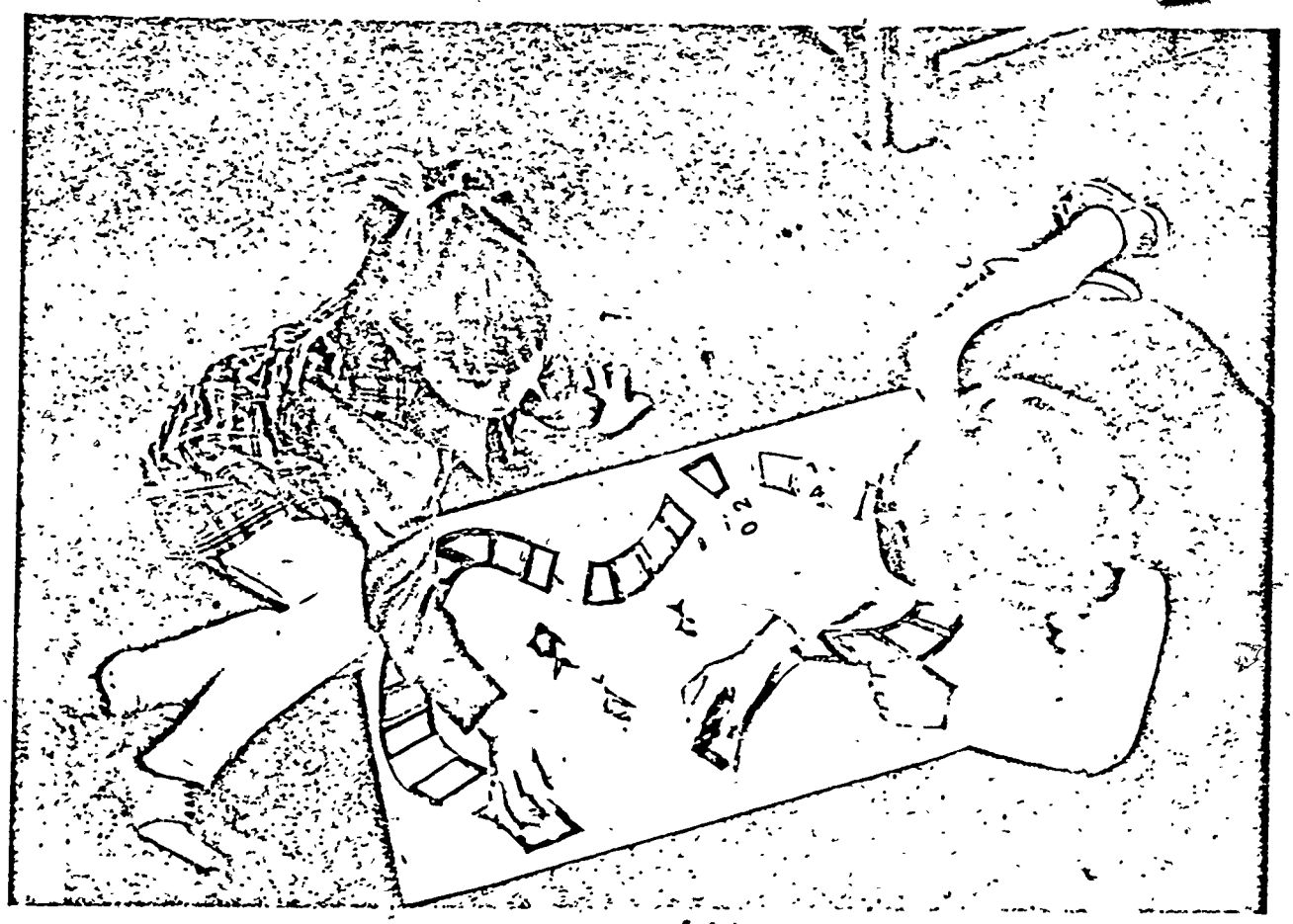
Now look back over each of the above tasks and check whether the children usually, sometimes, or never help.

The following tasks may be done by someone in a day care center at intervals of a month or more. Check whether you are usually, sometimes, or never a person who does this task at your center.

| Task | How Often Do You Do This? | | | Do the Children Help? | | |
|---|---|---|---|---|---|---|
| | Usually | Sometimes | Never | Usually | Sometimes | Never |
| 1. Establish policies for educational programs. | | | | | | |
| 2. Formulate long range goals for the children's program. | | | | | | |
| 3. Formulate goals for individual learning centers. | | | | | | |
| 4. Plan the arrangement of furniture and equipment in the classroom. | | | | | | |
| 5. Plan the placement of equipment on the playground. | | | | | | |
| 6. Plan the daily schedule. | | | | | | |
| 7. Evaluate the program for parents. | | | | | | |
| 8. Evaluate the progress of the child for his parents. | | | | | | |
| 9. Hold parent conferences. | | | | | | |
| 10. Promote the professional development of staff. | | | | | | |
| 11. Find resource people in the community. | | | | | | |
| 12. Recruit volunteers. | | | | | | |
| 13. Promote communication with the community. | | | | | | |
| 14. Decide what major equipment is needed. | | | | | | |
| 15. Select major equipment to be purchased. | | | | | | |
| 16. Purchase major equipment. | | | | | | |
| 17. Wash windows and/or walls. | | | | | | |
| 18. Paint walls, trim, etc. | | | | | | |

Now look over each of the above tasks and check whether the children, usually, sometimes, or never help with each task.

DAY CARE TASK SURVEY



DAY CARE CENTER TASK SURVEY

| Task | Who Usually Does This? (Job Title) | Who Frequently Helps? Job Title/Titles) | Who Else May Occasionally Do This? (Job Title/Tit |
|---|---|---|---|
| 1. Develop proposal or prospectus for obtaining funds. | | | |
| 2. Compile and submit reports to funding agencies. | | | |
| 3. Conduct community needs assessment. | | | |
| 4. Prepare the budget. | | | |
| 5. Negotiate contracts. | | | |
| 6. Formulate personnel policies. | | | |
| 7. Formulate descriptions. | | | |
| 8. Recruit and hire staff. | | | |
| 9. Formulate day care center policy. | | | |
| 10. Recommend policies to Board of Directors. | | | |
| 11. Evaluate program for Board of Directors. | | | |
| 12. Organize Advisory Committee. | | | |
| 13. Meet with Board and/or Advisory Committee. | | | |
| 14. Maintain payroll. | | | |
| 15. Prepare W-2 forms. | | | |
| 16. Prepare income tax. | | | |
| 17. Maintain checking account. | | | |
| 18. Prepare financial reports. | | | |
| 19. Prepare budget-versus-expense summary. | | | |
| 20. Develop bookkeeping procedures. | | | |
| 21. Maintain petty cash account. | | | |
| 22. Pay invoices. | | | |
| 23. Maintain bookkeeping records. | | | |
| 24. Bill parents/agencies purchasing care. | | | |

| Task | Who Usually Does This? (Job Title) | Who Frequently Helps? (Job Title/Titles) | Who Else May Occasionall Do This? (Job Title/Titl |
|---|---|---|---|
| 25. Type letters and reports. | | | |
| 26. Keep personnel records. | | | |
| 27. Arrange staff training to most staff needs. | | | |
| 28. Conduct staff training. | | | |
| 29. Model teaching for other staff members. | | | |
| 30. Evaluate staff training. | | | |
| 31. Evaluate staff. | | | |
| 32. Observe teachers teach in classroom. | | | |
| 33. Establish policies for educational program. | | | |
| 34. Plan and develop educational program. | | | |
| 35. Go over weekly plans with staff. | | | |
| 36. Evaluate educational program. | | | |
| 37. Plan and conduct staff meetings. | | | |
| 38. Learn of staff members needs and problems. | | | |
| 39. Assist staff with their needs and problems. | | | |
| 40. Encourage staff members. | | | |
| 41. Promote professional development of staff. | | | |
| 42. Promote professional development of director. | | | |
| 43. Conduct initial interview for enrolling new child. | | | |
| 44. Refer families to other agencies. | | | |
| 45. Accompany child or other family member to get service from another agency. | | | |
| 46. Provide encouragement to family in time of special need. | | | |

| Task | Who Usually Does This? (Job Title) | Who Frequently Helps? (Job Title/Titles) | Who Else May Occasionally Do This? (Job Title/Titl |
|---|---|---|---|
| 47. Maintain application and medical records. | | | |
| 48. Administer eligibility and fee policies. | | | |
| 49. Keep written record of children's progress. | | | |
| 50. Test child's skill when entering program. | | | |
| 51. Keep attendance records. | | | |
| 52. Formally test child to determine his progress. | | | |
| 53. Make home visits. | | | |
| 54. Find resource poeple in the community. | | | |
| 55. Set up volunteer program. | | | |
| 56. Assign tasks to volunteers. | | | |
| 57. Involve parents in helping in center. | | | |
| 58. Encourage parent groups and activities. | | | |
| 59. Maintain informal communication with parents. | | | |
| 60. Maintain formal communication with parents. | | | |
| 61. Evaluate program for parents. | | | |
| 62. Evaluate child's progress for parents. | | | |
| 63. Greet and give information to visitors. | | | |
| 64. Promote communication with the community. | | | |
| 65. Decide what major equipment is needed. | | | |
| 66. Select major equipment to be purchased. | | | |
| 67. Purchase major equipment. | | | |
| 68. Decide what educational materials are needed. | | | |
| 69. Select educational materials to be purchased. | | | |

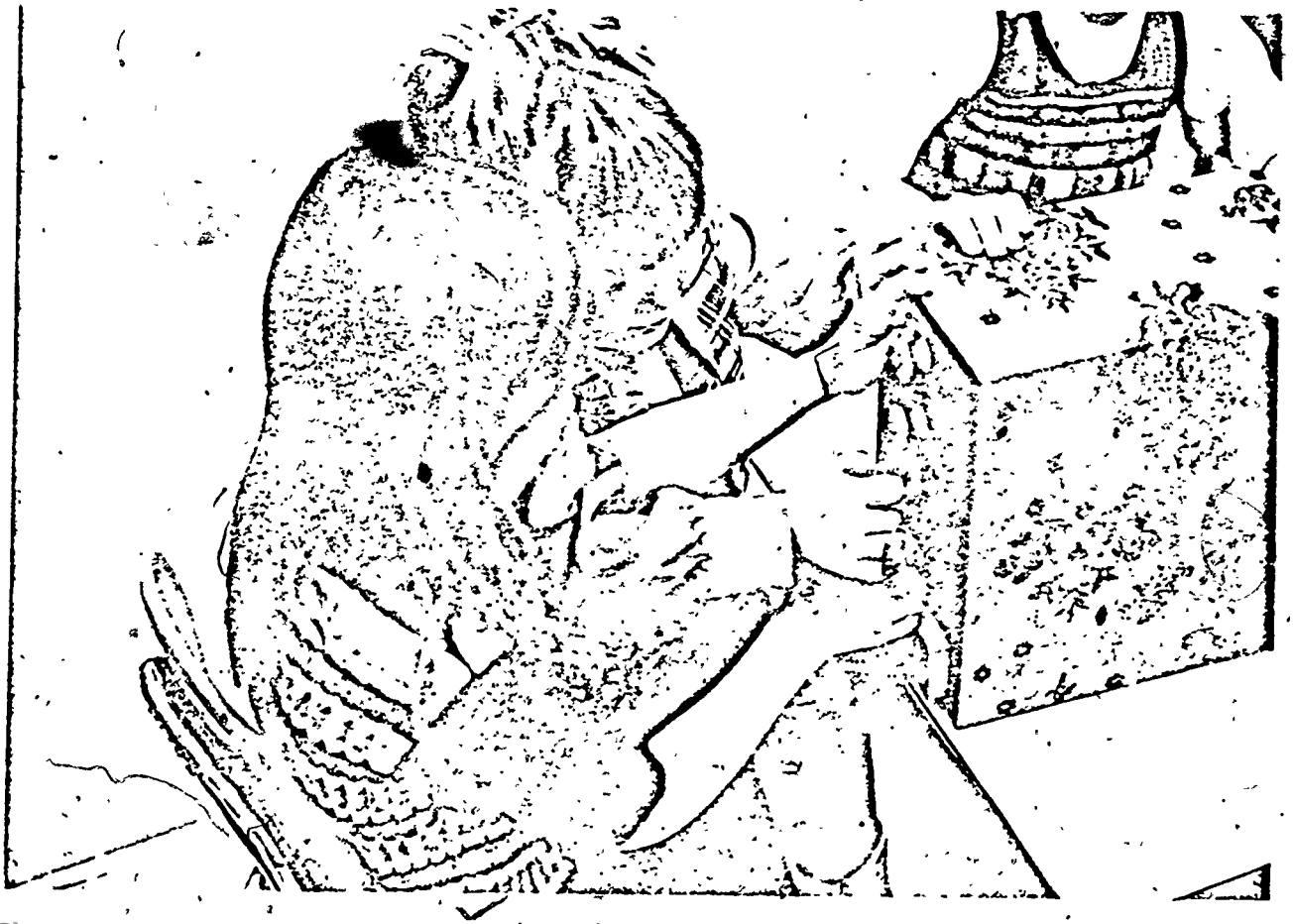
| Task | Who Usually Does This? (Job Title) | Who Frequently Helps? (Job Title/Titles) | Who Else May Occasionally Do This? (Job Title/Titles) |
|---|---|---|---|
| 70. Purchase educational materials. | | | |
| 71. Substitute for absent staff member. | | | |
| 72. Serve lunch. | | | |
| 73. Serve snack and/or breakfast. | | | |
| 74. Prepare lunch. | | | |
| 75. Prepare snack and/or breakfast. | | | |
| 76. Plan menus. | | | |
| 77. Choose or make up recipes. | | | |
| 78. Prepare shopping list for food purchase. | | | |
| 79. Purchase food. | | | |
| 80. Set tables. | | | |
| 81. Clean-up after lunch. | | | |
| 82. Clean up after snack and/or breakfast. | | | |
| 83. Wash dishes. | | | |
| 84. Clean kitchen area daily. | | | |
| 85. Do major kitchen cleaning, e.g. oven, cupboards, refrigerator. | | | |
| 86. Wash and/or wax floors. | | | |
| 87. Sweep, dust, vacuum. | | | |
| 88. Clean bathrooms daily. | | | |
| 89. Wash windows, walls. | | | |
| 90. Make minor repairs. | | | |
| 91. Paint. | | | |
| 92. Maintain heating plant. | | | |
| 93. Maintain outside grounds. | | | |
| ve bus or otherwise provide nsportation. | | | |

| Task | Who Usually Does This? (Job Title) | Who Frequently Helps? (Job Title/Titles) | Who Else May Occasionally Do This? (Job Title/Titles) |
|---|---|---|---|
| 95. Regulate heat, light, and air in classroom. | | | |
| 96. Put furniture and equipment in place in classroom. | | | |
| 97. Put equipment in place on playground. | | | |
| 98. Prepare paint, play dough, and other materials. | | | |
| 99. Put away materials and equipment. | | | |
| 100. Clean tables. | | | |
| 101. Straighten shelves and cupboards. | | | |
| 102. Get out/put away children's cots or mats. | | | |
| 103. Make games or other equipment to be used with children. | | | |
| 104. Formulate long range goals for the children's educational program. | | | |
| 105. Formulate goals for individual learning centers. | | | |
| 106. Make the weekly lesson plans. | | | |
| 107. Plan daily lessons and activities. | | | |
| 108. Plan goals for each child suitable to his needs. | | | |
| 109. Plan field trips. | | | |
| 110. Plan for the arrangement of furniture and equipment in the classroom. | | | |
| 111. Plan for the placement of equipment on the playground. | | | |
| 112. Display new materials to attract the attention of the children. | | | |
| 113. Plan games or other equipment to use with the children. | | | |
| 114. Make sure the classroom and playground are safe. | | | |

| Task | Who Usually Does This? (Job Title) | Who Frequently Helps? (Job Title/Titles) | Who Else May Occasionally Do This? (Job Title/Titles) |
|---|---|---|---|
| 115. See to it that equipment and materials are put away in proper places. | | | |
| 116. Choose activities to offer to children which are not available every day. | | | |
| 117. Prepare to give lessor lead activity. | | | |
| 118. Decide upon the rules and limits to be set for the children's behavior. | | | |
| 119. Enforce the rules. | | | |
| 120. Have charge of entire class. | | | |
| 121. Plan the daily schedule. | | | |
| 122. Be responsible for keeping class on daily schedule or changing it if necessary. | | | |
| 123. Conduct lesson or activity with entire class. | | | |
| 124. Observe child to determine his progress. | | | |
| 125. Note problems and bring to staff meetings. | | | |
| 126. Supervise outside play. | | | |
| 127. Supervise clean-up done by children. | | | |
| 128. Find out more about the background of an individual child. | | | |
| 129. Decide what should be done for ill or injured child. | | | |
| 130. Call someone to come to get ill child. | | | |

# CHILD CARE TASK SHEET

(ALL EMPLOYEES)



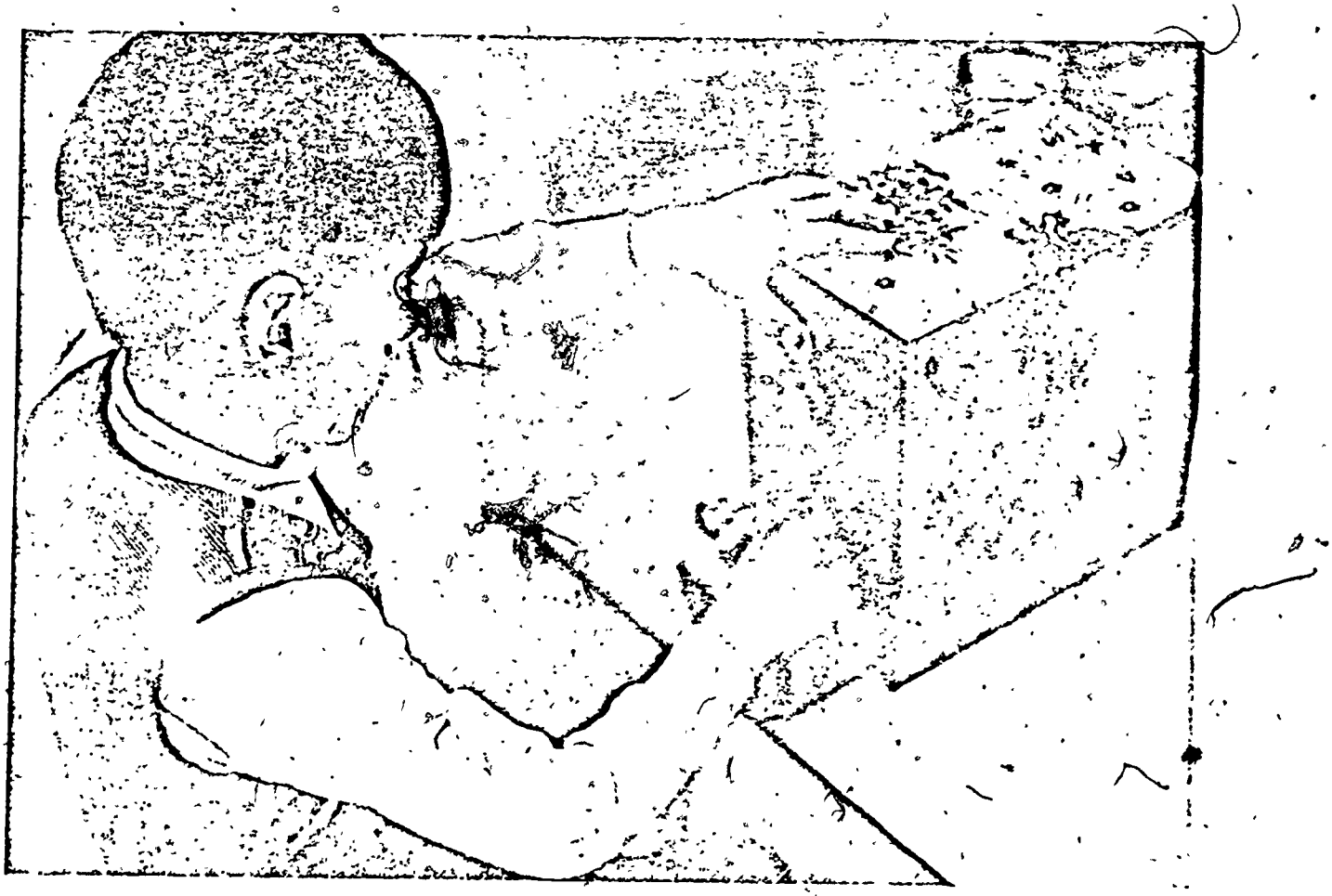
Your Job Title_____ How many hours per week do you work?_____

What is the average daily attendance at your center?_____ How long have you worked at this center?_____

| CHILD CARE TASK | HOW OFTEN DO YOU DO THIS? | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Never | Once a month or less | About once a week | Several times a week | About once a day | Two or three times a day | Many times a day | |
| 1. Greet an individual child (each greeting makes one time) | | | | | | | | |
| 2. Say good-by to an individual child (each farewell makes one time) | | | | | | | | |
| 3. Help a child with clothing or other belongings. | | | | | | | | |
| 4. Help a child with personal needs, e.g. washing, toileting, dressing. | | | | | | | | |
| 5. Change soiled clother or diapers. | | | | | | | | |
| 6. Talk with a child about a topic he has chosen. | | | | | | | | |
| 7. Talk with a child about a topic you have chosen. | | | | | | | | |
| 8. Join a child or a small group in an activity the children have chosen. | | | | | | | | |
| 9. Start an activity with a child or small group. | | | | | | | | |
| 10. Suggest to a child a new activity or another way to do something. | | | | | | | | |
| 11. Notice what a child is doing and show pleasure in his activity. | | | | | | | | |
| 12. Write a child's dictation on his picture or paper. | | | | | | | | |
| 13. Show approval or affection non-verbally to a child, e.g. smile, touch, hold. | | | | | | | | |
| 14. Keep order by correcting a child who is breaking rules or doing something unsafe. | | | | | | | | |
| 15. Help a child to solve a problem with another child. | | | | | | | | |
| 16. Help a child to solve a problem with an activity. | | | | | | | | |
| 17. Comfort or distract a child in distress. | | | | | | | | |
| 18. Read a story to a child or small group. | | | | | | | | |
| 19. Sit down, eat, and talk with children at lunch. | | | | | | | | |
| 20. Sit down, eat, and talk with children at snack and/or breakfast. | | | | | | | | |
| 21. Give first aid for a minor injury. | | | | | | | | |
| 22. Look for unusual health systems or behavior which may show a child needs special care. | | | | | | | | |

NEAR ENVIRONMENT INVENTORY

SURPRISE DRAWER BOX



## NEAR ENVIRONMENT INVENTORY I

Check each item which you observe:

____1. "laps"--teachers holding children

____2. large rug or full carpeting indoors

____3. child and/or adult cozy furniture: rockers

____4. play dough

____5. sand indoors

____6. water as an activity

____7. messy materials such as finger paint, clay, mud

____8. children's art work on display

____9. "home-made" or teacher-made equipment or learning aids

____10. easels which children can use regularly without teacher assistance

____11. book corner with books to be used without asking

____12. science corner

____13. child size furniture

____14. poster daily schedule

Check each item which you observe. Ask about item if necessary.

____15. single sling swings

____16. grass which children can be on.

____17. dirt to dig in

____18. sand outdoors

____19. animals which can be held

____20. paste available to children without teacher assistance

____21. scissors available to children without teacher assistance

____22. paper available to children without teacher assistance

____23. Musical instruments readily available to children

____24. workbench

____25. meal service "family style"

## NEAR ENVIRONMENT INVENTORY II

Check each item applicable after talking with teacher

____26. play dough available at least once per week

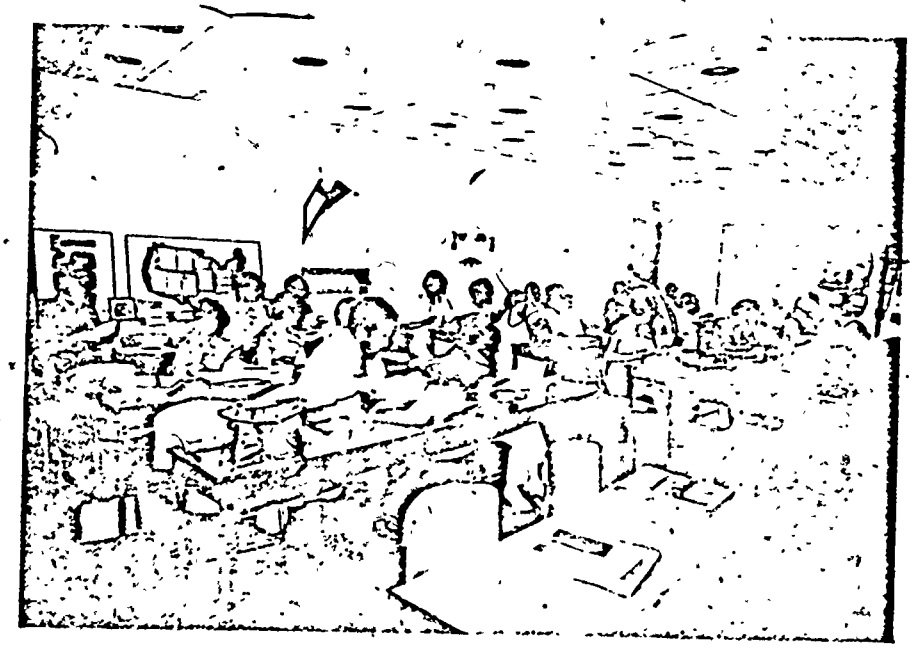
____27. water as an activity at least once per week.

____28. messy materials such as fingerpaint, clay, mud available at least once a week

____29. outdoor play twice daily weather permitting.

____30. free-activity period lasting at least thirty minutes but not over 1½ hours

# TEACHING STAFF SUMMARY AND COST ANALYSIS WORK SHEET



TEACHING STAFF SUMMARY

| Employee Name and Title | Hours Worked Per Week A | Hourly Pay Rate* B | Hours Per Week Spent in Direct Child Care C | Pay for Child Care Per Week (B x C) D | Length of Time Employed at Center | Highest Grade Completed in School | Prior Experience or Special Training |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |

Total Column D. _____

* If the employed are paid on a weekly or monthly basis, compute the hourly rate. For employees paid by the week, divide weekly salary by the number of hours worked per week. For employees paid by the month, multiply the number of hours worked per week by 4.3 to get the average number of hours worked per month. Divide the monthly salary by the average number of hours worked per month.

# COST ANALYSIS WORK SHEET

A. Select a recent typical month for which attendance and expenditure records are complete.

Record total expenses for the month 1. _____

If there were any unusual expenses during this month, such as major equipment purchase, record the total of these expenses 2. _____

and subtract line 2 from line 1 3. _____

Divide total of unusual expenses by the number of months for which this expense should be prorated and record the average expense on line 4 4. _____

Add lines 3 and 4 to give total cost, per the month. Record on line 5 5. _____

Cost Per Child Day - Attendance: Total the actual number of days each child attended to give the number of days of care provided during the month. Record on line 6 6. _____

Divide the total cost from line 5 by the actual days of care provided (line 6) and record on line 7. This is the actual cost per child day of care. 7. _____

Cost Per Child Day-Enrollment: If you receive payment for child care based on enrollment you may wish to compute costs based on enrollment. Record the number of children enrolled for the entire month on line 8 8. _____

Record the number of days the center was open for the month on line 9 9. _____
(include holidays if you are paid for holidays)

Multiply line 8 times line 9
Record the result on line 10 10. _____

Total the number of days for which you received payment for children who were not enrolled for the entire month and record on line 11 11. _____

Add lines 10 and 11 and record on line 12 12. _____

Divide the total cost from line 5 by total enrollment from line 12 and record on line 13 13. _____
This is the cost per child day based on enrollment.

Personnel Cost: Record the total paid in salaries to all personnel on line 14 14. _____

Record the amount paid for social security tax (FICA) on line 15 (Multiply .0585 x total salaries - line 14) 15. _____

Record amount paid for workman's compensation on line 16 16. _____

Record the amount paid for unemployment insurance on line 17 17. _____

Record the amount paid for other fringe benefits on line 18-21 e. g. Hospital Insurance, Retirement Benefits, Substitutes for Vacation/Sick Leave 18. _____
19. _____
20. _____
21. _____

Add lines 14 through 21 to give total personnel cost and record on line 22. This is the total personnel cost — 22. _____

Cost Per Child-Day for All Personnel: Divide the total personnel cost (line 22) by the number of days of care provided (line 6) and record on line 23. This is the cost of all personnel per child day — 23. _____

B. Child Care Staff Personnel Cost

Add the totals of all columns labeled D on the Teacher Staff Summary. Record on line 24 — 24. _____

Divide the total of all child care personnal salaries by the total of all personnel salaries to compute the % of total salaries which go to child care. Record on line 25 — 25. _____

Multiply each fringe item total by this percentage (line 25) and record.

| | | |
|---|---|---|
| (line 15 x line 25) | FICA | 26. _____ |
| (line 16 x line 25) | Workman's Compensation | 27. _____ |
| (line 17 x line 25) | Unemployment | 28. _____ |
| (line 18 x line 25) | Other fringe | 29. _____ |
| (line 19 x line 25) | Retirement Benefits | 30. _____ |
| (line 20 x line 25) | Other | 31. _____ |
| (line 21 x line 25) | Other | 32. _____ |

Add lines 24, 26, 27, 28, 29, 30, 31, 32 to obtain total cost of child care personnel. Record on line 33 — 33. _____

Divide the total child care personnel cost (line 33) by the number of day of care provided (line 6) and record on line 34 — 34. _____

This is the cost per child-day for child care personnel