There are several ways in which children's early experience is related to later development. First, there is irrefutable evidence that less than best quality early experiences represent missed opportunities for substantial contributions to the rest of children's lives. Second, recent research has found that about 80 percent of all neurological pathways are developed in the first 6 years and the capacity to repair or develop alternative neurological pathways for inadequate, faulty, or damaged systems diminishes after the early years. Thus, the early years should entail exploration in rich and safe environments. Third, all children arrive at school with lively minds and with inborn dispositions to make sense of their experiences, observations, and feelings. Intellectual dispositions should be strengthened and supported rather than undermined by premature academic pressures. Fourth, there is evidence that before age 6 is a critical period for social development because it is likely that others react to children in such a way as to strengthen whatever pattern of social behavior has been established. Fifth, the early development of cultural identity is a source of values, norms, support, strength, inspiration, and pride. It is important to remember that family income may be a more powerful determinant of child rearing practices than ethnic/cultural group. Preschool programs in both rich and poor nations are challenged to engage and enrich children's minds in less than ideal conditions. Even small changes in program quality, as suggested by perturbation theory, can have large, lasting consequences for children. (Contains six references.) (Author/KDFB)
Tomorrow Begins Today

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Keynote Address
Opening Ceremony

Second Caribbean Conference on Early Childhood Education
Barbados, West Indies

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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It is a special honor to participate in this second Caribbean Conference on Early Childhood Education. Though I have worked in eight of the Caribbean countries over the last two decades, clearly I know much less about the political and practical issues confronting the families and teachers who live and work in them. I want therefore to caution you that the ideas and observations I offer today are based on my own experience and study obtained largely in the US. I realize they may not fit very well with the traditions, constraints and contexts that influence your work. Therefore I leave it to you to judge their relevance to your own situations.

Having said that, however, I must add that extensive experience of working with our early childhood colleagues in many countries suggests that those who do the same kind of work across countries often understand each other better than do those within their own countries who occupy different roles within the field. It is likely, for example, that teachers of young children understand each other across our countries more easily--perhaps even better--than they understand or are understood by the officials who make policy within their own countries. In other words, the nature of our work, roles, and responsibilities may be a more powerful determinant of our assumptions, beliefs, and ideologies than
are the larger national and political systems and cultural contexts in which that work is performed.

To turn to the theme of this conference: "Tomorrow Begins Today," I want to suggest five ways in which what we do with and for children today is related to all of their tomorrows.

1) The lasting effects of early experience

First, the evidence is now virtually irrefutable that any provisions for young children--whether in the home or outside of it--that is less than top quality represents missed opportunities to make substantial contributions to the rest of their lives. Today, no one argues against that statement. Some may argue about what is meant by top quality; some argue about who is or should be responsible for the quality of provisions, and certainly many argue about how to fund them. But no one today with serious educational and social policy-making responsibility for a community or a country would now argue against the proposition that the experiences of the early years of life have a powerful influence on all later ones.

2) The critical period of neurological development

Second, we are meeting at a time of dramatic new research on the development of the neurological system, particularly the brain (Abbott, 1997; Sylwester, 1995). As Rutter & Rutter (1992) point out, "As early as six months, the brain has reached half its final mature weight...Indeed, the brain reaches 90 per cent of its final weight by the age of five...[and...is] most vulnerable to damage during this phase of rapid growth" (p. 37). Based on current research I think we can draw at least the following three implications:
(i) The new research on neurological development indicates that approximately 80%-85% of the neurological pathways a person ultimately acquires will develop during the first six years of life, and the rate of growth is steepest in the earliest of those years.

(ii) Inadequate, faulty, or damaged neurological systems are not spontaneously repaired or regenerated as easily as other kinds of body tissue; to the extent that repair or alternative neurological pathways can be developed, the capacity to do so diminishes after the early years.

(iii) The human brain is much more a pattern-seeking than pattern-receiving organ. Thus the early years should be marked by active exploration in rich and safe environments. In other words, good quality programs include frequent opportunity for children to interact with each other, with adults and with their environments in ways that will support their inborn quest for discerning cause-effect relations, the sequences of events, and other patterns around them.

3) All children have lively minds

Third, children come to our early childhood programs with different amounts of exposure to books, stories, being read to, holding and using pencils, having their questions answered, encouragement to read signs, and other kinds of experiences that help them adapt and adjust to school and the academic exercises so typical of the classroom. But all children come to school with lively minds, with the inborn disposition to make sense of their experience, of their observations, and of their feelings (See Katz, 1995, Ch. 3). In other words, just because children have not been exposed to knowledge and skills related to literacy and numeracy at
home does not mean that they don’t have lively minds or lack intelligence.

Young children compelled by circumstances to cope with the risks and vagaries of the streets or neighborhood often develop powerful intellectual capacities to predict, hypothesize, and analyze the contingencies they face. As long as children live in a reasonably predictable environment marked by optimum (versus maximum or minimum) stimulation and challenge, their intelligence will grow. However, for children trying to grow in environments that are chaotic, unresponsive, excessively irrational, or unpredictable, the most adaptive response is to give up the natural pattern-seeking behavior. This research then reminds us again to resist the temptation to attribute low expectations to children who have not been exposed to early literacy and other school-related skills and knowledge.

I take this opportunity also to suggest that all of us keep in mind the distinction between academic and intellectual aspects of development and learning. Academic goals are served by presenting children with worksheets, drills, and other kinds of exercises designed to start them on basic literacy and numeracy skills. Academic tasks are small, disembedded items usually taught in isolation, requiring right answers, relying heavily on memory, the application of formulae (versus understanding), and the regurgitation of specific items learned from formal instruction. Furthermore, academic tasks are devoted to learning skills rather than to deepening understanding.

I do not wish to imply that academic tasks are never useful or appropriate. On the contrary, they have an important place in education—as children grow older. In other words, the inclusion of academic tasks in the curriculum is not merely an educational issue, it is a developmental issue in that we must ask: At what point in children’s development are academic exercises most appropriate?
Intellectual goals and activities, on the other hand, are focused on the life of the mind in its fullest sense, including its aesthetic, moral and spiritual sensibilities. The formal definition of the term intellectual emphasizes reasoning, the processes of reflection, the development and analysis of ideas, and other creative uses of the mind.

The most important intellectual dispositions are inborn and must be strengthened and supported rather than undermined by premature academic pressures. The disposition to make sense of experience, for example, is inborn in all humans. Similarly, the dispositions to predict, analyze, synthesize, hypothesize, and to wonder, and so forth, are similarly in-born in all children. Young children are natural born scientists, anthropologists, and linguists. Indeed, toddlers are often so eager to test their hypotheses and predictions that without appropriate supervision they are likely to inflict serious bodily harm on themselves! Their endless disposition to explore their environments and everything in them frequently wears out their caretakers.

Again, if these dispositions are not supported, strengthened and appreciated, or are otherwise undermined, they are very difficult to replace later in life. Thus such dispositions merit concern when considering the long term consequences of their neglect rather than short term gains accrued by the academic experiences we provide to young children. As I have already suggested, just because young children don't have experiences at home that prepare them for the academic tasks of the school does not mean that they lack intellectual dispositions or abilities.

4) The critical period in social development

Evidence has been accumulating for more than twenty-five years--primarily in North America--that unless children achieve minimal social competence by about the age of six, plus or minus a half a year, the child is at risk for the
rest of his or her life (See Katz & McClellan, in press). In this aspect of development, the critical period of the first six years is not due to any limitations of the brain and its development. Rather, it is because of what is known as the recursive cycle, namely, that whatever pattern of social behavior a child has, the chances are that others will react to the child so that the pattern will be strengthened. If a child is friendly and approachable, others will welcome his or her company, engage and interact with the child, from which the child will gain confidence as a social participant, and due to which opportunities to polish available skills and acquire new ones will increase. In this way a child who is easy to like becomes more likable—in a positive recursive cycle.

Similarly, a child who is difficult to approach or interact with is often avoided by others, which in turn limits his or her opportunities to acquire new skills, to polish and practice already available ones, and therefore the child becomes less likable. Similarly, children who are aggressive typically approach others so as to be rejected by them, and tend to return to interaction and repeat the rejected behavior more intensely, and gradually become excluded from peer interaction and opportunities to improve their skills—in a negative cycle.

It is important to note then, that for likable and unlikable children, their approach to (or withdrawal from) others occurs in a recursive cycle that feeds on itself, and that the child (in the negative cycle) cannot break it by him or herself. Even adults with social difficulties cannot usually break a negative cycle without the help of very good friends or counselors, due mainly to the fact that social interaction is and should be largely spontaneous and unself-conscious behavior.

We now know a lot about how to help young children caught in a negative cycle. But we also know that help has to be offered early! A child of three- or four-years-old can be
helped in a matter of weeks. But if we wait until a child is eight- or eleven-years-old or older, we will need the whole state mental health agency--and it still may be too late. By the time children reach the age of about ten, they have been accumulating so much first-hand evidence of their unlikability that it is hard for them to believe they could be liked by anyone whose acceptance and liking they would value. They are unlikely to attribute credibility to a counselor's or social worker's assertion that he or she "likes him," no matter how well meant.

There is also some reason to suspect that children who are rejected by their peers early and repeatedly eventually find each other, and that they get from each other a sense of belonging and intimacy based on their shared bitterness and hostility to the rest of the community (Dishion, et al. 1991). Such groups then have a deep and vested interest in avoiding positive relationships with the out-group; on the contrary, their deep feelings of belonging to their in-group are endangered by perceiving their adversaries in a positive light. As such, resolving conflicts threatens their sense of intimacy with the peers in their group. Such groups of disaffected youth are analogous to having time bombs in our own back gardens. The deep and intense emotions at work in these cases are most likely developed very early in life.

I have suggested that today we know more than ever before about how to help such children. What we know also is that teachers cannot help them unless the teacher/pupil ratio is low enough to permit frequent individualized interaction between children and adults, and close monitoring of social engagement in the classroom. Indeed, I would suggest that any teacher who works with children six-years-old or under should have at minimum, a full-time assistant--for this as well as other reasons. This appears to many to be an expensive proposal. But current evidence suggests that we all pay later for neglect of these problems in the early years; we pay not only in terms of the costs to communities of dealing with
social dysfunction, but also in terms of the pain and suffering for all involved. Of course, small class size and good teacher/pupil ratios in and of themselves do not guarantee that teachers can help children overcome all social difficulties; but large class sizes virtually make it impossible to do so.

5) Development and cultural identity

Finally, tomorrow also springs from the seeds sewn today in terms of the early development of cultural identity—a sense of belonging to a community—one that is a source of values, norms, support, strength, inspiration, and pride. I note that the Draft Plan of Action presented at this conference is sensitive to this issue when it states clearly as a goal that programs "Ground public and parenting education in local cultures." This constitutes a real challenge in all our countries, and for many reasons. It is a complex matter not simply of good will or of teaching and learning about foods, festivals and fashions.

We have to bear in mind that cultures constantly change; they always have done, and always will. Often the changes cause internal within-culture contradictions. Note also that the sages of the ages have always complained about the behavior of the youth, about their disrespect for their elders, and claimed that the young do with impunity what they themselves never did at that age. The fact that this lament goes back more than two thousand years suggests that it may be true: that for each generation, the range of permissible behavior steadily widens—for better or worse!

Furthermore, it is a good idea to remember that culture is largely about things we are not aware of until somebody or something violates them. We have to bear in mind also, that just because people belong to the same culture does not mean they all agree with each other about how best to raise or to teach children. Indeed, level of income may be a more
powerful determinant of child rearing practices than ethnic or cultural group. I sometimes wonder whether parenting practices are more similar among the wealthy across cultures than between wealthy and poor within cultures. In other words, affluence, within and across cultures, presents opportunities and risks in every culture. Similarly, poverty may impact on parenting more negatively in some environments—for example, in big cities—than in small country villages.

When we speak of helping parents with their parenting skills, and when we offer parent-education programs, are we tampering with their cultures? When are we and when aren’t we? These are very difficult issues that we are only just beginning to examine carefully and reasonably rather than emotionally. All of us still have much to learn about this important aspect of development and learning from each other as well as from those families we are trying to serve.

Conclusion

During my experience of working with our colleagues in India earlier this year, I was struck by the frequency with which they dwelt on the subject of what they would do, could do, wish they could do, if only they had more funds, better space, more materials, well trained staff, and other much needed and highly desirable resources. It is quite easy to fall into this mode of thinking, and certainly very understandable. However, I want to assure you that I have seen and worked in early childhood settings in many places in which ten times, or maybe twenty or thirty times more is spent on facilities, materials, and personnel than is typical throughout the Caribbean, but in which—sad to say—children’s’ minds are being wasted, in which children are engaged in trivial and frivolous activities and premature preparation for examinations many tomorrows away, in which children’s minds are not any more engaged or enriched than
many of you achieve here in Caribbean under less than ideal conditions.

I have worked with teachers in cities like Chicago, Milwaukee, Washington, DC, and others in which teachers are unable to take their children outside of the school to explore the neighborhood because the school is the only safe building in it! Similarly, many teachers in such environments in a rich country like the US cannot engage their children in close study of their natural environment, not only because of the dangers in the streets, but because nothing now grows in the neighborhood.

Thus the challenge for many teachers in many countries, both rich and poor, is to work in less than ideal conditions and yet to engage their youngsters in experiences worthy of their lively growing minds and their developing sensibilities.

So--if tomorrow begins today--what should we be doing today? I want to close with an idea that comes from "perturbation theory," and it goes like this: imagine if you will, a cyclist riding along a road without difficulty. Suddenly, the front wheel hits a very small pebble and the bicycle is thrown off course. The rider falls, is injured, the result of which is that her whole life changes for ever. In other words, perturbation theory suggests that even apparently very small items and events can have huge and lasting consequences. What we are asking for and planning for in this conference and with the creation of the new Caribbean Association for Early Childhood Education and Development are huge and lasting consequences for all the tomorrows for which we are responsible.

Is there an equivalent or a parallel with the pebble that we can put in place now, today, that will ultimately have the large and lasting consequences we hope for?

I suggest the best way to ensure good education and development for all the tomorrows is by focusing our collective and individual energies on the quality of the day-
to-day interactions we have with children so that those interactions are as rich, interesting, engaging, satisfying, and meaningful as we can make them. For teachers, I suggest: don’t drain your energy on blaming conditions, politicians, or officials, or the parents, and anyone or anything else. Save your energy for your relationships with the children. For those outside the classroom I suggest focusing on ways to support teachers in every possible way so that their energy and skills are not diverted from the essential matter of the daily lives they lead with children.

As I said at the first Caribbean Conference on Early Childhood Education in St. Thomas, V. I. in 1994, I really believe each of us must come to care about everyone else’s children. We must come to see that the well-being of our own children can only be secured when the well being of all other peoples children is also secure. After all, when one of our own children needs life-saving surgery, someone else’s child will perform it; when one of our own children is harmed by violence in the streets, someone else’s child will commit it. But to care about others’ children not just a practical matter: it is also the right thing to do!

Remember that whoever might be the leaders, the prime ministers, and heads of these islands, nations, and territories thirty or forty years from now are very likely in someone’s early childhood program today, and I hope these girls are having good experiences! We are with the children for a very short time during a very important time in their lives. Let’s make it count by giving it all we’ve got.

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