Research and Common Sense: Therapies for Our Homes and Schools

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Americans have long been proud of their high technology and elementary wisdom—a determination to document what they do with sound research and to follow through with common sense, even if it means sacrifice. Our schools benefited early from this pride. Yet, in recent issues of the *Teachers College Record* there have been at least two stimulating discussions of danger signs—on school effectiveness and teacher burnout—that lead us to wonder if we have not lost our former grasp of our cherished ideals.[1] These articles focused on making *teachers* more alert, comfortable, and secure, that is, they must be helped to a sense of "community" and to an understanding of their resources. I suggest now some critical needs that must also center on our *students* if American education is to keep our society strong.

Teachers feel worthy and secure only when they produce well-socialized students who achieve and behave. So achievement and behavior of children become keys to teachers' happiness. Yet, with literacy rates falling and behavioral problems on the rise, questions logically arise: Are these old-fashioned goals of teacher happiness and satisfaction achievable anymore? Is there some boat that we as educators have missed? Are there some tools we are not using? Have we ignored lessons of the past—a particular hazard in teaching where we always like to think of ourselves as looking ahead? I believe the answer to each of these four questions is yes, and suggest that we select a central issue or two and look carefully at the evidence.

Many of us prefer to blame our school problems on "the times." More specifically, we point to "factors that break up the family," such as war, television, indifferent parents, macho-feminist movements, and general amoral behavior. These we cannot change, but there are two specific professional digressions for which there is no excuse: First, we do our research in bits and pieces, each researcher in his own narrow sphere. Even this might somehow be justified if we did not commit the unpardonable act of failing to bring the bits and pieces together—an omission as flagrant as the thoughtless mechanic who leaves car parts scattered all over his garage and fails to understand why the car will not run. Second, we ignore the perspective of history—and how we invented and ran the "car" in the first place. The result is "tunnel vision."

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Should educators shrug responsibility in developing the most complex instrument of all—the child—and ride on for generations with little attention to cause-and-effect relationships? Are we naive or reckless if we simply careen ahead on provincial research projects without any sense of their interrelation while the child, and basically the school, is torn to pieces? To ignore the importance and need of research cross-pollination and to fail to place its findings in historical perspective signals the possible death of truly creative education.

EDUCATIONAL FAUX PAS

Accommodating Change

As Americans shifted from a rural to an urban format, we failed to bring with us the work ethic. Instead of providing our students with chores, we have delivered sports and amusements and created a narcissistic climate that is still compounding its contagion. Nor did we share the old golden rule of service to others. The care by neighbors and church was delegated (or abrogated) to the state—which accepted it. So today the United States suffers from productivity comparisons—with such nations as Japan—and from high government control.

Bigness

To compound this dereliction we called for bigness in our schools. A dramatic idea, *bigness* came to mean *goodness,* until we found that big student crowds defied earlier controls, rich academic smorgasbords confused more than they nutrified, and the phenomenon of buses became abuses—of the child. There was no serious effort to learn from either history or research. Even noneducators like Charles Evers (Jackson, Mississippi's black mayor) saw clearly that we had made a mistake in moving away from neighborhood schools with their smallness and closeness to the family.[2]

"Reforms"

During the 1960s, a parade of educational "reforms" and titled federal programs was launched by the U.S. Office of Education. Few were thought through on the basis of either history or research. When a program did meet these criteria (e.g., Home Start), it was terminated as not "politically viable." Sound state-instituted projects dealing with teacher-student work-study curricula (e.g., California's Regional Occupational Programs) have often been among the first to know uncertainty or to feel the financial axe when the economy fluctuates or falls. So instead of education by experience, research, and common sense—considered vital to survival in industry—we seem to have education from the top of the head and from the seat of the pants.

Has such tunnel vision become pervasive? It seems so. Cross-disciplinary research on students compares researchers' replicated—and therefore consistent—findings with conventional practice to test the following assumptions: (1) that since little children learn fast we should ram formal facts and skills into their brains earlier and faster; (2) that teachers can do this better than parents; (3) that peers and schools socialize better than do parents and the home; (4) that schools produce better-behaved children than does the home; and (5) that, therefore, children whose schooling is delayed will suffer academically, socially, and psychologically. What is the truth about readiness for learning and where does learning best take place?

INSTITUTIONALIZING YOUNG CHILDREN

Observations and Generalizations

Throughout history man has had spells of separating young children from home and family. Usually this happened just before social collapse. In our society we call such a practice early childhood education (ECE). But the present cycle is different from those of the past. We are living in an unprecedented era of research and development. Federal dollars and computers have supplied many facts, yet with all the resources and speed at their command, legislators and educational planners have made little systematic use of this scientific data.

The Stanford ECE public policy research team, which worked in this field for a number of years, could not find a single state that had early school mandates based on replicable research.[5] Children are the victims. However sad and unnecessary this is, the guilt is not all to be laid at the door of those who plan, and who make the laws. The Stanford group found that most courts and legislatures, when provided sound data, produce sound decisions and laws. For at least two reasons, those who supply and interpret the evidence must share much of the blame.

First, researchers tend by nature to be provincial. Thus begins tunnel vision. So there is a failure to develop a systematic approach—to see, to share, and to present the larger picture. When in the 1970s the work of neurophysiologists, ophthalmologists, psychologists, research psychiatrists, maternal attachment analysts, and others was drawn together, a remarkable contrast emerged between ECE research and practice.

Second, when facts are known, researchers tend to speak in unknown tongues familiar only to current professional colleagues, and sometimes they themselves are confused by the lingo. At a meeting of curriculum specialists at the American Educational Research Association in New Orleans a few years ago, I sensed some confusion. There was a conversational breakdown. Finally, a secure Teachers College, Columbia University, scholar (Bruce Joyce) admitted that he simply did not understand some of the papers with their new

words and unclear organization. He was immediately joined in a laugh by a host of others in the assembly who had listened quietly and dumbly, afraid to admit their ignorance. Yet they were supposed to be educational leaders!

Many educators and parents simply give up trying to comprehend the research results and proceed on the basis of intuition or expediency—much like the unready child who does not perform well because he fails to understand what the teacher is trying to ask.

Educational Malpractice?

It is commonly inferred today that a parent who does not send his child to nursery school is depriving him, or that if the child does not have the option of a day care center or a preschool he cannot be normally fulfilled or well developed. In many cases of disability or handicap such institutional care may be reasonable, but to attempt to institutionalize all young children because a few are disadvantaged—as many have urged in recent years—is like trying to hospitalize all because a few are sick. Most children, according to replicated research, should not be in preschool or day care. As I shall show, the best all-around development occurs in a wholesome home environment.

Yet in America some states have plunged into legislation mandating earlier and earlier schooling. Ten years or so ago Houston began providing regular preschool programs down to age three, and at the December 1981 Missouri Governor's Conference some urged supervision by "professionals" from birth, with custodial care allowed the parents. California's Wilson Riles made a strong attempt to provide schooling for all children aged seven down to age two and a half.[4] Is there some research evidence to justify this? If not, do we risk charges of educational malpractice?

Many states—for example, California, Florida, Missouri, North Carolina—are being urged to provide schooling or other public care for all young children; heretofore such care has been reserved for the handicapped or the deprived. These are bold moves toward substitution of public institutions for the home. Where is the record of a public performance that justifies this? Again there is a risk, this time involving civil rights.

It is clear that special therapeutic help in schools or other environments is often needed. Many children are handicapped beyond the ability of the parents to provide adequate care, but the home in most cases should be central in therapy. Children should be screened to identify learning disabilities, with parents involved at every step. There is a much larger parent responsibility for education than many yet envision. There is a place for the institution and a place for the home.

It is also clear that day care or kindergarten must be provided for youngsters whose parents are physically, emotionally, or financially unable to care for them. Yet where is the research evidence that dictates formal readiness programs for reading, writing, arithmetic, and language arts at this level?

Rather, research suggests an unpressured environment in which the young child can be free, much like a lamb, under gentle control, consistent with his developmental needs.

What, then, are these needs—which, judging from conventional wisdom and widespread practice, educators should look at more fully? A few areas that should be of immediate concern to all are cognitive development, neurophysiology, social-emotional development (including maternal attachment), school-entrance age, parent attitudes and potential, and the home as "school."

COGNITIVE DEVELOPMENT

Much of the idea of early stimulation emerged from Benjamin Bloom's famed research. He concluded that "in terms of intelligence measured at age 17, from conception to age 4 the individual develops 50% of his mature intelligence."[5] Fortunately, he has now largely set aside his opinion that this justifies early schooling.

Although the Bloom paper was plagued with problems, psychologists, educators, and the general public eagerly embraced it.[6] Among other things his review fit into the "need" for parent "freedom" and teacher jobs. A number of researchers whose data he used insist that he misinterpreted their findings.[7] For example, Arthur Jensen, after carefully checking the Bloom report and applauding its more reliable aspects, specifically warned that

> this fact that half the variance in adult intelligence can be accounted for by age 4 has led to the amazing and widespread, but unwarranted and fallacious, conclusion that persons develop 50% of their mature intelligence by age 4![8]

Many researchers have demonstrated that the child needs a simple environment with few distractions, involving a relatively few people, adults or children. Urie Bronfenbrenner observes that the more people there are around the child, the fewer the opportunities he has "for meaningful human contact."[9]

The early stimulation theory is much like demanding that we force a tight new rosebud to bloom—beautiful in its potential and perfect in its immaturity, but not yet fully ready to bloom. No matter how delicately it is forced to a premature bloom, the result is a damaged rose. Common sense tells us that percentage-wise the newborn learns faster than he ever will again. His second learning, his mother's touch, is a 100 percent increase over the shocking awareness of his first "fact"—the noise and coldness and fresh air of his new world. But that is only percentage-wise. The child of eight or ten with thousands of such "learning hooks"—sensory and cognitive experiences—will learn much more in quantity in a given time than will a child half his age.

Risks of Speeding Up

Research psychologists suggest the age span of late sevens to middle elevens as the time when a child becomes able to reason abstractly—as required, for example, in thoughtful reading. This conclusion is underscored variously by such research analysts as Piaget, Rohwer, Almy, Elkind, and Furth.[10] Here we have a serious discrepancy between research and present preschool trends and practices. Rohwer warns that

> young children find concept-learning and tasks that require combination and manipulation of concepts to be extraordinarily demanding. Research studies have shown that reading and arithmetic require conceptual abilities that many youngsters do not achieve with ease until they are close to 9 years.[11]

Reading at early ages often becomes a rote exercise marked by boredom and frustration rather than a true process of thinking. Children should be taught to read with understanding, not simply to repeat words. This requires cognitive readiness—an ability to reason from cause to effect that does not come readily and consistently to the child until he is at least seven or eight or older. David Elkind would avoid all unnecessary pressures—"intellectual burning" he calls it—on young children during periods of rapid mental or physical growth.[12]

Helen Heffernan hints that many are "warping children to satisfy adult demands."[13] Jean Piaget, author of the seven-to-eleven age frame above, seems to agree: "The problem of learning is not to be confused with that of spontaneous development even though spontaneous development always comprises learning."[14] He calls the speeding up of the development of the child's brain the "American question." And his answer to this question is that "it probably can but probably should not be speeded up . . . the optimal time is not minimal time."[15] Yet many American planners seem intent on hurrying the cognitive process, and unfortunately many countries are looking to America as an example.

NEUROPHYSIOLOGY

A study of the brain is also essential to any study of educational readiness. This means an examination of the operating characteristics of the brain itself, the visual process, hearing and intersensory perception, among other facets. Much more research is needed, yet there is sufficient evidence to give us pause.

Brain Development

Neurophysiologists have noted for many years that there are interesting changes in brain rhythms relating to chronological age. According to such researchers as Corbin, Metcalf, and Walter, the young child is largely

dominated by his emotions, connected with the hypothalamus and other "lower" centers.[16] This dominance appears to linger until approximately age eight or nine when the higher reasoning centers of the cerebral cortex can normally be expected to become dominant. This has been demonstrated by other researchers as well.[17]

Direct implications of overall central nervous system maturity for learning are obvious. Virtually all brain researchers agree that as the brain grows in *structure* it becomes more adequate in *function*. Luria and Birch and Lefford, among others, have found that the intersensory processes involved in learning are a function of *many* parts of the brain.[18] The processes should not be rushed.

Reading, once thought by many to be a simple task, actually involves a number of complex mental processes—functions that depend on a certain maturity of brain structure. These are, among others, (1) word recognition, (2) decoding (i.e., reading letters that stand for sounds), (3) sound articulation (i.e., differentiating between various sounds of a given vowel), (4) sequential analysis (i.e., sequence of letters and sounds), and (5) perception of various thoughts and ideas. Each process or function is not only neurophysiologically complex in itself but also demands that simultaneous integration be made of all these functions. This is relatively easy for a child of eight to ten, but may be formidable for a five- or six-year-old. He may become frustrated and give up reading, with resulting anxiety and motivational loss.

This young emotional animal needs freedom from such demands as reading and writing to the extent that they require abstract reasoning abilities. Elkind warns that

> it must be remembered that while young children do learn easily, they learn by rote and imitation rather than by rule and reason. Their learning is capricious, non-selective and arbitrary; it is not the kind upon which formal learning should be based.[19]

A small child might be able to recognize simple words now and then, perhaps even at two years of age or younger. Yet if he is required to read or write or use numbers consistently and is not ready to follow through on a rational basis—with cognitive maturity—he will often become frustrated and may turn aside altogether from skills requiring such reasoning. Primary school teachers observe this behavior daily as children develop a motivational plateau around grades three or four. They unnecessarily experience the anxiety of failure, their records follow them, and many of them, while yet very bright, are never motivationally renewed. So by schooling early, we often create learning disability.

Vision, Hearing, and Intersensory Perception

Coinciding with these findings of neurophysiologists and learning psychologists are those of opthalmologists and optometrists. There are many

conflicting beliefs respecting the maturity of the young child's eyes. Yet the work of many researchers and much clinical experience suggests that young children are not ready for visual-perceptive aspects of reading until they are at least eight years of age, and for some children it may be as late as ten. Although the eyes may seem mature and the child is apparently reading well, young eyes are not yet able normally to accommodate near objects in a consistent way nor ready for the concentration of formal reading required by regular schooling.

In 1963, Henry Hilgartner, an ophthalmologist, reported to the Texas Medical Society from his and his father's fifty-year study of incidence of myopia in children that "the earlier children start to school the more frequently nearsightedness is discovered between the ages of 8 and 12."[20] Where usually about one child in seven or eight could be expected to be nearsighted, this ratio changed to one in two about 1930 when Texas dropped its school entrance age to six. By 1940 the ratio was one to one. And with television and ever earlier schooling, the ratio in 1963 was five abnormal children for every normal child, or almost the opposite from 1910. Frank Newton, a Dallas ophthalmologist, found in checking his records that Hilgartner's research was conservative. Hilgartner makes specific application to the modern school: "During the 3 or 4 hours that the beginner, age 6, is in school he is using all the ocular muscles for accommodation and convergence, in order to see the pictures, drawings, etc. If he were outdoors, playing . . . games, he would not be using his eyes excessively for close work."[21]

This is supported by Strang[22] and by Carter and McGinnis, among others. In voicing agreement that young children are basically distant-visioned people. Carter and McGinnis suggest that

> the visual mechanism at six years of age is unstable and many children have difficulty in fixating at definite points and in keeping their place in reading. Children at this age make many regressive movements and are inaccurate in moving from one line of print to the next. . . . Some children who cannot adjust to the difficulties of near vision find reading so uncomfortable that they give up trying to learn.[23]

Similar findings have been made in auditory perception by Rosner and by Joseph Wepman. Jerome Rosner explored the correlates between auditory and visual skills as related to primary grade reading and arithmetic achievement. He found that learning to read appears to depend heavily on auditory skills.[24] Wepman says that in some children auditory discrimination and auditory memory, that is, the "ability to retain and recall speech sounds," are not well developed until the age of nine. He suggested that if we in America would hold off formal schooling until age eight or nine we could reduce reading failure to 2 percent (in lieu of the present 25 percent or more).[25]

Similar findings have emerged from research on intersensory perception. Birch and Lefford found that the ability to make various intersensory

judgments—taste, touch, and smell as well as vision and hearing—follows a general law of growth and improves with age.[26] They found that integration of vision, touch, and muscle coordination is not normally possible until the child is seven or eight. Anne McCabe et al. confirmed this as recently as 1982.[27] And Sonnenschein noted that verbal redundancy, which facilitates children's performance at the fourth-grade level, becomes an inquisition to children of kindergarten and first-grade ages. The younger children are agitated and debilitated by such repetition.[28]

There is the further probability that if the child can have the benefit of a relatively free and happy home environment, his psychological and physiological development will be sounder. Harold Skeels's famed orphan babies blossomed mentally and socially from the warmth and "teaching" of retarded teenagers when given one-to-one care. Yet those who had the sterile care of the orphanage without such warmth became retarded, weaker physically, and in some cases died.[29]

SOCIAL-EMOTIONAL DEVELOPMENT

Socioemotional development of the child is closely related to cognitive, neurophysiological, and sensory development. Perhaps first here is maternal attachment and deprivation.

Value of Mothering

World Health Organization ECE head John Bowlby suggests that dangers from lack of close mothering may exist until eight years of age or older.[30] He is joined in his conclusions by many research psychologists and psychiatrists. L. J. Yarrow concluded that besides the retardation of development caused through emotional factors, maturation and adjustment are markedly slowed by deprivation of sensory, social, and affective stimulation when a child cannot be with his mother.[31]

Bowlby explains why this is true.

> The ill-effects of deprivation vary with its degree. Partial deprivation brings in its train acute anxiety, excessive need for love, powerful feelings of revenge, and arising from these last, guilt and depression. These emotions and drives are too great for the immature means of control and organization available to the young child (immature physiologically as well as psychologically). The consequent disturbance of psychic organization then leads to a variety of responses, often repetitive and cumulative, the end products of which are symptoms of neurosis and instability of character.[32]

Rene Spitz admonishes that "a child's welfare does require frustration . . . reality testing is one of the vitally important functions of the ego."[33]

During this testing period, the warm, continuous presence of the mother, a one-to-one relationship, provides a track on which the child can develop optimum security. Any delegation of this process endangers the security of the child.

Thus, says Bowlby, numerous direct studies "make it plain that, when deprived of maternal care, the child's development is almost always retarded—physically, intellectually and socially and the symptoms of physical and mental illness may appear . . . and that some children are gravely damaged for life."[34] He states that "there can be no reasonable doubt that a fair proportion of children between the ages of five and seven or eight are unable to adjust satisfactorily to separations,"[35] and that many children are vulnerable to maternal deprivation until as late as ten years of age.[36]

Socioeconomic Status (SES) Influences

It is commonly assumed that children who come from relatively low SES homes are bound to be handicapped if they are not placed in nurseries or other day care. This is not necessarily so. Marcelle Geber carefully tested more than three hundred Ugandan babies during their first year. She used Gesell standardized measurements and found that these infants were in general superior to Western children in physiological maturation and coordination, adaptability, sociability, and language skills. The interesting fact is that these were low SES, tribal-oriented families. Also interesting: The mothers were uneducated, but child-centered, always available, and often caressing and otherwise responding to their little ones.[37]

At first I questioned these findings, observing that African children from tribal climates often mature earlier than Westerners. But on looking further I discovered that in a related study of the same qualities Geber took a sampling from a like number of relatively well-to-do Ugandan families. In these families the children were involved less with their mothers—often given day care by others. Dr. Geber found that these children—of educated mothers—were much less mature than the babies from the low-SES mothers.[38] Rene Spitz notes that young Western children do not have adequate close contact with parents. He states that "throughout the western world skin contact between mother and child has been progressively and artificially reduced in an attempted denial of mother-child relations."[39]

As a result of these and other findings, Bowlby has concluded that even a relatively bad home with relatively bad parents is generally better than a good institution. He points out that except in the worst cases, the mother "is giving him food and shelter, comforting him in distress, teaching him simple skills, and above all is providing him with that continuity of human care on which his sense of security rests." Martin Engel, while director of the U.S. National Day Care Demonstration Center, elaborated further:

The motive to rid ourselves of our children, even if it is partial, is trans-

mitted more vividly to the child than all our rationalizations about how good it is for that child to have good interpersonal peer group activities, a good learning experience, a good foundation for school life, etc., etc. And even the best, most humane and personalized day-care environment cannot compensate for the feeling of rejection which the young child unconsciously senses.[40]

Bowlby does not by any means suggest limiting the child's attachments to his mother and father. In fact, he emphasizes the desirability of a broader attachment grouping—siblings, cousins, grandparents, neighborhood children, and so forth. But he underscores the crucial factor of the mother as the child's central attachment figure on whom he most often relies while he builds self-reliance, and from whom he should gradually extend his attachments without being thrust into a sink-or-swim situation. Nor does he demean the father's role. He offers a stern warning:

The criticizing of parents and taking the children out of the home and putting them into the schools as is being commonly suggested these days actually undermines the parental confidence in the parents' own role, and in their potential role. There is entirely too much criticism. The educators are guilty of undermining the home rather than building it up.[41]

Bronfenbrenner is also specific in his warnings to our schools. Note carefully his reasons:

As for the school—in which the child spends most of his time—it is debarred by tradition, lack of experience, and preoccupation with subject matter from concerning itself in any major way with the child's development as a person. . . . If the institutions of our society continue to remove parents, other adults, and older youth from active participation in the lives of children, and if the resulting vacuum is filled by the age-segregated peer group, we can anticipate increased alienation, indifference, antagonism and violence on the part of the younger generation in all segments of our society—middle-class children as well as the disadvantaged. . . .

It is not primarily the family, but other institutions in our society that determine how and with whom children spend their time, and it is these institutions that have created and perpetuated the age-segregated, and thereby often amoral or antisocial, world in which our children live and grow. Central among the institutions which, by their structure and limited concern, have encouraged these socially disruptive developments have been our schools.[42]

Research psychiatrist D. Meers supports Bowlby and Bronfenbrenner in noting that, in a typical preschool or day care center or other institution,

the child care-giver is an employee, and there are prerogatives that

> derive from that status that are denied to most biological mothers, such as, coffee breaks, sick leave, holidays and the option to leave one's charges if the conditions at work are not sufficiently gratifying.[43]

When Meers and his colleagues made an intensive and optimistic study of child care programs in Eastern Europe and the Soviet Union, they unexpectedly found that many indigenous leaders were disenchanted with the communal-type care. The director of the Hungarian Bureau of Child Care asked why such an affluent nation as the United States would want to move backward to universal child care, a situation from which Hungary was trying to rid itself.

Which Kind of Socialization?

Parents and educators usually talk about sociability, but neglect to differentiate the kind of sociability they prefer. The child who feels needed, wanted, and depended on at home, sharing responsibilities and chores, is much more likely to develop a sense of self-worth and a stable value system—which is the basic ingredient for a *positive* sociability. In contrast is the *negative* sociability that develops when a child surrenders to his peers.

Bronfenbrenner, among others, found that youngsters at least through the fifth and sixth grades (about ages eleven or twelve) who spend more of their elective time with their peers than with their parents generally became dependent on those peers.[44] He noted that this brought a pervasive pessimism—about themselves, their future, their parents, and even their peers. Here we hardly have the quality of sociability many parents and educators impute to association with many children. Rather there is a loss of self-direction and self-worth and a dependency that breeds learning failure and delinquency. Bronfenbrenner refers to the peer climate these days as "social contagion"—doubtful habits, manners, and morals; ridicule; rivalry; and so forth—which he and Bandura and others find is now pervasive even down to preschool level.

Building Values

Both the home and the school have a responsibility in building the child's value system, and in the development of a sound social-emotional creature. On the basis of his analysis and experimentation, Carl Bereiter maintains (1) that "skill training and custodial care" are legitimate functions of the elementary schools, and (2) that that "education" which he identifies with the explicit teaching of values and appropriate modes of conduct is not so well performed by the schools. He believes it more fully or rightfully takes place in the context of the family.[45] Otto Weininger points out from his studies that children who remain at home longer are more likely to demonstrate emotional "well-being."[46]

It is easy for a parent or teacher to forget that the child should feel needed, wanted, and depended on, that he is carrying his share of the family load, and that people can count on him. This principle is needed in schools as well as in homes. In 1959–1960 and in 1972–1973 I carried out a study with young children from about ages six to twelve that involved them in systematic daily chores in the home or school.[47] In each experimental schoolroom *all* participated. Parents reported weekly on each child's work performance and attitudes. Measured against control groups, the working children in general not only demonstrated better attitudes and occasioned fewer discipline problems, but also became higher achievers. They tended to be more responsible, dependable, neat, prompt, orderly, and industrious. They would not tolerate littering or vandalism around home or school because they were the caretakers of their rooms. A better self-concept and a sense of responsibility moved along with an improvement in motivation.

SCHOOL ENTRANCE AGE

From still another area of experimentation, a review of more than twenty comparative studies of early and late school entrants suggests that children who enter later excel in achievement, adjustment, leadership in general, social-emotional development, and motivation. These studies have been made of high-, middle-, and low-SES youngsters, and measurements have been taken at virtually all grade levels with substantially the same results.

As late as 1980, Glenn DiPasquale supported earlier findings that children born late in the year—who therefore generally enter school at earlier ages—are significantly more likely to be referred for academic problems than are children born early in the year.[48] Cleborne Maddux reported in the same year that children who enter the first grade early are more often labeled "learning disabled" (LD) than are later entrants.[49] William Hedges likewise pointed to the higher incidence of social, emotional, and scholastic problems among younger children than among comparable children a year older.[50] He specifically noted the ineffectiveness of early intensive drill in learning to read—a common practice today and one that is being moved down into kindergarten or earlier in some school districts.

These conclusions are buttressed also by many studies that have repeatedly found that three or four little boys are learning-failed, delinquent, or acutely hyperactive for every little girl. The delayed maturity of little boys would suggest later entrance ages for them, yet no state gives this key factor consideration in its laws. In fact, the Stanford-based ECE public policy research team found no state with early entrance laws that based them on developmental research. Usually the legislation was derived and justified from conventional practices that contradict research. Yet efforts in the last ten years or so have been made to open school—or mandate it—for children as young as three or four, as, for example, in such organizations at the National

Education Association, and Mortimer Adler's Aspen group, as well as such cities and states as Houston (age 3½) and California (age 2½).

Joseph Halliwell, in his "Reviewing of Reviews on School Entrance Age and School Success," wrote that

> the analysis of the reviews on entrance age and school success in the elementary school indicates conclusively that . . . early entrance to first grade does result in lower achievement . . . the advantages of postponing early entrance to first grade programs as they are presently conducted are very real.[51]

Jerome Kagan believes that his work also shows how we may further handicap children who are already disadvantaged. His experiments suggest that

> we've got to stop the very early . . . premature rank-ordering of children in grades one, two and three. We decide too soon. Poor children enter the school system, (a) with less motivation, because they see less value in intellectual activity, and (b) one or two years behind the emergence of what I call executive-cognitive functions (what Piaget would call concrete operational thinking). They are going to get there, but they are a year or two behind. We arbitrarily decide that age seven is when the race starts, so you have a larger proportion of poor than of privileged children who are not yet ready for school instruction. And then we classify them, prematurely. Let's use the example of puberty. Suppose we decided that fertility was important in our society and that fertility should occur at age 13. Then if you're not fertile at 13, we conclude that you are never going to be fertile, and we give you a different kind of life. It's illogical, because that 13-year-old who is not fertile now will be next year.[52]

This is apparently true internationally. Torsten Husén reported his study of mathematics (and later of language) teaching in thirteen countries.[53] His correlations were analyzed by William Rohwer, who found essentially that the earlier children went to school the more negative their attitudes toward schooling.[54] Husén subsequently expressed agreement with Rohwer's analysis. If this is a true picture—and I have been unable to find any replicable evidence to the contrary—one is tempted to wonder why schooling is suggested at even earlier ages, instead of using our resources primarily to strengthen the home.

Note that when the research in these areas—neurophysiology, vision, hearing, intersensory perception, parental deprivation, cognition, and so forth—is interrelated, there is a remarkable similarity of findings respecting age of readiness to leave home and go to school—seven or eight to eleven or twelve. This *integration of maturity levels* (IML) suggests that until the child has reached a chronological age of at least eight to ten, parents and educators should question the desirability of formal schooling. As often

happens when research is interrelated, the findings become much more powerful and useful when brought together than when examined in each of the areas separately.

PARENT ATTITUDES AND POTENTIAL

Some say that parents want their freedom too much to be concerned about their children—too much to respond to their children's developmental needs. On the surface this may appear to be so. Research suggests, however, that usually parents are deeply concerned about their children's welfare. Hylan Lewis points out that this includes parents who are poor.[55]

There is some reason to believe that parents have been brainwashed into thinking that teachers are adequate, but that they as parents are not. Robert Hess and Virginia Shipman, among others, acknowledge that many working-class mothers have inferiority feelings about their relationship with the educational process. Yet in their study of mothers, they found that "the majority of mothers in all social class groups (including more than 70% of those on public assistance) said they would like their children to finish college."[56] Hess and Shipman stressed the need for parent education.

Joan Grusec and Rona Abramovitch underscore the crucial importance of continuity of adult-child contact. It appears that a future positive relation with adults depends on adult imitation through the first five years.[57]

Studies by Mildred Smith, Louise Daugherty, and Burton Blatt and Frank Garfunkel also suggest that parents are eager to respond when they come to understand what is best for their children and how to meet these needs in uncomplicated ways.[58] There is ample evidence that a society that faces the challenge of the environment—polluted streams and air—will also respond to the concerns of *human* ecology, especially those of their own children. Thus home schooling has become a formidable educational movement.

Parents and Home Projects

A number of researchers, scholars, and planners have been experimenting with ECE growth programs centered in the home. Robert Strom, experimenting with low-SES mothers in a program involving parent and child conversations centering around toys, found that the home can provide a far better climate for learning than normally realized.[59]

For some, such as Nimnicht, Blatt and Garfunkel, and Meers and Schaefer, this represents a modification or reversal of their thinking. Glen Nimnicht, a chief psychologist for Head Start, now suggests that "the early years are crucial in the development of a child's potential. . . . But there's no evidence that a young child needs to go to nursery school. It's my hunch that twenty minutes a day playing with his mother does a preschooler as much good as three hours in a classroom."[60]

Blatt and Garfunkel, who originally postulated that preschool would indeed be helpful in the development of young children, studied low-SES children who were at least two years away from entering the first grade. They found it necessary to reverse their hypothesis and to conclude that (a) the home is more influential than the school, (b) the school can do little without home support, (c) disadvantaged parents are often anxious to cooperate, and (d) school organization is foreign to these parents who are then blamed by the school for not cooperating with it.[61] Benjamin Bloom, once a pioneer in the early schooling movement, now concludes that the home is the best educational nest, that parents are the best teachers, and that parents are educable![62] The obvious suggestion here is that parent education is usually a far more profitable investment than institutionalizing young children. The actual financial savings that can be involved have also been verified by a number of researchers.[63]

Where necessary, the skillful intervention in behalf of even one child in the home can work as a yeast throughout the entire family, benefiting the remaining children. Instead of being encouraged to give up their authority and responsibility to the state and its institutions, parents should be helped to understand their children's developmental needs and to meet them constructively. They should be taught to involve their children gradually from infancy in chores and other responsibilities in the home that help mold attitudes and values. Parents quickly find that working with their children provides their youngsters their highest level of play.

Mothers and "Teaching"

Mothers and fathers need not worry about "teaching" as such. The evidence suggests that they simply should be good parents—warm, responsive, and as consistent as possible, providing a happy climate as the bud continues to bloom: Share the work of the home with the children, giving them the experience of feeling wanted and depended on and the altruistic experience of doing something for others. This will usually bring to the school youngsters who are more stable, optimistic, self-directed, better disciplined, and more highly motivated. Such a program is integrative instead of divisive from the family point of view and normally should provide for the child the warm, unbroken environment and self-worth he needs.

More often than not, such parent-home education will also gain parental understanding and support for the school. Many who now urge parental participation in schools center their efforts on the school rather than the home. Home should be the center until the child is at least eight to ten or twelve. Elkind and Rohwer would prefer waiting until later for formal education for some children.

Some mothers, of course, rebel at caring for their own children through the day. They want their "freedom." Neurophysiologist and child psychiatrist

Humberto Nagera wonders at such mothers, who place their own desires ahead of the child's welfare.

> It is most unfortunate that many spurious issues have attached themselves to the question of Day Care Centers. For example, women liberation movements, that in their legitimate search for equality of rights and opportunities make blind demands for Day Care facilities without considering the equal rights of the child to develop intellectually and emotionally as fully as possible. . . . I want to make it quite clear that I have no objection whatsoever to women's legitimate rights for equality of opportunities, education and the like. But I do have, as I state elsewhere (. . .), the strongest objection to neglecting the similarly legitimate rights of [children].[64]

None of these researchers suggests that we should ignore the special educational—even institutional—needs of the acutely disadvantaged and the handicapped. There is a crucial need for better and more homelike child care facilities for children whose parents are disabled or are forced to work. Yet even in these cases, wherever practicable, the therapy and care should be centered in the home or in an environment simulating or identified as closely as possible with the home. Conventional practice that is incompatible with very clear research evidence places our children and families at risk. Several points should be specifically noted:

1. Little if any reproducible research evidence exists in favor of generalized early schooling for normal children or places the home in a subordinate position until the child is at least eight to ten years old. No long-term studies have yet shown that elective day care or preschool develops the larger potential through a normal child's life that is provided by a reasonably good home. Even the widely heralded High-Scope studies provide no evidence favoring institutional care for *normal* children, and not only did their work with disadvantaged children involve weekly visits to parents and children, but their "later work with infants focused exclusively on home visits and parent training."[65] Furthermore, this apparently effective experiment was operated by "highly motivated teachers with a staff-child ratio of 1 to 6"—a much lower ratio than the public sector has yet been able to generate. If there is any evidence that care outside of the home makes a normal child a more stable, sociable, responsible, and higher-achieving citizen, it should be published. To date there is no such sound evidence in educational literature.

2. All responsible citizens should be deeply concerned with the widespread indifference of educational planners to the findings of research.

3. A number of leading ECE authorities are modifying or reversing their positions, or have reported that they have been forced to deny their research hypotheses that favored general early intervention in the lives of normal children.

THE HOME AS SCHOOL

In view of these conclusions, the present nationwide move back to home schools deserves more than casual attention. We say "back to," for the home's status as the basic school is one of the great lessons of recorded history. For basic learning, the tutorial system has never been excelled by institutions. Students of genius point to the home school as a developer of great leaders, including John Quincy Adams, William Penn, Abraham Lincoln, Thomas Edison, Woodrow Wilson, Franklin D. Roosevelt, Konrad Adenauer, George Patton, Douglas MacArthur, Agatha Christie, and Pearl Buck, among others.

A recent national study of home schools confirmed among its other findings that youngsters educated at home achieve higher than national averages in standardized measures.[66] The Hewitt Research team's clinical experience with several thousand home schools verifies this. Rural and urban children from New York to California and Hawaii and from Alaska and North Dakota to Nebraska and Louisiana have often been performing in the seventy-fifth to ninety-ninth percentiles on Stanford and Iowa Achievement tests. Frequently they are taught by high school-educated parents no more than an hour or two a day, usually utilizing readily available home-school or correspondence curricula.

This success should not be surprising in view of several factors that any objective observer can readily understand:

1. Home schools are characterized by parents who have enough concern for their children to take on the task of systematically teaching them.
2. Parents provide a partiality that young children need, but schools cannot allow.
3. Children thrive on routines that involve a few children who share the same family values.
4. The child in the home school daily experiences from ten to a hundred times as many personal adult-to-child responses as he would in a formal school; such responses—along with adult example—mean educational power far more than do books.
5. Without the all-day regimentation of the classroom the child becomes more of a free explorer and thinker than a restricted regurgitator of books, which to him are often more barriers than facilitators of learning.
6. Parents who bring their children with them into the responsibilities of the home turn out independent, self-directed children.

In western New York State, five unrelated families submitted their children to testing by school officials when challenged for truancy. The seven children tested averaged 90 to 99 percent on Stanford Achievement tests. Wallace, Nebraska, school officials arrested Leslie and Vickie Rice for criminal child neglect for taking twelve-year-old Leslie Sue out of the sixth grade where "she had been going downhill" for a year or two. Judge Keith Windrum, a strong advocate of public education, was surprised as he listened to the research

evidence, and when University of Nebraska psychometrists verified that Vickie Rice had upgraded her daughter nearly three grades in nine months—formally teaching an hour and a half a day—he acquitted the Rices. The Rices also won at the State Supreme Court level when the state appealed Windrum's decision.

In San Bernardino County, California, the Dick Schaefers withdrew their sons from parochial school. Jonathan, aged eight, was acutely hyperactive. Mark, eleven, was withdrawn. The principal threatened to report them to the state. But they knew their constitutional rights as guaranteed by the first Amendment to the Constitution—as interpreted by the U.S. Supreme Court through a series of decisions. Instead, they reported themselves and established a home school with the warm cooperation of the local public schools. Soon the boys settled in and became high achievers and admired neighborhood leaders.[67]

In reviews of more than 8,000 related studies—no matter which discipline—I have not been able to find a single replicated experiment that has clearly demonstrated the desirability of early schooling or day care for the normal child who by some extra effort can have the security of a reasonably good home. Nor have I found any evidence suggesting that the school is superior to the home through the elementary years. In fact, the evidence is clearly to the contrary. Why then are we as teachers impelled toward state control? What is the record of the public school to justify such a direction? Is it possible that this emphasis on institutions is the wrong direction? Or are we more interested in jobs than in the needs of children? If so, we are no longer professionals but mere rank-and-file union help.

There is reason to believe that employing teachers to help parents to better understand their roles and their children is in most cases much more productive and involves far less risk than to attempt to become substitutes for those parents. It also might provide employment for outstanding people. Teacher education would do well to take note.

The educational planner in general must be more faithful in developing the facts of research and organizing them for legislators and administrators. And researchers themselves would do well to interrelate their findings with connected research and thus develop their synergic potential if they are to have full and accurate impact on planning. This means that their language must be kept simple enough for the planner, and their findings expressed in commonsense terms.

Americans are rising in anger and despair at the course the schools are traveling. Legislators, boards of education, and school faculties need to see what happens when they make bad laws or have good parents arrested or offer services that contradict good educational practice.

A few years ago the well-known Finnish home economist Annikki Suviranta wrapped this all up with a few words of admonition at the International Conference on Home Economics:

In primitive countries, children are brought up and educated entirely at home. . . . In the industrialized State, education is being shifted more and more to the community, starting from increasingly younger ages. Nowadays parents have very little say in what their children are taught. In other words, education is becoming totalitarian—something imposed from the top downwards.

To give their children the confidence and security they need to grow into balanced individuals, parents should look after them themselves and keep them company as much as possible in early childhood. This means that parents must alter their order of priorities in deciding how to spend their free time.

Industrialized society often alienates parents and children—especially as the children grow older. Young people at school learn other values and a different culture from that of their parents. To satisfy the economic demands of the young, parents have to spend more and more time just making money. This leaves them very little time to follow changes in Society and bring their children up accordingly. Young people alienated from their families are insecure and unhappy. They seek a meaning to their lives, but they do it in ways that are not always best for Society.

But the main problems of industrialized society are moral and ethical, not material. Their solution has posed a serious challenge to the family and home. . . . If it fails, the result may well be a form of human pollution that will destroy Mankind.

The economic valuation of housework is rising—along with women's wages on the labour market. It has been found that services supplied within the home are quite as valuable as the same services purchased from outside. In just the same way I think people will before long come to realize that the "psychological and emotional services" provided at home—mental health, equilibrium and comfort—are the most important things in life. In the abundance of commodities supplied by industrialization, we must learn how to set up orders of priority and make sensible choices. Priority must go to spiritual values. . . . We are learning to recognize our rights. We must also recognize our duties and responsibilities—and do so on a world scale.[68]

There is no need to fear the future except as research truth and the lessons of the past are ignored—the family-centered home, the child-centered school, and the results of any departures from either.

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