This paper provides an overview of the High/Scope Educational Research Foundation, an organization that sponsors studies of the efficacy of intervention in the early years of development, especially with economically disadvantaged children. Using several High/Scope Foundation studies to illustrate its points, the paper examines issues common to operating any early childhood program with sufficient quality to make a positive impact on participating children. Standards are presented that curriculum model programs must attain to qualify as acceptable approaches. The paper explores specific criteria governing the operation of any quality program and notes the role of the community in its success. (MM)
HIGH/SCOPE EDUCATIONAL RESEARCH FOUNDATION

David P. Weikart

The Sixth Milton and Eleanor Fromer Lecture on Early Childhood Education

December 17, 1991

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The Milton and Eleanor Fromer Lectures on Early Childhood

1. Prof. Al J. Solnit, March 6, 1986
   Children's Rights and Needs in the Light of New Research

2. Prof. Teshome Wagaw, April 1, 1987
   Parent-Child Intervention Among Ethiopian Jewry: Research in Progress
   (unpublished)

3. Prof. Sarane S. Boocock, December 31, 1987
   Changing Definitions of Childhood; Crosscultural Comparisons

4. Dr. Elena J. Negnevitskaya, March 5, 1990
   Early Bilingualism: The Soviet Experience

   (in Hebrew, unpublished).

6. Dr. David P. Weikart, December 17, 1991
   High/Scope Educational Research Foundation
It is a pleasure to be here tonight to talk about the work of the High/Scope Educational Research Foundation in early education. Over the last 30 years, we have had the opportunity to initiate major studies of the efficacy of intervention in the early years of development, especially with economically disadvantaged children. Gradually we have learned the power of this approach to significantly alter the life course of children. But it is a very different issue to take an approach and to make it generally available.

This paper will look at the issues common to operating any early education program with sufficient quality to make a positive impact on participating children. It will examine some standards that curriculum model programs must attain if they are going to qualify as acceptable approaches. Finally, it will explore specific criteria governing the operation of any quality program. Several High/Scope Foundation studies will be used to illustrate the points.

Education of those working with children varies greatly from minimal training in high school, through a Child Development Associate degree, to full university qualifications. However, whatever the training background, most adults in the field focus on what can be "done on Monday" and typically see issues only in the sweep of what they believe is good for children from their personal perspective. Additional training is offered through various in-service meetings and workshops loosely organized around the perception of what children and their families typically need without recourse to rigorous or systematic theory, approaches, or research. Early childhood care and education is a field of good intentions.
But the times have changed; good intentions are not enough when we know that high quality programs successfully influence the lives of children in very critical ways. In the 1960s the data supporting early childhood intervention was sketchy at best, and many external advisors to the field suggested that any organized, formal program, beyond informal play groups, might actually harm the child who participated. The notion that such programs as Head Start might "inoculate" the child against future failure was seen as liberal interventionism run rampant. And, when the early findings of Head Start's failure to result in any long term gains were reported in the Westinghouse study (1969), major retrenchment of the field was necessary. Yet early data from the High/Scope Perry Study (Weikart, et al., 1970) were already pointing to the fact that long term highly positive outcomes were possible.

The 1970s saw increasing recognition that high quality early childhood care and education could produce greatly valued results. Organizations such as High/Scope Educational Research Foundation began to interact with the corporate and public policy community, to bring their attention to the findings that could result from appropriate programs. The Children's Defense Fund began to systematically represent children's issues to the congress. The Committee on Economic Development (1985), a group of 200 major corporations' CEOs and University presidents, adopted the High/Scope Perry Project economic findings showing that for each dollar invested in a child in high quality early education six dollars were spent on a child who did not participate in such a program. Thus, the linkage was made between public good, i.e., reduction of welfare, special education and the justice system services to children and families, and the public economic self-interest in reduction of taxpayer burden and improved social climate.

In the 1980s the push was to expand places in programs so that all children who needed the service could obtain it. Head Start has grown from a program of $325 million at the beginning of the decade to over $2.2 billion today, with the authorization (but not appropriation) by congress to go to over $7 billion by 1995 in order to reach all income qualified three and four-year-olds. Further the congress has also passed a day care block grant program of $700 million in 1991. These funds will increase over time. Thus,
while the 1970s saw the reporting of research data in support of early childhood programs, the 1980s saw the development of coalitions of caregivers, public service individuals, corporate community leaders, and state house and congress leadership, in support of program provision. Of course the movement of women, including those with infants, into the work force for either personal fulfillment or for economic gain, has played an important part of the process by creating enormous demand for services. All told, the research data supporting the value and a broad consensus on the need are there to support the commitment of vast public funds to high quality early education care and education programs.

While the field can take great pleasure at the changes in the role early childhood care and education play today, the actual problem has now moved from gaining recognition for the importance of early education and gaining funding to provide services to delivering high quality curriculum in programs -- consistently. And this challenge is difficult because up to now we have had to convince "them." Now we must change "our" practices.

CURRICULUM QUALITY IN PROGRAMS

The traditional strategy to create high quality curriculum performance by staff is to insist upon adequate pre-service training, that develops within each individual staff member the skills necessary to deliver a quality curriculum to participating children. Standards of training are established by colleges and universities. The study of developmental theory, practices of the field, student teaching, perhaps some experience in child assessment, etc., all make up the course of pre-service study. Upon graduation, the individual begins a program of teaching and service in one of the many agencies responding to the needs of children and families. The glory of this approach is that it permits the brilliance of the occasional staff member to really make her mark. The problem is that such an approach seems to produce few programs that meet the standards obtained in such projects as the High/Scope Perry Preschool study. The research from the field over many years is quite clear on this point. In general application, most early
education and care programs are modest in their realization of the potential for children, especially disadvantaged children. The disappointing findings from the Head Start Synthesis (McKey et al., 1989) of a decade of Head Start research since the Westinghouse study in the late 1960s illustrates this point.

So, what is to be done? On the one hand, a few specific programs have demonstrated the extraordinary power of high quality early childhood education to permanently alter the life course of the young child to the betterment of that child, his family, and the society at large. Significantly improved performance in education, better work force participation, and reduced incidents of crime, teen pregnancy, and welfare utilization, are extraordinary findings. On the other hand, large scale reviews of operating early education programs suggest that such impact is not occurring at least to the extent we know it can happen.

MODEL CURRICULUM PROGRAMS

There is a second strategy that, if fully implemented, may deliver high quality programs more readily than the current procedures. Commit the field to the finest pre-service training possible to afford, and then have programs operate according to model program standards. It is the use of a model curriculum program that produced the permanent effects on children, families and the community found in the High/Scope Perry Project. Model curriculum programs offer a known procedure, a way of training staff to operate within the boundaries of the model, and a means of assessing the progress and outcomes of the model's application. However, to be effective with young children there are at least seven criteria that a model curriculum program must meet in order to fulfill the promise of early childhood care and education.

First. A model curriculum program must represent a coherent system based on a developmentally valid theory or belief system. The great names in early childhood come to mind. Froebel, Pestalossi, the MacMillin sisters, and
Montessori, are examples of individuals who developed systems of education for the young. The works of Piaget and his students and Freud and Erikson, represent examples of theories that are useful. [Many programs have been developed around behaviorism as the organizing principle, but information from studies such as the High/Scope Curriculum Comparison study (Schweinhart et al., 1986) suggests that these approaches may be inappropriate for young children.]

**Second.** The approach must be documented so that it can be understood and utilized by a wide range of individuals from different educational and social backgrounds. A model approach is of little use if only the originator of the process can effectively employ the approach. Many books and lectures exist about reform in education, but the information is usually so sketchy as to be only inspiring to the individuals who would apply the approach. Perhaps John Dewey represents this problem in the early days of progressive education. James Comer (1980) and Howard Gardner (1991) suffer to some extent from this problem today.

**Third.** A model curriculum program needs a training system so that it can be transferred successfully from the model developers or initial demonstration program implementers to a wide range of normally operating classrooms or care settings. So much of the material on educational practice is presented as information to the reader rather than as training in actual procedures. Training materials and systems should actually lead the practitioner through the growth stages of working with the curriculum model. What happens when you start? How do children initially respond? How long does it take for the routine and practice of the method to integrate into the school day with ease? What is the role of the trainer? The training system should allow the student to gradually enter the practice with success and a growing platform of expertise.

**Fourth.** The curriculum model needs actually to be utilized in a wide range of settings, to be certain that the system in fact works, and is not just a grandiose scheme without any real application. It is often shocking to see how models, developed for special situations and operated by specially
trained and supervised staff, actually fall in the real world of children, parents, teachers, and administrators. If appropriate, the curriculum model should be tried with various types of special education youngsters, bi-lingual and multi-cultural children, children from poor socioeconomic backgrounds, youngsters from privileged settings, and finally, young people from other cultures and languages in foreign countries. A curriculum model, built from a universal theory of child development should meet all of these tests readily.

Fifth. The proposed model system needs to be validated by significant research, to demonstrate that it really works when it is well implemented so that it is worth wide-scale application. By significant research it is meant that the basic research criteria for sample selection and assignment are met, and further that the studies are longitudinal in nature so that the curriculum model can demonstrate some long term impact. Too often the research supporting an educational approach is so limited that the outcome is simply unknown. Further, without longitudinal data the effects of the experimental efforts themselves are not being measured. It is usually readily possible to gain good assessment results at the end of a project. But what about several years later? Are the differences still present, or have they disappeared as is all too often the case?

Sixth. A well developed monitoring system must be available to ensure that the model is actually in operation when it is said to be employed. Too often, curriculum model programs are given "lip service" but never actually instituted in programs reporting their use. Judgments about a program’s usefulness, research on the program, training of new staff, etc., all depend upon the accurate implementation of the model. Monitoring systems need to be available to judge whether or not the curriculum is in place, and how "good" an implementation it is.

Seventh. Finally, a curriculum model program needs an assessment system of child outcomes, that supports the curriculum practice, indicating the extent of growth achieved by the child. Too many model programs are assessed by methods that are inimical to the goals of the program. Why use multiple
choice tests to assess the development of the ability to reason logically, when the final form we wish in the child is verbal and written logic? Teachers are directly influenced by the assessments made on the students in the program. If the curriculum model promotes planning and independent work, reflective assessment of self-performance, multi-step problem solving, and so forth, then the assessment procedures must examine these abilities. Otherwise the integrity of the entire process is lost.

In addition to the seven criteria for effective curriculum model programs, there are five points essential to effective program operation. Simply having a curriculum model is not enough. It must be employed correctly. These must be present in any early education or care program that wishes to affect the lives of the participants. The basic elements of quality in the operation of any program include these five areas.

First. The program adheres to a specific curriculum model. While the decision to adopt a curriculum model may involve an extended period of study and reflection by staff and parents, once the decision is made, the curriculum model governs the operation of the daily activities in the classroom, home visit, family day care center, etc., or whatever program unit is involved. For example, in the High/Scope curriculum model, children create plans for their daily activities, carry them out, and then are given time to reflect on what happened during the work time. This practice means that the staff do not "surprise" the children with unannounced events or field trips that the children are not anticipating. Such a move by adults would preempt the decision-making power given to the children, and train them not to be prepared for self-directed activities.

Second. Once a curriculum model is selected, a supervisor well-versed in the approach is necessary, to provide ongoing in-service training all staff need to continually deliver high quality programming. While such in-service training includes small group meetings around model delivery issues such as daily routine, theory of the model, and adaptation of practice, the most important assistance is "at-the-elbow" training that the supervisor delivers to the teaching teams in their own classroom. Such assistance helps the
staff modify the model to the specific needs of their particular children, as well as encourages them in the further study of the curriculum model program.

Third. The team of staff working with a specific group of children needs to spend significant time together, planning and coordinating their daily activities. While the supervisor may be present on some occasions, the team planning and mutual discussion of children and their experience in the program provides the basis for the day-by-day operation. What will be the specific assignments for each staff member tomorrow? What did Stephen do in the block area today? What questions might help him develop the insight that the size of the bridge opening determines whether his train knocks it down or not? Did you notice that Brian is finally doing the beat correctly on the song by starting to respond two beats before his time to come in? Team sharing of observations and knowledge of children and curriculum creates both the platform for the best staff have to give and the framework for training.

Fourth. All quality programs need a coherent assessment system to track the progress of the children, and to know whether the program is delivering on the promise of the model used. In the High/Scope curriculum, daily observations of children are recorded to accumulate information on child progress. Then, several times a year, a carefully standardized instrument, the High/Scope Child Observation Record (High/Scope Educational Research Foundation, 1992), is used to summarize the observations and experience of the staff with each child in the important areas of social, emotional, physical and cognitive growth. The most effective curriculum models use assessment systems that reinforce the curriculum methodology while giving an accurate picture of child growth.

Fifth. In this last category are the many small aspects essential to good program operation -- good administration by those responsible for support to the staff, sufficient funds so that staff are adequately paid, enough supplies and equipment for daily operations, and good housing that meets the needs of the children. Finally, there is care and respect for the
involvement of parents in the operation and administration of the program. While it seems impossible today, only a few years ago parents were left "outside" of the service delivery of programs to their children. Now almost all programs actively attempt to involve parents meaningfully. Teachers may be experts in the education of children, but parents certainly are experts in their child and the family's aspirations and expectations. The best programs link staff and parents closely together to reach the goals for the children.

The 30 years of longitudinal studies by the High/Scope Educational Research Foundation may be used to illustrate the important points developed above.

**HIGH/SCOPE CURRICULUM STUDIES**

The High/Scope Perry Preschool Project (Berreuta-Clement, et al., 1984), established in 1962, enrolled disadvantaged three and four-year-old children in a half-day preschool program for eight months of the year. The mothers received a 90 minute home-teaching visit each week by the classroom teacher. The children selected for the study were randomly assigned to either the experimental group to participate in the program, or to the control group which remained engaged in the normal, though limited, processes typical of the home and community. Over the years a model curriculum was developed using Piagetian theory as the basis for the organization and delivery of the services. While the curriculum model has evolved over the years, the essential components of the method have remained common to the work.

The results of the study have not varied over the years. The children who participated in the High/Scope curriculum program demonstrated significantly higher scores on intelligence tests upon entry into regular school, though this advantage was lost by grade three. The performance on achievement tests has favored the preschool group since grade three. Teacher ratings over the years have consistently given the preschool group the advantage. At age 15, the no-preschool group demonstrated a higher rate of self-reported juvenile delinquency. By age 19 the pattern of success for the preschool group was
apparent in three major areas. (1) In education: the preschool group graduated from high school; attended college or advanced training programs more often; and were less likely to be assigned to special education services during their school years. (2) In the world of work: the preschool group was more likely to both be working and to be self-supporting. (3) In the area of social behavior: the preschool group recorded less crime; less welfare use; and, if female, fewer teen-age pregnancies. Current and very preliminary data analysis of the study participants at age 28 suggest that age 19 findings will be confirmed.

In order to sort out the impact of specific curriculum models, the High/Scope Preschool Curriculum Comparison Project (Schweinhart, et al., 1986) was established in 1967. The models chosen for the project represented the three basic orientations toward early childhood education curriculum, behaviorists, traditional-developmental, and cognitive-developmental. Popular in the 60s was a behaviorist program developed by Engleman and Bereiter called DISTAR. This curriculum model was selected to represent the point of view that what children need to succeed in school is a well-designed, step-by-step program to prepare them in the academics necessary for elementary school. The curriculum model represented a coherent belief system drawn from a well developed school of psychology; it was well documented with very specific teaching materials; it had a training system so that the method could be transferred to others. However, it had not been applied to a wide range of populations, though the behaviorist approach was widely used in special education classrooms; it had not been validated by research other than some short term studies; but it did have a clear-cut classroom monitoring system. The curriculum approach recommends that standardized achievement tests be used, especially narrow-band tests such as the Wide Range Achievement Test. [Wide range in the sense of multiple grade levels, not of concepts measured.]

The second curriculum model employed was the traditional-developmental nursery school model. This model, widely used in the field throughout the world, holds that children learn best by allowing them time to mature while they enjoy the world around them, enriched by teachers and parents, through
play. It is believed that this natural learning mechanism better prepares the child for later education than artificial structuring by adults with academic content of little interest and value to the child. The curriculum model is based on a system of beliefs about child development and has been documented extensively over the years; its training program is widely available in colleges and universities, through courses which usually focus on child activities such as painting, block building, children's play, story reading, etc.; it has been used in a wide range of settings. However, there is little systematic research to validate it as a method; it is more a system of beliefs. Further, it is very difficult to monitor as each individual teacher creates her own application of the approach. Finally, the child assessment systems available are the same as for the behaviorist systems, and are thus unsatisfactory as methods of judging child growth under this curriculum model, as they capture only the narrow specifics of academic learning and not the breadth of social development this approach values as a foundation for future learning.

The third model was based on a cognitive-developmental approach with the High/Scope curriculum (Hohmann et al., 1979) as the specific program employed. Drawn in part from Piagetian theory, the High/Scope curriculum model emphasizes the importance of the child developing intentions through an active planning process, active learning through direct engagement with materials, people, and ideas, and the development of insight through a process of review and recall of the activities undertaken. Adults are actively engaged with the child guided by their knowledge of child development, the principles of the curriculum, and their observations of the progress of individual children. The curriculum meets all the criteria for a model program as it is based on a coherent, developmentally appropriate approach; it is fully documented so it can be employed with a wide range of adults from various educational and social backgrounds; it has a tested training system that is employed throughout the United States and many foreign countries; it has been used in many types of settings in different cultures, language groups, and levels of intellectual development; it has been validated by both the High/Scope Perry Project (Berreuta-Clement, et al., 1984), and shorter term studies done in England (Moore & Smith,
1987) and Norway (Rye, 1989); it has a monitoring system to judge its level of implementation; and some assessment tools are available that are coherent with the model, such as the High/Scope Classroom Observation Record (High/Scope Educational Research Foundation, 1992). However, like the traditional-developmental nursery program, standardized achievement tests and most other measures of academic development are too narrow to capture the breadth of problem solving and social development characteristic of students in a well-run High/Scope curriculum model classroom.

In the High/Scope Curriculum Comparison study, children were randomly assigned to each of the three model programs. These children have been followed up through age 22, though only data through age 15 have been released. The findings give some guidance as to which curriculum models may be most effective with young children at the preschool level of development. At the end of the program and throughout the elementary and early high school years, there were no significant differences among the children in each program. This finding initially led us to believe that the choice of curriculum models should rest only upon the completeness and validation of the model, and not upon the particular theory around which the curriculum model was constructed. In other words, having two initial years of direct drill in academic subjects, as in the DISTAR program, did not increase capacity to achieve in elementary school, contrary to both theoretical and intuitive assumptions that the extra practice would pay off. Nor would having two years of self-initiated activities in preschool with little regard to the content of the elementary school curriculum, as espoused in part by both the traditional-developmental nursery school and the High/Scope cognitive-developmental approach, result in a weakening of elementary school performance.

At age 15 however, the data produced a decided shift in the general finding of equality among the models. Those youngsters, both boys and girls in the DISTAR curriculum model, reported more than twice as much delinquency as adolescents than did the youth of the other two models. In addition, they reported alienation from family and indications of dissatisfaction with school at much higher rates. The High/Scope Perry study has documented that
delinquency at an earlier age (age 15) leads to crime at a later stage (age 19). There is every reason to expect that these data regarding reported delinquencies in the direct instruction group will be confirmed when the age 22 data are analyzed. While several other studies (Karnes et al., 1983; and Miller & Bizzell, 1983) have found that children in preschool participating in direct instruction and drill programs have social difficulties later, the High/Scope Curriculum Comparison study is the strongest data to date. Of course, the most important aspect about the findings is that they are based upon real world performance criteria and not upon academic testing. Given the fact that test results only "stand for" what might be predicted in the world of work, family, and community, these findings of major social performance difference among models, are of utmost importance.

ROLE OF THE COMMUNITY

The curriculum model selected for use in early childhood programs is of great importance in obtaining quality. Not just any curriculum system appears to work. Research to validate different curriculum models needs to be given more importance. Beyond these issues, however, is a broader and more forbidding one. It may be that while we work the trenches of program improvement, teacher training, monitoring for quality, new assessment procedures, and so forth, society at large may have the overpowering control of what happens as children develop. While we are all aware of how television delivers its message of Hollywood culture, impulse, and role models, we are less aware of how things like innocent but adult-led T-ball for young children removes the freedom of sand lot baseball, how 24-hour shopping convenience takes parents out of families, how social-medical epidemics such as AIDS, crack, cocaine, alcohol abuse, and smoking may physically alter the child, and how the national tax system draws resources from the working poor with children. Yet, it may be the social context of the broader community that ultimately determines the quality of what children learn and what they become.
High quality early childhood programs can be created and delivered to young children and their families. Our task now is to employ what we know about this process and begin the far more difficult responsibility of supporting children and families within the broader framework of our dynamic society. This means early childhood educators must begin to coordinate their work and concerns with other agencies, bureaus, and political forces in the community. We cannot do it alone.
REFERENCES


