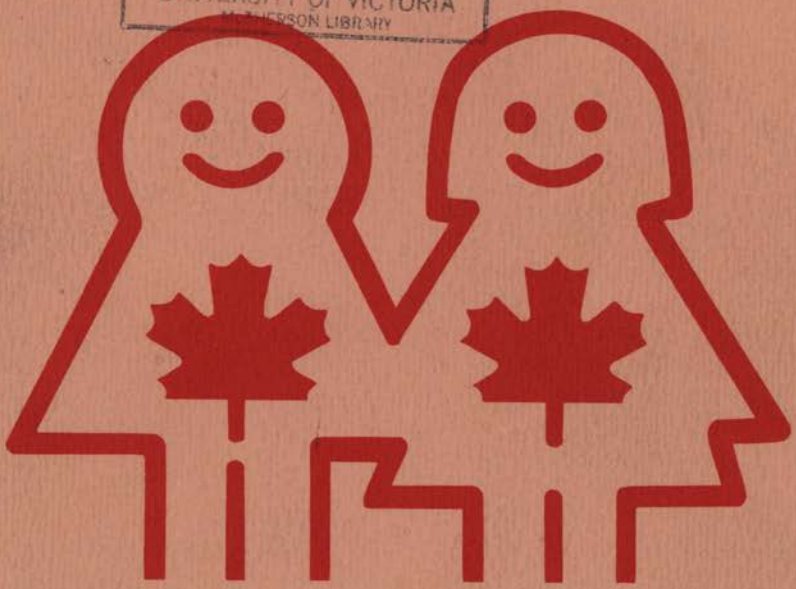
CANADIAN CHILDREN



Journal Of
The Canadian Association
For Young Children

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Spring/Printemps 1989 Vol. 14, No. 1

The Canadian Association For Young Children

What is the CAYC?

The Canadian Association for Young Children (CAYC) grew out of the Council for Childhood Education and became officially recognized in 1974 by the granting of a Federal Charter. It is the only national association specifically concerned with the well-being of children of preschool and elementary school age. Members of the Association are from Canada, the U.S.A. and elsewhere. They include teachers, caregivers, administrators, parents, students, and other interested persons from a variety of professional disciplines who wish to share ideas and participate in activities related to the education and welfare of young children.

The Aims of the CAYC

1. To work for the development and well-being of children.
2. To foster desirable conditions, programs and practices to meet the needs of children.
3. To encourage continuous professional growth in accordance with knowledge of child development.
4 To bring into active co-operation all groups concerned with children and child development.
5 To disseminate information on child development.
6. To promote the co-ordination of all organizations in Canada concerned with young children.

Implementing the Aims of the CAYC

1. *The National Conference*
   The National Conference is a highlight of the CAYC. The program includes lectures by internationally renowned authorities on children, workshops, discussion groups, displays, demonstrations, school visits, and tours.
2. *Provincial and Regional Events*
   The organization of members at the local and provincial level is encouraged to plan events to deal with the issues and concerns pertaining to young children. These events may take the form of lectures, seminars, or a local conference.
3. *The Journal*
   An outstanding multi-disciplinary journal is published twice yearly. Articles by nationally and internationally known experts in early childhood education and child rearing are presented in the Journal of the CAYC.
4. *The Newsletter*
   Topics of local, provincial or national interest are featured in the CAYC Newsletter.

Membership fees are payable on application and renewable annually on a evergreen basis. To be considered a voting member, fees must be paid no later than 60 days prior to the Annual General Meeting held in November.

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Subscriptions and Membership: Institutional subscribers receive the Journal only ($50 per annum for two issues). Members of CAYC, in addition, receive Newsletters and special rates for national and regional conferences (per annum; $40 - General, $20 - Student, $75 - Associations). All subscription and membership correspondence to: CAYC, c/o Publishing and Printing Services, 36 Bessemer Court, Unit 3, Concord, Ontario, Canada, L4K 3C9.

Editorial Review Board

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From the President

Susanne Eden, President, Canadian Association for Young Children

Over the past year, the CAYC Board of Directors has undertaken a process of strategic planning designed to renew our vision and mandate as an organization. In 1974, the Canadian Association for Young Children was formed through the amalgamation of a number of local and provincial groups concerned with either the care or the education of young children. By bringing together a network of both caregivers and educators, CAYC became a voice for Canada's children in matters pertaining to a broad spectrum of issues.

We believe as strongly today, as we did in 1974, that a unified voice is essential in order to effectively influence political decision-making. While we see regional and provincial organizations as vital when addressing local issues, a national perspective reaches out beyond parochial concerns to those part of the country where children do not enjoy strong advocates. It provides assistance to local groups by lending national support through the Provincial Directors and local Satellite groups as well as providing seminars and conferences which bring people of common mind together.

As this issue of Canadian Children comes of the press, CAYC will be launching a membership campaign. There are several ways in which you can participate in this campaign. The first, of course, is to be sure that your own membership has been renewed. The date of expiry is printed on all publication labels. Since word of mouth is always the best promotion, I invite each member to make one collegue, associate or friend who shares our common vision, aware of CAYC. You might also wish to encourage your local library to take a Journal subscription.

Enclosed with this Journal is an insert which you can use to assist you in your efforts. Should you wish to provide a gift membership, tax receipts are available on request from our membership service. If each existing member brought one additional member into our organization, we would be much better able to proceed toward the future with renewed vigor and resources. As always, we count on your support for the success of this campaign.

From the Editor

Glen Dixon, Editor, Canadian Children

Bridging the Gaps

Much of the stress experienced by young children today can be attributed to sudden change—mother returning to work, changes in babysitters, father leaving on business trips, moving to a new city or province, and parents and families splitting up. Unfortunately, our present system of child care and early education is often a major contributor to this problem.

By the time children reach first grade, they may already be familiar with four or five educational services (daycare, preschool, community centre classes, kindergarten, and after-school care). These services have most likely been provided by different agencies, funded from different sources, with programs determined in large part by their administrative structure rather than by the child's individual requirements. Furthermore, there is probably no official channel for communication between these various administrations, so that valuable—in some cases, vital—information about the child's learning style and past experience is lost.

What this means, of course, is that with each change it is too often up to the child to adjust to the new situation. All too often, assumptions are made about the child which do not take into account his previously acquired knowledge and skills (whatever they may be), with the result that the child is bored or frustrated by school.

Is it up to the parent, then, to help provide some form of continuity in the child's education? The problem here is that parents are not generally considered by educators to be equal partners in children's education. Parents are not given sufficient information about the system or about their own children, and when they persist in trying to pass on information to the school about their own child, they are often treated as a nuisance.

Recently, I visited a primary school in which this had all too obviously been the case. For several years, a vacant wing of the school had been used by a daycare. Even though the same children were

passing through both programs, there had never been a formal meeting between the daycare workers and the kindergarten and primary teachers just down the hall. (There is an attitude held by some public school teachers, it seems, that education begins in kindergarten and that what has gone before is of no consequence.) While the parents of these children recognized the need for communication, they had been continually unsuccessful in their efforts to bring the professionals together.

There is a happy ending to the story now that a local group of new CAYC members has stepped in. This group is planning a series of meetings to help bridge the gaps between daycare and school, in order to rectify what they feel has been an intolerable situation. This is an instance in which an association like ours can play a specific and perhaps unique role in improving children's lives.

In reading the articles in this journal and other publications concerned with young children, we should remember that new insights and suggestions need to be translated into positive action. Even when there are longstanding difficulties to be overcome, by combining our efforts (whether at local or provincial levels, or even countrywide), we *can* make a difference for our children.

Articles

Children's Science: A Research Role for Primary-Junior Teachers

Margaret McNay

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Perry (age 6) and his teacher are watching a burning candle.
Teacher: What's the stuff dripping off the candle
Perry: Water.
Teacher: Where does it come from?
Perry: It comes out of the black thing [the wick]—at the bottom. It squeezes out when it's lighted.
Teacher: Where is the water?
Perry: It's inside the black thing.
Teacher: Is it really water?
Perry: Yes.
Teacher: Can you drink it?
Perry: No....because it's too burny.
(Bird and Diamond, 1975, p. 16)

This is an example of what is known as "children's science"—an understanding that makes sense, more or less, to this child, but that is different from the way adults (or even other children) understand the same phenomenon. Over the last decade or so, researchers in science education have been much occupied in describing what have also been called children's preconceptions, misconceptions, or "alternative frameworks" in science. Children's understandings of sound, light, heat and temperature, the earth as a cosmic body, forces, energy, electricity, and many other phenomena, have been explored and written about, and a complete cataloguing of this literature would be substantial indeed. Some of it is amusing, much of it fascinating; on the whole, it contributes significantly to our understanding of how children think and learn and view the world.

Recently, research in "children's science" has developed in two directions: some researchers are attending more fully to the *experience*

that children have of science classes, in an attempt to better understand what and how children actually learn in class, and to determine the factors that affect their learning (e.g., Tasker and Osborne, 1983; Osborne, 1985; Gustafson, 1984; Shapiro, 1987). Other researchers, through various modes of action research, are focussing on teachers as much as on children in science classrooms, and on the relationship between what children experience and what teachers do in science lessons (e.g., Baird, 1986; Erickson, 1988; Gustafson, 1988). Although it seems obvious that we should somehow attend to what these studies show, it is not obvious what the implications are for curriculum and program planning in science, or for the everyday teaching of science in primary- junior classrooms. Many of the studies have involved adolescents rather than children, and some of the assumptions underlying much of the work have been seriously criticized (e.g., Claxton, 1986). Certainly, the field is complex. What I wish to do here is to describe what is most important about "children's science" research and to outline some of the questions that arise. I also want to suggest a role for primary-junior teachers in seeking answers to these questions.

The Quality of Children's Thinking

> Doris: Where does snow come from, Thea?
> Thea (6 years old): I don't know.
> Doris: Have you *any* idea?
> Thea: I have an idea of ice.
> Doris: Tell me about your idea of ice.
> Thea: Well, we have a snowcone machine. You turn the back of it and you put ice in the top and...push—not hard—and you turn the thing in the back and it grinds up into snow.
> Doris: So snow comes from ice?
> Thea: yes.

The literature in "children's science" impresses me most with what it reveals about the quality—particularly the logic and integrity—of children's thinking. Thea, for example, knows that she does *not* know where snow comes from but, when pressed, she puts forth the best hypothesis she can. She may or may not think there is really a great snowcone machine in the sky, but she is doing what the rest of us do when confronted with a question we can't answer: we search our experience for something that seems to bear some relationship to

the issue—for something that might serve as an analogy or at least a place from which to start thinking. This is what nine year old Arnold did, too:

> Mike: How did you learn about airplanes having fuel?
> Arnold: Well, when we were at the gas station and my dad was filling up the car, I saw a plane and I thought about it.

Children have had five years or so of making sense of the world in more or less their own way before they come to school, and before teachers begin to insist that they make sense of the world in a scientist's way, or at least in an adult's way. We tend to approach children in science classes as though they don't know very much about whatever it is we want to teach them. Sometimes they don't, but they have often developed, nevertheless, a strong feeling for what does and does not make sense.

> Nancy: Can people really make it rain?
> Jeffrey (age 8): I don't think they can. I've seen on TV that these people do it, but I don't believe it.
> Diane: Do you think some of the water from lakes and rivers could somehow get up into the clouds?
> Kim (age 6): No...it doesn't really make sense.

Children's commitment to what makes sense, and their unwillingness to accept passively what does *not* make sense, means that even the authority of teachers is questionable. The following excerpts are taken from conversations between an observer in the classroom (Ms. Shapiro) and children who were working on a unit on "light" in science (Shapiro, 1987).

> Ms. Shapiro: So, [Donnie], you agreed with [what your teacher] said?
> Donnie: No, uh-huh. No, I didn't agree with that. It doesn't make sense (p. 175).

> Martin: Well, I really didn't get that. So I just forgot about it.
> Ms. Shapiro: Did you think [your teacher] was right?
> Martin: Probably he was. What the teacher says goes, right? But *I* don't think so. It doesn't make sense to me....So if it doesn't make sense, I just don't worry about it....I just go on (p. 249).

Pierre: Yeah, he said that, but I didn't believe it!
Ms. Shapiro: You didn't believe it. Do you think he was right?
Pierre: No! He was wrong! [His explanation is] silly. (p. 358).

The ideas which children bring with them to the classroom are largely common sense ideas, and can not be thrown over easily. If one doesn't know about evaporation, for example, it *doesn't* make sense to think of water moving from lakes into the sky. Indeed, many scientific explanations are, like the story of the water cycle, counter-intuitive—at odds with common sense. It seems wrong, for example, that heavier objects should fall no faster than lighter ones, and even when one tries it and finds no difference one tends to wonder if perhaps the difference is just too small to be perceptible, or if maybe both objects weren't dropped at precisely the same time after all. Often in science class, we put children in the position of having to draw general conclusions from one or two specific examples or demonstrations. It is extremely difficult, however, to deny common sense, even when one sees some evidence that doesn't quite fit, and children, as we would be, are understandably reluctant to give up what has seemed right for so long.

It is instructive, too, to ask children how they know what they know:

Ellen: Where did you get that idea?
Craig (age 7): In my head. I just think; that's what I think.
Nancy: Did someone tell you that?
Trevor (age 7): learned it myself, by thinking.
Winnie: How do you know that?
Susheila (age 7): Because I imagined it.
Phaedra (age 9): I think I just guessed it or something, probably from the learning I did before. I just figured it out from there.
Dave: Where did you learn this?
Tim (age 7): I've known this and always thought about it ever since I was four years old.

Clearly, children experience themselves as active thinkers and creators of knowledge, as people eminently capable of figuring things out and making sense of what they see and hear to the world around them.

One's first reaction may be to find many of the ideas that children express about natural phenomena amusing, as indeed they are. But

they also offer an informative glimpse into how children make sense of the world—how they get it a little wrong, perhaps, in light of what our greater experience of the world tells us, but how they are also capable of powerful thinking and reasoning abilities. We do children a tremendous disservice if we do nothing more than find their ideas amusing, or if we see them only as evidence of their wonderful imaginations. Children's ideas are more than fantasy, and evidence of more than creative thinking. They are also products of rational, logical, common-sense thought, and of their inclination, evident from birth, to find patterns, fit things together, and generally to make sense of things.

Implications for Research

One response to the research in "children's science" has been to suggest that teachers should take time during science classes to find out as much as possible about children's ideas on particular topics so that they (teachers) can respond appropriately. It is assumed that the appropriate response is to attempt to change children's ideas to more scientifically accurate ones, and much thought has been directed towards determining how this can be done most effectively (e.g., Hewson, 1981; Driver and Erickson, 1983). Upper elementary and secondary school students in particular are expected to come away from their science classes with conventional understandings of natural phenomena. This expectation may not be entirely consistent, however, with fully accepting students' own views and ways of understanding (Erickson, 1987). It is an expectation, too, that we know is very imperfectly realized, at every level at which science is taught. We are led, I think, to ask some fundamental questions not just about *how* we teach science but about *why* we teach it and about *what* we should teach.

One of the questions that arises concerns the appropriateness of attempting to teach conventional understandings of traditional science concepts to primary-junior children. This question may seem like sacrilege. Nevertheless, Claxton (1986), for example, has questioned the assumption that understanding basic concepts about light, electricity, heat and temperature, force and motion, and so on, really matter; he has questioned whether such concepts are really worth knowing, or whether, as presented in school, they form any kind of coherent body of knowledge. It could be argued, he wrote,

> that these topics have no right to their pride of place; that they represent not science but the history of science (yet not presented as such), and are therefore archaic, arcane, and in many cases false; that their pre-eminence reinforces a view of science as abstract, intellectual and dispassionate—to many pupils, in a word, dull; and that other *more* important concerns, such as...social, political, economic and ecological issues, and the real processes and pressures on scientists, are thereby diminished or eclipsed.

In the first place, then, it becomes necessary to re-examine what we have taken for granted as appropriate topical content for primary-junior programs. How much of it is there because children "need it" for high school science? And how much is in the high school program because a few students "need it" for university? What would we teach if, for example, we wished mainly to enrich children's lives rather than to prepare them for graduate school?

If, upon reconsideration of what is worth teaching in primary-junior science, we should decide (as I think we would) that topics such as sound, change of state, rocks and minerals, and other such standards do indeed have their place, then, secondly, we must ask what *kind* of understanding is to be expected of children. Some curricula, the *Elementary Science Study* being the prime example, have placed little value on conventional facts and information, and great emphasis on experiential, broadly conceptual understanding. A new Ontario Ministry of Education policy statement on primary-junior science *(Science is Happening Here, 1988)* has a similar emphasis and provides support for this view of science education. Indeed, Gilbert *et al* (1982) have gone so far as to suggest that we should accept as the very *aim* of primary-junior science programs the development of "children's science" rather than "scientists' science":

> Traditionally, the goal...is scientists' science. This has proved to be an immense task that is often very incomplete even among so-called successful learners. As happens in many present science classes, we may have to be satisfied with largely undisturbed children's science as our outcome. A more modest and manageable goal...would be [simply] to make...learners aware that there *is* another viewpoint, the scientists' viewpoint, which is useful to scientists and may have more general use also (Gilbert, p. 631).

In other words, perhaps it is unreasonable to expect children to give up their own ways of viewing the world and to substitute "scientist's science." Perhaps it is sufficient that children be introduced to a variety of natural phenomena and to a few conventional ideas in science, so that they will know that "scientific explanations" exist even though, for the time being, they may not "really believe" those explanations because they "don't really make sense." In the second place, then, we are led to ask what can be expected of primary-junior children that is respectful of their own abilities to make sense of the world, and that is, at the same time, intellectually honest.

A third, closely related question that arises from the "children's science" research concerns how topics will be presented; this raises the further issue of the relationship between "content" and "process" in science programs, and, indeed, the very nature of science as a human endeavour. Driver (1975) has pointed out the anomaly involved in trying to teach science as a body of knowledge and, at the same time, as a process of honest inquiry. Nevertheless, primary-junior curricula have continued to try to balance the teaching of "content" with an emphasis on "process" and experience. Claxton (1986) has forcefully questioned the assumption that "doing science develops useful skills":

> It is sometimes argued that school science fosters and enhances basic, useful, real-life skills...such as observing, measuring, hypothesis-forming...and so on. Whereas it could be argued that children are already expert at these skills, having been practising them all their lives;...that there is no evidence that any training of such general capabilities either occurs in science lessons, or, if it does, that it transfers to anywhere else; that the psychological evidence suggests that such transfer will not occur; and that the frequent experience of writing down 'what should have happened'...serves only to confound and undermine the considerable powers of observation and thought that the children bring to lessons with them (Claxton, p. 125).

In partial explanation, Hodson (1988) has suggested that curriculum development in science has been largely uninformed by the philosophy of science, particularly by recent changes in that field, and that as a result "curriculum developers confused the teaching of science *as* inquiry (i.e., a curriculum emphasis on the processes of

science) and the teaching of science *by* inquiry (using the processes of science to learn science)" (p. 22). What is necessary, then, is a more thoughtful consideration by science educators of the nature of science, in particular a recognition of the complexity of the "content-process" relationship, a deeper understanding of the "methods" of science, and more careful consideration of appropriate approaches to how these might be taught. Hodson (1988) instructs curriculum developers:

> There is a large measure of naivety and confusion in the assumption, prevalent in many science curricula, that a variety of outcomes can be served by a single type of learning experience. If the science curriculum is to be pedagogically sound, as well as philosophically sound, it may be necessary to distinguish much more carefully than previously between the various goals of science education and to provide experiences designed to meet a specific purpose (Hodson, p. 34).

Thus, finally, the "children's science" research leads us back to the need to clarify for ourselves a philosophy of science, and to define its implications for the goals and methods of science teaching.

A Role for Teachers

Important and fundamental questions have arisen out of the "children's science" research. Much of that research was done in "real" classrooms, and involved a great deal of talking with and listening to both children and teachers. This is where the questions arose. At least in part, the answers to them lie there as well, with the children and the teachers.

The "children's science" research has looked to children to find out what and how they really learn in science classes; it leads us to a renewed respect for the quality and integrity of their thinking, and to an awareness of the need to find ways of teaching science that are more respectful of children's intelligence, more intellectually honest, and more consistent with modern philosphies of science. Only teachers working with children in real classrooms can create and bring into practice new ways of teaching science.

Of course, this can not be done by individual teachers in isolated classrooms without information about what the possibilities might

be and without support in their attempts at something new. Thus the kind of collaborative effort between university researchers and teachers-as-researchers that has characterized many "children's science" research projects is just the kind of effort that must continue. (A current Canadian example is the "Students' Intuition and Science Instruction" (or $(SI)^2$) project at the University of British Columbia (Erickson, 1988).) The traditional, notorious separation of research and classroom practice must be further eroded. The findings of the "children's science" research must be made available to teachers, and teachers must be supported in their attempts to define and come to terms with the implications of that research. University-based researchers, who have easiest access to the research in "children's science," and classroom teachers, who have easiest access to the children who do and learn science, must somehow come together. There is a key role, here, too, for other educators—for principals, consultants, and school board personnel who can initiate interest in current science curricula, raise questions about current practices, facilitate the coming together of university and classroom personnel, and support what will necessarily be relatively long term research and development projects.

The focus for these studies must ultimately become what Claxton (1986) calls "a serious and urgent reappraisal of school science" (p. 129). As I have already suggested, the implications of the "children's science" research are not obvious, and require a reexamination of some of our basic assumptions about science education. This can not be done *for* teachers, or *by* teachers alone—it must be done *with* teachers. Although the matter may be "urgent," it will take time, because, as Claxton further points out,

> it could be argued that [educators] are in exactly the same boat as the pupils; that conceptual and habitual change is just as difficult for them, and as easily blocked by being rushed or threatened or blamed for not seeing the point; that...[educators] need to be helped to become more aware of their own preconceptions, understandings, and confusions; and that this will only happen in an atmosphere of gentle, nonjudgemental support and understanding (Claxton, p. 129).

Only rarely have university researchers, school board personnel, and classroom teachers worked together in such an atmosphere.

Perhaps another of the important outcomes of the "children's science" research is the movement towards collaborative research that it has precipitated.

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Mathematics and Child Development

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I have a confession to make. Never before could I muster the courage to admit this, but I never really understood mathematics. Because of this, I hated it with a passion. Now that I have "come clean" and have this "off my chest", we can look into the reason for this sad affair.

Mind you, I always did quite well in mathematics classes (I could memorize well), but I never felt secure. I never really understood what was going on with numbers and the magical operations the "nice teachers" performed with them. What if the teacher discovered my incompetence? Would she think less of me? Thus I was forced to "fake it". I wrestled with my inferiority complex concerning mathematics until graduate school where I stumbled onto a course entitled, "Teaching Basic Mathematical Concepts to Children". What an eye-opener! We didn't sit in straight rows in a sterile environment listening to the teacher and filling in worksheets as I had done throughout my primary schooling. Instead we spent a large portion of the time in the manipulation of concrete objects. Then, I could see how children could move from the concrete level (physical things) to the symbolic level (numbers). Mathematics became part of the real world! It did make sense after all. In fact, it even became fun and filled with excitment. But why did it take me the greater portion of my life to discover this?

Since graduate school, my desire to sue my primary teachers (bless their souls for they tried their best) has diminished. I don't know if my suit would stand up in court but they were guilty of robbery, for they robbed a little boy of the joy and excitement of discovering the wonderful world of numbers, size, shape and measurement. They simply never presented mathematics as representing the real world. They unknowingly caused many little people feelings of confusion and inadequacy. As stated by Spodek (1985), "Often it is the way mathematics is taught rather than the nature of mathematics that

creates learning difficulties". My primary teachers did not seem to realize that young children are very much different from adults and therefore deal with reality in a completely different manner. Lecturing may serve a useful purpose at higher levels, but with young children it must be used sparingly. Young children must be active learners involved with the real, concrete world.

Prior to the present century, educators often gave only lip-service to the fact that children were not merely miniature adults. As far back as 1770, Rousseau pointed out the early years as a life-stage different from adulthood. He said a child "should be neither treated as an irrational animal, nor as a man; but simply as a child". In 1837, Froebel, the father of the kindergarten, claimed that childhood is not merely a preparation for adulthood, but a distinct stage to be respected and cultivated in its own right. He remarked that, "the child, the boy, the man indeed should know no endeavor but to be at every stage of development that this stage calls for". At the turn of this century Montessori compared human development to the process of biological metamorphosis. The same insect is in a certain period an egg, a larva, a caterpillar, and a butterfly. No one would dispute that this insect requires different treatment at various times. Montessori's point was that just as one can't treat the caterpillar like the butterfly it some day will be, one can't treat children like the adults they will some day be. There is little use in trying to teach the caterpillar to fly; there is little use in trying to teach the child completely abstract material. In both cases, the potential is present, but the full actualization of this potential will never be realized unless the subject is treated in the manner that its nature calls for at any particular stage of development.

Educators, child psychologists and parents came to realize that children are different from adults not only in quantity (they are smaller) but also in quality (their thought processes, for instance, are on a completely different level). But our interactions with them often never took this fact into consideration. This is the point at which Jean Piaget, the giant in early childhood education, entered the picture. His work was so radically different from the conventional knowledge (the Zeitgeist) about children that initially his findings and writings were overlooked, at least in America.

Most American psychologists were influenced greatly by the British empiricists, Locke and Hume. They concluded that human beings

gain their knowledge of the world not from God or even from logic, but from the impressions they receive from their senses. A new baby is a "blank slate" which will be written upon as he acquires knowledge of the world via the senses. This acquisition takes place mainly through the association of one stimulus or sensation with another.

Piaget couldn't agree. He based his work on the German philosopher, Immanuel Kant. Undoubtedly the senses are vital in acquiring knowledge, but they are not the only source of this knowledge. What about certain basic notions such as space, time, object permanence and causality? These are not gained by the senses, but seem to be present in the very nature of humans, and will be used to organize incoming sensations. Thus humans, though greatly affected by the world, are not totally shaped by it. Rather the individual actively structures his own world by means of these innate universal notions. The origin and development of these basic notions and their role in intellectual development eventually became Piaget's main interest.

In true Kantian fashion, Piaget states that intelligence is never given to the passive observer; each individual must actively construct his own intelligence. By extensive observation and interviews with children, Piaget concluded that every individual's construction project goes through definite stages and that no stage can be omitted. Though the sequence of the stages is invariant, cultural background and intellectual ability cause variations in the length of the stages.

Piaget has described the following four main stages through which children must pass in achieving critical, abstract, hypothetical thought:

1) Sensorimotor Stage (ages 0–2)
   The child develops schemes primarily through sense and motor activities.

2) Preoperational Stage (ages 2–7)
   The child gradually acquires the ability to conserve and decenter, but is not yet capable of operations or of mentally reversing actions.

3) Concrete Operational Stage (ages 7–11)
The child is now capable of operations, but solves problems by generalizing from concrete experiences, and is not yet able to manipulate conditions mentally unless they have been experienced.

4) Formal Operational Stage (ages 11 onward)
The child is able to deal with abstractions, form hypotheses, solve problems systematically and engage in mental manipulations.

If cognitive development is to proceed smoothly through these stages the child must act on the environment. The development of cognitive structures is assured only if the child assimilates (using existing schemata or patterns of behavior) and accommodates (creating new schemes or modifying old ones) stimuli in the environment. This can only come about if the child's senses are brought to bear on the environment, for it is in this way that elements are gathered to be assimilated and accommodated.

Piaget identified two different types of knowledge that are constructed when children act on objects. In the first place there is physical knowledge which is in the object itself. A child, by playing with water, discovers its properties—that it is wet, that it has weight, etc. The second type of knowledge, logicomathematical knowledge, is created when the child makes relationships between objects. These relationships do not exist in the objects themselves, but in the mind of the one doing the relating. The child invents logicomathematical knowledge. It is not inherent in objects, as is physical knowledge, but is constructed by each child as concrete objects are manipulated. The objects serve merely as a means of permitting the construction to take place.

What has this to do with mathematics and young children? The point is that mathematics is mastered by means of logicomathematical knowledge. Number concepts, for instance, are examples of logicomathematical concepts. A child may put a set of six blocks all in a row. There are six of them. The objects are stacked and counted again. There are still six of them. Through activity of this sort, the child develops the concept that the number of objects in a set remains the same regardless of the arrangement of the individual elements. Such logicomathematical knowledge cannot be acquired from reading or listening. It can only be acquired from action on objects.

Unfortunately, too many of our children are still being taught mathematics without the benefit of concrete objects. This past semester I had the opportunity of spending a day with a grade one class. When the time for mathematics arrived, the children were given worksheets of number facts to complete. As I was moving about the room, I happened to ask a little girl what one and one were. She quickly offered the answer, two. I then asked her what two and two were, to which she replied four. Did she really understand or was she simply parroting what she had been told? To discover this I asked her what one and one and one and one were. After a period of hesitation she informed me that they hadn't taken that yet. Obviously, she had not constructed the logicomathematical concept of number. Nor could she, for the room was completely devoid of any manipulative materials which are so essential to children's understanding of mathematics.

If we are to rectify this situation, we must revise our attitudes about children and the demands we make of them. We must evolve a workable educational model with the needs of children as our first guidelines. If we refuse to do this, our children have a perfect right to look back at their mathematics education and say, "We have been robbed."

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Do Computers Have a Place In the Kindergarten Classroom?

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Introduction

As a kindergarten teacher, I have struggled with the question of classroom computers since they were introduced in the school where I was teaching five years ago. On the one hand, computers have always seemed too abstract for the five-year-olds in my classroom. The programs seemed more like high-tech worksheets than the kind of concrete, manipulative materials that I believed my students needed at their particular stage of development. On the other hand, when I did try some Logo (Papert, 1980) computer activities with the children, it was hard to ignore the excitement that the computers generated, the ease with which most learned to use them and the problems that some of the children were able to solve on their own.

Do computers have a place in the kindergarten classroom? In attempting to answer this question, I have examined some of the current literature on young children and computers, and have tried to focus on those writers who address the issue of why we should or should not use computers in kindergarten. I have also tried to examine some of the philosophical and pedagogical assumptions underlying the various viewpoints. What assumptions are held about the nature of young children and how they learn? What should children gain from their schooling experience? How does the computer fit into the educational experience of the young child? In addressing these questions, I will also draw upon my beliefs and experiences as a classroom teacher.

Computers as Developmentally and Educationally Inappropriate

The authors who warn against the use of computers with young children do so on the basis of two major themes. The first is based

upon assumptions about the nature of young children, how they learn, and the most appropriate type of environment for enhancing learning. The second theme concentrates on more global assumptions about the very nature of thoughts and ideas. It is important to note that all of these writers see some value in the use of computer technology and most give guidelines indicating how and when it would be more appropriate to begin using computers as a pedagogical tool.

The first viewpoint is based on the assertion that the nature of the computer as a learning vehicle is not compatible with the more open-ended, experiential types of activities that five-year-olds need (Barnes and Hill, 1983, p. 12). It is based on the assumption that the child needs to be actively engaged in the environment in order to make sense of it and emphasizes the importance of play in providing the child with an opportunity to develop physically, cognitively, socially and emotionally. Play offers the child the freedom to explore and experiment using concrete objects, and to learn at his own pace and in his own way. This view of play is supported by the work of Piaget (1962), whose theory of cognitive development provides us with a fascinating glimpse into the child's world. To Piaget, the five-year-old is at a stage which he calls pre-operational (Piaget and Inhelder, 1969).

This notion of play and it's importance in the pre-operational child's development determines the types of materials, that one should find in a kindergarten classroom. Blocks, sand, water, dress-up materials and paint are all examples of concrete materials that would seem to encourage the types of experiences that the young child needs. Cuffaro (1985) expressed concern that the computer as a vehicle for learning is not compatible with the needs of the preoperational child. She states that "in educational settings that have consistently stressed the importance of experience, direct participation, and sensory exploration, the presence of two-dimensional screens, abstractions, and simulations is anomalous" (p. 26).

The most obvious limitations of the computer for the young child are in the physical, emotional and cognitive realms. Physically, the child's only involvement is to push the necessary keys at the appropriate time. At the emotional level, the view that a computer can give the child a sense of competence and control is highly dependent upon the programs used and the methods of introduc-

tion. Children may become frustrated because they have pushed the wrong key and must wait for an adult to correct the error. In the cognitive domain, Barnes and Hill (1988) have argued that the preoperational child does not yet have the necessary mental structures that will enable him/her to interact in a meaningful way with the experiences that the computer offers. An examination of the nature of most computer programs points to their cognitive inappropriateness for the kindergarten child. Most are of the drill and practice variety focusing on the attainment of such skills as identifying colours, shapes, letters, and numbers. These programs seem strikingly similar to workbooks in their symbolic and sequential presentation.

Finally, inherent in this particular viewpoint is the notion that the most effective way to prepare our children for the future is not by exposing them to computers before they are ready. Instead, it is by providing them with experiential learning opportunities to enable them to develop the necessary mental foundations on which to build future learning (Barnes and Hill, 1983).

The second major theme in questioning the use of computers with the young child deals with the very nature of thoughts and ideas. It argues that our society's obsession with computers is radically altering the type of thinking that we value, which has implications for our views on the role of education as well as of socieity itself (Natham, 1985, chap. 3).

There are many ways in which our mind makes sense of the world. We may invent, analyze, create, evaluate, imagine, adapt, or use any other number of strategies and processes. Our ideas come from many sources such as experience, memory, intuition, and our cultural milieu. They may come in a flash of insight or develop slowly over time. The problem begins to surface when we examine the type of thought processes that using a computer tends to encourage. Davy points out that "computers, by their very nature...are potent training grounds for thinking about thinking in purely functional, operational and instrumental terms" (1985, p. 19).

The computer's stock in trade is information. While information is valuable to us, it has its limitations within the human experience. However, we are rapidly becoming convinced that the information

which the computer provides is indispensable to use in our technological world.

It is this vision of our society that in many ways underlies the justification for computers in the schools. As schools rush to expose children to computers, they put an unwarranted and perhaps dangerous emphasis on the limited, linear thinking skills that the computer requires. The disadvantage of emphasizing computer-like processes is that they will serve to undermine our very ability to think. As Roszak points out, "the mind thinks with ideas, not with information." (1986, p. 88).

If an emphasis on the transmission of skills and information should not be a priority in our schools, then what is the educational enterprise all about? It is to develop thinking people, feeling people. Education is learning to deal with ideas. It is the celebration of reason and imagination and the cultivation of the mind. It should not just focus on cognitive skills but on a child's social, emotional and moral development. We can best prepare our children for the future by helping them creatively and thoughtfully to master technology in order to create a better world.

The arguments which warn against the use of computers with the young child are indeed compelling. Nevertheless, there are also compelling arguments attesting to the value of the computer in enhancing the young child's educational experience.

Computers As Enriching

In synthesizing the literature that advocates the use of computers with young children, three main themes emerge. The first looks at the role of education as preparing children for the future, in particular, a future which is highly dependent on the computer. The second theme views the computer as a valuable medium for enhancing learning in the kindergarten classroom. The third theme views the computer as a vehicle which can change and improve the way children learn and think.

It is important to note that some of the authors (Anselmo and Zinck, 1987; Kozubal, 1985) are careful in emphasizing the need for a balanced classroom environment with the computer as just one component of a richly varied program. While Brady and Hill (1986,) and Sheingold (1986) endorse the use of computers with young

children, they suggest that more research and development needs to be done in this area. The presence of computers in the classroom has, however, sparked some exciting debate on how young children think and learn and "provides an arena ripe for reflection, experimentation, debate, and cooperation among educators and researchers" (Sheingold, 1986, p. 26).

There is a growing awareness of the pervasiveness of the computer in our society. Our perceived dependence on this technology has led some to justify the need for students to become computer literate (Luehrmann, 1984). The rationale for introducing the kindergarten child to the computer is based primarily on the view of the young child as being much more adaptable, inquisitive and open to new experience than the older child or adult. The earlier we introduce the computer into the child's environment, the more quickly and comfortably he or she will adjust to it as a valuable instrument for learning.

Clements (1987) examines the effect that early introduction may have on the equitable use of computers between boys and girls. As children get older, boys tend to be more frequent users than girls. However, studies of preschool and primary chilren reveal that there are no gender differences in frequency or kind of usage. This finding could suggest that early introduction may reduce the gender differences reported for older children (Clements, 1987).

The second theme asserts a view of the computer as a valuable instrument for learning. Proponents (Anselmo and Zinck, 1987; Clements, 1987; McGarvey, Okamoto and McDevitt, 1986) see the computer as an appropriate medium which can enhance the educational goals of those who teach young children. In examining the nature of the young child and how he/she learns, they present findings that support the notion of the five-year-old as developmentally ready to deal with the symbolic nature of the computer in a meaningful way.

Within the Piagetian framework, some researchers are finding that children in the pre-operational stage of development are able to think in ways that were previously attributed to the stage of concrete operations. Sheingold (1986) cites researchers who have shown:

> ...that the ways in which tasks are structured for young children dramatically affect what they can demonstrate about what they

> know. In carefully designed situations, for example, young children reveal that they are not entirely ego-centric or perception bound...and they can achieve some success on many tasks of concrete operations (Sheingold, p. 27).

This emphasis on the computer as providing developmentally appropriate experiences is important to understanding the computer advocates' enthusiasm for the machine in an early childhood setting. They agree with the many assumptions about what a good early childhood program should provide: rich and varied experiences, individualized instruction, experiences which enhance a variety of learning styles. They see the computer as accommodating many of these components, and cite some intriguing research to support their claims (Lepper and Milojkovic, 1986; Clements, 1987). For the purposes of this paper I will limit the discussion to the areas of social interaction and language development.

Most kindergarten programs are carefully planned to enhance the social development of the child. When computers were initially placed in schools, children frequently worked alone at a terminal. However, this solitary approach has given way to a more social experience as two or more children work together. Researchers are now finding that the computer can effectively enhance social development. Borgh and Dickson (1986) found that, "given appropriate software and a classroom policy emphasizing sharing, the microcomputer can be used to increase the amount of cooperative, collaborative interaction in preschool classrooms" (pp. 42–43). The authors also found that young children spontaneously engaged in peer-tutoring at the computer (1986).

As the social nature of computer use is encouraged, a greater opportunity for language development becomes available. Kindergarten classrooms are often language-rich environments where children are encouraged to express their thoughts and ideas. In his review of the literature, Clements (1987) found that, "preschoolers' language activity, measured as words spoken per minute, was almost twice as high at the computer as at any of the other activities: dough, clay, blocks, art or games" (p. 38).

The third major theme advocating the use of computers with young children is that the computer can act as a vehicle to change the way young children learn and think. The work of Seymour Papert best

illustrates this view. Papert sees young children as very competent, successful learners. From his work with Piaget, he came to realize that children were able to learn a great deal without being formally taught (1980).

However, Papert differs with Piaget's emphasis on the stages of learning. He takes more of an interventionist approach and asserts that if children are provided with the right materials, they can learn certain concepts earlier than Piaget suggests (Papert, 1980). Papert focuses on the subject of mathematics in particular and sees our culture as providing very limited resources for understanding mathematics and of fostering a strong sense of "math phobia". He designed the Logo program to teach children mathematical concepts in a meaningful way.

Of particular interest is Papert's notion of the child as an epistemologist. He is critical of how computers are being used in schools today. With most educational software the computer is programing the child. In contrast, Logo enables the child to program the computer:

> And in teaching the computer how to think, the children embark on an exploration about how they themselves think. The experience can be heady: thinking about thinking turns the child into an epistemologist, an experience not even shared by most adults (Papert, p. 19).

Papert goes on to claim that as the child becames aware of the fact that there are different ways of thinking, she/he is provided with "the opportunity to develop the skills necessary to choose between styles" (1980, p. 27). Papert sees our culture as not providing sufficient opportunities for children to openly think about, discuss and test their ideas. By learning to think about thinking, and to build upon what they learn, children may be able to think in more complex ways.

While this is certainly an intriguing claim, which Davy (1985) challenges as being unsupported, it would take a very knowledgeable and sensitive teacher to help guide a child's thinking in such a sophisticated direction. Indeed, Broughton (1985,) suggests that becoming an epistemologist may be well beyond the grasp of most children.

The arguments which support the use of computers with young children are compelling. Do young children, particularly girls, need to become familiar with computers at an early age? As we develop a more flexible understanding of what children learn, can the computer provide opportunites for learning that are compatible with the goals of early childhood education? Can the right computer environment help children to think in more complex ways about thinking? What follows is an evaluation of both sides of the debate based on my philosophy and experience.

A Personalized Summary

I found that those on both sides of the debate had much in common in their views on the role of education in a child's life, and in particular, their emphasis on the importance of a developmentally appropriate early educational environment. They differ, however, in their understanding of how computers might enhance or inhibit these educational goals. As I tried to resolve this debate, I found myself drawn to many aspects of each argument.

It is hard to argue with the statement that computers are a part of our world. However, because they are there to an ever-increasing degree is not sufficient justification for placing them in the classroom. The computer-literate adults of today were not exposed to computers in their early education. Further, as the technology improves, the machine will become increasingly accessible to young children. I must agree that we can best prepare our children for whatever the future brings by providing them with the opportunities to develop the necessary physical, social, emotional, and cognitive foundations on which to build their lives. The microcomputer is not a necessary tool for helping to build these foundations.

The main question for me then becomes whether or not the computer can help to facilitate some of the learnings that I value and emphasize in my classroom. As already mentioned, the computer advocates are not suggesting that the technology replace traditional kindergarten materials. They are arguing instead that the computer has a place alongside the blocks, sand, water, and paint. As I read and reflected on my own teaching experience, I found myself agreeing with this perspective. However, my agreement is a cautious one and comes with several qualifications.

A personal philosophy which influences my decisions in the classroom is that of respect for individual differences. I try to avoid making global statements about what experiences are appropriate for all five-year-olds. Computer use is no exception. What I have found in my classroom is that some five-year-olds are ready and some are not. Some find computers intimidating, some are curious and some are enthralled. Some can't (and don't want to) find the letters on the keyboard to operate the simplest program and some are able to solve complex problems with little or no adult help.

If researchers such as Barnes and Hill are correct in their assertion that young children must think at the concrete-operational stage before they can successfully interact with the computer, then it does not surprise me that recent findings indicate that young children are able to think in ways that were previously considered concrete-operational. The pre-operational children in my classroom are all at different stages in their ability and desire to deal with the symbolic nature of the computer. My first qualification then, is that kindergarten children should only work at the computer if they are personally motivated and ready to so.

My second qualification is that the kindergarten classroom should first be rich with activities and experiences which stimulate the development of the whole child. If these are in place when the computers are introduced, then they computer will not take on any more significance as a vehicle for learning that any other centre in the classroom. Furthermore, it is important to provide an environment where children are encouraged to think, to be creative and to care for others.

My third qualification is that no software is better than poor software. We have to be very careful about spending educational dollars to expose children to electronic flashcards and workbooks. Some of the drill and practice programs are not only narrow in their focus but also tend to encourage a very competitive style of interaction between children. With carefully selected software, however, I have seen children cooperate, collaborate and peer-tutor when using the computer. I also know from experience that when two children work on the computer together, language use is encouraged.

As well, the realities of the classroom demand that children be able to use software independently. I share Cuffaro's concern about the

amount of preparation and one-to-one attention that it takes to help the young child to program (1985). There are too many other important activities happening in the classroom for me to be preoccupied by the computer centre. Furthermore, the child will not develop a sense of competence or personal power over the technology if I need to be there to "correct" the "errors" (Kozubal, 1985).

My final qualification is that the kindergarten teacher who chooses to place computers in the classroom should be computer literate. By computer literate I mean knowledgeable about the advantages as well as the limitations of the technology and knowledgeable enough to use the computer herself. I feel that much of my own reluctance in the past can be attributed to my limited expertise in this area. If I want my students to see the computer as a tool to enhance their self-expression and their own learning, then I need to model that attitude myself. As well, it is only by being knowledgeable and comfortable with the technology that I can ask the right questions, know when and how to extend the child's activities and collaborate with the child in the learning process.

Computers are not necessary in the kindergarten classroom. In fact, unless they are incorporated with sensitivity and awareness, we gain by their absence. However, if the timing is right for the child, the teacher is knowledgeable and an appropriate selection of software is available, then the computer can be used to support and enhance the child's experiences. Although many questions remain unanswered, the computer can provide a motivating and exciting vehicle for thinking and for learning.

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Parents As Learners: Parent Education in New Zealand

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When people become parents, they are forced to adapt their lives to encompass the responsibility of bringing up the next generation. They have to learn new modes of behaviour but there are few guidelines for this role. The traditional patterns of childbearing will not suffice today as society itself is changing so rapidly. Pressured by the electronic and printed media to buy household goods, clothes and food on behalf of their family, most parents carry on as best they can, some more caring and self-conscious about their parenting than others. If they listen to the experts for accepted wisdom, they may be more confused than ever, since fashions in childrearing tend to swing between being permissive and being authoritarian.

Not much assistance is provided for parents in this important area of adult education. As for pre-service training or orientation for this completely new task, attempts have been made to include preparation for parents in the curriculum of secondary schools. But adolescents are fully occupied coping with their current growth and development and should not be contemplating adding a baby to their lives before becoming more emotionally mature and economically more independent. In truth, no one can be "prepared" for the vicissitudes and rewards of parenting their own offspring twenty-four hours a day for years, except perhaps by watching good models in a large family group. The best that can be done in the school system is to teach the listening skills and honest communication essential in family relationships.

For those in the "expectant" state, an excellent antenatal programme is available in New Zealand through the Parents' Centres Federation, a voluntary organisation. Even here the programme-planners find that the pregnant mothers and their partners are more concerned about the process of labour and birth than in the problems

faced in bringing up children. The essence of successful adult education is providing information at the teachable moment when parents are most highly motivated to learn about child development related to the age or stage of their children.

Parents in the child's first year attend to the child's primary needs and begin to realise that they are the recipients of society's expectations in regard to the baby's health and emotional stability. They also realise that in the main, they are isolated from others in the same role.

What are some other characteristics of these adult learners?

Having been parented themselves, they already have a fund of knowledge—("I'll never do that to my children!")

They have observed with mixed feelings other people's children in action.

Their attitudes towards further learning will be coloured by their own achievements or failure in the education system. Even high self-esteem will be dented by inability to soothe an infant's crying.

They will vary according to what point in the life-cycle marks the beginning of their parenthood, whether that be early twenties or later in their thirties, having had some years in paid employment.

What do parents want to learn about?

At first, they want reassurance that they are on the "right" track. Many parents fear that some aberration in these early years will lead to delinquency in adolescence. If literate, they will be aware of the massive production and marketing of books, magazines and articles on child psychology. Parents have to sift through this data to make sense of their own child-rearing practices.

For parents willing to do their own research or self-directed learning, a plethora of "how to" books has reached popular outlets in the past twenty years. These certainly give the lie to the idea that mothers have instinctive knowledge about what to do for their children's best interests. All that the human race has now in the way of instinctive responses are vague feelings of protectiveness for the

very young. Research has shown that apart from lactation, males can be equally nurturing as females. *Shaw E. and Darling J. 1985.*

The "how to" literature is predicated on a belief that parental practices influence the child's present and future behaviour. It is likely that these practices are less important than the interpretation that the child puts upon the parents' behaviour, taken in conjunction with the unique biological make-up of the child. The child is not a reservoir of skills and habits built up by parental handling, but is a result of a series of complex interactions with parents, siblings, relatives, school friends and community members.

The most powerful method of parent education is that of discussion of day-to-day concerns with their own parents, relatives, friends and neighbours. Particularly useful is the experience of "peers" or those who are rasing children of the same age as their family. After such discussions with their contemporaries, the parents can make decisions based on commonsense, unconsciously mediated by memories of their own upbringing.

What parents do ask for, amounts to in-service training—when they know what questions they want answers for and what information and referrals will help solve an everyday problem.

On-the-job training is considered to be one of the most effective methods in adult education. It resembles the apprenticeship arrangements of the Middle Ages where the young learned from senior members by imitating and joining in their activities. Up to about one hundred years ago, this is the way parents learned their parenting close to family models. When the State took over the formal schooling of children, parents were relieved of some responsibility, but they are still blamed for social misconduct. Despite many efforts, partnership between parents and formal schools is carried out imperfectly due to confusion about the reasons for involving parents and hesitancy on behalf of the professionals.

It is in the field of early childhood education that the participation of parents brings a new dimension to learning on-the-job. Voluntary movements such as the Parent Cooperative Preschools International based in Canada and the United States, the Preschool Playgroup Association in the United Kingdom, and the New Zealand Playcentres Federation have based their philosophy on acknowledging parents at valuable teachers of their own children. Parents receive appropriate

training in order to assist with early childhood education activities and at the same time gain insights into normal child behaviour. The most experienced parents provide an example of how to develop the children's creative play and learning, as well as how to defuse minor incidents of misbehaviour in positive ways.

Many voluntary bodies and school groups offer parent education programmes which consist of classes on specific topics such as discipline, sleep problems, language development etc. These might be arranged as single sessions or a weekly series of lectures or workshops.

The most successful adult education occurs when the learners are actively involved in their own learning. For this to happen, attention must be paid to establishing a welcoming climate where the students can feel at ease. The venue should be preferably a familiar room or hall with comfortable chairs set in a circle. Good lighting, heating and ventilation are other features which should be checked for physical comfort.

The psychological climate takes fine tuning by a well-trained facilitator but several important exercises can help those who are new comers in the group. Identifying group members by name-cards, introductions and use of first names should be followed by careful but not too obvious attention to individual members. The overriding principle is that learning takes place when the learner is relaxed and open to fresh ideas which are presented in a clear and interesting style.

It should *not* be the aim of parent education to impose specific behaviour or attitudes on parents. Rather parents need to be empowered to express and understand their own questions and with the support of others work towards their own solutions. Such a method is facilitative rather than instructional—it reverses the negative effects of a formal class in which rules and ideal guidelines are propounded. Where the leader is seen as expert, where there is minimal interaction with other parents, where feedback and evaluation are limited, parents' confidence is undermined.

Informal methods of working with parents have been so successful that the New Zealand Playcentres and New Zealand Parents' Centres have independently produced training schemes for facilitating parents' learning. The trainee tutors are usually drawn from parents

whose membership is longstanding and whose approach is flexible. The National Children's Bureau (England) has recently prepared a kit for leaders working with parents. The editors are Gillian Pugh and Erica De'Ath.

Within the workshop mode, the trained facilitator can vary the informal methods to meet the learners' needs. A lecture or structured talk may impart new knowledge, but the speaker is not always sure about what level to pitch the discourse. After a warming-up exercise and introduction, the next step is to draw up an agenda on the basis of what parents want to know (usually within the scope of a previously advertised topic). This can be endorsed by setting up a contract about how the session will be conducted.

How Can Parents' Learning Be Enhanced?

The workshop planner or team of planners can work through a formula which will enhance the parents' learning.

The *presentation* of new ideas can originate with the group members or from the facilitator who may give a resume of known facts from research, or show a video or film, prepare the group for listening to an appropriate tape, refer to a press cutting or article or television programme, or even tell a joke that is apt. Other possibilities are: explaining a poster or chart, showing cartoons or photos or arranging a five-minute talk from a visiting specialist.

The objective of this initial section is to provide some ideas to play with. Play in this context has similar characteristics to children's play—the individual learners begin to focus on a subject, exercise their imagination and develop a sense of control. Discovery and intensity are combined with the enjoyment and exhilaration felt in the company of others. The channels for discussion are opened.

The next phase is *participation* by the group in activities that further develop the chosen theme. There are many methods to select from. Small group discussion enables everyone to participate. Practical activities such as free painting, drawing and sculpturing increase the range of adult expression. Being involved in carpentry, blocks or outdoor construction increases parents' appreciation of the value of play. A collage consisting of pasted pictures and cut-out printed words will make explicit the prevalence and persistence of stereotyping and racism. For a study of sibling rivalry, a session of role-playing

can expose some of the feelings that require attention. Preparing a display, writing a radio play together, and setting up a case-study are all ways which expose to scrutiny the problems of parenting. Sometimes new material can be gained by organized visits to other child-oriented bodies for purposes of observation.

Identification is the phase during which parents are helped to extract from the previous activity what strikes them as new or meaningful. (A note of caution—not all insights or links to change are recognised immediately. For some people the new understanding comes weeks later.) The process of identification is achieved through direct questioning, brainstorming, discussing in small groups, or by writing down or drawing one's impressions.

Internalisation requires that time be allotted for members to reflect on their experiences and accommodate or assimilate the new information for future use. This can take the form of a coffee break, a short period of silence, or a mulling over of books that have been collected on the subject. Some may take the opportunity to query the facilitator alone or to talk with others in the group. Thus reflection will help to develop insights about human behaviour.

Finally in the process of learning, a short period of *evaluation* at the end of the session provides an orderly conclusion. Group members are asked to describe any new ideas that appeal to them as worth applying and also any changes they would like to make to the adult learning activities.

Obviously the way in which these phases are planned and carried out demands great sensitivity on the part of the leader or co-leaders, taking into account what level the members are at and how fast and how far they wish to travel in their learning. Non-intrusive approaches must be emphasised.

We are still left with the reality of those parents who may not understand that they have to change their stance on standards of behaviour as their children grow. Such parents may be more easily communicated with through one-message posters, leaflets from institutions and state departments and television programmes. A particularly compelling campaign for better communication between married couples has appeared on New Zealand television. The thirty-second screening showed the couple quarrelling, followed by

the caption, "Let's Try That Again" and then a sequence in which an example of positive conflict resolution was demonstrated.

Some parents cannot be reached initially because the message is transmitted in the "wrong" language. The words even if in the right language may not be recognisable against a home background of violence and denigration. The lives of other parents are so fraught by their struggle with unemployment, housing and isolation that their energies are not available for the caring of their children. They often rely on physical punishment as a quick way to teach obedience and instead breed disaffection. They have difficulty balancing their own needs with those of their children.

The professionals who work with these parents, be it from the areas of health, welfare or education, may need re-educating in the art of helping parents to make changes.

First of all, they must uphold the self-dignity of their clients and remember that learners respond to praise, want clear information (not too much advice which makes them feel guilty and negative) and function best when they are made partners in solving problems.

The parent-child relationship involves a set of complicated skills, such as learning how to listen, how to comfort, how to air doubts and criticisms while preserving the other's self- respect and how to negotiate with full, clear communication.

As parents are highly motivated adult learners, facilitators should utilise the wide range of multi-media methods to enable them to learn appropriate skills in the brief times they can spare from their child-minding. The bonus is that skills in parenting are transferable to future situations in family affairs and career opportunites.

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Separation and Divorce: Implications for Teachers of Young Children

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Background

The traditional family with the breadwinner father, the stay-at-home mother and two children accounts for only 6.1 per cent of all American families today (Kroll, 1987). Classroom teachers are having to cope with the distintegrating family, which many see as a major societal influence perhaps even the most important affecting classrooms today. It is not news that fewer and fewer children live in traditional two-parent families. In Canada the divorce rate has doubled between 1972–1982 with almost 40 percent of first marriages ending in divorce. Daily in the U.S. during 1987 there were 6,500 divorces (Kroll, 1987). The U.S. 1984 Census data reported that a quarter of all US families with children under eighteen had only one parent and there are estimates that by 1990 fifty percent of US families could be headed by one parent. More than half (56.6 per cent) of American women work outside the home and an even larger proportion (62.7 per cent) of single mothers with children under eighteen are working (U.S. Dept. of Labor. 1983). This figure only drops slightly (53 per cent) for women with children under six years. Statistics Canada reported in May 1988 that 57 per cent of women with children under sixteen years were in the work force whilst another 6.6 per cent were looking for work and yet another 2.4 per cent wanted a job but were not pursuing one.

Another major factor is poverty: for some experts (e.g. Milne et al. 1986) the most powerful mediating factor, making the plight of many broken families even worse. The poverty line for a family of four in 1987 was $21,705. Single families are headed mostly (92 per cent) by women and the income of a family in which the sole parent is female is often found to be below the poverty line. In Canada on the average,

single parent income is less than half when compared with 2-parent families ($17,353 vs $44,919—Statistics Canada, 1987). Data from the U.S. Bureau of the Census (1984) also supports these figures, citing for 1980 amounts of $10,408 as the poverty line for a single adult and $23,141 for the family of four.

School Effects

Admittedly not all children of divorced or separated parents and blended families are having problems in school. Some indeed are emotionally healthier than other children. There is however a substantial literature (e.g. Milne et al. 1986; Wallerstein & Kelly, 1980; Hetherington et al., 1977) which explores relationships between maternal employment and father absence with academic achievement, as well as child misbehaviours. Much of this work according to Heynes (1985) is flawed from a statistical viewpoint (lacking controls for relevant background variables such as socio economic status, race, ethnic group, time spent with children, educational resources in the home) and is unrepresentative of changes in this area since 1972.

Little study of the teacher's perspective and reaction to the effects on the classroom has as yet surfaced. However, there is a growing number of informal reports from teachers indicating that many children in their classrooms are being profoundly affected by the dramatic changes in traditional family structure. One teacher commented that the single parent child's classroom behavior is becoming a good barometer as to how the single parent is coping (personal communication).

An 1985 survey of 395 classroom teachers reported on in *Learning* (1986) indicated that about half of those children experiencing disruption at home are having problems in class. Over one half of the teachers felt that these problems were more pronounced in children whose parents were separated or divorced. The most frequently cited problems were aggressive behaviours, declining grades, moodiness, daydreaming, and withdrawl. Teachers pointed out that these behaviors certainly are not only common in the one parent child but are also found in the two parent family child who is stressed (e.g. the child whose father used a cattle prod to discipline or the mother who sent her three-year-old consistently to her room and told her she wished she hadn't been born).

Divorced or separated parents can also create problems for the child and the teacher. They disagree over what is best for the child at teacher-parent conferences; blame one another and shift responsibility to help, often using the teacher's comments as weapons against each other; are inconsistent in their respective interactions with the child; do not communicate with each other or the school and blame the school; put the teacher in the middle..."Tell him/her..."; put the child in the middle (e.g. Your Daddy doesn't love you; that's why he left); blame the teacher for the child's problems (e.g. the teacher is insensitive, narrow minded, old fashioned); refuse to accept responsibility for, or the consequences of, their own choices and actions. Parents frequently come to conferences frustrated and are either 1. angry, hostile and disrespectful; 2. defensive and inhibit communication; 3. feeling inadequate and take it out on the teacher; 4. moody and aggressive or 5. are so emotionally drained and physically exhausted that they are unable to cope and they too need a shoulder to lean on. Teachers in the latter case find themselves becoming quasi-counselors to parents.

On the other hand many of these parents fail to show up for conferences, don't return calls and don't respond to notes. Teachers are told to mind their own business. In the early stages of the breakup, parents are often too preoccupied with their own bitterness, humiliation and personal plans to get back at the other spouse to even consider the child's problems. The parents' inability to be helpful and supportive of the child undoubtedly compounds the child's reactions. Admittedly some of these parents are so busy struggling to survive that they don't have time or energy for their children. At other times parents are too wrapped up in themselves or become so involved in a hectic new life that the child is simply neglected. There is no checking on schoolwork or progress. There is often little or no interest in what the child is doing. Frequently there is no recognition of achievement or effort which is so important to every human being but especially to the young six year old who is learning the importance of producing from the recognition of significant others (Erikson, 1959). The parental attitude can be..."it's your problem, you handle it."

Schools have to be watchful over custody issues. Frequently, fighting over custody continues long after the divorce. There are kidnappings, attempted kidnappings, threats of kidnapping, and fear

of kidnapping. Schools and teachers have to cope with court orders and must be vigilant over who picks up the child. Knowing what information to give to the non-custody parent or to the exspouse can be difficult and hard to negotiate.

Impact on Teachers

In 1979 Annis & Allers had warned that as increasing numbers of students face emotionally draining situations which block learning teachers and principals will often have to wear the hat of psychologist whether they like it or not. A large percentage (89 per cent) of those teachers surveyed in 1985 tended to agree, stating that the societal problems of divorce and separation were affecting their role as teachers. In fact the majority of these teachers—80 per cent—believed that the teacher does not have much choice about becoming involved with the child's problems. The fundamental belief that teachers have to deal with students' emotional problems before learning can occur was pervasive and the primary reason for their involvement. If the problem is affecting classwork then the teacher cannot ignore it. Frequently teachers felt they were the only person in the child's life who cared enough and who were willing to offer the child any help and support. Nevertheless teachers are worried about their becoming more and more children's counsellors and support people rather than their teachers.

Teachers in a study (*Learning*, 1986) centered on their professional competencies to deal with such children. Only 22 per cent of those surveyed stated that they were very confident in handling these children although the majority (68 per cent) stated feeling moderately confident. All teachers expressed the need for additional training and more information about how to interact not only with the children but also with their parents.

In addition these teachers were concerned about assuming parental responsibility and about their rights to become involved in family matters. Some schools, like other social institutions, resist probing new family structures for many good reasons: "complex legal issues surrounding custody; a desire to protect the student's and family's privacy; a feeling that treating all families equally means treating them in a 'one home' style; an underlying fear that to acknowledge divorce and remarriage openly in procedures and policies will somehow withdraw support for the ideal one-home family; and finally the

budget constraints that leave schools hard pressed for the time and money needed to meet the changing needs of families" (Ricci, 1979). Consequently there are school districts that direct their teachers not to deal with family problems.

Teachers also expressed strong concern about the impact on their teaching. Some teachers felt they were less effective in their teaching when they were emotionally involved with certain children. Clearly, available time is limited and working with children with special needs is time consuming since these children need so much more attention. Teachers were also concerned about neglecting or shortchanging the other students in their classes.

What Schools Can do to Help

At the outset it must be clearly stated and understood that there is no one correct answer for any one child since each child is a unique individual whose specific needs are somewhat different. At best a teacher must take his/her cue from the individual child. However there are some general guidelines and approaches which can be suggested to teachers and schools.

First, teachers must examine their own attitudes toward divorce, separation and the working single parent. If teachers have negative attitudes they may have difficulty being sympathetic to the blameless child but even more so towards the parents whose participation and cooperation must be encouraged. Teachers with strong biases should make an honest assessment of their abilities to work with children of broken families and perhaps even consider requesting that children of such situations be transferred to another teacher. Should a teacher notwithstanding a strong bias have such children in the classroom then there is need for constant viligence that this bias does not prejudice teacher-child interactions and mitigate against providing the extra support and attention such children may need.

The next step for the concerned teacher is to become informed and thoroughly familiar with the impact on the child of separation, divorce and the working parent, and the fears, anger, denial and guilt that children feel. It is estimated that 80 per cent of children have absolutely no idea that their parents are having problems until they are told one is leaving (Franke et al., 1980). These researchers were convinced that no matter how gently the separation, the reaction was

almost always shock, followed by depression, denial, anger, low self-esteem and, among preteenagers, the feeling that somehow they are responsible.

As yet there are no definitive data as to how the child under six copes with the emotionally draining separation situation. Wallerstein (1985), who initially believed that children of this age group tend to blank out divorce, is no longer sure of this. She found that ten years later children still bore the scars. Children then twelve or thirteen years old who were two or three at the time of marital separation "wept and seemed unable to leave our office where they cried for an intact family they had hardly known, for close contact with a father they had encountered over the years as a capricious or disinterested parent". Two thirds of children who were nine years and over at the time of the separation expressed the stark conviction that their own childhood and adolescence had been lost. Girls were very anxious about their relationships with males, expressing a conscious "fear of betrayal".

If we accept Erickson's (1950) postulates that during the preschool years the family is the foundation of the child's development, the place where the child learns to trust, to become autonomous, to be productive, to acquire an identity, then the sudden collapse of this powerful influence must appear to the child as a shattering experience—an experience that he is unable to verbalize adequately. Teachers must at least try to place themselves "in the child's shoes" in order to understand behaviors and feelings before they can begin.

Having a secure and success oriented atmosphere in the classroom is very important. One frequently recurring fear among the children of separation and divorce, especially the younger ones, is that of abandonment...What's going to happen to me? Who will take care of me? Will my relationship with my mother and father last? Wallerstein & Kelly (1980) attributed the onset of sleeping disturbances at this time to this preoccupation. It may take a long time even a year or more for the neglected, aggressive, insecure child to begin to trust again. Children need consistent evidence and proof that someone cares, that there is someone to rely on in order to be able to trust. More often it is the teacher who must provide patient support, security and encouragement whilst giving children time to put the pieces of their lives together again.

Low self-esteem is a common consequence of family breakup. Very few children escape without some drastic changes in their lifestyles. A decrease in income frequently occurs for mother-led single families. In many cases, the mother and children will have to relocate to a more modest housing complex or to a home in a lower income area. Children have to establish new relationships in new neighbourhoods, attend new schools and often have to cope with new cultural attitudes and behaviors. All of these make heavy demands on the child's self-confidence which is already under siege from the separation trauma.

Young children can also harbor a sense of guilt which gradually erodes the child's self-esteem. This is usually bound to memories of parental fights over the children and the conviction that these alterations triggered the separation. Post-divorce financial bickering also often makes children feel they are to blame, that the cost of their upkeep caused father to depart. Daily classroom activities which focus on building positive self concept can be very important in helping such children feel that they are not bad children.

Encouraging children to express their worries and to talk about their feelings in game situations, role playing, puppet and dramatic play, or in small group discussions (e.g. a discussion of the many different kinds of families instead of assuming that all families consist of mother, father and children) can help lessen a child's anxiety as well as provide an outlet for a child's anger. Anger is often the most apparent reaction to parental separation. Young children especially boys are described (Wallerstein & Kelly, 1980) as usually very angry with the remaining parent, most frequently the mother, for causing the father to leave. Boys in the preschool years, have begun to acquire their male identity and most often it is the father who leaves.

Children also feel angry at being manipulated by the parents into keeping tabs on the other spouse—playing the role of double agent as Troyer (1979) puts it. Children he claimed "[live] in one camp but [make] regular forays into the other...[are] subjected to mixed loyalties...[are] recruited against their will...they hate it...their response is one of anger, weariness and irritation".

Through discussion, role-playing etc., children come to know that they are not unique, that there are many other children just like them who feel the same 'bad' feelings that they feel and are hiding. Such

activities are particularly useful in encouraging children who have reacted to divorce and/or separation by becoming withdrawn, or for the child who is fantasizing or refusing to accept that the parents are divorced. Teachers need to be especially aware of these types of reactions.

Many children of separation and divorce experience difficulty in concentration and tend to spend a lot of time daydreaming. They search for potential words and behaviors that might effect a reconciliation of their estranged parents. Teachers may also have to cope with a 'time on task' a mutual monitering game can be helpful. One teacher (Learning, 1986) reported that spending a few minutes with a child at the beginning of a task often helps the child to settle down and concentrate on his work. Another teacher bought a teddy bear for a particularly disturbed child, gave him a special corner of the classroom and made the child responsible for all assignments, which were given to the teddy bear. The child, who was in charge of the teddy bear and making sure the work was done, earned an ice cream or some other treat when teddy did well.

Exercise, yoga and relaxation activities are important for all children but most especially for these children. In fact a good balanced classroom program alternating between active and quiet activities can help children address the physiological correlates of the stress they are experiencing. Teachers who become familiar with the physical symptoms of the child's emotional disturbance can often tell by looking at the child's face what s/he is feeling. Good nutrition is also an important factor in coping with stressful situations and insofar as it is possible in the classroom, teachers can place an ongoing emphasis on good eating habits explaining this to children using language that the child can understand. Schools should be encouraged to offer regular training in survival skills, for example, how to call the fire and police departments, how to prepare nutritional snacks.

Teachers must try to win parents over, since they are one of the most significant influences in the child's life. Teachers must not only invite parents to share in the child's educational experiences but impress them with the advantages of their participation. Fredericks (1988) insists that it is vitally important to give parents time to absorb the implications of the parent-school relationship, which for the concerned teacher anxious to discuss the child's problems may be

very difficult. He suggests that teachers involve the parents in a variety of participatory formats and cut down on the 'telling' approach. Opportunities to observe, to brainstorm and to solve problems with other parents, to participate in some guided practice can give parents a feeling that they can promote and encourage achievement and good behaviors in their children.

It is important that teachers schedule conferences and visits at times when the single parent can come. Teachers when conversing with parents should avoid using terms such as 'broken home and latchkey' as parents are frequently sensitive to them. Teachers also need to be sensitive to the fact that after a divorce a child's family may no longer be able to afford field trips or special outings. The school should make sure that such learning opportunities, do not discriminate against children and further diminish their vulnerable self- concept.

Schools can organize a single parents support group in the school. These groups allow parents to help each other and to get together for recreational activities with their children. Resources and survival skills for single parents [e.g. Survival guide for busy parents (1983)] can be discussed, tried out and experiences shared.

Colleges of education typically do not provide training in home/school relationships. This situation should be addressed so that the neophyte teacher in the classroom has some confidence in managing both children and parents who may need help. What the child for the most part needs is a caring professional not a best friend. Practising teachers need to demand more inservice training to update their skills and information.

Conclusion

Walberg (1984), speaking of two parent families, remarked that parental care invested in children can differ as much as five times from family to family. He claimed that the "curriculum of the home" is twice as powerful as socioeconomic status in determining how well a child learns. Today's teachers would undoubtedly agree as more and more classroom problems are reflecting problems of the home. Indeed what might be deemed "the broken home curriculum" is fast becoming the most challenging problem that teachers have yet encountered.

From the limited documentation available it appears that at least some teachers believe that they have no choice but to accept this challenge since it is possible that at least half of all children from broken homes are experiencing serious emotional blockages to learning. Perhaps even more challenging is the fact that teachers must try and deal with the parents of these children. They must try and find ways to win their participation and cooperation in handling not only the problems of the child but also their colloboration in promoting the child's education. This is far from easy since teachers typically have little or no training in parent/home relationships much less in providing counseling and emotional support strategies. In fact, in high school which is where traditionally school counselors are normally placed, teaching and counseling have been separated. Only rarely is a trained counselor assigned to an elementary school or to service children in the early years. The entire question of who should work with the troubled young child - teacher? - counselor? - or a combination of the two, is yet another important dimension of this area which has to be addressed.

School systems can no longer shut their eyes to the presence of these children in classrooms and the problem they bring with them. They must address the new demands on the time, competencies and energies of teachers especially as the statistics on divorce, separation and working parents show little signs of decreasing. Each day produces more and more children who are facing emotionally draining situations that can and likely will block learning.

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Celebrating Young Children

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Internationally known British early childhood educator

It is characteristic of man that he constantly seeks to make progress, that is to advance towards improvement in his situation. As a result children grow up in a rapidly changing world. Do we really need to ask how far the knowledge and skills of today enshrined in a core curriculum equip children for their world of tomorrow? Can we predict what their needs will be? Do we not make better use of their childhood years by helping them develop the skills of learning and so educate them to welcome as an exciting challenge the demands of a world about which we are only able to speculate?

We could go as far as to say that the effect of an educational system on children is most readily assessed by the extent to which they remain avid learners on leaving school. Do we in fact turn out future citizens who love learning for its own sake, whose thirst for learning remains the driving force of their being for as long as they live to explore this earth?

Children are born well equipped to learn and nature ensures that they are experts. Movement is life and movement brings the child's senses into contact with the environment. Random movements give place to intentional encounters and each encounter provides information which is fed into the mind where it is processed, thus enabling the child to construct an inner mental model of the external world. An inbuilt grab mechanism ensures that the child holds the world in the hands and so learns directly from it. It seems not to matter what the world into which the child is born might be, the thrust towards life, towards survival, towards understanding the world persists even though the child be born beneath the debris of a Mexican earthquake. The end product is man, earth's most efficient learner and man alone of the animals has learned how to live in all parts of the earth and seeks ways of living beyond Earth in many parts of the universe.

What then are the skills of learning which will enable the child to remain a supreme learner and maintain the impetus toward life inherent from birth. They could be identified as independence, initiative, organization and communication. Independence and initiative come with the child as part of nature's equipment. The child needs our help in developing the skills of organization and communication.

The birth cry, a demand for air, is a declaration of independence. "I can breathe by myself: you can sever me from the life-support system". From that moment a child most loves and respects the caring adult who respects and encourages independence. We are patient while the child struggles to put on socks and fasten buttons, sweep the pathway and put away the dishes, climb stairs or wash hands. Initiative is the twin of independence and watching a child pursue a self-determined purpose leaves us in no doubt about his or her ingenuity.

Although children possess innate abilities to discriminate, sort and order, they need help in organizing their work and good powers of organization are essential when working under ones own steam. When the three-year-old child works to compile a scrap book, do we assemble equipment and materials, or do we help the child to think through what is required. It takes longer, much longer, with little to show for time spent, to assemble the blank pages, the magazines containing pictures, the scissors and paste required for the task. Is this time wasted, or time invested in future operations?

By communication, do we mean merely the ability to record, extend and exchange, or do we mean what is ultimately the main purposes of life, that of using one's gifts in service to others? Every child is gifted. It is the responsibility of the caring adult to help each child identify and develop his or her unique gift and then to enable each child to find some means of using this gift in the service of others. By this means may each child experience personal fulfillment.

Mere achievement or attainment is but a step along the way towards recognizing one's purpose in life. It is the birthright of every human being to be fulfilled in the sense that what he or she can contribute to mankind improves the quality of life.

Children do not approach learning empty-handed, totally dependent on the nurturing skills of their caretakers. Each young child sets about learning immediately and with sustained enthusiasm. When ones own limitations are not known, anything seems possible. There is a whole world from which to learn and the dedication and concentration applied to the task are characteristic of children who are exploring the world for the first time. A beetle skuttling beneath a stone, rain evaporating, the exciting behaviour of sand; every moment presents endless fascination to the curious child. What robs children of such energies? What is done to them?

Even the youngest child possesses a thirst for understanding and yet we waste so much of this time expecting him to memorize rather than think and imagine. For our own benefit we instruct as a means of obtaining rapid results which match the tests. Memory, the weakest faculty of the mind, fails to retain that which is of little interest or of immediate use. When an individual has shed all he memorized, what is left is his person. That which is understood is absorbed, assimilated and internalized to become the way of life of the individual.

Children have not lived long enough to have much sense of time passing or duration. As a result they bring a timeless quality to learning, time to get completely caught up in something more important than self. Rarely do we as adults experience the sweet release of having oneself off ones mind, yet this is the way children live for much of their time.

Children learn everywhere and all the time. Even sleep provides the opportunity for what has been experienced to be assimilated. Those materials which most readily excite their senses are the ones from which they essentially learn. It is the simple materials of earth itself, the materials which challenge man to devote ways of making use of them for his own purposes, which most readily engage the child's senses, sand and soil, rocks and stones, water and wind, wood, sound and light; these are what provoked man to invent tools for handling them efficiently. Men eventually devised an encoding system which enabled him to retain what he learned, to exchange learning with others and to transmit accumulated learning to the next generation. It is from the stuff of the earth itself that all aspects of learning have arisen. Simple materials and man-made materials and equipment provide the basis of learning.

We speak of a core curriculum. What can it be other than to learn as much as possible about the physical world, about the people it harbours, shelters, nourishes, challenges, and delights. And within the heart of that learning to create ones own person.

What purpose do caretakers serve in the child's magnificent task? How do we most effectively invest ourselves in the future generation?

In preparation for the job we have two major commitments. We need to hold a set of pesonal beliefs about children, generated by what children have to teach us through observing them. Such beliefs are irrefutable and enable us to work with integrity. They provide us with inner voices to which we should listen.

At the core of conviction is the willingness to respect the rights of children and these we could identify as follows:

Children have the right to be treated as learners. Growing up they are in the power of adults who already know all the rules. Make a false step and you've had it. By what means does a small child understand sharing when he/she has only just discovered that there is a me and what is meant by mine? Nature ensures for the human child a prolonged period for learning, for the difference between the totally unlearned state of the human baby and what ultimately he will accomplish is incredibly vast. The more intelligent the organism, the better endowed it is to play and playing, living and learning are the total way of life for the young.

Children have the right to be immature, to live fully at each stage, free from the pressure of those whose sole aim seems bent on forcing growth beyond what comes naturally. The speed of growth and development is steep enough during the formative years. What can possibly be the advantage of performing at 8 year old level while you're still 6? The best possible prepration for being 7 is to live fully for 365 1/4 days being 5. Forced growth results in hollow fruit. Anything worthwhile takes time to grow.

Young children have the right to be imaginative. Of all the mental faculties, imagination is the most powerful. It begins to develop by about the age of 3 at a point when the mind has acquired a store of mental images with which imagination can function. Make-believe is a young child's perogative. Early images remain part of ones personality for life, helping or hindering, and we need to ensure that

early impressions and memories are vivid, helpful and of the highest quality.

Children have the right to be accepted and understood. They come with widely varying gifts and not all parents are blessed with little darlings. The fact that the early years are formative may be interpreted in two irreconcilable ways, depending on the adult view of early childhood. We may seek to mould the child into a pattern which matches our design on him, or we may help the child to become what he is best able to be.

Far too often parents and teachers set out to shape the child according to some idea in their own minds. "I want my child to become a..." based frequently on some notion of one's own unfilfilled promise. Through parents children are given birth. Through caretakers children may be helped to become themselves. They are not our possessions. The fact that we are entrusted with life does not give us the right to determine the life pattern.

The spontaneity of children endears us to them. How often do we disapprove and from the child's point of view become inconsistent? We encourage them to "tell the truth" yet expect them to thank Auntie profusely for the hand-knitted scarf when what they really want to say is "it feels scrubby round my neck and I'd rather have a bag of candy please, Auntie".

Perhaps the most important right of all is the right to become one's best self. Growing up is a full-time job. Each child is reared not only within the family and school, but equally within the community. Every member of the community has in some way responsibility for the rearing of the young. From time to time almost everyone with whom a child comes into contact affects the development of that child, as he seeks to understand significant adults by exploring the role they represent to him. We touch the lives of children in no uncertain way and we may never know the effect our impressions may have on them. Education is a concern of the whole community and the right to grow up as oneself is the best possible way of ensuring the progress and stability of tomorrow's world.

We are the privileged. To work alongside the child as he seeks to discover, understand and shape his world may enable us from time to time to enter into the beauty of childhood.

Investing the best of ourselves in our children and then leaving them free to grow in their own directions as individuals is our purpose. We work with faith for we may never know how far we have succeeded, and that faith is what children give us when we become humble enough to learn from them.

Editor's Note: This article is based on a keynote address given at the 1988 CAYC Saskatchewan Conference held in Regina.

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Guidelines for Authors

Canadian Children is the journal of the Canadian Association for Young Children (CAYC), the only national Association specifically concerned with the well-being of children of preschool and elementary school age in Canada. The journal is published twice yearly and contains articles, book reviews and announcements of professional conferences.

Canadian Children is a multidisciplinary journal concerned with child development and early childhood education. Authors from across Canada and elsewhere are invited to practice in early childhood education and child rearing.

Content: Submissions should be designed to appeal to an audience comprised of parents, professionals in the field of childhood education and child services, as well as teacher educators and researchers. The following topics are a sample of the types of articles which would be considered: innovative programs for young children, early childhood classroom practices, current research and theory in the areas of family life, parent-child relationships, child rearing, child growth and development, and early childhood teacher education and training. The Editor is very interested in receiving manuscripts which focus particularly on early childhood programs in Canada, national or provincial issues concerning child care and education, or the history of child rearing and childhood education in Canada.
Most issues are multi-theme in nature and the Editor will attempt to balance articles that are research related with articles of a practical nature relating to programming, curriculum, classroom practice or child rearing.

Form, Length and Style: Articles may be of varying length, written in a readable style. Style should be consistent with an acceptable professional manual such as the *Publication Manual (3rd edition) of the American Psychological Association.* Three (3) typewritten double spaced copies on 21.5 x 28 cm (standard 8-1/2 x 11") paper should be mailed directly to the Editor at the address listed below. If appropriate, authors should send accompanying black and white glossy print photographs, tables, figures or illustrations with complete captions, each on separate pages. Authors are to obtain releases for use of photographs prior to mailing. Authors' names should appear only on the covering title pages for the purpose of review. Additionally the introductory letter should include a brief biographical sketch including full name of author(s), title, affiliation with university, college, shcool or program, and relevant personal or academic information, i.e. persons assisting author, grant support, funding agency. It is expected that authors will not submit articles to more than one publisher at a time.

Review, Acceptance and Publication: The Editor will review all solicited and unsolicitated manuscripts received and will refer selected submissions to at least three reviewers external to the editorial committee. The final publication decision rests with the Editor, who is guided by the recommendations of the reviewers. Acknowledgement of receipt will be sent immediately and authors will be notified of the Editor's decision within three months. Manuscripts not accepted for publication will be returned only if a stamped, self-addressed envelope is included. Manuscripts accepted for publication may need to be edited to conform to journal standards prior to publication. Accepted manuscripts will be published according to projected pub-

lication needs. Authors will recieve one complimentary copy of the issue in which their article is published.

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L'Association Canadienne Pour Les Jeunes Enfants

Qu'est-ce que l'ACJE?

L'Association canadienne pour les jeunes enfants est née du Council for Childhood Education. Elle a reçu ses lettres patentes fédérales en 1974. C'est l'unique association nationale spécifiquement vouée au bien-être des préscolaires et des préadolescents. Ses membres viennent du Canada, des États-Unis et d'autres pays; enseignants, adiministrateurs, parents, étudiants et autres personnes appartenant à diverses disciplines.

Buts de l'ACJE

1. Travailler à l'épanouissement et au bien-être de l'enfance.
2. Encourager les conditions et les méthodes et les programmes relatifs aux besoins de l'enfance.
3. Encourager un perfectionnement professionel contenu dans le domaine de la connaissance du développement de l'enfant.
4. Encourager une collaboration active entre les groupes intéressés à l'enfance et au développement de l'enfant.
5. Disséminer l'information relative au développement de l'enfant.
6. Promouvoir la coordination entre tous les organismes Canadiens intéressés au bien-être de l'enfance.

Mise en oeuvre des buts l'ACJE

1. *L'assemblée générale*
   Elle constitue le grand événement de l'année. On y entend des communications par des autorités internationales dans la domaine de l'enfance et on procède à des ateliers et à des discussions, comme à des démonstrations, des visites d'école et d'autres activités susceptibles d'intérêt.
2. *Les événements provinciaux et locaux*
   Les membres des organisations aux niveaux provincial et local, sont encouragés à mettre sur pied des événements qui se rapportent aux questions et préoccupations relatives aux jeunes enfants. Ces événements peuvent revêtir la forme de conferences, séminaires ou congrès local.
3. *Le journal*
   Un publication multi-disciplinaire de premier ordre, le journal paraît deux fois par an. Ce journal présente des articles traitant de questions d'éducation et de formation des jeunes enfants écrits par des experts bien connus sur le plan national et international.
4. *Le bulletin*
   Publié à intervalles réguliers, le bulletin traite de questions d'intérêt national et international.

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