A report to
Carnegie Corporation
of New York —

The Potential Uses of Television in Preschool Education

by
Joan Ganz Cooney

In 1966, Joan Ganz Cooney was a documentary producer at Channel 13 when Lloyd Morrisett, then Vice President at the Carnegie Corporation of New York, offered her an opportunity that would change the landscape of children's media forever. The Carnegie Corporation provided funding for a three-month study during which Joan traveled the country to interview early learning experts and children's television producers and filmmakers. Her report, *The Potential Uses of Television for Preschool Education*, became the blueprint for *Sesame Street* and Children's Television Workshop, and today it drives our efforts at the Joan Ganz Cooney Center at Sesame Workshop, a research and innovation lab she founded in 2007. We are grateful to Joan and Lloyd for their vision and leadership.

We are pleased to share Joan's original, unedited report and hope you will find both food for thought and inspiration within these pages.

With special thanks to the Carnegie Corporation of New York.

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Preface

You may have heard that television programming in the 1960s was called a “vast wasteland” by then-FCC Chairman Newton Minow. From the beginning, Lloyd Morrisett and I were both convinced that television—which was capturing the attention of children as nothing else was—did have the power to educate as well as to entertain, and we set out to prove it.

It was back in 1966 when I wrote my original report, *The Potential Uses of Television in Preschool Education*. This study was supported by Lloyd, Vice President at Carnegie Corporation, who found himself concerned by the very power and appeal that a television screen had over his own young daughter—at three years old, she would turn on the TV early in the morning and sit down to watch test patterns as she waited for something to come on. She, like many other young children, had the capacity to memorize all the advertising jingles they heard. We asked the question, “Could that fascination with television be transformed into something that could teach them how to read?” So, a simple conversation over dinner with friends turned into an opportunity to produce this report, a proposal to the Carnegie Corporation, that launched *Sesame Street*.

I gathered the smartest, most talented people I could find to produce what I wanted to become a television program for children that could positively impact their lives—especially those young children who had no access to early preschool education.

We knew that it would also be important to attract the mothers who were often at home during the day, so they would enjoy the show and talk about it with their children. I was thrilled when the show premiered on PBS in November 1969, and even more thrilled when the research showed that children who had watched the show gained critical kindergarten readiness skills over those who had not. I am proud that the show, and the company that we founded, The Children’s Television Workshop, (renamed Sesame Workshop in 2000), continues to make children all over the world smarter, stronger, and kinder today.

During the 1960s, of course, family lives were quite different from what they are today. More often than not, both parents work outside of the home, and young children have many more entertainment options than ever before. Children from lower-income families in particular need more support and guidance to catch up to the advantages that those from more affluent families enjoy. In 2007, I wanted the Joan Ganz Cooney Center to continue to ask the questions that drove the creation of the show, “*How can children learn from emerging technologies?*” Smart phones and tablets are everywhere now, and we know children are using them. How can we create content that is beneficial to young children? And what do producers need to know about the varied ways family members engage with these devices separately—and together?

I am thrilled that Sesame Workshop has been able to impact the lives of so many children around the world for the past 50 years, and it is my hope that we can continue to make as great an impact in new media as we have with television, and that the Workshop is able to continue to educate and inspire producers, researchers, and policymakers who are helping to shape the lives of young people today.

Joan Ganz Cooney
Co-founder
Sesame Workshop

Joan with the Muppets.

A Timely Experiment in Television and Education

In the spring of 1966, Joan Cooney completed her landmark study of television and early education for the Carnegie Corporation. It was entitled *The Potential Uses of Television in Preschool Education*.

The 1960s created a climate for social change and encouraged people to seek it. Television had become the medium with the greatest reach but offered little of benefit for children and was seen by many as “a vast wasteland.” The country had become sensitized to the problems of early education because of the failure of large numbers of children in urban communities and schools. New York City was a primary example, where a black child would come to school a few months behind in first grade and be a year and one-half behind by third grade. This was a common finding.

The Educational Policies Commission of the National Education Association proposed that all children should have the opportunity to go to school at public expense beginning at the age of four. If the NEA’s recommendation had gone into effect, about five million more 4- and 5-year-olds would have been added to the school rolls. The United States did not have the funds, the school rooms, nor the teachers to act on this recommendation.

Lloyd Morrisett leads a research meeting in 1968

Joan Cooney’s study was finished while the administration of President Lyndon Johnson was pursuing one of the most ambitious policy agendas in American history. President Johnson wanted to create the “Great Society”—to end poverty, promote equality, improve education, rejuvenate cities and protect the environment. The study offered a possible way to use television to meet the national need for more and better pre-school education, and it was the precursor to a complete proposal to test the idea. In 1968 Carnegie, the Ford Foundation, and the U. S. Office of Education joined together to provide the funds for the experiment in television and education that became *Sesame Street*.

Lloyd Morrisett
Co-founder and Chairman Emeritus
of the Board, Sesame Workshop

Vice President, Carnegie Corporation
of New York, 1964-1969

The Power of an Idea

In the annals of American philanthropy, the most successful endeavors usually come out of a confluence of vision, expertise, and financial support. This is the case in the development of the world's most beloved educational television program, *Sesame Street*.

It was Joan Ganz Cooney who came up with the revolutionary idea to harness the power of television for good. Lloyd Morrisett, then vice president of programs at Carnegie Corporation of New York, was an expert in technology and early childhood education who saw the transformational possibilities of Joan's plan. Alan Pifer, the Corporation's president, together with the board, backed up their vision and expertise with a $15,000 grant to produce a study of children's television. With later collaboration with the Ford Foundation, that study led to the creation of the Children's Television Workshop (now Sesame Workshop).

Joan Ganz Cooney's favorite expression, often attributed to Tolstoy, is "All big ideas start as simple ones." In the case of *Sesame Street*, the show's extraordinary impact proves this principle. A simple idea became an international phenomenon that is still admired and presented throughout the world.

Five decades on, it is enormously gratifying to reflect on the role Carnegie Corporation and Ford Foundation played in the creation of *Sesame Street*. We are proud of this investment, which continues to have a resounding impact on early childhood education at home and abroad.

Vartan Gregorian
President
Carnegie Corporation

Carrying a Vision Forward

When Joan Ganz Cooney began her study, I don't think she could have imagined that the path she started down would one day become the longest street in the world. Her 1966 report is much more than a treasured heirloom in the Sesame family. In many ways, it's our sacred text: the starting point from which a global phenomenon sprang and a material reminder of our purpose and our mission.

Seeing massive potential where others saw mere diversion, Joan's thinking was visionary—and as the current CEO of Sesame Workshop, I well understand the size of the shoes that are mine to fill. The organization she and Lloyd Morrisett launched has, for half a century now, been on a continuous, relentless, and highly successful crusade to help kids get ready for school and for life.

Today, by carrying forth that original vision to use emerging media in innovative ways, and by maintaining Sesame's historic promise to deploy it in the interests of vulnerable children, we have become much more than a TV show. Sesame Workshop is a global organization focused on helping kids everywhere grow smarter, stronger, and kinder. Whether it is our programming, which is now seen in more than 150 countries, our Sesame Street in Communities work to help community service organizations address U.S. families in crisis, our work to improve health and hygiene in the developing world, or our partnership with the International Rescue Committee and BRAC to educate refugee children, Sesame Workshop is a global force for good at a time when it has never been needed more.

In the consequential age in which we live and do our work, we remain committed to being a leader and a positive force for change in an increasingly divided and unequal world. We will stay true to our mission, working to deliver on the promise of equality with respect for people of all colors, genders, and backgrounds. And we will continue to show the world that what Joan Ganz Cooney set in motion with this report has a transformative power that can endure for the next 50 years and beyond. *Sesame Street* remains a vibrant tool for expanding the young minds of each new generation, during the years they need it most.

Jeffrey D. Dunn
President and Chief Executive Officer
Sesame Workshop

A Blueprint for the Future

The Potential Uses of Television in Preschool Education provided a rationale, initial research base, and blueprint for the Children's Television Workshop, now known as Sesame Workshop. Joan Ganz Cooney envisioned a program with such broad appeal that it would reach all children, especially those living in disadvantaged neighborhoods.

Sesame Street has inspired children worldwide with an approach to early learning that has left an indelible imprint on generations. Its academic effectiveness has been documented in hundreds of research studies, in business case studies, and in the enduring popularity of the show's characters, stories, and songs. *Sesame Street* was groundbreaking because its creators understood children and were committed to achieving specific learning outcomes.

In 1966, Mrs. Cooney set out to explore the potential of television to teach young children. While the media landscape has evolved considerably since then, Joan's report still resonates with today's educational and socio-economic challenges, and many of its central tenets still apply in today's interactive and connected world. How can we tap the appeal of digital media to support and accelerate the learning and development of all children, wherever they are?

In 2007, the Joan Ganz Cooney Center was founded at Sesame Workshop to explore these questions. Led by Michael Levine for its first 10 years, we have produced a series of multidisciplinary studies, launched field-building design experiments, brought attention to emerging best practices and standards, and led a national conversation about the ways in which industry, policymakers and educators could make sense of how new media have transformed everyone's lives.

Today, we see ourselves at a media and education crossroads of potentially transformative significance. With Michael Preston at the helm of the Joan Ganz Cooney Center, we continue to explore the possible benefits of the media that children consume today. Can we promote a balanced and practical approach to address the educational inequalities that continue to compromise our nation's potential? How can we leverage what we know about child development and media to develop interdisciplinary partnerships to create great content that helps kids learn?

We are honored to reissue this blueprint to confirm the enduring, highly relevant vision of the Workshop's Founder, and to energize the debate over the role that media can and should play in promoting opportunity for all children. Our greatest hope is that, following in the footsteps of Joan Ganz Cooney, we will inspire leaders across sectors and disciplines to better harness the power of media to educate and delight the next generation, starting now!

Michael D. Preston, PhD
Executive Director
Joan Ganz Cooney Center, 2019-

Michael H. Levine, PhD
Executive Director
Joan Ganz Cooney Center, 2007-2018

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About the Author

A former public affairs producer at Channel 13, Mrs. Cooney is now a television consultant to Carnegie Corporation.

Introduction

The following is a report of recommendations as to possible uses of open-circuit television to stimulate the intellectual and cultural growth in children of preschool age. The report is based on a four-month survey of opinions of leading cognitive psychologists and educators in the field of preschool education, as well as of television producers, Film makers and other specialists in the field of children's entertainment. It draws also from extensive research into old and new visual material that could be used or adapted for use on television.

Section I

The Preschooler and Preschool Education

The number of three, four and five-year-old children in the United States has been estimated at around 12 million. In the past few years, this population, once the most neglected, educationally speaking, has marched to the center of the stage. The reasons for this new interest among educators in preschool education are several. The most urgent and best known to the general public centers around the academic achievement gap between disadvantaged and middle class children that manifests itself during the early school years and increases dramatically in the higher grades. The conviction that disadvantaged children are inadequately stimulated and motivated during the preschool years and the belief that the right kind of early intervention can provide adequate compensation have done much to create the present ferment in cognitive development research and preschool education.

The national awakening to the need for more and better education up and down the line is also a factor in the current interest in the years before school. Project Head Start, a massive federal program designed to help disadvantaged preschool children, was only in its second year, when the Educational Policies Commission of the National Education Association proposed that "all children should have the opportunity to go to school at public expense beginning at the age of four."

Substance aside for the moment, the physical statistics alone suggest the proposal will encounter staggering obstacles. Nearly half the nation's school districts do not now have kindergartens (though about 71% of the country's five year olds are in either nursery school, kindergarten or first grade.) If the NEA's recommendation went into effect tomorrow, about 5,000,000 more four and five year olds would be added to school rolls. If it is remembered that most big urban school systems already rely heavily on part-time teachers and that colleges are just beginning to set up large scale preschool teacher-training programs, the dimensions of the problem of educating all four and five year olds in classrooms begin to emerge. We must add to these statistics the estimated cost of $2.75 billion a year to handle the extra children — an estimated cost that does not take into consideration the building of new classrooms.

All of this suggests that most four year olds and many five year olds will not be admitted to our public schools in the foreseeable future, and in the opinion of many qualified observers, most will not receive the optimal intellectual stimulation in the home to fully challenge and train their rapidly developing intelligence.

Admittedly, the need of most middle class children for more early stimulation is by no means as acute as that of most

disadvantaged children, but we nonetheless may have drawn the lines too sharply between the two groups. Most cognitive psychologists agree that the experiences of the first six years are critically important. As the great Swiss psychologist, Jean Piaget, has said, “the more a child has seen and heard, the more he wants to see and hear.” Researcher Benjamin Bloom finds that a very favorable environment in the first four years can affect intelligence by about 2.5 I.Q. points a year, whereas from eight to seventeen, it will affect intelligence by only 0.4 points a year. Clearly, the implications apply to all children. Many observers question whether the average middle class home or even the average nursery school and kindergarten provide the best atmosphere for emotional, physical and intellectual growth.

Basic research into how children learn and what exactly they should be taught in the early years is inconclusive. Traditionally, educators of preschool children have stressed free play, singing, games, stories, conversational exchange, etc. Self-selection of most activities is considered a sacred precept – the child incidentally learning all that is intellectually appropriate to his age and stage. Great emphasis is placed on emotional and social adjustment.

There has, of course, been growing opposition to this traditional approach. Carl Bereiter of the University of Illinois advocates what might be called a direct frontal assault on the preschooler’s intellectual development. He has been successfully teaching four-year-old disadvantaged children to read and do arithmetic with no apparent harmful effects on the children. Some private schools for preschool children have been stressing academic and intellectual development for a number of years. The Montessori techniques that emphasize self-correcting sensory-motor tasks, as a means to intellectual development, are increasingly being employed in nursery schools. Although reliable data from

these sources on the efficacy of any given approach is scarce, academic researchers have provided us with enough information to suggest that traditional workers in the field may have been laboring under several misconceptions.

Nearly everyone would agree with them that the best basis and preparation for intellectual learning is the child's sense of well-being and emotional adjustment. But, have they been employing the best methods to help the child to make this adjustment? If the child adjusts to the world by becoming familiar with it, by knowing something about it, incorporating it, mastering it, then isn't it our responsibility to give him the tools he needs for this mastery? Annemarie Roeper[1] has stated, "good adjustment is a basic necessity for learning, but learning also makes for good adjustment." She defines the important tools as the ability to think critically, to know valid reasons, to learn certain cause and effect relationships, and to get certain useful information and relevant facts.

One must also question the concept of difference between work and play that seems to prevail in traditional nursery school. A growing number of educators are coming to the conclusion that it is an artificial division, imposed by adults. One need only observe, for a few hours, any good Montessori class to verify that children receive pleasure from achievement and mastery and do not differentiate between work and play. Throughout the course of this study, I repeatedly saw children totally absorbed when engaged in tasks, scaled to their abilities, which either they had staked out for themselves, or, for that matter, had been assigned. Conversely, I saw a number of apparently bored children, drifting aimlessly from toy to toy, often exhibiting aggressive behavior toward each other, when on their own during the long free play periods

1 Headmistress of the Roeper City and Country School for gifted children in Detroit, Michigan

so integral a part of most nursery schools. (Annemarie Roeper notes that the behavior of her preschoolers has become noticeably less aggressive since the preschool has become intellectually oriented.)

Another myth that has been handed down over the years has to do with the young child's short attention span. No one who has observed children doubts that they are easily distracted. But, the traditional nursery school, with twenty or more three and four year olds in a room full of toys and equipment, may not, after all, be the ideal place to formulate conclusions about the attention span of young children. Whether or not many hours of viewing television is good for children, we do know that they are capable of long periods of absorption in all kinds of television programs. We know, too, that a young child will remain with a given task or project if it interests him, for surprisingly long periods of time. The experience of any parent who has read story books to his children will confirm the fact that even very young children can remain interested to a point beyond the parent's endurance.

Until recently, it appears, far from considering the "whole child", educators were virtually ignoring the intellect of preschool children. They seemed to proceed on the notion that, between birth and five years old, a child's physical and emotional development (rather arbitrarily, it seems to some) should take precedence over his intellectual development. Indeed, we may have been performing a tragic disservice to young children by not sooner recognizing that their emotional, physical and intellectual needs are doubtless interdependent from infancy on. Just as we have long known that we must provide certain ingredients to foster healthy physical and emotional development, so we are at last beginning to inquire into specific actions we might take to help the child realize his full intellectual potential.

But, the national need for more and better educated people and the national demand that we give the disadvantaged child a fair chance at the beginning mean that we cannot wait for the final and definitive word from the researchers, or until there are enough teachers and classrooms to accommodate our preschool population. We must begin to search for new means and techniques to solve our educational problems. It is the recommendation of this report, therefore, that television's potential for fostering the intellectual and cultural development of young children be fully tested and evaluated, beginning in the near future.

Section II
Television and the Preschool Child

Although several studies have been done on the effects of mass media on children, none, to my knowledge, has been done on the effects or impact of television on children as young as three, four and five years of age. However, reports from parents, observation, and the studies of older children and the mass media provide us with certain clues about television and the preschool child.

Wilbur Schramm, Jack Lyle and Edwin B. Parker report in their study Television in the Lives of our Children:

> "The first direct experience with television typically comes at age two. Chances are, the child will eavesdrop on a program someone else has tuned in. But he soon begins to explore the world of television and to develop tastes and preferences of his own. By the age of three he is able to shout for his favorite programs… By the age of three, then, the average child is already making

> fairly regular use of television. He sees a number of ‘children’s programs’, soon branches out into westerns and similar entertainment.”

The final sentence of the above quote is perhaps the most significant. It points out that very young children regularly view adult action programs. My own limited poll bears this out; it is difficult to find a young television viewer from Harlem to Greeley, Colorado, who does not cite “Batman” as his favorite television program. Beginning at an early age, we can assume, children are conditioned to expect pow! wham! fast action thrillers from television and certainly highly visual, slickly and expensively produced material. It is clear, also, that for whatever reasons, young children rather quickly graduate to the same shows that their older siblings and their parents view and enjoy, although they do not necessarily lose interest in their favorite children’s programs — at least for a time.

A word about children’s programs. Most of those commercially sponsored, seem to be inordinately noisy and mindless affairs. Unfortunately, most serious efforts to provide educational fare for young children have been undertaken on a local basis only, by impecunious educational television stations, and are too often marked by a slow and monotonous pace and a lack of professionalism. One wonders if even such an erstwhile national favorite as “Ding Dong School” would be popular today, in light of the widespread viewing by children of adult programs. My own feeling is that it would not, that if we are going to attract children to quality children’s programs, they must have many of the production values (meaning pace, humor, professional performing talent, film inserts, animation and so forth) to which today’s young children have become accustomed.

Anyone who has small television viewers at home can testify to the fascination that commercials hold for children. Parents report that their children learn to recite all sorts of advertising slogans, read product names on the screen (and, more remarkably, elsewhere), and to sing commercial jingles. It is of course open to serious question how valuable the content is that these commercials teach, but they do prove a point: children can and do learn, in the traditional educational sense, from watching television.

If we accept the premise that commercials are effective teachers, it is important to be aware of their characteristics, the most obvious being frequent repetition, clever visual presentation, brevity and clarity. Probably, then, their success is not due to any magic formula. Instead, television commercials appear to have adopted what have always been effective teaching techniques; unfortunately for our children, many teachers may have forgotten what Madison Avenue, with consummate skill, has cribbed from them.

One highly relevant effect reported by Wilbur Schramm and associates, in their comparison of viewing children with non-viewing children, is that those growing up with television appear to come to school with about a one-year advantage in vocabulary. It is interesting to note that the advantage is not maintained (in the sixth and tenth grades, the two groups did not differ in their total information level), but it is also well to remember that the advantage was gained, incidentally, from viewing entertainment programs. (Incidental learning of all kinds from television programs has created some rather amusing gaps in the knowledge of young children. It is not uncommon to find that a child has no idea where apples come from, but can give you a fairly accurate, if rudimentary account, of how to get a rocket into outer space.)

Schramm's observation raises a troublesome question about television's effect on disadvantaged children. Why, when we know they watch as much, if not more television than middle class children, is their language and conceptual framework not more noticeably altered? There are several possibilities. One is that the language a child hears in a middle class home is constantly reinforced by television and vice versa while the slum home offers little or no reinforcement. Another possibility, of course, is that large amounts of what is said on most shows simply go over the heads of many young disadvantaged children. It may be that the visual action provides enough of interest to hold their attention. In any case, how television can best be used to educate disadvantaged children, or even, if it can, are urgent questions for both researcher and broadcaster.

As I have said, there is little scientific data on the impact of television on young children, but Schramm and associates, after their study of older children and television, inferred the following about the medium as a teacher of very young children:

> "...we should expect that the greatest amount of learning from television would take place in the early years of a child's use of it. The ages from three to eight, let us say, would be the time when television would have the least competition. The child's slate is relatively clean. Almost any experience is new to him and therefore absorbing. And television, as we know, has an enormous power to absorb the attention of a young child. After the child starts school, television has greater competition for attention and interest. But in the years before a child starts to read, when his horizon is still narrow and his curiosity boundless, when almost everything beyond his home

and his little family circle is new – that is the time when television has a unique opportunity to contribute information and vocabulary skill."

Section III

What Leading Educators Think About a Television Series for Preschoolers

During the course of this study, I met with a number of eminent cognitive development psychologists, preschool education researchers, teachers and specialists throughout the United States and Canada. (A list of those consulted is attached.)

There was amazing consensus among the educators (with two notable exceptions, which I'll discuss later) as to the potential value of a regularly scheduled television program for preschoolers; almost no one doubted that television could play a potent role in preschool education. Perhaps even more surprising is the fact that there was little disagreement on what kinds of things a television program should attempt to teach young children.

Nearly everyone with whom I met liked the idea of a daily, hour-long program designed to be viewed at home by three, four and five-year-olds. Nearly all suggested that the program, in addition to teaching such traditional "soft" subjects as arts and crafts, music and rhythm, singing and so forth, could also effectively teach intellectual concepts of all kinds, including language concepts and skills, number concepts and simple scientific concepts. All considered language singularly important. Most wanted to see the teaching of cognitive habits (Jerome Kagan, Harvard psychologist, defines these as analysis, generating hypotheses and

reflection) emphasized over factual information or academic skills. Almost all opposed trying to teach young children to read, via television. In other words, in the opinion of most, a television program would be very useful which would teach young children how to think, not what to think.

Almost all of those interviewed wanted the letters of the alphabet and their sounds, as well as numbers introduced. On this point, however, vigorous dissent was registered by Judith Cauman, Project Head Start's Senior Education Specialist, who objected on the basis that the introduction of letters and sounds was tantamount to teaching young children to read and that this would lead to over-anxious middle-class mothers forcing their children to watch the program. (Other people in the field would agree that this is a risk, but one that is worth taking.)

Everyone, without exception, advanced the view that the children should be encouraged, and provided every opportunity to interact with the program, by singing, dancing, clapping, and answering questions, so viewing would be active, not passive. In line with this, the consensus was that inexpensive kits of materials and books should be sold or distributed in some way, in conjunction with the program.

Activities, it was suggested, could be demonstrated on the program which could be performed (with the kits and books) following each program. All felt that the stations carrying the program would have to enlist the cooperation of the existing local institutions, such as libraries, schools, welfare departments and poverty programs, to help promote the program, books and kits.

A number of those interviewed felt that the personality of the host or hostess was an important element. Jerome Kagan suggested that the host be male in an effort to defeminize

the early learning atmosphere. He notes that boys have a much higher rate of school problems than girls, and that this could be due to the predominantly feminine atmosphere of home and school.

Most thought that fun ought to be a chief characteristic of the program; some even stressed fun and amusement over educational content.

Virtually everyone I saw suggested that a weekly, half-hour program for parents was a necessity for the success of a children's series. A few felt a parents' program was even more important than one for children. Most agreed that the parents' program should not only alert parents as to what was coming up for the week on the children's program, but that it should also deal with some of the typical problems of rearing young children. Dr. Nathan Talbot, Chief of the Pediatrics Division of Massachusetts General Hospital, hoped that highly polished dramatizations of family problems, especially as they affect children, could be presented.

The sharpest disagreement that emerged was over whether or not one series of programs could be of real value to both middle class children and disadvantaged children. Close to half of those I saw inclined toward the view that the lack of language development in disadvantaged children created a qualitative difference between them and average middle class children, while the others seemed to think that the differences were essentially quantitative – that some children were merely at an earlier level of development than others. That is, that a five-year-old disadvantaged child, due to environmental deprivation, was perhaps at the same level of development as a three or four-year-old middle-class child.

Two of those with whom I met provided lively dissent to the whole concept of the program. One was Harvard psychologist

Sheldon White. While not adamantly opposed to an educational television series for preschool children, he nonetheless was skeptical that such a program could be of real value. His doubts stem from his view that three, four and five year olds learn, episodically and incidentally, from all experience, including television, and that "good" or "bad" television is irrelevant during this period of development, since, according to this theory, children are not following the plots of the shows they watch. Furthermore, he says, there is evidence to indicate that children become more visual and auditory after five. (On the other hand, the work of Dr. Samuel Rabinovitch, of McGill University and Montreal Children's Hospital, indicates that vision leads and organizes from infancy on and that young children can learn easily and well how to perform a given task from merely watching someone else perform it.)

Carl Bereiter objected to the project as outlined on two main counts. He thought it was being conceived at too advanced a level for disadvantaged children (and even most three year olds) and that its aims were too general. He would like to see an academically-oriented program which would teach, directly, only language skills and concepts, arithmetic and reading. My own view is that it is possible to design a program for all children that takes Dr. Bereiter's objections into some account. I will be dealing with possible special uses of television for disadvantaged children in a later section of this report.

The best summary of the majority position was supplied by Jerome Bruner, the cognitive psychologist at Harvard. We cannot wait for the right answers, he felt, before acting; rather we should look upon the first year of broadcasting for preschoolers in the nature of an inquiry. There is no substitute for trying it, and evaluating its effects, if we wish to know whether or not television can be a

valuable tool for promoting intellectual and cultural growth in our preschool population.

Section IV
Recommendations for a Television Series

Based on my conversations with researchers and educators, television producers, representatives of other broadcast organizations and on extensive research into available material that could be used on television, I believe it is both feasible and desirable to develop an imaginative, entertaining and well-produced series of programs for young children, which would contain a high degree of educational content. It is my recommendation that such a series of programs be developed along the following lines:

A. General and Specific Aims

The general aim of the television series would be to foster intellectual and cultural development in preschoolers. Let's Look at First Graders, a publication prepared by the Educational Testing Service for the Board of Education of the City of New York, identifies the areas of intellectual development as

1. Basic Language Skills
2. Concepts of Space and Time (shapes, forms, spatial perspective, the notion of time)
3. Beginning Logical Concepts (logical classification, concepts of relationships)
4. Beginning Mathematical Concepts (conservation of quantity, one-to-one correspondence, number relations)
5. The Growth of Reasoning Skills (cause and effect, reasoning by association and inference)

The publication lists four general signs of development which also suggest broad goals for the program.

They are:

1. Growing Awareness and Responsiveness
2. Directed Activity
3. General Knowledge
4. Developing Imagination

More specifically, Carl Bereiter and Siegfried Engelmann, in their book Teaching Disadvantaged Children in Preschool, have listed what they consider the minimum abilities needed by a child about to enter first grade. In my opinion, the list suggests highly useful minimum educational aims for the program:

1. Ability to use both affirmative and not statements in reply to the question "What is this?" "This is a ball. This is not a book."
2. Ability to use both affirmative and not statements in response to the command "Tell me about this _____" (ball, pencil, etc.) "This pencil is red. This pencil is not blue."
3. Ability to handle polar opposites ("If it is not _____ it must be _____") for at least four concept pairs, e.g., big-little, up-down, long-short, fat-skinny.
4. Ability to use the following prepositions correctly in statements describing arrangements of objects: on, in, under, over, between. "Where is the pencil?" "The pencil is under the book."
5. Ability to name positive and negative instances for at least four classes, such as tools, weapons, pieces of furniture, wild animals, farm animals, and vehicles. "Tell me something that is a weapon." "A gun is a weapon." "Tell me something that is not a weapon." "A cow is not a weapon." The child

should also be able to apply these class concepts correctly to nouns with which he is familiar, e.g., “Is a crayon a piece of furniture?” “No, a crayon is not a piece of furniture. A crayon is something to write with.”

6. Ability to perform simple if-then deductions. The child is presented a diagram containing big squares and little squares. All the big squares are red, but the little squares are of various other colors. “If the square is big, what do you know about it?” “It’s red.”
7. Ability to use not in deductions. “It the square is little, what else do you know about it?” “It is not red.”
8. Ability to use or in simple deductions. “If the square is little, then it is not red. What else do you know about it?” “It’s blue or yellow.”
9. Ability to name the basic colors, plus white, black, and brown.
10. Ability to count aloud to 20 without help and to 100 with help at decade points (30, 40, etc.)
11. Ability to count objects correctly up to ten.
12. Ability to recognize and name vowels and at least 15 consonants.
13. Ability to distinguish printed words from pictures.
14. Ability to rhyme in some fashion, to produce a word that rhymes with a given word, to tell whether two words do or do not rhyme, or to complete unfamiliar rhyming jingles like “I had a dog and his name was Abel; I found him hiding under the _____.”
15. A sight-reading vocabulary of at least four words in addition to proper names, with evidence that the printed word has the same meaning for them as the corresponding spoken word. “What word is this?” “Cat.” “Is this a thing that goes ‘woof-woof’?” “No, it goes ‘Meow’.”

The foregoing goals and definitions are almost solely concerned with intellectual development, while the proposed program would aim at fostering cultural development as well. Specifically, I would add as objectives, learning basic music concepts, and an ability to use arts and crafts material in a meaningful way. (While music and art have value in and of themselves, they also provide effective tools for getting across language concepts, and for increasing auditory and visual discrimination).

Another goal which I would include is beginning awareness of basic emotions (aggression, fear, etc.) as a step toward mastering them.

B. The Problem of Differences Among Three, Four and Five-Year-Olds

Because of the differences in the level of development that are apt to exist among three, four and five year olds, I would suggest that each program proceed from simple concepts to more complex concepts. Often it would be possible for a single segment within the program to proceed from simple to more complex. If the program were well-produced, there is reason to believe that five-year-olds would enjoy their fairly easy mastery of the simpler material, while three year olds would get enough out of the more complex material to hold their interest.

In their book, For the Young Viewer, Ralph Gerry, Frederick B. Rainsberry and Charles Winnick write:

> "One difficulty in the way of matching age levels with program types is that the further we move away from infancy, the less exact is any cataloguing of interests by age. Another difficulty is that there is some overlap. While children are likely to

> regard as 'kid stuff' material that has been of interest to them in the past, they will tend to be interested in programs directed to the next higher age level as well as their own."

On this same point, William Kessen, the Yale psychologist, suggests that a three year old watching "Batman" gets from it something quite different from what a ten year old watching the same program gets, but it nonetheless appeals to both.

C. Format and Frequency

To achieve maximum impact and to establish regular viewing habits, I believe the program should be hour long, Monday through Friday. Ideally, each station carrying the program should broadcast it twice a day at 9 a.m. and 5 p.m. However, if the station's schedule permits broadcast only once a day, the late afternoon time is preferable because, regardless of circumstance, most children are home by 5 p.m.

For the greatest flexibility, I suggest the programs have a magazine type of format so that each program would contain several five to fifteen-minute segments, presenting different material and activities in a variety of production styles (i.e., film, studio, animation, etc.)

I recommend that the program have a male host who would provide continuity from one segment to another, establish the tone, and function, subtly, as the master teacher. While there is doubtless real entertainment value in his having a slightly off-center personality, he should, nonetheless, project the image of an intelligent and skilled adult whom the children are apt to want to emulate. The program, of course, would have several other regular performer-teachers as well.

Since several ETV television stations, including Channel 13 in New York, will have the ability to broadcast in color next year, and since color television sets are expected (in a report by Nielsen to The National Broadcasting Company) to be in 42% of all households by 1968, I strongly urge that the series be made in color. Although making the programs in color would increase costs somewhat, this added expense would insure that the series would remain technically up-to-date for the foreseeable future.

D. Ways Television Can Both Entertain and Teach Young Children

All of this, of course, leads us to the fundamental question: can a television series be designed which would be attractive to and fun for children, which they would want to watch without parental coaching, and which would actually realize the general and specific educational aims that have been suggested? I believe the answer is an emphatic yes. I will outline briefly some of the ways television could be used to entertain and teach young children, but it is well to remember that any group of creative people brought together to produce such a series would devise many, many more.

a. *Teaching Language Skills and Reasoning Skills on Television*

All children like to be read to and most seem to like to discuss the ideas and pictures in storybooks. I suggest that we could capitalize on these interests by devoting ten to fifteen minutes, probably as the opening segment of each program, to story and conversation. The discussion could take place between three 'regulars' — a woman who would do the reading, an intelligent child of twelve or so, and a little puppet who would provide humor in the form of wrong answers, simplemindedness and general clowning. The children in the viewing audience at home would be encouraged to correct him

when he was wrong or particularly simpleminded, and they would have to be attentive in order to do so.

Each storybook could be divided into five installments, so that one book would be read and discussed over a period of a week. The pages of the book would be seen on camera in the course of the reading just as they would if the story were being read in person to a child. Every possible opportunity would be taken to use the stories to increase vocabulary ("What is another way to say car?" The puppet might answer "dog" but the children at home would be brought around to "automobile." "What is another way to say boat?" and so forth); and to help provide skill in the use of the vital "little words" of the language, such as on, over, under, in, and, because, if, then. Storybook discussion could also be used to provide opportunity to help children develop reasoning skills, (e.g., "Why do you suppose the dog is running home?"). Logical classification ("Is a car an animal?") could easily be introduced. Indeed, such a segment potentially could introduce virtually any concept. One of the most delightful children's books I've seen, Are You Square?, introduces circles, squares and triangles at a simple level.

When the storybook had been completed in the above manner, it could then be presented in some other form, and become part of the program's permanent repertory of books, to be repeated many times throughout the year. I would suggest the superb storybook films made by Weston Woods of contemporary children's classics as a source from which we could draw for the final versions of some stories. The National Film Board of Canada has also made some high-quality film strips of stories for children. The Bank Street films of famous personalities (such as Harry Belafonte) reading storybooks, might also be a source, or, in any case, an idea as to the final form some books might take before entering the permanent repertory.

There would be no reason that a good book could not be dealt with in a five-part conversation more than once in the course of a television season, using different ideas in the story to develop new concepts and reinforce old ones. I believe, however, that the concepts should be kept at a simple level. But, the storybook segment could provide material and ideas to be treated at a slightly more complex level later in the program. For example, in the story, "A Snowy Day", a snowball melts in a little boy's pocket. The scientific principle involved in melting snow might be introduced in a related segment later in the program.

b. *The A.B.C.'s and Numbers on Television*

An animated series could be developed which would introduce capital letters, small letters, their sounds and words that begin with the letters. In the same way, numbers and what the numbers stand for (i.e., two cows, three horses, four chairs, etc.) could also be introduced. I would suggest that five or six minutes a day of animated letters (and numbers) might be shown for three or four weeks; and then, when all letters have been introduced, and, say, numbers one through ten, this material could be rebroadcast for the duration of the series, since repetition, I believe, would be the key to its success. Academy Award Winner John Hubley, one of the country's foremost artists and animators, is interested in the project.

c. *Visual Discrimination and Logical Classification on Television*

Television is ideally suited for presenting material designed to increase visual discrimination, a prime requirement for learning to read. A few minutes a day — in the form of a picture game — could be devoted to sharpening visual discrimination. For example, a picture of three ducks and a

cat might appear on the screen. The child at home would be told to touch on the screen the picture that was different from the other three. After a few seconds, the picture of the cat could light up so that the child would know whether he was right or wrong. Each sequence of pictures could proceed from very simple to relatively complex. A subsidiary virtue of this kind of game is that it would encourage (and I think could achieve) interaction between the child and the program.

Another way the game could be used is to teach logical classification. Pictures, for instance, of a cow, a horse and a chicken could be shown. The host or narrator could explain (perhaps over a period of days) that each of the first three were farm animals. Then a picture showing the three animals and a chair could appear and the child asked to point to the picture that is not a farm animal. The chair would light up after a few seconds and the host or narrator would say, "That's right, a chair is not a farm animal. A chair is a piece of furniture." This technique, of course, could be used to teach a number of classifications.

The National Film Board of Canada has been experimenting with short animated films designed to increase visual perception and discrimination. They were originally conceived as aids to children with learning problems, but Dr. Samuel Rabinovitch, who is the project consultant, believes they have applicability to preschool children. If others agree, an arrangement could probably be made with the National Film Board for their further development and use.

There is no question but that such companies as Science Research Associates and General Learning, Inc., could be encouraged to produce visual discrimination materials that could be used on an educational television series. The companies would, of course, market the materials elsewhere,

as well – probably advertising them "As seen on _____ Television Program." There could be peripheral advantage in this, in terms of advertising, for a television series.

d. *Teaching Children About Themselves on Television*

A few years ago, WCAU-TV, the CBS owned and operated station in Philadelphia, developed a very imaginative puppet show called "The Tottles", which dealt with the problems of everyday living encountered by young children. An episode I saw concerned the conflict felt by a little animal puppet who lied to his teacher; and the conflict of his friend who knew he was lying but didn't know what to do about it. While this situation might be too advanced for preschoolers, there are a number of situations involving feelings of possessiveness, rivalry, aggression and fear which could be dramatized effectively in this manner. The gifted Marshall Izan, who created "The Tottles", and provided their voices, now lives in New York, and, at present, is uncommitted to any new television project. (Since "The Tottles", he has worked out several ingenious ideas for correlating art, music and theater on television for children. If scaled down in age level, the ideas would be imminently suitable for the program series under discussion.)

e. *Science and Nature on Television*

There are a number of simple, scientific concepts which could be taught by performing little experiments on camera in the studio. The program would concentrate on ones that could be re-created safely and easily by the child at home, after he had seen them on the program. I have in mind those that involve water and plastic or paper containers, and those involving a magnet or a magnifying glass, shadow play, and so forth. Toward the end of the program, the performer-teacher

might present a simple scientific experiment that the child could do at home after the program. (Perhaps three times a week, an arts and crafts project could be suggested.)

How things grow is another topic which could spur activity in the home. Even very young children, for example, could be shown how to grow lentil seeds in wet cotton.

The most charming teaching of a scientific concept I have seen was done by a highly talented mime on WCAU-TV's "Prentendo." To demonstrate the relationship of the seasons to plant growth, he showed the five children who appeared with him (it could be done by children at home as easily) how to curl up like little seeds in the ground during the winter season, and how to slowly unfold as the sun warms them in the spring, grow and blossom in the summer, begin to wilt in the fall and return to the ground again in the winter. This vignette personifies the kind of imaginative and dramatic presentation the program should strive for in every area.

Animals are fascinating to all young children and could be used in a variety of ways to entertain and teach. Film and studio close-ups could show what kinds of homes animals live in, what kinds of "coats" they wear, how fish breathe, etc., and teach something about zoology, as well as language and language concepts.

f. *Teaching Music on Television*

Dr. Robert Pace of Columbia Teacher's College is convinced that young children can be taught basic music concepts, such as loud-soft, fast-slow and high-low. He points out that all kinds of rhythms can be taught by having children clap their hands and move their arms, in time to the music. He believes that melody bells, folk music, guitar and piano can all be used to teach music concepts. Almost no one doubts that a

music teacher on television could get children at home to participate, to move around to music, touch toes, march like a soldier, walk on tiptoe, waddle like a duck, etc.

We know that children can be taught songs by television, and, aside from their being fun to learn, they could also help to teach language and concepts. In the Bereiter-Engelmann book, Teaching Disadvantaged Children in Preschool, there are a number of suggestions of songs that teach things, like counting, months of the year, days of the week and parts of the body.

g. *Arts and Crafts on Television*

One of the aims of the program, as I have said, would be to get the children viewing at home to become more responsive — to be active rather than passive. Since the advent of television in the United States, children rely more and more on it for their entertainment and less and less on their own imagination and resources. I would hope that by teaching arts and crafts, and encouraging children to turn off the television set at the end of the program and to undertake a suggested project, we might reverse this trend. Such traditional crafts as clay modelling, making collages out of odds and ends, coloring, drawing and so forth could and should be taught. But the experimental teacher could go much further. For example, an art teacher in Cambridge has achieved interesting work with young children through a process of integrating visual perception and feelings. Other art teachers have found that children like to draw or paint abstractions (and do it rather well) like 'the sound and the fury', or 'how it feels when it rains on me.'

Both the Museum of Modern Art and the Metropolitan Museum of Art in New York have art programs for preschool children; and, while neither was in session during the course of this

survey, one or both might be of help to a television series produced in this area.

E. Some General Comments on Teaching Children via Television

The challenges to the producers of such a project would be to continually discover new and interesting ways to teach the same concepts. Repetition and reinforcement are essentials in the learning process of young children. Much of the material (for example, storybook films, animation of letters and numbers) could be repeated, directly, just as television commercials are, over and over again; other material would require fresh approaches for maximum effect.

Indeed, because of the constant competition presented by entertainment programs on television, educational material must be just as lively, fast-moving and dramatically presented as standard TV fare, if it hopes to win a sizeable audience. It is an irony of television that, for all its potential to educate, it also provides endless distractions from pursuits of the mind. I believe that any high quality educational program for children must accommodate itself to that fact, although it means breaking new ground and risking the criticism of educational purists.

For several reasons, I would avoid labelling the program's segments as Language, Science, Mathematics and so forth. While I believe the producers and curriculum consultants must have precise educational aims in mind for each segment of each program, I think it would be confusing, because of overlap, to share specifics with the children or their parents. Further, flexibility and experimentation should surely be safeguarded during the first year of such a project, and labelling would tend to lock the creative staff into ways of thinking that might not be the most productive. There would be times, I am sure, when a given program, instead of presenting several

segments, would instead present a children's opera or an hour-long puppet show. And it might wish to do so, in the name of quality entertainment rather than under subject matter labels.

Attractive and popular figures both of the children's and adult entertainment worlds could and should be sought out and asked to create material for the series. The caliber of talent that I have in mind can be summed up by a few names, besides those already mentioned — for example, Burr Tillstrom, creator of "Kulka, Fran and Ollie;" writer-teacher Richard Lewis, who has travelled throughout the world collecting children's art and poetry; Albert Lamorisse, the French director of such classics as "The Red Balloon" and "The White Mane;" Arne Sucksdorff, the Swedish director of children's nature films; Mary Rogers, who has successfully composed for both children and adult theater; such favorite children's performers as Danny Kaye and Dick Van Dyke; as well as performers, not usually associated with children's entertainment, such as dancer-choreographer Merce Cunningham, and dancer Jacques D'Amboise.

In summary, I am suggesting that the series must have maximum freedom to experiment with talent and ideas, if the potential of the medium to educate and stimulate young children is to be fully explored.

Section V

Television for Parents

In an earlier section, I mentioned that all the educators with whom I had met in the course of this study felt that a regularly scheduled program for parents would be necessary if a children's series were to have maximum effect. They suggested that not only should such a program supply information to parents about the children's series, but, perhaps more importantly, should educate parents about their children's general development and needs.

There is evidence that parents everywhere in the country, cutting across all economic lines, are seeking more and more information about what they can do to insure the maximum development of their children's intellectual abilities. Indeed, much that we hear and see about this parental concern is disturbing, since it threatens to emphasize intellectual and academic achievement at the expense of emotional well-being. New commercial companies, formed to develop all kinds of educational toys and equipment for young children, tend to subtly increase and exploit the anxieties of these parents in advertising brochures. Parents are led to wonder: Should they teach their children to read at home? At what age should they send them to nursery school? What kind of nursery school? Is a lot of expensive equipment in the home necessary to their children's intellectual development? These are some of the questions that are plaguing middle class parents. For the poor, of course, the questions are often quite different, but the concerns and desires for more information are just as great.

I suggest that a half-hour weekly program, simply and inexpensively produced, could achieve several important aims:

1. Inform parents about the children's television series, in particular about what materials (e.g., paper and crayons, paste, scissors, etc.) their children might request at the end of each of that week's programs;
2. Inform parents as to the availability and cost of books and kits of materials which have been produced in conjunction with the children's series;
3. Provide parents with a wide-range of information and opinion on various aspects of child development; on the emotional, physical and intellectual needs of young children; and on common child-rearing problems;
4. Teach parents how to play imaginatively with their children by suggesting and demonstrating play projects for the participation of parents and children.

There are two particularly good sources of material and advice for a parents' program. One is the Children's Hospital Medical Center in Boston. The Hospital's editorial department has joined forces with the Dell Publishing Co. to produce books, handbooks, and pamphlets on all phases of child growth and development. One interesting project, which I have seen in outline form, is a practical guide to everyday problems, including chapters on entertaining a sick child, accidents, when parents divorce, how to travel with children, etc. Mrs. Harriet Gibney, editorial director of the project at Children's Hospital, could be counted on, I am sure, to supply ideas and research material for this phase of a parents' program.

Another source of help for parents' program could be Play Schools Association, Inc., a non-profit agency, which directly and through affiliated organizations, serves parents and children in the fields of education, recreation and social work. The organization is experienced in, among other things, teaching "scrapcraft" – that is, how to make such

things as puppets, masks, dolls and so forth out of odds and ends around the house — to teachers, parents and children. Rowena Shoemaker, executive director of the agency, is greatly interested in programming on television for both parents and children.

I believe that a parents' program could best achieve its aims by frequently changing its format to suit the subject matter being presented. I suggest that there be a continuing host or hostess each week. After discussing briefly what was coming up on the children's program, he or she might interview a psychologist, for example, on the likely effects of a family move on the three year old; or on the subject of too much pressure from parents on three and four year olds to achieve intellectually; or what divorce means to very young children, and so forth. On other programs, the host or hostess could introduce a trained Play Schools, Inc., teacher, who would demonstrate to the parents how to make puppets, masks, etc., out of inexpensive materials with their children and who would discuss the importance of constructive play in a child's life.

From time to time, I believe it would be a good idea to have four or five mothers on the program, in discussion, who would represent a cross section of economic levels. The parents' program should seize every opportunity to dramatize that the children's series is aimed at all economic levels, not just the middle class.

Section VI

Television and the Disadvantaged Child

I have noted that a number of educators with whom I met in the course of this survey believe that a television series

which would benefit middle class children would be too advanced for disadvantaged children. On the other hand, most of the educators suggested that a single series designed for viewing by all children be tried and evaluated. If, after a reasonable period, it were found that disadvantaged children were not benefiting from the series, another series, designed specifically for the needs of disadvantaged youngsters, could be produced and distributed.

But, no matter how potentially effective the material presented, most observers are pessimistic about the average slum home providing a sustained opportunity for learning from television. These homes are apt to be overcrowded; there are usually a large number of children in the family; the television set is on from early morning until late at night and is simply one more thing contributing to the din and confusion characteristic of most impoverished homes. The chances of the family quieting down and permitting a preschool child to concentrate on a children's program are, at best, very slim. But, despite the reality of overcrowding and confusion, parents in the slums are just as concerned about their children's education as are their middle class counterparts, and have shown tremendous willingness to cooperate with any plan which holds out the promise of academic parity for their children.

I am grateful to Henry Chauncey, President of Educational Testing Service, for suggesting a possible plan for reaching disadvantaged children with an educational television series, other than in classrooms.

With the help and guidance of local poverty programs or welfare departments, volunteer-mothers (whose home situations would permit) could establish little "classes" of six or seven children who would come to their homes each day to watch the program, and complete the suggested arts and crafts

or science project following the program. A social worker-teacher might be put in charge of ten or twenty such small classes that she would visit on a rotating basis. More importantly, she would meet regularly with the volunteer mothers to offer guidance and assistance of all kinds. She could also distribute to them kits of materials and books.

This kind of special utilization of the program could not be counted on to happen by itself, although it should not be the responsibility of the television producers to see such a plan put into effect. But, the series could perhaps hire a person who would help each station carrying the program to set up liaison with the local library, school board, poverty program and welfare program, one of which agencies might be provided with special funds to implement the above plan. If such a plan were inaugurated in one or more cities, situations for evaluation of the program's effects on disadvantaged children would be ready-made.

Because of the shortage of classrooms and preschool teachers, I have been discussing the possible uses of television outside of the classroom situation. Doubtless, the needs are great for in-classroom television as well (and, indeed, the series I have suggested could be piped into classrooms).

One experimental use of television in classrooms of three, four and five-year-old disadvantaged children is currently being evaluated. Educational station WETA-TV in Washington, D.C., with funds from the Office of Education, is producing 56 fifteen-minute programs, entitled "Roundabout," for preschool classroom viewing as well as for individual viewing in the home. A concurrent series of 26 half-hour programs guides teachers, assistants, and aides of preschools in the effective use of the television programs. It also provides in-service training for those working primarily with children and their families in metropolitan poverty areas.

The sample of “Roundabout” which I saw was, I thought, well produced. The program is obviously designed for urban Negro children; its host is Negro as are nearly all of the other adults and children who appear on the program. I feel confident that it will be an effective aid in the classroom; but for all the reasons that have been discussed, I would be surprised if it won a large “at-home” audience.

Section VII

Kits and Books

There is no doubt that General Learning, Inc., or some similar company would be happy to produce kits of materials to go with the television series. Whether they could package them cheaply enough for the lower economic groups is doubtful; some way would probably have to be found to subsidize the costs.

Kits could contain such things as crayons, clay, colored paper, blunt scissors, magnifying glass, magnet, plastic container, funnel, lentil seeds, a simple musical instrument, etc., and, ideally, it should cost no more than about one dollar.

Obviously, there is more than one way that the kits could be distributed. But, it would be preferable if each station carrying the program were to handle local orders because it would provide the stations (and the producers) with a quick, though not necessarily conclusive, answer to the question of initial viewer acceptance of the program in each area.

As for books, it would be ideal if inexpensive editions of some of the books read on the program could be made available. But the problem of book rights is complicated

and just how or if inexpensive editions could be published needs further research. An alternative to publishing inexpensive editions of books is subsidizing regular editions so that a $3.50 book could be bought for $1.00 from special outlets. If neither inexpensive editions nor subsidized regular editions could be made available, it might be feasible to have inexpensive books created and published especially for the program.

Given the fact that an educational television series for preschoolers would present an enormous opportunity for awakening the interest of children in books, I feel sure that libraries, book publishers, schools and other interested agencies would look for new ways to capitalize on this interest. Out of this ferment, no doubt, would come some of the answers to these questions about book publishing and distribution.

Addendum

The following is a list of educators and researchers, most of them in the field of cognitive psychology or pre-school education, with whom I consulted in the course of this study:

Carl Bereiter, University of Illinois

Barbara Biber, Bank Street College of Education

Jerome Bruner, Harvard University

Judith Cauman, Senior Education Specialist, Project Head Start

Courtney Cazden, Harvard University

Jeanne Chall, Harvard University

Henry Chauncey, Educational Testing Service

Cynthia Deutsch, New York University

William Fowler, University of Chicago

Mrs. Harriet Gibney, Children's Hospital Medical Center, Boston

Bartlett Hayes, Phillips Academy, Andover

Jerome Kagan, Harvard University

William Kessen, Yale University

Glen Nimnicht, Colorado State College

Robert Pace, Teacher's College, Columbia University

Maya Pines, freelance writer

Samuel Rabinovitch, McGill University, Montreal Children's Hospital

Mrs. W.A. Reed, Villa Montessori, Phoenix, Arizona

Annemarie Roeper, City and Country School, Bloomfield Hills, Michigan

Mrs. Ernest Rothschild, Xavier University and Country Day School, Cincinnati, Ohio

Mrs. Rowena Shoemaker, Play Schools Association, Inc., New York

Mrs. Robert S. Smith, Washington, D.C.

Elizabeth Starkweather, Oklahoma State University

Dr. Nathan Talbot, Massachusetts General Hospital

Burton White, Harvard University

Sheldon White, Harvard University

Photos from Sesame Workshop's Archive

As soon as funding was secured, Joan assembled a dream team to launch the show, including Sam Gibbon (producer), David Connell (executive producer) and Jon Stone (writer and producer).

Dave Connell was the executive producer for *Sesame Street*, and eventually for *The Electric Company*, which launched in 1971.

Dr. Chester Pierce was a professor of psychiatry at Harvard University and a senior advisor to the show. He worked closely with Joan Ganz Cooney and Lloyd Morrisett to create a children's show built on a vision of an integrated society where everyone was a friend and treated with respect.

Joan met with neighborhood leaders to discuss the show's goal of reaching children in underserved communities.

Newton Minow was the chairman of the Federal Communications Commission. His “vast wasteland” speech in 1961 advocated for television programming in the public interest.

Joan Ganz Cooney testified before a Senate committee in 1968 with Jack White, president of National Educational Television (NET).

As content for the show was created and tested, Joan visited children in preschools in inner city communities in New York with a team of researchers.

Joan reviews some research conducted with young children who have watched test material from the show. Pictured are Jane O'Connor (Workshop Special Assistant for Curriculum and Research), Dorothy Hollingsworth (Deputy Director for Planning of the Seattle Model City Program), Allonia Gadsden (Director of the Emerson School of New York City) and Gwendolyn Peters (Boston Area Utilization Coordinator for the Workshop).

On the set with Grover.

Joan chats with a young performer on the *Sesame Street* set in 1970.

The Electric Company premiered in 1971 to teach literacy skills to elementary school children.

On the set of *The Electric Company* with Sam Gibbon, Lee Chamberlin, Lutrelle Horne, and Dave Connell.

In the office in 1968.

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