This paper provides an overview of educational materials available for parents to use in facilitating their children's learning. The primary focus is on developing parental support systems which extend learning into the home through creative and effective use of materials. General considerations such as the larger social context of the learning process, historical changes in family interaction patterns, the role of play, and the role of the community in children's learning are briefly discussed. The current status of mass market materials is discussed in more detail, with consideration given to materials for different age groups, materials concerned with contemporary society (those concerned with human ecology, nutrition, health education, consumer education, social relations, etc.), and materials designed to offer parental support in fostering informal learning in children. Also covered are special home-school-community programs that foster parent-child interaction with respect to school learning; publications on parenting; and inadequacies and gaps in the mass market supply (sex-stereotyped materials; lack of consumer guidance in toy selection; lack of multicultural materials; safety problems; lack of creative educational materials; lack of materials adapted to the needs of handicapped children and their families; and lack of materials reflecting current knowledge about child development). A plan of action for materials development and distribution is recommended for implementation by the National Institute of Education. (Author/SS)
CURRICULUM MATERIALS FOR
THE FAMILY AS FACULTY

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I. Contextual Considerations

II. The Role of Play in Children's Learnings

III. The Role of Community in Children's Learnings

IV. The Current Status of Mass Market Materials

V. Recommendations for Materials Development and Distribution
I. Contextual Considerations

Any discussion of educational materials and activity must take place within the larger contexts of the learning process and the society whose knowledge is being transmitted. While this paper is concerned with some very narrow questions regarding educational materials available to children and their parents, such questions must be addressed in terms of the contemporary situation of American families and schools. The reader's forbearance is requested as we briefly note a few of these contextual concerns.

First, we need to remind ourselves that learning is so universal a characteristic of living things that it can be properly described as a cellular imperative. All living things -- even trees, it appears -- learn continuously and modify their behavior in response to their experiences. Learning is not a behavior that only takes place in specialized institutions with special architecture and fancy lights. People, including children, learn everywhere and from everyone. They learn at home, at work, in the neighborhood, in stores and in schools; from relatives and friends, from television and newspapers; indeed in every setting and every interaction and from every task they undertake.

Family members, as significant actors in the child's world, teach continuously, whether deliberately or not and whether or not they are aware of their teaching role and the content of their curricula. Family members are not the only teachers, nor are homes the only classrooms and their relative contribution to formal learning has yet to be measured.

Undoubtedly, parents are and can be effective teachers. No effort is made here to review the extensive literature in this area. One example is Vopova and Royce's report of a .82 correlation between the amount (i.e. in hours) of parental involvement in preschool programs and the likelihood of normal progress in regular school classrooms throughout the child's public school career.
Historically, parents appear to have played a more vital role in the academic education of their young than is now apparent. While the teaching of basic skills, history, literature, arts and values was delegated to schools, this was only a partial delegation. Parents determined the content of the group instruction and were responsible, partly through the institution of homework, for individualizing learning.

While schools were never intended to "do it all", recent social changes have seriously impaired collaborative contact between parents and teachers. These changes include:

- The consolidation of rural schools since World War II sent children many miles from their homes, thus eliminating the unplanned contacts and easy mutual access that characterized parent-teacher relations in village schools.

- The extension of rural busing to the cities to overcome patterns of segregated urban housing brought a severance of ready contact between parents and teachers. With more children now living in cities in which school boards preside over vast establishments, parental control of school policy has considerably become more fictional than real. The freedom with which teachers can respond to individual parental wishes, has thus been severely constrained. The severance of such ties, particularly for minority children, is powerfully described and discussed in Lightfoot's "Worlds Apart" (Basic Books, 1978) and illustrated in Rist's "The Invisible Children" (Harvard, 19...)

- The elimination of homework in many school districts destroyed a daily opportunity for parents to teach their children, to monitor their classroom learning and to reinforce the mutual goals of school and home.

- Maternal participation in the labor force has doubled and further reduced the possibility of parent visits to schools and has reduced the time available for parent-child interaction.

Several other contextual reminders seem necessary before we can begin to examine the specific facet of the education of children with which this paper is concerned. The over professionalization of education, an inevitable result of applying an industrial/technological model to the human services, has reduced many parents' feelings of competence as teachers of their children and nurtured a belief in others that they had no personal responsibility for the "academic" learnings of their children. The conversion of "parenting" into a dangerous
and mystifying profession, a notion fed by a peculiar interpretation of psychoanalytic theory, and enhanced by notions such as "super mothers", has frightened and constrained many new parents. For a while, indeed, the popular literature blamed "mom" for every departure from an idealized norm that any child displayed. Television has assumed so important a role in socializing the young that parents express real concern over the infringement of TV on parental authority. Television not only modifies children's behavior's it can both shape and interfere with parental roles and activities. We shall, later in this paper, describe some current efforts to disabuse parents of these beliefs, and to find ways, appropriate to contemporary life-styles, of reestablishing a central role for parents as teachers. It is our own conviction, as educators, that steps which improve the self-confidence and effectiveness of parents as teachers will not only improve the academic achievement of our young but will serve also to strengthen family bonds.

The Family as A Contemporary Institution

Much of recent literature about the family bemoans the changes in the functions of the family during the last century. Certainly the family has changed; indeed, its durability as an institution is in no small part related to its ability to continuously adapt to changes in society. A sensible approach to assisting parental educational roles, it seems to us, requires that we recognize the relevant changes and build expectations and programs which relate to today's families, and not to some mythic group. Among the facts of family life which directly relate to the parent's educational roles, we particularly note these:

1) Only about 35% of today's households include, in addition to children, two parents but only one breadwinner. We cannot assume the presence of an otherwise unemployed adult waiting for the child(ren) to get home from school.
(2) The time available for parents to be with their children has been reduced to a narrow range of hours, during which feeding, dressing, household chores, and the television set must compete for time, so that,

(3) Teaching symbolic skills such as reading and arithmetic, must somehow be incorporated into the other existing and necessary activities and tasks of the family and community.

Educational Materials and Family Functions

While some educational materials approach this reintegration of learning with work (simply written cookbooks, for example); these materials are more concerned with behavioral rehearsal than they are with behavior or learning. The number of household chores has decreased dramatically, while the knowledge required to function in our complex consumer market and to cope with our increasingly diverse society has grown more complicated. The continued popularity of family and video games, however, suggests that intergenerational activities are still important, and that the opportunity to teach in ways that serve and strengthen family purposes does exist.

Source of Materials

Parents use an enormous variety of materials and resources in rearing their young: their own experience, their friends and relatives, the objects around the house and neighborhood, newspapers and magazines, radio and television. Moreover the extended family while coming from a more widely distributed network, still provides some toys, hand-me-downs and advice as part of family income. Eiduson's estimate that over 5000 stable communes and collectives exist in the United States testifies to the continued attractiveness of support networks in families. 4
II. The Role of Play in Children's Learnings

Play is the child's work, and provides opportunities to develop and perfect skills, to rehearse future behaviors, to solve problems, to work out the meaning of everyday life and experiences. Most toys seem designed for behavioral rehearsal and competitive activity. Some games, of course, encourage word and number usage. These games, however, tend to be the old "stand-bys." Many new toys are incorporating technology to facilitate learning. Electronic toys and kits for older children are more likely to encourage basic learnings, particularly in mathematics and physics. Considerable opportunities exist for increased curricular content in games and toys. The reception by adults and children given to well designed teaching machines and computer games leaves little doubt that popular games can be constructed to strengthen and teach basic skills.

III. The Role of the Community in Children's Learnings

In considering materials for parents as teachers, we distinguish between deliberate and non-deliberate teaching. All parents teach; their awareness of that fact, and clarity of their curricular intent vary. For parents who place high value on reading and intellectual achievement, the teaching role often is a major component of their interaction with their children. These parents buy books on child development, purchase educational toys, reading readiness materials, teach their children school subjects, take them to museums and galleries and expose them to educational television. In one sense, we need not be concerned with motivating them to teach, it is sufficient to assume that useful materials are available to them, and that they can learn how to use them.

In order to significantly increase the number of parents who increase and focus their teaching skills, we need to address those who are not deliberately teaching basic skills.
The reader can list as well as we why parents are not deliberate teachers:

- They may feel incapable of teaching.
- They may assume it is the exclusive job of the schools.
- They may not value such learnings.
- They may not realize the importance of their participation in teaching.
- They may conceive of the task as too time-consuming or too technical.
- They may not know how to go about it.
- They may underestimate their child's ability to learn.

At this time we know of no empirical data on the incidence of non-deliberate parental instruction. It is clear, however, that parents do indeed want their children to learn, and most parents express the belief that education is a key to life success. A systematic effort to sensitize, assist, and encourage more parents to become deliberate teachers should, reasonably, be welcomed by many parents. Materials need to be developed which will encourage parents to include children in their work at home, in community activities, and in play, and that will encourage cognitive achievement. It seems unlikely that the toy industry would invest in the development or dissemination of these materials. Parents of course, continuously develop and change, and family life itself goes through a predictable series of stages and stresses. The readiness to use materials and the parental motivation to invest energy in educational tasks will vary according to the stages of individual and familial development.
IV. The Current Status of Mass Market Materials

"Today at least theoretically, the options and possibilities in life have increased manyfold. In order to be able to make wise choices, develop goals, goal achievement strategies, and the discipline to carry them out at 12, 23, and 65, children need an opportunity to practice these skills at 2, 8, and 12, or from the earliest childhood period." 5

Educational materials can be identified as tools for play and learning. They can help build social relationships and understandings; develop motor and cognitive skills; foster creativity and nurture talent; and inspire self-confidence and self discipline in a pleasurable experience.

Such materials can be roughly divided into those that are structured and those that are unstructured. Generally a structured educational material can be used in a few ways and for limited purposes. With an unstructured educational material, the child can explore and manipulate it freely. In some instances a given toy or game can be used in both a structured and unstructured way.

Operationally such a definition of educational materials must focus on the interaction which occurs in using such a material. To be educational, a material must guide the interaction between the child and some body of knowledge, some person, some intuition or study, or some group. When the child gains meaning from an interaction, the knowledge is internalized and remembered.

We are concerned with materials available in the mass market; more specifically, toys available for infants, children 2-6, children 6-9 and youth. Forty percent of all toys bought are intended for children under 5 years of age. According to 1976 figures, this accounts for 15,499,000 children, but there remain 17,356,000 children aged 5-9, and 19,810,000 between the ages of 10-14 who, apparently are no in the new toy market. 6 This year approximately 150,000 new toys being intoduced. 7 Small, innovative companies find it difficult to compete with the leaders in the field, as a few major corporations using mass
advertising techniques dominate the industry.

Television, and the amount of intense advertising viewed by children explain why specific toys are popular and have such appeal for children. Information from five toy firms is provided which illustrates the increased expenditures for television advertising. "As one leading toy manufacturer puts it, "Today there are four ways of reaching the minds of children - television, television, television, and the movies." Thus we have seen a tremendous increase in the advertising budgets of the five leading toy manufacturers. For the year 1976, Mattel has increased its television advertising budget from $17.5 million, up from $8.5 million in the previous year. Ideal, spent $11.1 million, compared with $7.8 million in 1975; Lego has increased their expenses from $6 million to the $10.1 million spent in 1976. Milton Bradley spent $8.3 million, in comparison with $6.5 million in 1975 and Hasbro spent $7.3 million in 1976, compared with the previous year expenditure of $4.6 million. Advertisers rely on the technique of saturation; with powerful pressure on parents to purchase these demonstrated toys, parents are often convinced by the promotional claims in the absence of other information. In 1971, one hundred different advertisements could be viewed on television during an average Saturday morning. In 1976 $7.6 million was spent on magazine advertisement, and $1 million for newspaper, radio and other media. In most cases, television has become the sole medium used to demonstrate products, and often this is the only visualization before purchase.

This rapid commercialization has brought forth a variety of opponents. The American Academy of Pediatrics, representing 15,000 doctors, has recently supported a voluntary ban, within a reasonable period of time, on commercials aimed at "defenseless" children. The lobbying efforts of Action for Children's Television (ACT) based in Newton, Massachusetts, has received widespread support. During the week of November 12, 1978, a coalition of interested consumer, medical, labor, and public action groups advocated a watch TV and write-in campaign, organized by Action for Children's Television (ACT). Parents and other "concerned"
adults were urged to critically view commercial children's television for one hour and express their opinion to the Federal Trade Commission on the quality and effect of the advertising directed at children.13

The Toy Manufacturers of America, a trade association representing the 250 members who are responsible for 90% of the industry's total sales, conducted a study of the haphazard habits of toy shoppers. When entering a store 24% of toy buyers have no intention of buying any toys, 39% have no particular toy in mind and only a vague intention to buy any toy, and 63% of all adults who buy toys have no particular price range intended at the onset of shopping. Over a recorded year, more than half of the toy buyers made their selection after browsing in a store; 85% of consumers who intend to make a purchase shop in only one store, rather than comparison shopping for variety or price. In light of this information, it is obvious why toymakers display their products in so many varied types of stores.14

Generally, children and their parents find it difficult to interpret the guidelines for choosing materials and toys marketed to a children's audience. Leading manufacturer's catalogues reveal that many toys foster many types of development - intellectual, language, motor, social and aesthetic. The label "education" appears frequently on various manufactured toys, books, and games. Such labeling may provide children and adults with a false sense of security. Catalogues listing materials and information may refer to chronological age and are often at odds with catalogues listing materials developed for handicapped children. Very similar materials can be used for disparate age applications. For example, materials intended for an infant's "crib-toy" might also be useful for educational purposes with older children, in interactions with adults, in play with younger children, or in the development of skills with adolescent handicapped children. Multidimensional applications such as these are needed and are presently lacking.

The following sections of this chapter initially outline the resources
presently available, and subsequently, the most prominent gaps or needs not now met. Available materials are outlined in terms of developmental or age categories, then in terms of issues or subject matter and then in terms of parents' needs. Because our primary focus is on developing parental support systems which extend learning into the home through more creative and effective use of materials, a number of demonstration programs are also cited.

Materials for Different Age Groups

There has been some application of research to the development of educational materials for infants, children and youth. This application, however, does not apply equally to all age ranges in children. Due to research findings over the past two decades it has become evident that the infant is an active learner. As a result, a range of toys have been marketed for the developing infant as he/she grows and becomes more competent. Infant research has been translated into developing materials that attract the eye, tickle the ear and foster the reaching of muscles. An example of this translation are rattles which are designed in different shapes, colors and sizes in an attempt to make the materials interesting and to encourage a variety of hand positions. Manufacturers such as Sears Roebuck, Johnson and Johnson, Alabe, Creative Playthings, Fisher-Price, Playskool, Child Guidance are involved in designing and producing such educational materials for the infant.

For children two to six years of age there appears to be a range of educational materials that foster the processes of play, stimulation, experimentation, manipulation, discovery and fantasy and the development of motor, language, cognitive, social and affect skills. A wide range of educational materials, props, records and books foster block and building play, imaginary and fantasy play, sensory awareness, motor coordination and concept formation through manipulation, active and large motor play, expression and creativity, rhythmic and music skills, scientific investigation, experimentation and discovery.
These educational materials include items which are commercially made and those which are constructed in the home. Manufacturers such as Mattel, Playskool, Fisher-Price, Creative Playthings and Child Guidance are involved in designing and producing materials to foster such skills and processes.

For children six to nine years of age the market for educational materials displays an array of board games such as Scrabble, Monopoly, Twister, Parchesi, Chess, Checkers, Life, Mastermind, Boggle and others. The classic game of Scrabble has been translated into several foreign languages and has several variations for juniors. These board games vary in difficulty; some are for the prereader while others are appropriate for the accomplished reader. For children aged six to nine substantial number of games introduce science fiction characters and play situations associated with hero figures. These super-athletes, super-heroes, super-people and super-stars come in a range of ages, sizes and styles.

Perhaps a special category of toys and educational materials are those directed to school-aged children and which include increasingly sophisticated electronic components. Video games, for example, which attach to a family television set, are both child-centered and intriguing to adults, with modular adaptations (through cassettes) for involving numbers of players in a wide range of games. Recent adaptations of the pocket calculator, such as Mattel's Basketball, Space Alert, Football, or Auto Race, are hand held individualized simulations designed to repeat adult activities in simplified, schematized, and win-lose children's games. Perhaps more dramatic are microprocessor mini-computer "toys" which, according to some projections may replace board games for many players.

The immense market for such toys is only one illustration of the trend toward sophisticated, often expensive, "educational" adaptations of adult activities for younger learners. It remains to be seen whether focusing a child's attention on rules established by a computer has as much "play value" as a marble, which makes a child invent his or her own rules.
For this age, electronics and electronic toys have been the outcome of our advancing technology applied to a new and growing market for expensive educational gadgets. Radio-controlled model cars, planes and boats, computerized table and video games, hand calculators, and electronic sports and games are reported to facilitate the understanding of the uses of electronics for children and adults. Games such as Electronic Battleship, Merlin, Simon, and items such as talking robots of all sizes and shapes, computerized quiz games and walkie-talkies are a part of the electronic revolution that involves children. Such electronic games and gadgets seem to appeal to a wide range of ages, and some are reported to be for both children and adults.

Craft and hobby items, sports equipment and games of physical skill are developing interests for children ages six to nine. Numerous activity books appeal to children of school age; many of these are programmed so the child can direct himself. Some toys have a series of additions or units of advancing difficulty (i.e., Lego and Erector).

For youth there is a continued interest in the educational materials discussed. Materials with increased intellectual and creative sophistication are of particular appeal. During this period, many parents are particularly interested in helping their children to excel in academic endeavors with the approaching concern for college and vocational preparation. Avalon Hill Manufacturers have created a variety of games to simulate real life experiences. Family-oriented games reflect social, economic and cultural trends. Other games recreate major historical events. Adults and youth, between the ages of 12 and 19 (who are the major consumers), can choose from more than thirty games, including Outdoor Survival, The Beat Inflation Strategy Game, Business Strategy, Word Power, Tufabet, Baseball Strategy and D-Day.

Materials Concerned with Current Society

Few materials for school age children and youth address human ecology, nutrition, health education, consumer education, social relations and traffic
safety. Recent efforts to design games addressing animal conservation, nutrition, women's history, energy, ecology, space travel and population issues have had some success but they are limited in number. Sniffle Free Land is an example of a new game, endorsed by the American Red Cross and HEW, which aims to combine basic hygiene and nutrition information. Other examples of similar games are: Involvement, which provides birth control information; Mountaineering, which encourages efforts of team work during crises; and Circulation, which explains the circulatory system. A few of these innovative games have been developed by companies such as Teaching Concepts Inc., Educational Fun Games Inc., Learning Games Inc., Wiff N'Proof, and Games for Thinkers. Generally these games are designed to encourage academic interest. The play element has been incorporated through increased manipulation, experimentation, and discovery while game technique is used to organize concepts and foster logical sequential thinking.

Materials for Parental Support

Parents want to facilitate optimal development of their children and consequently use a variety of sources to support them in this process. The follow-up and re-analysis of fourteen preschool programs, reported in The Persistence of Preschool Effects by Lazar et al suggest the power of the complementary roles the home and school play in the child's achievement and the importance of continuity in facilitating school experiences. Parents have an active role in the growth and development of their children. Parents are involved in the education of their offspring from birth throughout formal schooling.

Parents can assist their children in achieving skills in reading, writing, mathematics and science and/or traditionally accepted basic skills and hobbies. Kits, books and literature help parents to foster such skills in their children. Such materials are available but it is difficult for parents and others to know which games foster which skills and more specifically, how specific toys, games and kits can be adapted.
There are also few kits, units or 3-D materials which help the parent to begin to realize the potential that the home and community have as a learning center. For example, there are a few self-contained kits with charts, recycled materials and items that encourage children and parents to begin the process of studying concepts relating to plants, measurement, weather conditions, and travel. Such kits should encourage the parent to become engaged in a process and reinforce the concept through games while suggesting areas for expansion.

Perhaps this can be accomplished by a more creative examination of the uses of existing toys, materials, kits and everyday materials not presently understood as educational. Realizing that not all parents are users of such manufactured kits in a structured sense, parents can be encouraged to build experience into everyday activities which respond to creative learning needs of their children. Such opportunities may be based upon an extension of the parents' careers into the home, an extension of hobbies and personal expression of interests into interaction with their children (through gardening, tailoring, etc.) or through more incidental interaction with newspapers, maps, packaging, old clothing and photographs.

The disparity between schools and homes and between teacher styles and parenting styles continues, and innovative solutions are needed for the school to share ideas and materials in a cooperative venture. There is little support for the child to do homework. Issues such as school consolidation, the "back to basics" movement, and the politicized teacher professional all illustrate the disparity between home and school. It appears that actual toys, kits and educational materials must be designed to be used by both children and their families in preschool and day care settings, extended day programs, classrooms and the home environment.

Community involvement at the local level has assumed the task of educating parents. Public and private educational agencies, libraries, museums, and art centers, resource centers and store fronts, Departments of
Public Health and State Offices for Children have planned workshops, displays and lecture series which address the utilization of recycled and other materials to plan and design educational materials for infants, preschool and school age children and youth.

**Programs that Foster Home-School-Community Interrelationships**

Programs to facilitate this process of interaction have been designed. The Home and School Institute at Trinity College in Washington, D.C. stresses the home as a learning device using built-in learning centers especially in the kitchen, the bathroom and the living room. Such a demonstration unit shows parents how to supplement and reinforce the three R's. This Institute also operates a hotline providing an ongoing learning program of recorded ideas for home stimulation. The objective is to help raise the achievement abilities of the child by shoring up the confidence of parents and teachers. Some of the publications available from this group are:

- **Basic Skills: The Home Learning Lay Way**
  Reading, Writing, Math Activities from pre K to Grades 7-8 all under the HSI "thinking skills" umbrella.

- **A 3 R's Plus - Teaming Families and Schools for Student Achievement**
  Home learning recipes for the HSI collection. Training strategies for parents and helping professionals. Survey of significant research.

- **101 Activities for More Effective School-Community Involvement**
  Tested, practical how-to's for easy school-community partnership. Doing it without additional money, time or staff.

This effort has been replicated in various parts of the country. Plans for bilingual education and special education have also been developed at Trinity College.

A second example can be seen in the Oakland, California Public Schools where parents have responsibility for a contract learning system. Parents receive specified objectives in reading and mathematics for each grade level in which their child or children are enrolled, sign a contract to supervise homework, and communicate with teachers. In return, parents have available a teacher's...
contract to share information on the development of each child, and the student's contract to participate in educational activities both in the home and in school.\(^\text{18}\)

A third example is Reverend Jesse Jackson's Project PUSH, a program for high school students in Los Angeles, California, in which parents are asked to supervise their children's homework in addition to meeting with teachers and and their children at regular intervals to discuss educational development. Pledges are signed by teachers, parents and children toward the common goal of homework completion and increased participation in school. Parents pledge to supervise their children's homework for two hours each night of the week. Since its conception in 1977 Project PUSH has had excellent results: decreases in absenteesisms, and violence, increases in homework completion and attendance, and development of improved home/school/community involvement and relations.\(^\text{19}\)

The Child-Parent Centers of the Chicago Public Schools is a nationally recognized program administered for eligible Title I children (aged 3-5) and their parents. The program began in 1967, and as of December 1, 1978, there will be 25 centers serving approximately 4,000 children in the Chicago area. The main objective of the program is to prepare Title I children for later success in the public schools. A necessary component of the program is to promote parental involvement in the education of their children. Parents are required to participate in the centers at least two days a month, and encouraged to volunteer whenever possible. They are instructed in parenting and child development issues and asked to implement specific educational plans for their children in the home, and thus, coordinate learning in the school with learning in the home.\(^\text{20}\)

The organization of Parents Are Resources (PAR) in Northfield, Illinois is built upon the premise that parents are critically important to the development of their children. Materials and programs have been devised to support parents in the education of their children to the age of twelve. PAR is dedicated to helping parents become more competent in supporting their children in their early years 0-12. PAR intervention offers information, support
and opportunities to exchange insights in an effort to foster effective parenting. The PAR orientation appeals to parents of all ages and economic levels and encourages them to utilize their own resourcefulness to stimulate their children. PAR has had a number of major accomplishments: publications of books such as *I Saw a Purple Cow*, *Backyard Vacations* and others; the syndication of a newspaper column with cartoon-type illustrations from *Recipes for Fun*; and the development of a six part film series for parents covering issues such as "Fun with Dad," "The Single Parent," "Everyday Parenting" and others. These materials encourage parents to spend more time with their children: exploring, communicating, listening and learning, through everyday experiences. The PAR Leadership Training Program trains parents and staff to conduct parent involvement workshops. Workshops are conducted in conjunction with the school, health, and social service departments.\(^{21}\)

Sixth, the Recycle Program at the Boston Children's Museum functions as a center of raw materials for educational and creative projects. Local factories and warehouses provide discarded shoeboxes, old parts, useless objects and the industrial rejects and irregulars for teachers, parents and other adults to transform low cost materials into games, craft-type constructions and study objects. The museum also publishes practical suggestions of ways to use the materials; every effort is made to provide instructions that are open-ended and encourage children, parents and teachers to explore together. The philosophy of the Recycle Center is to encourage people to make their own creative decisions in working with materials. The Center sponsors workshops for teachers, parents and community leaders and provides idea sheets, the book, *Recyclopedia* and recycled materials. Their book *Recyclopedia* describes the process of obtaining research materials, making contracts and negotiating with industries in the hope that such efforts will be replicated.\(^{22}\)

Annual functions such as the Brookline Schools and Library Department three day Children's Literature Festival involves children and families, professional
artists, writers, and others. These festivals include lectures, demonstrations, chalk-talks, films, concerts, panels, exhibits and displays and attract a wide range of families.

Over the past ten years a number of home visiting programs, where parents are viewed as the primary educators of their children, have also been developed. With some of these programs, home visitors help parents by modeling behavior and suggesting various books, pamphlets and magazine and newspaper articles on issues which are of concern. These programs range in their orientation, objectives, educational materials used and expected educational outcomes.

Finally, the combined efforts of local colleges and department stores have resulted in lectures, discussion groups and special workshops for parents. The Center for Parenting Studies directed by Professor Frances Litman at Wheelock College in Boston, Massachusetts and Bloomingdale's Department Store offered a Perspectives on Parenting series. Some of the sessions were entitled "The American Family Responding to Change" and "A World of Things to Do."

Materials Published for Parents

The educational role of the parent can be potentially profound when one reviews what is available through the mass media: government publications, books; magazines, newspaper columns and special articles, television and radio. An overwhelming amount of literature cover the broad topics of child development, child problems, child health, parenting and parent education. A survey of parenting literature by Gilligan reveals that a large percentage of books on parenting and child rearing could be described as "How To" books. The distribution of topics closely parallels the findings of studies of "problems" that parents ask experts about. For example, Mesibov, Schroeder and Wesson tabulated 672 parental inquiries to a pediatric office. The most common questions concerned discipline, toileting, developmental delays and school problems; topics well represented in the popular literature.
Materials published by the Government Printing Office are concise, easy to read, free and/or inexpensive. They address current issues which relate to the development of children and practical applications of relevant and current research findings. However, many people are not aware that these materials are available. A review of the latest edition of the Consumer Information Catalogue reveals several helpful publications under the categories of Children and Learning Activities. Some examples of educational materials for parents include Children's Books (1977), a descriptive listing of selected books for preschool through junior high school age, prepared by the Library of Congress; When a Child Begins School (1976), guidelines for parents in helping children adjust to this new experience; and Beautiful Junk (1976), ideas for creating free and inexpensive play equipment and suggestions for locating materials.

For the parents of infants and preschool children there are hundreds of books with complete and easy guides on every issue of parenting. An example of a series of books which illustrate and suggest ways for parents to interact with their young children was developed by Ira Gordon, including Baby Play Through Baby Learning, Toddler Play Through Toddler Learning and Early Years Do Count. All three books include specific and realistic games for the baby and young child. Many of the games were designed by low-income parents in Gordon's intervention programs.

Parents of school age children and youth have recently developed interest in the publication of books which foster skills in cooking, science and mathematics, health and nutrition, environmental awareness and special content areas such as pets. Such books are sold in museums, and specialty stores, limiting their circulation, and the selection of such books requires a certain degree of sophistication. Over a period of years there have also been activity, craft and hobby manuals, some of which were primarily concerned with the final product or ways for children and parents to amuse themselves.
As a result of the growing concern for basic skills in the mid 1970's and an increase in literacy, books have become available which explain a child's competencies such as writing, reading and mathematics addressing simple, varied and practical experiences in the home. Such books however are limited in number, expensive and difficult to read. A series of books on mathematics have been published by the Nuffield Mathematics Project in England and could be adapted and translated to represent the American lifestyle. Additionally, Any Child Can Write — How to Improve Your Child's Writing Skills from Preschool through High School by Harvey S. Wiener is divided into chapters suggesting ways in which the written work can be an integral part of household and community activity for children from preschool through high school.

An example of the potential role mass media can play was the 17 part series guide entitled "Give Your Child A Good Start" published in the Dayton Daily News from December 24, 1972 to January 12, 1973. Each article explained how to stimulate and encourage a child to learn at his individual pace. The format focused on the child's natural desire to learn and activities to encourage learning. Parents were encouraged to clip each article out, punch the holes where indicated and keep the information in a looseleaf notebook. Such a series has unlimited potential for replication.

There are a number of magazines and newspapers which regularly go into the household. Some of these sources have ongoing columns as well as feature articles and special editions relating to child rearing, parenting and educational themes for children and youth. These magazines include American Baby, Baby Care, Parents Magazine, Exceptional Parent, Mother's Manual, Family Circle, Good Housekeeping, Ladies Home Journal, McCall's, Ms., Redbook, Woman's Day and Today's Health. Parents' Choice is a new publication which reviews children's media; movies, television, books and records.

The First Three Years of Life produced by Burton White and Group W, and Footsteps, a television series on parenting sponsored by the U.S. Office of
of Education, Division of Technology, represent efforts to reach the public through television. *Footsteps* is a television series of 20 half hour programs designed for the general adult public. Five or six families representing a diversity of life styles dramatize (without lecturing) common themes of nutrition and health, child development and child rearing. Guest speakers, celebrity hosts and real life situations present documentation. A weekly Viewers Guide summarizes each show and suggests additional resources and alternatives for the viewer to consider. Curriculum materials, teacher manuals and student guides have been designed for use in formal instructional settings and a discussion guide is also available for group leaders of church, school and community organizations.\(^{27}\) The radio series, *The Business of Being a Baby*, developed by Paul Benzaquin and Burton White, can be used by various local radio stations involved in the design of parent education programs. All three productions address educational materials. The extent to which local television and radio stations work together in sharing parenting materials and expertise and the extent to which educational materials are surveyed is unclear to us at this time.

The deluge of materials particularly relevant to parents of younger children makes it impossible for parents to keep abreast of what the experts suggest for educational experiences. After reviewing many books it is obvious that parents need support and education in selecting and judging the relative merit of each book. Perhaps parents could be supported in the processing of learning to review a given book critically. Some issues to be considered might be:

- **Title**-**Author**-**Publisher**-**Price**-**Availability?** Credibility?

- To whom would this book be of interest? (Parents (mother, father, divorced, single, etc.) and/or professionals?)

- Could this book be of interest to me and my family? Why? What could it do for us?

- Readability: What is the general approach? (Case study, edited articles, "factual" guidelines or discussion)

- Synopsis of Content: What are the main issues addressed? Is there a basic approach or orientation?
Inadequacies and Gaps in the Mass Market Supply

In reviewing toys and educational materials for infants, preschool and school age children and youth it is apparent that there are inadequacies and/or gaps. Apparent issues that warrant attention are: sexism, consumer guidance in toy selection, cultural appreciation, safety, the need for diverse and creative educational materials for school age children and youth, more readily available educational materials for children with special needs, and need for further knowledge.

Sexism

Generally educational materials reinforce the stereotypes and other cultural norms projected by adults. James Hymes has stated "The essence of children's play is that the youngsters build their own meanings and ideas into whatever is at hand. The children themselves, are the 'toy manufacturers'. You don't really have to spend much care on finished products which have the details worked out." Literature also supports that by age three, children have a definite preference for sex-type activities which reflect what they have absorbed from the culture. Unless the adults believe in sex role stereotyping, a child will ignore even the most interesting toys if they seem "inappropriate." Children sometimes choose toys and educational materials which they perceive to be appropriate for their sex role identify. This can be traced in large part to parental behavior, to the parents' influence as models and to their approval or support of children's interest in sex stereotyped objects.

Sexism is often conveyed by the packaging of a toy, for many toys themselves are sexually anonymous. There is no reason for toys and educational materials to offend or exclude one sex by omission or inference. However, we continue to see this exclusion through the promotion of the "Powder Puff Moped for the Little Girl" as opposed to "The Mighty Moped," and again in the constant reference
to the player in board games as being "he." Efforts still have to be made for both boys and girls to have the opportunity to practice feelings of care, tenderness, and protectiveness—necessary traits for both sexes. "Package-altering," a method suggested by Letty Cottin Pogrebin, is a temporary answer for unwrapping and replacing a package when a toy cannot be found in a neuter or nonsexist package. 31

**Consumer Guidance in Toy Selection**

While parents and relatives buy toys and other materials in great quantity, the principal source of information available to them in the selection of materials are the Manufacturer's claims, the pictures on the boxes, and children's requests.

No standard system for age-grading exists, nor any information on how to use, adapt or combine toys and games for children with special needs. Indeed, little attention has been paid to such children by manufacturers. Further, existing toys and materials are frequently labelled, painted and packaged in such ways as to reinforce stereotypes of age, sex and social class. Many young parents are deliberately discarding the original packages in order to reduce such social stereotyping.

With continued indications that fathers are playing more direct roles in child rearing, manufacturers have directed more of their products to male purchasers with, it seems even greater emphasis on sex-role stereotypes.

**Cultural Appreciation**

Toys and educational materials inherently transmit attitudes, beliefs, and traditions of a cultural group. Over the years UNICEF has promoted the understanding and appreciation of children's varied backgrounds and culture. Generally, the scope of multicultural materials with appreciation for cultural diversity within our society is limited. Little effort has been made to expose children to various ethnic groups, especially through put-together and activity
toys, puzzles and manipulative items, make-believe props and board games. There are some exciting precedents in children's literature that can be applied to other educational materials and board games. For example *The Black Experience Games*, *Feel the Soul* and *Famous Black People* are games with a specific cultural orientation. Research and investigation is needed to understand the ways various educational materials foster multicultural understandings.

**Safety**

Each year over 700,000 children are sickened, injured, permanently maimed, or killed by toys; 150,000 of these injuries are so serious that they require hospital emergency room treatment.\(^{32}\) In 1976, the Toy Manufacturers of America, Inc., adopted a general set of safety requirements for children's playthings. This safety code, designed as Product Standard 72-76 is a voluntary obligation which covers the design, manufacture and testing of toys.\(^{33}\)

To influence the educational products and toys produced by the mass market, the Public Action Coalition on Toys (PACT) was formed in 1972 by several women's and consumer groups to promote toy standards on a national basis and to monitor toy hazards. PACT protested against toys considered to be dangerous, violent, sexist or racist and awarded the PACT citation to manufacturers for toys that meet specific criteria for quality. They developed the PACT Guidebook and addressed the most recent information as it related to safety.

Since 1972 the U.S. Consumer Product Safety Commission has been involved in toy safety. Originally the Commission was instrumental in reviewing new products and in publishing a list of toys and products that were banned. These efforts have been discontinued with the rationalization that toys have become safer. Public interest groups, however, who oppose this point of view, acknowledge that it is difficult to review each item. Most recently the U.S. Consumer Product Safety Commission has proposed tests to screen out small parts on toys and other articles designed for children under 3 years of age who might choke, swallow or
inhale the parts. In a study on small parts injuries to children under 10, the commission found that about half the 3800 reported injuries between December 1976 and February 1977 were to children under 3, and 25 out of the 45 deaths were in the under 3 group. This Commission emphasizes the need for education for both parents, teachers and children on toy safety. To educate the public the Commission has developed a kit which offers guidelines for conducting a "Toy Safety" presentation and provides program aids. Such educational materials as brochures, posters, bumper stickers, fact sheets, film presentations, slides and discussion guides can be used with groups of parents. For children there are coloring and story booklets. The complete kit and information is available from: TOYS
U.S. Consumer Product Safety Commission
Washington, D.C. 20207
Toll free: 1-800-638-2666

The Action for Children's Television Inc. (ACT) is a non profit corporation also organized for the purpose of improving television programming for children. Toy safety is one aspect of their overall concern for the child as a consumer.

Need for Diverse and Creative Educational Materials for School Age Children and Youth

Diverse and creative educational materials for school age children and youth are needed. Some creative learning materials for this age group currently exist, but only several hundred out of 150,000 play products should not be sufficient to satisfy the public. As many of these inventive exceptions are not produced by large companies, they are not easily available.

Super characters, technological electronic games, board games and sports equipment are more readily available. For this age group there are few musical materials which experiment with sound as a creative subject; musical synthesizers for improvisation, composition and recreation of musical patterns
are still a novelty. Props for meaningful fantasy and role play cannot be readily found. There is a scarcity of kits and materials for school age children and youth. Only a limited number of kits facilitate vocational skills such as plumbing, oceanography, aviation, banking, shoemaking, tailoring and architecture. Few sophisticated games and materials explore human ecology, foods and nutrition, health and body awareness and other such vital issues.

Educational Materials for Children with Special Needs

Children with special needs are now receiving increased attention so that they can begin to enjoy a wider range of toys and educational materials. With the enactment of Public Law 94-142, The Education for All Handicapped Children Act of 1975, programs have been devised to involve parents of young children with special needs. There is a need to continue to adapt, refine and consider the various educational applications of materials as they relate to the needs of handicapped children and their families.

The Bureau of the Educational Handicapped has been involved in research and demonstration efforts and development of educational materials. There is also a need for more experimental research on nontraditional applications of existing toys and materials for infants, preschool and school-age children and youth. Examples of such commercial efforts are giant domino blocks, scratch and sniff books in Braille, puzzles with knobs and games such as Mastermind and How to Play The Subway which have been developed for specific groups of people.

We also need resources and printed materials more easily available for parents and children with special needs. The book Laboratory Science and Art for Blind, Deaf and Emotionally Disturbed Children is an elaborate source book for educators in elementary schools which focuses on mainstreaming. The activities outlined discuss the topic for exploration, science or math concepts to be learned, materials, advanced preparation, procedures and
and adaptations. Innovative means must be explored to reach parents who could be involved in such laboratory sciences and art in the home. The booklet, *Home Stimulation for the Young Developmentally Disabled Child* is a manual intended for the families of very young children who are developmentally disabled. The format is flexible and includes illustrations and specific ways to stimulate learning. Lazar's *Laboratories in the Classroom* describes ways of teaching scientific methods in the context of "other" learnings and subjects.

**Needs for Further Knowledge**

Currently available materials do not reflect current knowledge of learning or child development. The application of that research has been most evident in mathematical games and toys - Diene's blocks and cuisenaire rods - yet these materials are neither new nor immediately relevant to parents. Whether this reflects the failure of investigators to apply their own theories, the difficulty in reducing theory to language and materials directed at parent education, or the vagueries of the marketplace, most materials appear to be without theoretical foundation.

Perhaps this appearance is deceiving. We are aware that new toys are often subjected to extensive pre-testing, in laboratory conditions, at commercial psychological testing concerns. Such tests are assuredly theory-based, since they involve the most common application of the behavioral observation techniques pioneered by Piaget and Bruner. The results of those tests are rarely published, however, and toys which come to the market are, as it were uncertainly connected to any theory of growth or learning.
V. Recommendations for Materials Development and Distribution

The following recommendations suggest a plan of action for the direction of educational materials for children and youth and their families. These recommendations are written specifically for implementation by The National Institute of Education, but could of course be carried out by others.

1. Federal investments in materials for parents should focus on a few specific areas of curriculum content judged to be of high priority and reflecting national needs for increased instruction. These areas are age-group specific as well as content-specific. Without such defined goals, other activities are likely to be too diffuse to have significant impact.

2. An independent examination of current materials in the mass market needs to be undertaken to identify those which:

   A. Address the curricular priorities
   B. Can be modified to increase their priority content
   C. Can be improved or used in new ways to focus their potential as teaching materials.

3. Based on that examination, The National Institute of Education should underwrite the development and dissemination of materials which supplement the market supply. For example, activities that enable children to participate more directly in the work of their home and community might also increase parental time in deliberate teaching, and help demystify the teaching process. Additionally, many would agree that we need materials to foster cultural diversity within our society. Whether through multilingual games for young children, adapted versions of non-western toys or games for older children, further research on the nature of "child's play" and ways to foster multicultural understandings and reduce stereotyping are efforts that require public attention and support.

We were struck again, in reviewing the mass market, by the relative scarcity of materials for school age children and their parents, and of games...
or activities which involve adolescents with their families in ways that support parental teaching roles. A commonly reported concern of parents, that they wish they could more constructively assist their young adolescent children in career exploration, suggests an obvious area for material development.

4. The National Institute of Education should assist in the development and dissemination of information for parents to encourage, support, and improve their teaching skills, and to assist them in material selection. Sites for dissemination and demonstration of such materials could include well-baby clinics, health centers, libraries, neighborhood centers, Head Start programs, PTA and Scout meetings, and in the open areas of shopping malls.

5. The National Institute of Education should establish an independent materials evaluation service which might provide the following services:

A. Assess the safety and durability of commercial materials
B. Establish standards for age-grading and educational content
C. Describe applications for children with special needs
D. Develop methods for measuring effectiveness of materials as ordinarily used.

6. Methods for bringing materials development to parents need to be devised. In their research with low income families, both Merle Karnes and Ira Gordon found involving parents in the actual development of games was not only an effective device for helping parents understand underlying theories of learning and development, but also was a most successful strategy for paternal involvement. The need exists to make educational materials developed from Research and Demonstration efforts from various projects funded by the Bureau of the Educational Handicapped more easily accessible to young children. Information on educational materials could be shared with parents in a manner which is easy to comprehend. More exciting possibilities could be explored for use of existing materials. Often existing materials intended for one group could be used with other groups; perhaps more experimental and analytic research may lead to non-traditional applications of existing materials.

7. The use of community settings, such as museums, libraries, appropriate...
workplaces, store fronts and mobile vans can move the development of materials beyond national programs. There remains a need to focus on specific model programs to train parents, teachers and community people to encourage effective use of materials in community settings, and to broaden the role of education beyond that of the more traditional texts, tests, and institutions. A plan is needed to encourage local communities to design their own options. Each community could develop their own model to unite parents, children, youth, senior citizens, and community resources to create educational materials. Such centers and/or mobile vans would assist teachers, engineers, people with expertise in materials development, parents, and the entire community in developing and providing educational materials for children and youth. Specific museum, library, art and culture settings could foster an alliance between community, schools, and business. Perhaps in rural settings mobile vans could reach the families residing there. Whether such collaboration is best expressed through The National Institute of Education, and National Science Foundation, National Endowment for the Arts or National Endowment for the Humanities is a question for further investigation.

8. Design and create a strategy for general access to the media. Television, radio, and selected short subjects in theaters have available public service spot information which could be readily accessible to parents, and easily available in more than one language. Spot commercials could highlight the opportunities parents have to translate everyday materials to educational events for their children. Innovative or experimental educational television programming, on commercial or non-commercial networks, remains worthy of support, particularly insofar as such programming highlights parents' roles as primary educators using everyday materials. Worth immediate investigation for programming is the interactive cable system QUBE, in Columbus, Ohio, under Warnercable, which offers the opportunity for two-way telecommunication between children.
and the studio. Since this system is still experimental, it is particularly desirable to investigate for its educational potential. Paid advertising is authorized to attract citizen involvement in planning for Title XX of the Social Security Act. It follows then that purchasing television time to instruct parents on the educational use of materials already in the home, may now be possible.

9. Design a plan for the use of containers to provide information. The container as a communication media is already intriguing and has far-reaching circulation for children and youth. The National Institute of Education could explore the ways cereal packages, milk cartons, egg packages, and a host of other packages which have immense circulation could be a useful source of educational information. Such an effort could be creatively designed and supported by The National Institute of Education and others.

10. The special materials now on the market for handicapped children are often too expensive or too difficult for everyday use in typical families. We recommend a systematic effort to help parents of handicapped children to use readily available materials in ways appropriate to their children, and to construct or modify games and toys for special purposes. The new technologies could be especially helpful in designing toys for children whose disabilities reduce attention span and interfere with self-initiation of play. Most mass market materials assume levels of motivation and attention which make them useless for children who are impaired in these areas. Learning is integral to all play, and the content of play can therefore be enriched so as to reinforce the parents' own teaching activities.

11. Interactive television is now being tested in the United States. A Japanese manufacturer has combined a copier with a television set so that the push of a button will produce a hard copy, in color, of whatever is on the screen at the moment. Home videorecorders are gaining in popularity,
and minicomputers for home use are already being marketed for $500. National networking through satellite is a daily event in television.

The time is now upon us to develop the software which will use these probable features of everyday life as educational interventions in the home. Their availability now is more likely to insure their use later. The development of high quality software may eliminate the poorer quality material sure to be on the market.
FOOTNOTES


9"Five Toy Firms Appear as Top Advertisers," Toy and Hobby World, May 1977, p. 53.


14Edward Swartz, Toys that Don't Care (Boston: Gambit and Co., 1971), p. 15.


19 Fred Oli, Coordinator, Project PUSH, Los Angeles, California, telephone conversation, November 9, 1978, and printed material.

20 Dorothy Kalper, Program Administrator, Bureau of Early Childhood Education Programs, Chicago Public Schools, Illinois, Chicago, telephone conversation, November 9, 1978.


27 Jerold Sandler, Project Director, Footsteps, Silver Springs, Maryland, telephone conversation, November 14, 1977.

28 Joan Bergstrom and Rose Margosian, Teaching Young Children Basic Concepts and Resources (Columbus, Ohio: Charles E. Merrill Publishing Co., 1977), p. 171-172.


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