chapter 2

What Can We Learn from Reggio Emilia?

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Although the saying that "travel broadens the mind" is a well-worn cliché, it still has some validity. It seems to me that travel is broadening not only because of the new things we see, but also because of what they make us think about, for example, reflecting in new ways about old things—those we might have taken for granted, or perhaps never questioned before. Seven visits to Reggio Emilia since my first one in 1990, and many subsequent discussions with the educators in Reggio Emilia and other knowledgable colleagues have provoked me to think again and anew about many aspects of early childhood education. Some of these thoughts are outlined as seven lessons in this chapter.

GRAPHIC LANGUAGES AND PROJECT WORK IN EARLY CHILDHOOD

One of the most impressive features of the Reggio Emilia approach is the way their young children are involved in extended in-depth investigations. The inclusion of long-term investigation projects is not new to preschool or primary education. It was a main feature of the Progressive movement spurred by
Dewey and his colleagues in the early 20th century, widely used during the “Plowden Years” in Great Britain in the 1960s and 1970s, and adopted by many Americans under the name open education at that time.

In the book Engaging Children’s Minds: The Project Approach (1989), written before the Reggio Emilia approach had come to our attention, Sylvia Chard and I presented our rationale for including project work in early childhood programs, and guidelines for its implementation. We use the term project work to refer to in-depth studies of particular topics undertaken by groups of young children (Katz & Chard, 1989). From our point of view, project work is designed to help young children make deeper and fuller sense of events and phenomena in their own environment and experiences that are worthy of their attention. Projects provide the part of the curriculum in which children are encouraged to make their own decisions and choices—usually in cooperation with their peers and in consultation with their teachers—about the work to be undertaken. We assume that such work increases children’s confidence in their own intellectual powers, and strengthens their dispositions to continue learning (see Katz & Chard, 1989, especially Chapter 2).

In the course of a project, for example, on a topic such as “What happens at the supermarket?” or “How houses are built,” children explore the phenomena first-hand and in detail over an extended period of time. The activities of the children include direct observation, asking questions of relevant participants and experts, collecting pertinent artifacts, and representing observations, ideas, memories, feelings, imaginings, and new understandings in a wide variety of ways including dramatic play. Most preschoolers—at least at age 3 or 4—are not yet easily able to represent their observations, thoughts, and new knowledge in writing. They may, of course, dictate their thoughts and observations to others who can write for them.

The first major lesson from Reggio Emilia is the way their young children are encouraged to use what they call graphic languages (Rinaldi, 1991) and other media to record and represent their memories, ideas, predictions, hypotheses, observations, feelings, and so forth in their projects. Observations of the children at work in Reggio Emilia reveal how a wide variety of visual media are used to explore understandings, to reconstruct previous ones, to construct and to coconstuct revisited understandings of the phenomena investigated.

Certainly most early childhood educators in the United States have long acknowledged that young children can explore and express their feelings and understandings verbally, visually, and through dramatic play, and typically encourage children to do so. The Reggio Emilia experience, however, demonstrates convincingly that preprimary children can use a wide variety of graphic and other media to represent and thereby communicate their constructions much more readily, more competently, and at a much younger age than we (in the United States and other countries) have customarily assumed. The Reggio Emilia children’s work suggests to me that many of us seriously underestimate preschool children’s graphical representational abilities, and the quality of intellectual effort and growth it can engender.
FIGURE 2.1. Children’s collective drawing of their experience at the supermarket. From the booklet “Noi Bimbi e Lui Gulliver” (“Us Kids and Him Gulliver”), Ada Gobetti School, 1984, Education Department, Reggio Emilia.
Figure 2.3. Children's comments following a visit to the closed supermarket

It is as large as a forest.
You could get lost in it, just like on the Via Emilia.
It is as huge as the whale of Pinocchio.
It looks like a swimming pool.
The man in the supermarket divides things in half, half on one shelf and half on another one.

FIGURE 2.4. "The Mystery of the Cashier's"—Detail from Figure 2.1.
By way of example, a group of 4- and 5-year-olds of the Ernesto Balducci school in Reggio Emilia undertook an extended study of an exceptionally large cooperative supermarket in their neighborhood. A study of a store is a fairly popular topic in many preschools and kindergartens in the United States as well. However, several features of the project as conducted by the children in Reggio Emilia are especially noteworthy.

First, the children made several visits to the market, including one when it was closed. In this way, they were able to get a close look at various features of it, sketch many of the objects and elements that impressed them, and run up and down the aisles undisturbed by shoppers, noting anything of interest about the facility, including how their voices sounded in such a large interior space (see Figure 2.1).

Detailed drawings of the supermarket, the rows of shopping carts, the counters with a variety of merchandise, shoppers with or without shopping carts, with or without children under foot, the cashiers (see Figure 2.4), and so forth, are captured in remarkable detail in the composite drawing of the supermarket scene.

However, the drawings alone would mean relatively little without the teachers' documentation of what the children said about what they observed and experienced (see Figures 2.2 and 2.3). The children's recorded comments and discussions provided teachers with knowledge of the children's levels of understanding and misunderstanding of these everyday phenomena.

The children also shopped at the supermarket, giving due attention to preparing the shopping list, paying for their purchases, receiving change, and then using the items for cooking on their return to the school. Some of the children also interviewed the manager and put a barrage of questions to him about what is involved in being the "boss" (see Figure 2.5 and 2.6).

The children also submitted their "wish list" to the manager reflecting what they thought should be added to the facility: a television viewing room, comfortable rest room facilities, playground, a place to play with dolls, and so forth. Many of the desired additions are beautifully illustrated by a combination of drawings

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**Figure 2.2. Children's comments about the visit to the supermarket.**

<table>
<thead>
<tr>
<th>What do you like to do at the supermarket?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push the carts.</td>
</tr>
<tr>
<td>Touch the merchandise.</td>
</tr>
<tr>
<td>Climb on the shelves.</td>
</tr>
<tr>
<td>Run up and down.</td>
</tr>
<tr>
<td>Ask questions to everybody.</td>
</tr>
<tr>
<td>Eat pieces of cheese.</td>
</tr>
<tr>
<td>To know what is behind the closed doors.</td>
</tr>
<tr>
<td>Buy everything.</td>
</tr>
<tr>
<td>Look at myself in the mirror.</td>
</tr>
</tbody>
</table>
FIGURE 2.5. “Interview with the boss.” (From the booklet, Not Bimbi e Lui Gulliver)

Figure 2.6. Children’s comments related to the manager and drawing.

<table>
<thead>
<tr>
<th>Questions about the manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is the manager?</td>
</tr>
<tr>
<td>He is the one who gives money away.</td>
</tr>
<tr>
<td>He is the president.</td>
</tr>
<tr>
<td>He is the one who watches out to see if anyone steals the money.</td>
</tr>
<tr>
<td>He gets up early in the morning, opens the doors, and organizes everything.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Questions to the manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you a boss?</td>
</tr>
<tr>
<td>How many people do you direct?</td>
</tr>
<tr>
<td>How do you become a manager?</td>
</tr>
<tr>
<td>Do you get more money than the others?</td>
</tr>
</tbody>
</table>

superimposed on photographs of furnishings apparently cut out of newspapers or magazines. In addition, many children developed their own designs for packages of cereal, crackers, detergent boxes, and the like. The children also constructed a market in the classroom and enjoyed the dramatic play greatly enriched by their close observation of the objects, people, and events they observed at the market.
Of course, one could ask why bother to undertake a project on such a mundane topic as a local supermarket—something children experience frequently and directly. After all, in a year or two, all the children will know that the cashiers do not take the money home, and that they do not decide the price of an item on the basis of their own personal tastes. So why not study something outside of the children’s daily experiences? Many U.S. teachers prefer to introduce esoteric topics with which they hope to capture or excite the children’s interests, presumably under the assumption that everyday objects and events are uninteresting. However, the work of preschoolers in Reggio Emilia indicates that the processes of “unpacking” or defamiliarizing everyday objects and events can be deeply meaningful, interesting, and instructive to them.

Furthermore, when the topic of a project is very familiar to the children, they can contribute to the project from their own knowledge, and suggest questions to ask and lines of investigations to pursue; the children themselves can take leadership in planning, and can assume responsibilities for specific observations and information and artifacts to be collected and closely examined. Such projects that involve young children in investigating real phenomena offer them an opportunity to be the natural scientists or anthropologists they seem born to be. On the other hand, if the topic of a project is exotic and outside of the children’s direct experience, they are dependent on the teacher for most of the questions, ideas, information, thinking, and planning. Young children are dependent on adults for many aspects of their lives and their learning experiences; however, project work should be that part of the curriculum in which their own interests, ideas, preferences, and choices can be given relatively free reign.

Another value of project work is that extended studies of particular phenomena undertaken in project work give young children early experience of knowing and understanding a topic in depth. As Inagaki (1992) pointed out, having experience of knowing a topic in depth can be highly rewarding for young children. Such early experience of feelings of mastery can also cultivate and strengthen a disposition to seek in-depth understandings of topics—a disposition that can serve children well throughout their development and education.

It should also be noted that sometimes the teachers in Reggio Emilia undertake a project on a topic of unpredictable or uncertain value. Willingness to explore a topic that might not work very well is part of their commitment to experimentation, and to exploring together with the children what kinds of experiences and ideas might emerge from an experiment. In one of the Reggio Emilia preschools, the children engaged in an extended project about the solar system and space travel—phenomena hardly in their direct or immediate experience. The topic was not initiated by the teachers; it grew out of the children’s animated response to a large poster of the solar system brought to the school by one of the children. The children’s great interest in various Star Wars characters seen in films, television, and their toys was evidently partly responsible
for their positive reactions to the poster. The paintings, drawings, clay work, and large complex space station made by the children suggest that their understandings of the solar system remained substantially pre-Galilean! However, their imaginings about life on a space station, space travel, rocket launching, space vehicles, space creatures, and so forth were richly and skillfully depicted in drawings, paintings, clay, and papier-mâché, including the large space station constructed with a wide variety of materials.

It seems to me, then, that a first lesson from the Reggio Emilia approach is that preschool children can express and communicate their ideas, understandings, imaginings, observations, and feelings through visual representation much earlier than most U.S. early childhood educators typically assume. The representations the children create with such impressive skill can serve as bases for modifying, developing, and deepening understandings, and as a basis for hypotheses, discussions and arguments, often leading to further observations and fresh representations. Using this approach, we can see how children’s minds can be engaged in a variety of ways in the quest for deeper understanding of the familiar world around them.

TREATING CHILDREN’S WORK SERIOUSLY

Observing the care with which such young children use the graphic languages such as drawing and painting suggested another lesson concerning the possible effects of adults’ treatment of children’s work on its quality. It seems to me that the Reggio Emilia children approach the task of representing what they are studying through drawing, purposefully and assiduously, because they have a lot of experience using their drawings. They are are accustomed to using their own field drawings as bases for discussion, argument, and further work, such as making group murals, sculptures, and paintings. Refering to the media of visual representations as graphic languages, educators in Reggio Emilia speak of children “reading” their own and each others’ drawings. Teachers transcribe the recorded comments and the discussions of the children at work; with this documentation, the drawings are read and reread by the teaching staff as a basis for planning the next steps in the project. The care with which the children’s work is stored and displayed (as discussed in Gandini’s Chapter 9) also surely conveys to children a sense of the importance of their work that further encourages them to attend to it with concentration and care.

In American schools, children’s graphic representations may be treated as mere decorative products to be taken home at the end of the day, most likely never to be discussed or looked at again. In Reggio Emilia, graphic representations serve as resources for further exploration and deepening knowledge of the topic.
REALISTIC AND IMAGINATIVE REPRESENTATION

A third lesson from the Reggio Emilia preschools’ experience is that children’s extensive experience of drawing from observation does not appear to inhibit their desire or ability to draw and paint from the imagination or fantasy. Contrary to the fears of many U.S. early childhood educators, the work of the Reggio Emilia children suggests that an either/or choice is unnecessary: The children appear to be competent in representative and creative or unrepresentative, realistic and abstract visual expression. In other words, experience of the former does not necessarily damage the competence or desire to engage in the latter.

Because of the high level of competence evident in the Reggio Emilia preprimary schools, it is understandable that many U.S. educators label it art education, or art instruction; some even assume that these schools are art schools. Such characterizations seem to miss a major point: Visual and graphic languages provide ways of exploring and expressing understandings of the world that are easily available to most preschoolers. The visual arts are integrated into the work simply as additional languages available to young children not yet very competent in conventional writing and reading; the arts are not taught as a subject, a discipline, a discrete set of skills, or treated in other ways as a focus of instruction for their own sake.

This not to suggest that the children are not given directions and guidance in the use of the tools, materials, and techniques of graphic and visual representation. Of considerable interest is the way such teaching (vs. instruction) invariably includes giving the child—in simple form—the principle underlying a suggested technique or approach to materials. The inclusion of the principle within a suggestion increases the chances that the child will be able to solve the problem when the adult is not there—an appropriate goal of teaching at every level.

It should be kept in mind that the Reggio Emilia children—especially the younger ones—engage in many other activities besides project work. Opportunity for a whole range of spontaneous play with blocks, dramatic play, outdoor play, listening to stories, cooking, housekeeping, and dress-up activities, as well as “one-shot” activities like painting, collage, and clay work are available to all the children daily. All children are also encouraged to be involved in an extended project throughout their years in the school. Of course, some children draw, paint, and create more skillfully than others. But the extensiveness of early experience of expressing and communicating their ideas and observations graphically during the preschool years helps explain the impressively high level of competence.

In sum, a useful lesson of the Reggio Emilia approach is that there is no reason to believe that teachers must choose between encouraging realistic or imaginative visual expression as two mutually exclusive alternatives.
THE CONTENT OF TEACHER–CHILD RELATIONSHIPS

The fourth lesson to be drawn from observations in Reggio Emilia preprimary schools concerns the content of the relationships between adults and children. My underlying assumption is that individuals cannot just relate to each other: they have to relate to each other about something. In other words, relationships have to have content of mutual interest or concern that can provide pretexts and texts for the interaction between them.

In his studies of the Oxford preschools in England, Bruner (1980) showed that the content of the teacher–child interactions was predominantly about managerial issues. He lamented, for example, that of nearly 10,000 units of observation, only 20% contained genuine conversations, and he pointed out that the nursery classes observed were organized so that it was difficult for connected conversations to occur. He also pointed out that “a high proportion of adult-initiated interaction with children was given over to the boring stuff of petty management—housekeeping talk about milk time, instructions about picking up, washing, and the like” (Bruner, 1980, p. 61).

As far as I know, there are no comparable large-scale data on the content of interactions between preschool teachers and children in the United States. However, it is my general impression from observations of early childhood settings all over the United States that the content of teacher–child relationships seems similarly focused on the routines and the rules of classroom life, especially during informal activity periods. When children are painting or drawing, teachers seem very reluctant to engage the children in any kind of conversation at all. When children are filling in worksheets and workbooks, teachers are understandably eager to give positive feedback, and therefore frequently say things to them like “You did well,” “That’s the right idea,” “Very good,” and similar general positive comments. In other words, the content of the relationships between our teachers and their pupils tends to be dominated by information about the child’s conduct and level of performance. Thus it seems that the content of relationships between teachers and children in our early childhood settings, when not focused on mundane routines, is about the children themselves.

In contrast, my impression of Reggio Emilia practices is that to a large extent the content of teacher–child relationships is focused on the work itself, rather than mainly on routines or the children’s performance on academic tasks. Adults’ and children’s minds meet on matters of interest to both of them. Both the children and the teachers seem to be equally involved in the progress of the work, the ideas being explored, the techniques and materials to be used, and the progress of the projects themselves. The children’s roles in the relationships were more as apprentices than as the targets of instruction.

Such relationships have several benefits. The first is that the children’s minds are engaged in challenging work, including, for example, discussing their inten-
tions, making decisions about what to represent, how to represent it, how to coordinate the efforts and resolve conflicting views of the various contributors to the project, and so forth. Second, because the teachers and the children’s minds meet on matters of real interest to both, teachers’ minds are also engaged. They seem intent on listening closely to the children’s suggestions and questions, probing their thinking, making suggestions, and encouraging children to respond to each others’ ideas. They are also intent on not overassisting the children (Rabitti, 1992).

Because there are no formal prespecified lessons that all children must learn, teachers can create activities that can contribute to developing childrens’ more appropriate understandings of the topic. Thus the content of the teacher–child relationship is rich with problem setting and problem solving. The work of the projects provides ample texts, pretexts, and contexts for extensive conversations between the adults and the children, as well as among them. Hawkins (1986) pointed out that the child and his or her behavior is appropriate as the main content of a relationship between an adult and a child only if the adult is a therapist and the child is the patient: “A teacher has a unique role….It is not the role of mother or therapist or peer, but that of one who values learners and learning professionally” (p.35).

In summary, comparing Reggio Emilia preprimary schools to those I typically see in North America and elsewhere suggested to me that one way the quality of a preschool program can be evaluated is to examine the content of adult–child relationships. A program has intellectual vitality if the teacher’s individual and group interactions are mainly about what the children are learning, planning, and thinking about, plus their interest in each other, and only minimally about the rules and routines.

CHILDERN’S SENSE OF WHAT ADULTS THINK IS IMPORTANT

Like most visitors to the Reggio Emilia preprimary schools and viewers of The Hundred Languages of Children exhibit, I frequently wondered how such an exceptional level of competence in graphic representation is achieved. One hypothesis is that the children work at their representations with concentration and care because, like all other young children, they sense what is important to the adults around them. At some level we may not be able to specify, the children are aware of what the adults really care about, what they judge to be interesting, worth doing, worth probing, and worthy of their time and serious attention. The children know what the adults take great pains to explain, take pictures of, make notes about, and display very carefully. Because teachers often repeat to children what they might have said during a previous discussion, the children learn to treat their own and others’ ideas seriously. The children also seem to sense what the adults talk
about to each other, bring to the attention of their parents, and show to a steady stream of interested visitors. Therefore the children know—perhaps at a preconscious level—that the adults take the children’s work and ideas very seriously.

However, the ability of young children to sense what the important adults in their lives really care about is likely to be universal. Thus all teachers might ask: What do most of my pupils really believe I take seriously and care deeply about? Awareness of what adults value should not be confused with what provokes adults’ praise and flattery; rather, I have in mind children’s awareness of what adults take seriously enough to make suggestions about, ask for clarification about, urge children to look at again, reconsider, and perhaps do over again.

Theoretically, of course, it is possible that in some cases, the answer to the question “What does my teacher really care about?” might be “nothing.” However, in the absence of any reliable information relevant to this question, let us assume that all teachers convey some messages to their pupils about what aspects of children’s effort and behavior really catch their serious attention, deep interest, appreciation, and sometimes true delight. By comparison, my impression is that in the United States we are not as likely as we could be to help children sense that their intellectual quest is of deep interest and importance to us. In many of the early childhood programs I see, adults’ serious attention is most likely to be stirred when something among the children is amiss or disturbs routine activities, rather than when the construction of understandings is the main focus of activity. I suspect that because, on the whole, we overestimate children academically and underestimate them intellectually, we miss moments when our attention could convey to children that their ideas are important. This is not to suggest that a sense of what teachers deem important can be conveyed explicitly by lecturing or preaching to the children about it. Rather, even very young children are most likely making inferences about what adults care about based on multiple observations of the adults’ actual behavior in context.

An important lesson then, from our colleagues in the Reggio Emilia preprimary schools is that when adults communicate genuine and serious interest in the children’s ideas and in their expressions of them, rich and complex work can result, even among very young children.

THE ROLE OF DOCUMENTATION

The sixth lesson, and perhaps the most unique contribution of the Reggio Emilia approach to early childhood education, is the introduction of documentation as a standard part of classroom practice. It seems to me that the careful documentation characteristic of their schools provides four fundamental and equally important improvements to early childhood education.
First, it contributes to the extensiveness and depth of the learning gained by the children from their projects and other work. As Loris Malaguzzi points out (Chapter 3), through documentation the children “become even more curious, interested, and confident as they contemplate the meaning of what they have achieved” (p. 70). Experience and observation of the children in Reggio Emilia also indicates that children learn from and are stimulated by each other’s work that is made visible through documentation.

Second—and some might insist that this point be first—the documentation makes it possible for parents to become acutely aware of their children’s experience in the school. Again, as Malaguzzi (Chapter 3) puts it,

documentation introduces parents to a quality of knowing that tangibly changes their expectations. They reexamine their assumptions about their parenting roles and their views about the experience their children are living and take a new and more inquisitive approach toward the whole school experience. (p. 70)

Invariably, alongside the children’s work are photographs of the children at work. Transcriptions of their questions and the comments made in the course of their work are also displayed. In this way, the children can easily share their actual school experiences (and not just their products) with their parents. The enthusiasm of the children and the interest of the parents in children’s work helps strengthen the involvement of parents in the children’s learning, provides a rich basis for parent–child discussion, and deepens parents’ understanding of the nature of learning in the early years. The level of involvement of parents in the schools is reminiscent of parent cooperative nursery schools of the United States and of the preschool playgroups of New Zealand and Britain. Perhaps a new model of the parent cooperative nursery school as a way to optimize the needs of children, parents, and teachers should be developed in the United States, combining the needs of working parents with the importance of participating in their children’s school experiences.

Third, documentation is an important kind of teacher research, sharpening and focusing teachers’ attention on the intentions and understandings of the children as well as their own role in children’s experiences. It provides a basis for the modification and adjustment of teaching strategies, a source of ideas, and an impetus for the creation of new ones. Documentation also deepens teachers’ awareness of each child’s progress. On the basis of the rich data made available through documentation, teachers are able to make informed decisions about appropriate ways to support each child’s development and learning. Moreover, teachers and atelieristi in Reggio Emilia preprimary schools are often observed in intense discussion with each other about the documentaries around them.

Finally, a fourth value of documentation, of particular relevance to American educators, is that it provides information about children’s learning and progress that cannot be demonstrated by the formal standardized tests and checklists commonly employed in the United States. U.S. teachers sometimes
gain much important information and insight from their own observations of children, but the documentation of the children's work in such a wide variety of media provides compelling public evidence of the intellectual powers of young children that is not available in any other way I know of.

The powerful role of documentation in these four ways however, is possible because the children are engaged in interesting projects and other activities worthy of documentation. If, as is common in many U.S. classrooms, the children spend large proportions of time making the same pictures with the same materials about the same topic on the same day in the same way, it is unlikely that documented displays would intrigue parents and provide rich content for teacher-parent or child-parent discussion.

MODELS AND METAPHORS FOR EARLY CHILDHOOD PROGRAMS

In the processes of organizing and operating programs in preschools and primary schools, it is natural to use an underlying framework, model, or metaphor taken from other phenomena that have similar parameters. Designs for and deliberations about educational settings and the relationships within them, we use metaphors that betray the underlying models of our interpretive frameworks (Nuthall & Snook, 1973). Based on observations in the Reggio Emilia preschools, discussions with the teachers, and with others involved in them, it seemed to me that their underlying models and metaphors are different from those we customarily use in the United States.

Families and Communities as Models

One of my strong impressions of the Reggio Emilia municipal preschools is that in several ways they are modeled more on the lines of extended families and communities than most of the long-day early childhood programs seen in the United States. To begin with, the buildings in which their preschools are housed are more like large homes than most of our preschools, and certainly more so than our typical kindergartens within elementary schools. Each of the preprimary schools I visited is exceptionally attractive in the quality of furnishings and organization of space and in the displays of the children's work, which together create a comfortable, warm, and cheerful ambience and pleasant environment. The architecture also includes the piazza as an element of the community environment.

Although there are approximately 75 3- to 6-year-old children in each school, and about 25 in a class, the quality of life within the classes seems to achieve a homelike closeness and intimacy associated with family life that is especially appropriate for young children. The fact that the children stay with the same teacher throughout the 3 years of their participation in the program
enables them, their parents, and their teachers to form strong and stable relationships with each other, as they might if they were members of extended families and small close communities. By the time most U.S. teachers have been able to develop real relationships with parents and to know them well enough to deal meaningfully and frankly with their concerns, it is necessary to move on and get to know the next group of parents. In some of the preschools, the classes are organized into mixed-age groups providing more family-like environments than homogeneous groups can (see Katz, Evangelou, & Hartmann, 1990).

As indicated earlier in this chapter and elsewhere in this volume, a great deal of the work of the children in Reggio Emilia is done in small groups. No evidence was seen of a whole class offered formal instruction at the same time, or of being required to create the same pictures or other art products—a common sight in our schools, especially in connection with holidays like Valentine’s Day, Halloween, and Thanksgiving.

The emergent and informal nature of the curriculum lends itself particularly well to cooperative work among small groups of children mixed in age. The informal community-like atmosphere also seems to be enhanced by the comparative freedom from time pressures. The children are free to work and play without the frequent interruptions and transitions so common in most of our early childhood programs. It seems to me that the majority of our early childhood programs are organized into a rigid timetable, and are often one-shot activities started, packed up, and put away within prespecified time periods, usually counted in minutes.

The fact that Reggio Emilia children assume responsibility for some of the real chores involved in group life throughout the long day, such as setting the tables for meals, tidying up afterward, frequently working with the cooking staff, and sharing responsibility for keeping the art materials in good order, strengthens an atmosphere of communal life. The communal feeling is also enhanced by the participation of the entire staff of the preschools in all aspects of the program and the frequent long meetings of all concerned, especially parents.

Extended families are characterized by shared responsibility, intimacy, informality, and participation. The extended family seems to provide a very appropriate model on which to design early childhood programs. Communities are groups of people who can do together what they could not accomplish alone and who have a stake in each others’ well-being. Although such models are likely to have their own problems, their appropriateness can be understood when contrasted to the corporate-industrial model that serves as a basis for education in the United States.

Corporations and Industries as Models

Observations in Reggio Emilia reminded me that in the United States, the principal models and metaphors that have been increasingly adopted from the pri-
mary and secondary school level come from the industrial and corporate world and its factories. Nursery schools were developed from nurseries that were places in the home devoted to the nourishment and care of the very young. However, during the last several decades, the term nursery in the U.S. literature related to young children has been completely replaced by the term preschool—as in precooked, and preshrunk!

Child care centers, on the other hand, have often been compared to warehouses in which children were held in custody until their parents could resume their childrearing responsibilities. They are now increasingly referred to as child care programs, or even all-day preschools, as a way to discard the custodial and warehouse metaphors. It seems to me, however, that early childhood programs are increasingly in danger of being modeled on the corporate-industrial or factory model so pervasive at the elementary and secondary levels of education.

Schlechty (1990) pointed out that factories are designed to transform raw material into prespecified products by treating it to a sequence of prespecified standard processes:

In this vision, students are viewed as raw material to be subjected to standardized processes and procedures to mold them, to be tested against rigid standards, and inspected carefully before being passed on to the next workbench for further processing. (p. 22)

The industrial model assigns teachers the role of technocrats who are responsible for operating the factory machinery according to a prespecified design handed down to them, and for whom “the curriculum must be articulated with the tests that will be used to inspect the students who are the products of this controlled and rational process” (Schlechty, 1990, p. 23).

Concepts frequently used in educational discussion such as delivery systems, cost–benefit ratios, prespecified specific behavioral and learning outcomes, outcome-based curriculum, curriculum packages and kits, teacher-proof materials, and so on, betray the application of the industrial model to the design, operation, and assessment of schooling.

In a similar way, most of our official state and school district curriculum guides reflect an assumption that virtually all children should be subjected to the same sequence of instructional treatments in lock-step fashion in the interests of creating a standard product. Schlechty (n.d.) summed up the implications of this trend toward the factory model by saying that as the school becomes an assembly line where children, as raw material, are differentiated by quality on the basis of family background and measured in terms of “Academic aptitude” or ability to do the school work assigned.

The industrial model as a framework for designing and interpreting education is inappropriate in many ways at every level of education, but especially so for young children. During the early years of children’s lives, stability of rela-
tionships and the formation of attachment between children and those who care for them is highly desirable and perhaps essential. In institutions designed on the model of a factory, individuals are interchangeable; the only requirement is that the changing individuals carry out the same prespecified functions and roles in standardized ways. An industrial model also implies that education is a unidirectional process: Adults impose instructional procedures on the raw material (i.e., children) in order to change it in predictable ways.

The proliferation of numerous special categories of children and special education programs (e.g., transition classes, learning-disabled and developmentally delayed children, etc.) and the high rates of retention in the early grades are analogous to the recalls of defective products common to U.S. industry (see also Skrtic, 1991).

**Optimizing the Strengths of Families and Institutions**

A preschool program and pedagogical approach based on an extended family model is likely to have its own problems. Although preschools are not factories or corporations, nor are they families. They are institutions staffed by professionals employed to apply specialized knowledge and skills to their work in the best interests of every client.

Institutions differ from factories in that they are designed to serve people and their needs, and not to produce standardized goods. By definition, public institutions are operated according to rules and regulations to be applied uniformly to all clients, independent of the particular individuals being served or the particular professional providing the service.

Families differ from both factories and institutions in that they are particularistic and responsive to the unique characteristics, needs, wishes, and values of its members in ways marked by relatively high intensity of emotion, involvement, and attachment not possible or desirable in institutional settings. Similarly, the roles of parents and teachers are distinct from each other, and ideally allow each to make complementary but different contributions to the child's growth, learning, and development (Katz, 1995). Professionals are committed to a universalistic ethic that enjoins them to apply all of their specialized knowledge and skills impartially and equally to every child, whether they like the child or feel close to him or her or not. All of these considerations suggest that a preschool must optimize the special and essential benefits of family life to children, and it must do so within the constraints and standards essential to professional practice and institutional regulation.

The municipal preschools of Reggio Emilia show us an optimum combination of the strengths of family relationships and the integrity of professional practices par excellence in several ways. First, the inclusion and involvement of parents in virtually every aspect of the schools' functioning is deliberate and central to the planning and operation of the preschools. The quality of thought
and the amount of energy given to the establishment and maintenance of strong school–parent relationships in these schools are impressive, inspiring, and also daunting.

**SUMMARY**

I have suggested seven lessons to be learned from colleagues in the Reggio Emilia municipal preschools. First, together children and teachers examine topics of interest to young children in great depth and detail in project work and make excellent use of a variety of visual and graphic forms as they do so. The teachers seem to have higher expectations than most of us in the United States do of very young children’s abilities to represent their thoughts, feelings, and observations with the graphic skills they already have at hand, namely drawing, painting, and other graphic arts. The teaching staff act on the assumption we often give lip service to: that children have an inherent desire to grow, to know, and to understand things around them.

Second, when children have experience using their drawing, paintings, and so on, as a basis for further discussion and work, they attend to it with great care. Young children do not have to take work home every day; when they do, the work is not being used for their learning.

Third, early introduction to observational and realistic representation does not necessarily inhibit children’s abilities or desire to use the media for abstract and imaginative expression as well. Fourth, the kind of work undertaken by the children in these projects provides rich content for teacher–child relationships. Fifth, many features of the adults’ behavior convey to the children that all aspects of their work are taken seriously. This message is not communicated directly by pronouncement or announcement; it permeates the environment indirectly through a variety of actions, provisions, and strategies.

Sixth, detailed documentation and display of children’s thought and work enhances their learning, the teachers’ learning and the parents’ involvement in their children’s experiences in fundamental ways. Finally, the underlying model upon which school life is based is closer to family and community relationships than customary in the United States, where I believe early childhood programs are ill-served by the encroachment of an industrial-corporate model for their design.

Much has been accomplished by early childhood educators in Reggio Emilia over a period of a generation. It should be kept in mind as we seek to learn from them and apply some of that learning at home, that the schools are relatively well funded and supported by their community. They show us what can be achieved when a community makes a real commitment to its young children.
REFERENCES


