The research which is most helpful for early childhood education includes findings in learning, developmental psychology, and early childhood program evaluations; the lack of replication of studies makes interpretation difficult. Reassessment of the importance of the early years and present educational goals indicates that increasing emphasis should be given to self-concept, continuity, and the importance of the family. The impact of the philosophy of the teaching staff, value judgments, and social and political realities are also discussed in relation to their effects on research choice and implementation. Future directions in implementing early childhood education research should be guided by the understanding that research cannot provide answers to all problems. Quality educational programs also involve value judgments by caring people and communities concerned about providing the best opportunities for all of their children. (CS)
To many early childhood educators the word research has a kind of magic halo. They feel that those who do research must be held in awe and likewise that to be "somebody" one must be doing research. A more acceptable attitude is that there are creditable and meticulous researchers just as there are creative and highly skilled teachers but all researchers have not attained this level just as all teachers are not equally successful.

Research in early childhood development has a unique opportunity to make a contribution to early childhood education but just how directly applicable research is to the classroom and to program planning depends on the particular characteristics of the research. Some research is conducted under such highly controlled laboratory conditions that it only has implications for designing further experimentation more closely related to the classroom. Research on animals may have implications for the effects of certain experimentation on human behavior. For the most part we do not know how close the relationship is. Only after a research finding has been replicated in different settings by different investigators does it become worthy of careful consideration for classroom application. A further complication is the stance of some psychologists that they do not have a responsibility beyond the generation of new facts--whether these findings have any practical application is not an issue to them.
Some of the Knowns

Those who work with children and with potential teachers of children must concern ourselves with that which is known and how we can best use it. The research which is most helpful to us in a general sense includes findings in learning, developmental psychology, and early childhood education. This is a considerable volume of material. In 1971, my colleagues and I (Butler, et. al., 1971) analyzed about 1300 studies largely in the area of developmental psychology. In looking at this volume of material certain difficulties are at once apparent. Most studies are conducted by a single, dedicated researcher operating in a single site. The lack of replication of studies in different sites and by different researchers and even the lack of replication of studies by the same researcher using different populations makes interpretation of the findings something of a guessing game. Thus in the interpretation, findings tend to be too specific and limited or so general that the direct association with specific studies or researchers is difficult to establish.

Finding a Basis for Planning Early Childhood Programs

Establishing a research basis for early childhood education has not been easy. While studies comparing children who have attended early childhood programs with children who have not indicate a temporary favorable affective and cognitive advantage to the children who have been in early childhood programs, the evidence is hardly considered strong enough to support the necessity of early childhood education. If we require a guarantee of the value of early childhood education programs, the research is not strong enough. If we feel favorable toward early childhood education,
we recognize and accept its potential on the basis of the less than conclusive data available.

The importance of the first six years seems well established as within this time most babies develop the basic motor skills, many of the linguistic and cognitive skills, and have established their basic temperamental and social characteristics. However, it now appears that the writings of Hunt and Bloom which date back about ten years somewhat overestimated the degree to which intervention programs could reduce the possibility of failure of our population of high risk children. While current findings point to the psychological plasticity of young children and the development of the early years of life, they do not establish the early years as unique, irreversible determinants of later behavior. What seems more reasonable is the stance that human beings are capable of learning throughout their lives. Thousands of adults in this country are taking advantage of new educational opportunities and changes in lifestyle every year. The relative effort required for such changes is not known and the wasted years surely are longer when opportunity is delayed.

Considerable evidence exists that with a variety of approaches, begun at different ages, both general and specific skills can be dramatically changed. Techniques now exist not only for promoting concept formation, memory, categorization, conservation, etc. It appears that there is a striking relationship between the magnitude of gains in the basic cognitive, skills, and personal-social developmental areas and program emphases. Evidence suggests that motivation and a sense of self-worth should be most susceptible to change in their expression by the environment because they seem most dependent on environmental support. Changes in school readiness and specific skills whose acquisition are influenced by motivation and
ability ought to be intermediate in size as a result of environmental modification. While evidence is incomplete, there are data to permit parents, teachers, and administrators to select program components intended to achieve specific outcomes for preschool children, with assurance that these will be achieved if the programs are well implemented (Datta, 1973).

In March, 1974, UNESCO held its first expert meeting ever to be held in the United States at the University of Illinois (Butler, 1974). Seventeen experts from different developed and developing countries met to explore scientific knowledge about the development of young children and the implications of this knowledge for education. Their deliberations emphasized the point mentioned above regarding the importance of the first six years of life and supported the goal of educational systems as fostering the overall cognitive, emotional and physical development of children. The experts recognized that all different aspects of growth are highly interrelated and societies may differ in the emphasis they give the different aspects. Effective teaching centered in the cognitive domain is believed to enhance development in all aspects of growth as growth in the different aspects is reciprocal.

Agreement is strong that children should be actively engaged in the learning process. Since children are inveterate explorers of the physical and social worlds in which they grow up, constantly seeking new challenges and new solutions to the problems they encounter, they need broad exposure to appropriate experiences and problems of life and adult guidance toward effective solutions to the problems they encounter.

Assuming a very significant place in the goals of early childhood education is the goal of promoting healthy self-concepts in all children.
Conditions of acceptance, a favorable relationship between success and failure, and the opportunity to identify with positive models are important to this process.

**Importance of Continuity**

While there are still unanswered questions, many researchers are calling for continuous, well-planned, well-implemented experiences, particularly those with strong support for the family-as-a-teacher. Data refer to the following kinds on continuity: 1) program continuity, 2) comprehensive environmental continuity, 3) continuity of peers, 4) continuity of teaching staff, and 5) parental continuity, which are just beginning to be explored (Datta, 1973).

UNESCO experts agreed that human growth is a continuous process and emphasized the point that growth proceeds through sequential stages in physical, emotional, and social as well as in cognitive areas. Data in the area of social and emotional development, especially that in personality, motivation, and behavioral controls in the preschool child reveals the value of certain behaviors that may not be accepted by adults as having positive value. Support is strong for adjusting the standards of attainment and the means of attaining them to the previous experiences and level of development of the child.

Implications are also strong for planning reasonable transitions between the child's experiences at home and those which are provided at school. If the child is to make the easiest adjustment, continuity must be provided between his experiences in moving from one school program to another. Particularly important is the transition from less formal experiences to formal programs in which compliance to rigid standards of performance is demanded.
Rediscovery of the Importance of the Family

A major emphasis emerging from the past decade of research and evaluation studies is the rediscovery of the importance of the family and the social context of the child's life. Current indications are that preparation in the areas of child development begins too late. Poor nutrition during adolescence when the mother's reproductive systems are maturing is associated with their babies low birth weight. Babies of low birth weight have the greatest developmental risk in regard to survival and later growth. It therefore seems necessary to begin education for parenthood in late preadolescence or early adolescence, not only with respect to child rearing but also with respect to adolescent nutrition and prenatal care.

The major responsibility for guiding the young child is currently centered in the family if one uses the term in its broadest sense to include single parent families, extended families, kibbutzim, etc., as well as the traditional two-parent family. Institutions which have responsibility for nurturance of children should seek to support the family rather than supplant it. According to Bronfenbrenner's review of research literature on socialization and the studies of interventions which seek to strengthen the family's responsibility for child rearing, the family is the most effective and economical system for fostering and sustaining the development of the child (Datta, 1973). The involvement of the child's family is critical to the success of any intervention program. We are beginning to have a variety of models from which to choose ways of involving families in the education of their children. This trend is just beginning but we must seek ways that the educator and the parent can most effectively work together in the education of the child.
What Do We Use?

So far we have been concerned largely with using what we know. A far more challenging problem is knowing what we use. This requires that we take a look at ourselves as educators—a task that is never easy as through the years we have learned ways to rationalize whatever action we want to take. When we begin to ask questions about the expectations we hold for children, and why these particular expectations, we are concerned with what we think not what we necessarily have a knowledge base for. When we ask questions about the techniques of control we use and why, we are often confronted with the techniques which were used in our own upbringing. Many who work with young children do not have a strong knowledge base. An even more important question is if we do have it do we make a conscious effort to use it. Do we consciously behave in certain ways because we know the behavior is effective in attaining chosen goals or do we respond independently of this knowledge.

One of the prime determiners of program is most likely to be the philosophy of the director and teaching staff. Answers to such questions as "What does the teacher think is important for the children to learn or to do?" and "What does the teacher feel responsible for?" are likely to play important roles in determining what goes on in the program. The answers to these questions may be influenced by research to the extent that it is known and accepted but also influential are such matters as the staff's observation of the abilities and interests of the children, the interests and abilities of the staff, past experiences with what seemed to work, wishes of the parents, and the social and political realities of the immediate location of the school.
Can-should Questions

Some questions can be answered by research; some cannot. Research may be able to provide the answer to questions which deal with what can be done in an early childhood program. For example, Can you teach four-year-olds to read? Can you teach three-year-olds to play a musical instrument? Can you teach a three-year-old to write his name? Questions such as Should you teach a child to read? etc. and When should you teach a child to read? have far greater educational significance. These questions are more complex and not as easily answered by research. They require examining many factors and weighing the answer to some questions against the answers to others. Research is necessary for making the judgments required to answer the questions, but the actual decisions will be based on what the responsible people think is most important for the child at a particular time. This is a philosophical decision.

Determining which Research

Many different approaches to teaching can be supported by a volume of research. It is possible to teach the same material by a variety of means and test whether it has been learned. It is possible to change behavior by a number of techniques which are generally regarded as unacceptable. Nowhere is this selective use of research so apparent as in the various models for early childhood programs. Some rely heavily on the use of positive reinforcement; some use it only incidentally. Some motivate the children to learn what has already been carefully determined; some rely heavily upon what the child is already interested in to determine what is taught and how it is taught. These programs lean toward the use of one body of research as opposed to another. Determining which research is utilized involves a value judgment.
Political and Social Realities

It is quite likely the temper of the times will have more effect than research on whether we have early childhood programs or not. With the large number of parents of young children who are currently employed the need for services for young children has steadily grown within the last two decades. Someone other than parents is caring for many of these children. Whether research is implemented at all in the education of these children is dependent on such factors as the training of the person who cares for the children and the availability of subsidized programs. Parents are not waiting until a quality program is available. Children are being placed in whatever is convenient and affordable.

Still other families live in small apartments or in neighborhoods where there are few young children. Despite the fact that Head Start has not been the panacea to solve the educational problems of children from low-income families, support is still strong that early education programs are helpful in meeting the needs of these children.

In the long run some substantial and continuous financial support for early childhood education along with the requirement that minimum standards be met will be the most important determining factors in whether early childhood programs exist and how good they are.

The preceding paragraphs are not meant to imply that researchers should abandon their efforts in gaining more information to support the existence and content of early childhood education. On the contrary, we should continue to learn as much as we can. Currently we have a considerable body of knowledge regarding how children develop, the ways children respond to various teaching procedures, and the effects of different program approaches. We know the role of the teacher makes a very important difference
in the program which is available to the children. We still desperately need more knowledge of the teaching process, of the relationship between the teacher's preplanning and experiences provided for the children, and the effect of the teacher's ability to analyze and evaluate the experiences provided. It is important that we continue to expand our research efforts particularly as they deal more specifically with the child in the educational setting, but it is also important to realize that research does not provide the answers to all of our problems. Quality educational programs involve caring people and communities concerned about providing the best opportunities for all of their citizens. All of our resources including research must be used to achieve the goal of achieving good educational opportunities.
REFERENCES


Butler, Annie L., "The Psychological Development of the Child and Its Implications for Education," Childhood Education, November, 1974. (Additional info will be available in November.)