

Models of Teaching and Learning: Participation in a Community of Learners

BARBARA ROGOFF
EUGENE MATUSOV
CYNTHIA WHITE

The aim of this chapter is to distinguish theories of development that cast learning as a *community process of transformation of participation* in sociocultural activities from theories that cast learning as a one-sided process in which only teachers or learners are responsible for learning, either through *transmission* of knowledge from experts or *acquisition* of knowledge by learners by themselves. To distinguish these perspectives and highlight the theoretical stance of transformation of participation, we take a developmental approach by examining the transformation in understanding that occurs as adults who have been used to functioning in institutions employing transmission theories attempt to understand a new institution employing a participation theory.

Our examination of these theoretical positions makes use of observations of models of instruction held by parents who become participants in a public elementary school program (the "OC" of the Salt Lake City School District) that functions as a community of learners. In this optional program, parents are required to spend three hours per week (per child) working in the classroom.

The contrasting instructional models used by parents in the program correspond with theoretical discussions regarding who is responsible for learning. The parents' views that education should be "*adult-run*" correspond with theoretical notions that learning is a process managed by experts who transmit knowledge to learners; the views of those who argue that education should be "*children-run*" correspond with theoretical notions that learning is the province of learners who acquire knowledge through their active exploration; and the views of those who propose a "*community of learners*" involving both active learners and more skilled partners who provide leadership and guidance correspond with the theoretical stance that learning involves transformation of participation in collaborative endeavor. Thus the notions involved in the theoretical perspectives of learning as transmission, acquisition, and transformation of participation are associated with instructional models that differ in how participants' responsibilities for promoting learning are seen.

We are distinguishing here between theoretical perspectives on learning regarding how learning occurs (transmission, acquisition, and transformation of participation) and models of instruction that are aligned with these three theoretical perspectives but focus more on issues of how to promote learning (by adults controlling the process, children controlling the process, or collaboration in a community of learners with varying responsibilities). Both the theoretical perspectives on learning and the instructional models involve cohesive conceptual frameworks, although the instructional models can be seen as based on the theoretical perspectives on learning (rather than vice versa). Both conceptual frameworks—the theoretical perspectives on learning and the instructional models—can be distinguished from "practices" that people carry out and that can in some sense be described without reference to their conceptual basis. Indeed, often a particular practice can serve different models of instruction. However, when clusters of practices are examined together, in context, they can reveal the conceptual basis that ties them to one or another model of instruction. So, in our terminology, coherent patterns of instructional practices are based on instructional models, and instructional models are based on theoretical perspectives on learning.

In the following sections we describe how all three instructional models can be analyzed from the perspective of a participation theory (Lave and Wenger, 1991; Rogoff, 1990, 1995), then describe the three instructional models in more detail, and then turn to our observations of parents' use of the three instructional models as they transform their participation in a public elementary school based on a community of learners model.

A Participation Theory Analysis of Learning in all Three Models

Two of the models, adult-run and children-run instruction, are often cast as opposite extremes of a pendulum swing between unilateral control and freedom. The idea of this pendulum swing can be seen frequently in ongoing discussions among researchers focusing on freedom and control in classrooms and families as well as on issues of restructuring schools and evaluating child-centered versus didactic approaches (see Eccles et al., 1991; Giaconia and Hedges, 1982; Greene, 1986; Stipek, in press). We argue that the adult-run and children-run models are closely related, in that they both involve a theoretical assumption that learning is a function of one-sided action (by adults or children, respectively, to the exclusion of the other).

The community of learners instructional model supersedes the pendulum entirely; it is not a compromise or a "balance" of the adult-run and children-run models. Its underlying theoretical notion is that learning is a process of transformation of participation in which both adults and children contribute support and direction in shared endeavors (Newman, Griffin, and Cole, 1989; Rogoff, 1990; Sharp and Gallimore, 1988; Wells, Chang, and Maher, 1990). However, it is difficult for people with a background in one-sided models of learning (such as many

of the new parents in the school we are studying) to avoid assimilating the community of learners model to the adult-run/children-run dichotomy.

We apply theoretical notions of the transformation of participation perspective to analyze learning not only in a community of learners instructional model but also in adult-run and children-run instructional models, although their conceptual roots involve alternative theoretical notions of learning as being the product of transmission or acquisition, respectively. Thus, although we view the three instructional models as based on the three theoretical perspectives on learning, any of the theoretical perspectives on learning can be used to examine the learning that occurs in activities structured according to any of the three instructional models. (This is commonly done when measures based on the acquisition theory of learning are used to evaluate learning regardless of the instructional model used in the community or program.)

We argue that learning occurs in any situation, but different instructional models involve different relations of learners to the information and its uses in sociocultural activities. This view is based on the theoretical perspective of transformation of participation, which takes as a central premise the idea that learning and development occur as people participate in the sociocultural activities of their community, transforming their understanding, roles, and responsibilities as they participate (Lave and Wenger, 1991; Rogoff, 1995; Rogoff, Baker-Sennett, Lacasa, and Goldsmith, 1995; Rogoff, Baker-Sennett, and Matusov, 1994).

From a transformation of participation perspective, the difference between the three instructional models is not a matter of whether one involves learning and the others do not, but a matter of what is learned through the kind of participation that occurs in learning activities structured according to the different models. Instructional approaches based on the transmission, acquisition, and transformation of participation theories have different conceptions of what is involved in learning the academic subject matters of school; in their varying approaches to structuring learning, learners come to participate in (i.e., learn) different aspects of use of the information being taught.

We argue that the three instructional models all stimulate learning of the subject matter but that, in the diverse roles they play in the process of instruction, students also learn varying aspects of the uses of the information. For example, in instruction based on a transmission theory of learning (adult-run instruction), students learn the information to be able to demonstrate that it has been encoded and retained, in response to tests evaluating the transmission piece by piece. In instruction based on an acquisition theory of learning (children-run instruction), students learn the information as they explore in idiosyncratic ways that are not necessarily connected to the uses to which the information is historically or currently put in the adult world. In instruction based on a transformation of participation theory of learning (community of learners instruction), students learn the information as they collaborate with other children and adults in carrying out activities with purposes connected explicitly with the history and current practices of the community. In all three instructional approaches, the students learn the subject matter; however, in each, they learn a different relation to the subject

matter and to the community in which the information is regarded as important, through their varying participation in the process of learning.

Pendulum Swing between One-Sided (Adult-run and Children-run) Models

The adult-run and children-run models can be viewed as different versions of one perspective that treats learning as one-sided, in that only one "side" of a relationship is active. Both treat adults and children as being on opposite sides of a relationship, not in a mutual process of collaboration between active participants. Both attribute responsibility for learning to one or the other, with the one that is not regarded as responsible having a passive role in the process of learning.

In the adult-run instructional model, which prevails in U.S. elementary schools (Bennett and LeCompte, 1990; Cuban, 1984; McDermott, 1993) and in U.S. middle-class parenting (Greene, 1986), learning is viewed as a product of teaching or of adults' provision of information.¹

In most classrooms. . . the teacher sits or stands at the front of the room, dispensing "inert ideas" to his passive students, as if they were so many empty vessels to be filled. (Silberman, 1970, p. 148)

Adults are seen as responsible for filling children up with knowledge, as if children are receptacles and knowledge is a product. The children are treated as receivers of a body of knowledge but not active participants in learning. The children have little role except to be receptive, storing the knowledge that adults dispense. Figure 18.1 shows graphically a conception of a successful child as a receptacle of knowledge.

The adult-run model seems to be a feature of the U.S. public school system, attributable to the nature of educational philosophy and practices from educational policy makers, administrators, teachers, and parents. We do not see it as usually deriving from an explicit choice of instructional models by individuals but rather as an inherited model in which most middle-class U.S. adults have been educated (in elementary, secondary, and higher education, including teacher training), for reasons that extend beyond issues of education.

The role of broader forces on classroom instruction is particularly apparent in an extreme version of the adult-run model that appeared with the factory model of education that was central to the "scientific" efficiency movement in U.S. education in the early 1900s and has been extremely influential in public schooling since. In this movement, school superintendents responded to public pressures to run schools on the model of efficient factories, with a passive role for learners and management by experts and with cost reduction placed ahead of learning (Bennett and LeCompte, 1990; Callahan, 1962). Callahan chronicled the emulation of factory efficiency as fostering the development of standardized tests for measurement of the "product," of clerical work by teachers to keep records of costs and progress at the expense of teaching, and of "management" of teaching by central district

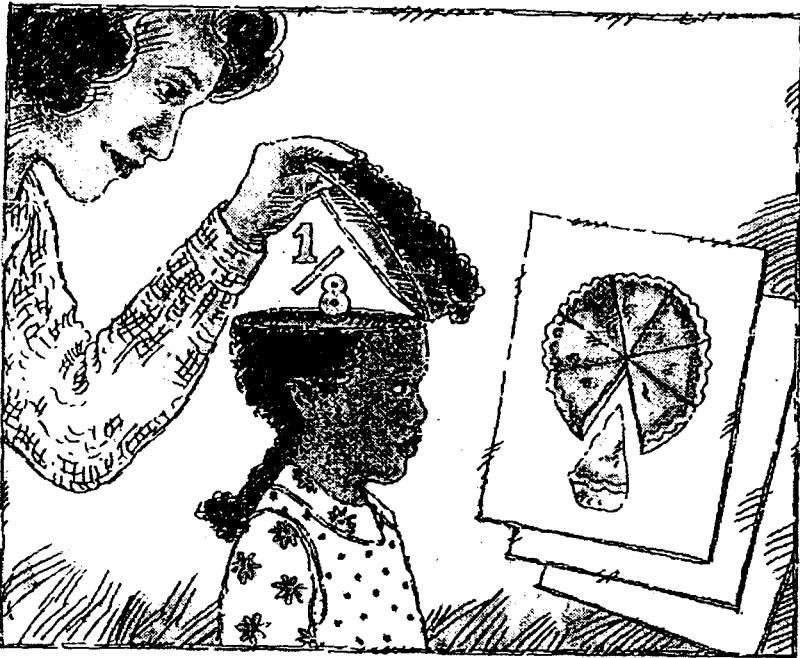


Figure 18.1 An illustration of learning as the filling of a receptacle, from the lead article titled "Psychology's input leads to better tests." American Psychological Association Monitor (1994, June, vol. 25, p. 1). Note that the information is portrayed as simply stored in the child's skull, and given access to seeing inside, the adult can assess whether or not the knowledge is possessed by the child. (Reproduced by permission of the illustrator, Sheila Harrington.)

authorities who had little knowledge of educational practice or philosophy. That period led to the development of a separate profession of school administration, focusing on fiscal rather than educational issues, inspired by such leadership as that provided by Elwood P. Cubberley, Dean of the School of Education at Stanford, whose 1916 textbook was described as the most influential book on school administration of the generation. Callahan quoted Cubberley:

Our schools are, in a sense, factories in which the raw products (children) are to be shaped and fashioned into products to meet the various demands of life. The specifications for manufacturing come from the demands of twentieth-century civilization, and it is the business of the school to build its pupils according to the specifications laid down. This demands good tools, specialized machinery, continuous measurement of production to see if it is according to specifications, the elimination of waste in manufacture. . . . (Cubberley, *Public School Administration*, 1916, pp. 337-338, cited by Callahan, 1962, p. 97)

An example of a teacher espousing an extreme factory model of instruction, based on a transmission theory of how learning occurs, is provided by a chemistry teacher recently quoted by McRobbie and Tobin (1995):

The way the lessons are run at the moment they are completely teacher directed. . . . If I maintain control we will make progress through the work program, students will learn more, and learn more efficiently. I'm setting out to get this information into the kids' brains as efficiently as possible (although sometimes the schedule has to be adapted to meet the learning needs of the students), and by a transmissive model of teaching I can guarantee that there will be a greater percentage of students with the desired quantity of knowledge at the end. We are trying to meet timelines, and we are intolerant of digression. The greatest part of my teaching is geared to keeping the students moving along and on task. Getting the work done according to strict timelines is very important to us because we have negotiated to cover a certain amount of chemical science in a set amount of time as set out in the accredited work program and we also have to meet the external requirements of the certification processes for student achievement.

I believe I have all the knowledge the students need for their course. I see the learner as absorbing knowledge and I transfer some of that knowledge by having the students taking down notes. . . .

In order to get understanding you've got to be able to remember the basic facts that you are investigating. If you can't remember basic facts you can't get to the next step of sorting out relationships between facts. Almost every student is capable of being taught how to memorize large bodies of information quickly and I believe I can teach them that. . . . If students don't understand they should memorize the important information regardless and allow understanding to occur later in its own good time. I'm sure the brain will make the connections that are necessary if they have the basic knowledge memorized even if it may take a while. (pp. 7-8)

This extreme factory version of the adult-run model would probably not be espoused by other teachers who employ an adult-run model. For example, not all teachers who use an adult-run model would agree that rote memorization is so appropriate for teaching scientific concepts.

However, the guiding principle of the adult-run model is apparent in the example: unilateral defining of tasks, means, and goals for students by teachers. The students' role is to enter the adult-defined inquiry rather than to share inquiry with others. Students learn how to solve problems but not how to set them. They can produce correct answers but do not have experience examining how to determine what is correct. They learn how to participate in tasks that are not of their own personal interest and how to be motivated by the teacher but not how to build on or develop their own interests to extend to new and difficult inquiries. Students learn how to be led through tasks but not how to manage themselves or others in inquiry. They learn how to behave according to procedures and rules set by the teacher but not how to develop working procedures for managing the processes of interpersonal or material aspects of learning.

The teacher's job in the adult-run model is to prepare the knowledge for transmission and to motivate children to make themselves receptive. Often this is a matter of subdividing tasks into small mechanical units and applying incentives (or threatening punishment) for students to get through them. In a pure adult-run model, there is no necessity for the children to understand the purposes to which the knowledge is to be put or to become interested in the material for its own sake, since the children's role is simply to receive the information. The teacher does not rely on mutual engagement to help guide instruction, but instead must plan the

amount, segmentation, and timing of instruction that will be necessary for transmission of the information. The teacher seeks pedagogical tricks to motivate students to be willing to accept the information, and uses standardized measurement devices to determine the quantity of knowledge that the students possess and their capacity to learn, by comparing them with each other. These teaching agendas emerge from the assumptions that learning results from one-sided transmission of knowledge and skills from those who possess them to those who do not.

The students' job in the adult-run model is to be receptive. This, of course, is not an entirely passive role; however, the kind of activity it involves is not one of leadership in the cognitive activity or in the "transmission" of information. The children are not collaborators with the teacher in intellectual inquiry or in the process of managing learning. Their role may be "cooperation" with the teacher's agenda, but it does not include helping to shape the agenda, or even necessarily understanding the agenda. Rather than participating in a shared endeavor, their role is to carry out the actions that the teacher designates for them. Although the teacher's and students' actions are in some sense coordinated with each other, they are compartmentalized in a way that differs from collaboration in which people's ideas and interests mingle.

Minick (1993) described such compartmentalization in which teachers' introduction of directives do not provide a rationale and inherent motive for actions required from the students. For example, in a classroom lesson, an elementary school teacher introduced the concept of mirror symmetry by asking children to perform separated actions with mirrors and geometric shapes. The children were not told the purpose of the manipulations, on what they should focus, or what the teacher wanted them to learn. The teacher's motive for the lesson was unavailable for the students; the students' purpose was limited to finding the actions that satisfied the teacher, almost like a guessing game. To complete the picture, it is necessary to mention that the lesson's motive is often unavailable to the teacher as well, because the teacher is only a part of the institutional chain of transmission of knowledge from the "higher" experts to the students.

The adult-run model of instruction, based on a transmission philosophy of how people learn, is nicely summarized in Kliebard's (1975) discussion of metaphorical roots of curriculum design. He referred to the metaphor of production as follows:

The curriculum is the means of production, and the student is the raw material which will be transformed into a finished and useful product under the control of a highly skilled technician. The outcome of the production process is carefully plotted in advance according to rigorous design specifications. (p. 84)

In reaction to the adult-run model, various scholars and practitioners have proposed switching to a model that involves a more active role for the children as learners. Usually, this takes the form of a pendulum swing to children-run instruction, the opposite one-sided approach in which children are active constructors of knowledge and adult involvement is seen as a potential impediment to learning. In the children-run model, children discovering reality on their own or through interaction with peers is the ideal; children become the active agents in learning and the adult world is either seen as a passive source of materials or as a negative

influence that can stunt the budding of children's own potential. Children are expected to discover and extend the knowledge, skills, and technologies of human history among themselves; adults may set up learning environments for the children but should otherwise avoid influencing children's "natural" course of learning. Graubard (1972) argued that many of the "free schools" of the 1960s and 1970s were characterized by an attitude that children would learn best if adults merely stayed out of their way. The challenge with the children-run model is to get the "natural" course of learning to somehow correspond with the skills and standards that the community values for the children.

An example of the pendulum swing between adult-run and children-run models, with the ideal being some sort of balance between the two extremes of freedom and control (Silberman, 1970), appears in a 1975 newspaper editorial quoted by Gold and Miles (1981) in their study of an open education elementary school that was under community pressure to return to basic skills training. The editorial proclaimed, "Basics are Back!" but also expressed concern about the pendulum swing:

Teachers, students and parents have all complained that language arts skills are sadly lacking in many "bright" students who graduate from the local high school with top scores. Good high school age writers often don't know the difference between the use of the words "threw" and "through"; spelling among many high school students is atrocious. Parents of elementary age students complain their children's spelling is not corrected because teachers fear correction will stifle creativity.

So now the pendulum swings back. The rote learning of the past is called into the present to save the citizens of the future. Admittedly the swing could turn into a destructive backlash. The move of the 1960's toward meaningful, creative, relevant, innovative education should not be lost in this age of recession. (pp. 204-205)

Freedom and control are thus conceived as opposites on a single dimension on which one partner holds the active position and the other partner is passive (for alternative conceptualizations see Kohn, 1993; Mosier and Rogoff, 1994). Together, the adult-run and children-run models constitute the one-sided philosophy of instruction in which adults and children are seen as contesting for control, with the side that does not have control being passive; these models can be seen as narrow alternatives to each other.

Curriculum debates in this country from at least the 1880s have reflected concern with the one-sided alternatives. According to Kliebard (1987), William Torrey Harris, an editor who had provided early encouragement for John Dewey in his youth, in 1880 advocated that the curriculum should build on the great resources of civilization, not on children's spontaneous impulses. Harris added an emphasis on the importance of "guiding direction" to the maxim arguing for learning to do by doing. Dewey, as he entered the debate over the importance of interest (corresponding to the children-run model) versus effort (corresponding to the adult-run model) in 1896, suggested that both were guilty of the same fallacy.

[Dewey] argued that the choice did not lie between engaging the child in mere amusement on the one hand, and forcing the child to pursue disagreeable tasks as part of the training of the will. . . . [Both sides] proceeded, according to Dewey from the identical assumption:

"the externality of the object or idea to be mastered, the end to be reached, the act to be performed, to the self." . . . Dewey was struggling with the possibility that the apparent opposition between the curriculum and the child could be not so much reconciled as vitiated. The problem was not one of choosing between two existing alternatives as it was reconstructing the questions so as to present new ones. (Kliebard, 1987, pp. 55-57)

Dewey (1938) criticized the "Either-Or philosophy" that prevails when educators simply "reject the ideas and practices of the old education and then go to the opposite extreme. . . . to make little or nothing of organized subject-matter of study; to proceed as if any form of direction and guidance by adults were an invasion of individual freedom" (p. 9). He argued that

Because the older education imposed the knowledge, methods, and the rules of conduct of the mature person upon the young, it does not follow, except upon the basis of the extreme *Either-Or* philosophy, that the knowledge and skill of the mature person has no directive value for the experience of the immature. (p. 8)

Consistent with Dewey's call for going beyond the dichotomy (see also Cahan, 1994), we argue that the community of learners model is not on the one-sided pendulum track; it removes the assumption of learners being on the other "side" from teachers, recasting them as mutually involved in shared endeavors.

Community of Learners Model

The community of learners model is not a balance or "optimal blend" of the two one-sided approaches, but rather a distinct instructional model based on a different philosophy. One type of evidence for its distinctness is the difficulty experienced by individuals who attempt to see its structure from the perspective of transmission or acquisition theories of learning (or adult-run or children-run instructional models), as is frequently the case for new parents entering the OC.

In a community of learners, all participants are active; no one has all the responsibility and no one is passive. Children take an active role in managing their own learning, coordinating with adults who are also contributing to the direction of the activity, while they provide the children with guidance and orientation. (And the children sometimes do likewise for the adults.) Adults support children's learning and development through attention to what the children are ready for and interested in as they engage in shared activities in which all contribute. In a community of learners, children and adults together are active in structuring the inquiry, though usually with asymmetry of roles. Children and adults collaborate in learning endeavors; adults are often responsible for guiding the process and children also learn to participate in the management of their own learning (Brown and Campione, 1990, 1994; Dewey, 1916; Newman, Griffin and Cole, 1989; Rogoff, 1994; Rogoff, Mistry, Göncü, and Mosier, 1993; Silberman, 1970; Sharp and Gallimore, 1988; Wells, Chang, and Maher, 1990).

The approach to learning in many communities in which children learn informally through active observation and participation in ongoing community

activities with mutuality and support from more skilled community members is consistent with the community of learners model, though less focused on instruction than a school necessarily is (Lamphere, 1977; Rogoff, Mistry, Göncü, and Mosier, 1993). Schools organized as communities of learners are more self-consciously organized to promote children's learning, with more reflection and attention to the learning process, than are many informal learning practices, where the structure is less self-conscious and the purpose may focus more on actual contribution to community economic and other functions (Rogoff, 1994).

In a classroom functioning as a community of learners, organization involves dynamic and complementary group relations among class members who learn to take responsibility for their contribution to their own learning and to the group's functioning. Instead of a teacher attempting to address and manage many students as one recipient of instruction, trying to treat them as a unit, the organization involves a community working together with all serving as resources to the others, with varying roles according to their understanding of the activity at hand and differing (and shifting) responsibilities in the system. The discourse is often conversational, in the sense that people build on each other's ideas on a common topic guided by the teacher's leadership, rather than one way, with children's contributions considered to be interruptions.

We argue that it is consistent within the community of learners model for adults under some circumstances to provide strong leadership or extensive explanations to assist the group, and for children under some circumstances to have primary responsibility. This would not involve a patchwork of adult-run and children-run events. Although a community of learners model does not imply a precise format of instruction, it does assume a collaborative system in which whoever has the responsibility for leadership is still carefully coordinating with and assisting the others in a shared endeavor.

A community of learners model differs from the idea of piecemeal incorporation of innovative techniques into an otherwise conflicting fabric of the instructional model. An example of the latter is the use of cooperative learning techniques in an isolated fashion, where often only small portions of the day in school are allocated to group projects, and the rest of the day follows the adult-run model with all communication and decisions happening through the teacher. If during most of the day, only one child speaks at a time, and only to the teacher, the exceptional times when children tutor each other or work in cooperative groups do not correspond to a community of learners that is itself coherently structured as a cooperative system.

There are sometimes clashes that make the contrast quite clear, as Deering (1991, 1994) articulated in his descriptions of one teacher who emphasized competition and individual achievement, and tried to coerce students into cooperating. Changing practices in a piecemeal fashion, such as adding a cooperative learning session to an otherwise adult-run classroom structure, does not amount to transforming the underlying model of instruction (Cremin, 1962; Deering, 1991, 1994). Attempts to incorporate piecemeal cooperative learning practices reveal the prevalence of viewing one-sided models as the only alternatives, and show the

difficulty for holders of those models to understand the coherence of an alternative such as the community of learners model. Trying to understand the community of learners model from a background in the one-sided (either adult-run or children-run) models requires a paradigm shift like that of learning how to function in another culture.

It is important to note, however, that any functioning institution will include variations rather than "pure" exemplars of the models. For some models, this is because institutions have multiple constituencies and responsibilities and interactions with other institutions that require compromises. With the community of learners model specifically, variety of practices (e.g., in the extent of asymmetry between people in different roles and in the kind of leadership provided) is a resource for the community's continued learning. If all teachers used just the same practices at all times, this would indicate that the community as a whole had stopped developing and making use of variations to continually spark ideas. A community of learners is always in a process of transformation, especially with the inclusion of newcomers who may not understand the traditions and who may also contribute to transforming them into revised traditions, even as new newcomers enter and continue the process.

Within the OC, the teachers refer to the issue of necessary variations on a theme in terms of the diverse approaches across classrooms while still maintaining a "common thread" throughout the program. Coherence of the philosophy in this school involves both commitment to the idea that all members of the community continue to learn through their varying roles in shared endeavors and commitment to the value of variations in participants' particular practices within this shared theme.

Newcomers Moving from Adult-Run to Community of Learners Models in School

Attempts to use the community of learners model in U.S. schools meet with unique challenges because most U.S. teachers and parents have been "raised" in a one-sided model of teaching and learning (usually adult-run; Matusov and Rogoff, 1995). In the OC, this difference between newcomers' educational background and the school's philosophy (i.e., the community of learners model) often makes for culture shock as adults who are newcomers try to align themselves with the new system. Until they develop an understanding of the community of learners model, it is difficult for newcomers to understand how the practices of the school fit together.

In our ongoing study, we are investigating how children, parents, teachers, and an educational institution transform in the process of developing and sustaining a public school that is structured as a community of learners, and how new generations and events contribute to changes in the community's practices. The challenges faced by the community in newcomers' developing understanding of a

community of learners model illuminate both the developmental process involved in a paradigm shift and the nature of the community of learners and one-sided models of learning.

The OC was started 18 years ago by a group of parents and teachers who wanted to form a public elementary school with an innovative educational philosophy. It continues to be run cooperatively by parents and teachers (and sometimes administrators), with parents spending three hours per week (per child) in the classroom contributing to instruction, curriculum decisions, and classroom management as "co-ops." A large part of co-ops' time in the classroom is spent leading small groups of three to six children in activities devised by the co-ops (or sometimes the teachers) in the curriculum area for which they are responsible. There are six or seven classrooms of about 30 students each, from kindergarten through sixth grade, blended in groups of two or sometimes three grade levels per classroom.

Our statements in this chapter about the program are based on extensive participation of the first two authors as parent "co-ops" in the program and of the three of us as researchers, recording ongoing classroom activities and discussions of philosophy and practices in teacher and parent meetings, studying program newsletters and documents available since the inception of the program, talking with participants about their understandings of philosophy and classroom practices, and surveying co-ops' reflections on their own development and OC philosophy and practices. The quotations from parents reported in the following pages are taken from our four-page survey of co-ops' reflections on their own development and OC philosophy and practices, in 20 mostly open-ended questions. The survey was completed by 79 percent of the children's co-ops; all survey quotes are taken from co-ops participating in the fourth through sixth grades.

The OC functions with a coherent system of practices integrated in a largely tacit underlying philosophy corresponding to a community of learners model of instruction, which differs from schools that most adults in the OC have attended, in which learning is generally seen as the filling of children (as receptacles) with knowledge. Parents' initial involvement in the OC often involves confusion as they attempt to fit into a new value system and its practices. Their efforts to implement the practices in the classroom are often tentative and awkward as they puzzle out the philosophy through their own participation and observation of and discussion with others. New teachers face similar questions in their own career development and work with both children and parents in the classroom.

For many new members of the community, coming to participate in this program requires a long period of being "legitimate peripheral participants" (to use Lave and Wenger's term, 1991)—provided with some direct instruction but mainly with opportunities to observe, discuss, and participate. They struggle to understand the new philosophy tying together specific practices of a community of learners. Their issues are often based on coming to understand that the practices embody a distinct and coherent philosophy of learning rather than a pendulum swing between adult-run and children-run instruction or simple adoption of a few new pedagogical techniques. At first, new adults in the community often see daily events as unstructured and chaotic.

In describing similar school programs, Silberman (1970) provides an account of the initial impression:

Understandably, in view of all the sound and motion, the first impression may be one of chaos. In most schools, it is a false impression. "You always have to assess the nature of the noise," the headmistress of the first school the writer visited helpfully explained. "Is it just aimless chatter, or does it reflect purposeful activity?" And as the visitor becomes acclimated, it becomes clear that the activity usually is purposeful. . . . As the strangeness wears off, one becomes aware of many things. One becomes aware, for example, of the teacher's presence: in contrast to the first moments of wondering where she is, or whether she is even there at all, the visitor begins to see that the teacher is very much there and very much in charge. She seems always to be in motion, and always to be in contact with the children—talking, listening, watching, comforting, chiding, suggesting, encouraging. . . . One becomes aware, too, of the sense of structure. (pp. 225–226)

The process of becoming aware of the structure and the teacher's role is not rapid; for many newcomers to the OC, it takes several years (Matusov and Rogoff, 1995). A co-oper in his fifth year in the program remarked on our survey that over the years he had noticed more structure, and added that the teachers, who are superb, "have constructive activity in what sometimes appeared a chaotic environment."

Newcomers to the OC first begin to see particular practices in isolation as routines and attempt to follow them, but without comprehending how they fit together. They often assume that the new practices are opposite to the adult-run model with which they are familiar, swinging to the other one-sided model—the children-run model—and trying to implement new practices as simply the opposite of the old.

The attempt of many newcomers to assimilate the new model by simply switching which "side" (adults or children) is active makes sense. Marris (1986) suggested that in adult development, we attempt to cling to the familiar, for the more an innovation challenges existing understanding, the more threatening change is. Marris referred to Piaget's ideas on assimilation and accommodation:

Assimilation depends upon the pre-existence of organising structure sufficiently developed to incorporate the experience. The process of assimilation may lead to modifications of structure (accommodation), but only within limits of continuity. As John H. Flavell says (1963, p. 50):

Assimilation is by its very nature conservative, in the sense that its primary function is to make the unfamiliar familiar, to reduce the new to the old. A new assimilatory structure must always be some variant of the last one acquired and it is this which insures both the gradualness and continuity of intellectual development.

. . . It is slow, painful and difficult for an adult to reconstruct a radically different way of seeing life, however needlessly miserable his preconceptions make him. In this sense we are all profoundly conservative, and feel immediately threatened if our basic assumptions and emotional attachments are challenged. (p. 9)

Certain aspects of the community's functioning are difficult for newcomers to see until they have begun to really align themselves with the direction and philosophy of the program. Former OC teacher Pam Bradshaw (in press) points out that a central qualification for adults (and children) to participate skillfully in the

program is willingness and readiness to "align" oneself with the direction in which the group is moving.

OC teacher Leslee Bartlett (in press) describes stages of development for newcomers to the OC in terms of movement from seeing only chaos, to seeing small parts of the routine, to seeing the structure surrounding one's own activity, to seeing the structure of the program. The process occurs through the newcomer personally becoming a part of the structure, in widening fields of participation. Co-operators who are partway there carry out their own activities with understanding; subsequently, co-operators can lead others through a "tour" of the OC; some go on to be able to be responsible for the whole classroom or larger parts of the program. Bartlett describes how, as teacher, she removes herself from the classroom for short periods to give co-operators whom she regards as ready the opportunity to take this responsibility; she can tell upon return to the classroom how things have gone.

Such learning involves the whole program in a continual process of renewal and change within continuity, as new generations come to play the roles of newcomers and oldtimers² in the community, becoming part of the structure. As Bartlett points out, one is never "done" learning; she and other teachers report that their reason for remaining involved with this high-commitment program is that they continue to learn. In fact, one indicator of alignment with the philosophy of a community of learners in a school seems to be regarding oneself as a learner, continually. Experienced co-operators, in response to a request in our survey for advice for new co-operators, often offered these suggestions: expect to learn yourself and concentrate on improvement rather than perfection.

Newcomers to the OC first begin to notice the morning or the afternoon routine: The whole class meets several times (in "circle") for planning activities and for whole-group instruction, but much of the day involves small groups of children working at an activity led by a co-oper or the teacher. The children choose which activity they will engage in during the different activity times, from among some required activities that they can complete according to their own schedule and others that are optional.

Newcomers easily notice the following features of the OC that do not require them to understand the community of learners philosophy:

- The active role of children and prevalence of hands-on, experiential learning
- The adult-child ratio, with about three parents in addition to the teacher in the classroom
- The families' commitment to education and involvement in the curriculum that provides enrichment from the expertise of each family and support for children's learning at home
- The nurturant environment and respect for individual interests and rates of progress (with avoidance of much ability grouping)

These items were the most commonly listed characteristics of the OC in our survey; most co-operators listed several of them, especially in responding to our question regarding why they chose to send their children to the OC in the first place.

In contrast, newcomers often have trouble understanding many OC practices that are based on the community of learners model. These they frequently attribute to the "permissive" end of the pendulum swing, as they turn from adult-run structure to children-run "lack" of structure. The developmental process involved in coming to understand the community of learners model is apparent from the remarks of a parent who had co-oped for 11 years. When asked in our survey how her co-oping skills and understanding of classroom procedures had changed with experience, she wrote, "I first relaxed and 'let go' of my memory of 'school' and let it teach you—be flexible and absorbent, trying not to push a concept but being aware of learning and teaching moments." She also referred to the differences between adult-run and children-run approaches and the community of learners approach:

Some parents are academic oriented, others want freedom, and these groups clash. I'm a fence sitter—I want a spider's web. A structure so fine and strong you don't know you're on it. It allows freedom of choice and those choices have been designed to provide learning experiences that are subtle and provide strong basic academic foundations w/o being forced or rote.

Newcomers struggle especially with issues central to the OC community of learners approach, which they often assimilate to their preconceptions of the permissive, children-run alternative to their own adult-run schooling experiences. Some of these central issues, elaborated below, include the instructional emphasis on the process rather than just the products of learning with adults serving as leaders and facilitators rather than direct instructors; the emphasis on teaching that builds on children's inherent interests; the evaluation of student progress through working with the child and observing; and the collaboration that occurs throughout the whole program. Only as they break free of the adult-run/children-run one-sided dichotomy do newcomers begin to understand the community of learners philosophical model underlying these practices.

Emphasis is on the process of learning, with adults supporting children's learning. The emphasis is on learning as an ongoing process (rather than only the production of finished products) in activity-based learning situations with meaningful purposes, conceptual approaches including both problem finding and problem solving, integration across curriculum areas, and planned flexibility of curriculum in order to build on student contributions. As former OC teachers Marilyn Osborne and Monica Solawetz (July 1993, personal communication) pointed out, often the process extends past the completion of a product, as when children continue to read about a topic of interest sparked by their research for a class report.

At first newcomers have trouble recognizing the process of learning without the more familiar format of texts, workbooks, tests, and divisions of the curriculum into self-contained domains, and they expect rigidly preplanned instructional units. However, as teacher Carolyn Goodman Turkonis (in press) points out, whole curricula can be built on students' curiosity or concerns about things happening around them if adults are prepared to be flexible, teaching to the moment.

In our survey, when asked for advice to help new co-ops, many co-ops advised

taking a flexible approach. They suggested preparing in advance but not expecting to use much of what was prepared, because it is important to go with kids' interests and build on the many "teaching moments" beyond co-ops' structured goals. They advised new co-ops to "listen to the kids." A co-oper in her sixth year of co-oping advised, "When planning curriculum—don't have it set in stone—kids may change it a little—or think of other ways to learn from it that you hadn't thought of—and that's OK."

In this emphasis on flexible process, adults serve as leaders and facilitators for students and each other, not as authority figures. At first the teachers' leadership is not seen and newcomers think the teachers are simply permissive. Newcomers wonder who is in charge, how the classroom is organized, whether it should be more organized or more structured with more teacher control, and so on. An issue frequently raised in the surveys by co-ops in their first three years in the program was a desire for teachers to be more explicitly directive. A first-year co-oper offered this answer to a question regarding the OC philosophy: "It is too free and do what you want. More structure!!!" A co-oper in her second year stated, "It is somewhat distracting when so much is going on—the small groups are nice but I'd like to see more structure as a whole."

Relatedly, newcomers worry that without such adult-run control, "academics" may not be happening, since they associate learning with being taught in a controlling fashion. They often do not see the teachers' subtle ways of helping children make responsible choices or of monitoring the children's learning over the day. Some parents swing to the other one-sided extreme and argue that children should be left to their own creative freedom, not conceiving the possibility that children can still make choices in the presence of adult guidance, as in the community of learners approach.

A co-oper in her fourth year reflected on her perennial concerns with coverage of academics, and the reassurance from more experienced members of the community and from observing graduates:

Each year I observe the classroom and read the notes each week. Then I worry "Do these kids learn enough Academics?" I check assignments, and tests, record keeping, talk to parents, teacher(s). Somehow these kids do learn the basic stuff along with all the other things going on. Maybe they learn it in a different way and at a different rate than kids at the neighborhood schools. But I see, and the parents I've talked to have told me, by the time they graduate they have it, and they had fun getting it. It certainly works for my daughter.

Co-ops seem to develop as participants in a community of learners as they manage their small group activities (Matusov and Rogoff, 1995). In a study examining co-ops' approaches to their classroom instruction, many new co-ops were observed to use an adult-run approach, taking over decision making and ownership of the activity, providing leash-like guidance. Co-ops who had participated in the program for a few years were less likely to use the adult-run approach. They were more likely to use the community of learners approach, in which the co-oper and children participate in the activity with shared interest and

mutuality and a learning attitude, with leadership provided by the co-oper in initiating the activity and helping the children manage the process so that instruction is embedded in children's inquiry. For parents who had co-oped more than four years, the community of learners was the most prevalent approach. However, some long-time co-ops used adult-run or children-run approaches effectively as well; their contributions in the classroom were also valued. The community of learners model involves some diversity of approaches coordinated within the overall "common thread" of mutual engagement in shared endeavors, with varying responsibility from different community members at different times.

Inherent motivation is fostered along with development of responsibility for one's choices. At first newcomers whose background is in the adult-run model see the children's leeway to make choices and follow their interests as an attitude of emphasizing play and fun at the expense of school WORK (which is not supposed to be fun). They are concerned that insufficient discipline is provided by adults, and that children waste time and make poor choices.

However, with the curriculum aim of children becoming responsible for managing their own learning (and developing a love of learning), it is necessary for children's involvement in activities to build on motivation inherent in the activity as opposed to coming from promises or threats of candy bars, grades, stars, or scoldings. In characterizing the OC philosophy in our survey, many co-ops (especially the more experienced ones) referred to children learning responsibility for their own learning, learning to manage their time and set their own goals, and learning how to learn—developing a love of learning, daring to fail, and becoming a lifelong learner.

Due to the emphasis on inherent motivation, OC students often think that they have no homework. When they have a project at school, they read and prepare for it at home but having chosen their project, they are invested in it and it is not an assignment. (In addition, at the OC, school and home are not bounded off from each other, so projects and involvements at school and home are not so distinct.)

Along with making choices, it is necessary for children to learn responsibility for their own choices, with the support of the people around them helping them see when they have made effective choices or when they have wasted their time and run out of time for something that they would really have liked to accomplish. Ideally, the consequences of children's choices are inherent to the activities. For example, when there was an Invention Convention in each classroom, some of the children developed a quality project while others treated their project more casually. They could see the difference in people's interest in their projects when the other classrooms came to visit. The children who took the invention project more casually had a chance to think that the next time they had an opportunity to work on such a project, they would give themselves a little more time to work on it, plan ahead a little more so they could finish, or make the project so it was clearer to others. (And the adults in the classroom helped them to notice the consequences of their choices and to think through how they could handle a future occasion.)

It is easy for adults with a background in the adult-run model to step in and "fix" children's problems in ways that keep children from finding out what

happens when they do not make good choices. As OC teacher Donene Polson (in press) points out, such "false rescue" can come from either adults controlling situations so children cannot make choices or from adults saving children from the consequences of their choices. For example, adults sometimes take over children's projects for them or prepare what needs to be brought to school the next day or provide quick answers when children would benefit from becoming increasingly responsible for their own activities and finding (and escaping from) dead ends in their path of thinking.

A switch to the children-run model would leave students in the position of unsupported exploration. Children would not have guidance in noticing the consequences of their choices for themselves and others, or developing responsibility for managing their activities in ways that are consistent with the goals of schooling and of participation in a community.

In a community of learners model, neither extreme—neither control nor free choice—is applicable. Individuals assist each other in learning to be responsible, making choices and solving problems in ways that fit their individual needs while coordinating with the needs of others and with group functioning. For example, the children clean up the classroom not with threats of punishment or offers of bribes but through developing the understanding—supported by the teacher—that their next project will be easier if they have room to work or that they need to put one set of materials away before they can begin the next (interesting) activity. One of the teachers pointed out, "When they leave stuff out, the tables are messy and they have no place to work and no place to put their things. So it's really to their own advantage."

Building on the motivation inherent in children's involvement in the activities at hand of course requires that the children be interested in the activities. When we asked children what advice they might give a new co-oper to make their learning activity effective, their first response was usually, "Make it fun." When asked what makes an activity fun, children often elaborated, "when we get some choice in how to do things." Sometimes the children added, "The co-oper needs to have fun with it too."

Supporting the idea that instruction is enhanced if all participants enjoy the activity, a co-oper in his eighth year responded to our survey question asking for advice for new co-ops by suggesting, "Do something you like to do, adjust it in response to the kids' reaction, and build a repertoire." The enjoyment for adults can involve the topic on which they are working as well as the relationships and involvement with the children. A co-oper in his third year suggested, "take a real interest in the children and actively participate with them." Many of the most experienced co-ops characterized their own development as co-ops in terms of learning how to make learning fun for the children along with finding ways to contribute from their own interests and skills; they often indicated that these aspects of co-oping had initially given them difficulty.

Evaluation of student progress occurs through working with children and observing. Teachers, co-ops, and students attend to and reflect on children's progress and need for improvement in the context of children's learning activities; grades are

avoided. This is often not understood as providing detailed information on learning until much later in a co-oper's development.¹ A co-oper in her fourth year, whose child had transferred from a neighborhood school, noted, "I used to say 'What did you do in school today?' Now I know what's going on and I can say 'Did you do your rough draft today?' 'Are you finished with your book?' I guess I can keep track of specific things."

The emphasis is on children's own improvement, rather than on comparison of children with others. Daily involvement of adults in children's processes of learning, along with periodic reflection, provide opportunities for evaluation and planning for improvement. (This approach also helps students treat each other as resources and collaborators rather than as adversaries, and adults as helpers rather than as judges.)

For example, in helping a child write a report, an assisting adult is able to observe the extent to which the child needs help with formulating ideas, using resources to search for information, putting ideas in their own words, and understanding the mechanics of spelling and punctuation, in the process of providing instructional support in these areas. In addition, this involvement of the adult provides key information on the extent to which children are learning to manage their own motivation to enter and sustain involvement in the particular activity, and to seek and provide help effectively.

Evaluation of student progress involves students joining with their teacher and parents in conferences that focus on students evaluating both their own progress and goals for the next months. These are worked out with the teacher's assistance in reflecting on which aspects of classroom functioning are easy and hard for each child, and on which areas the children feel they should focus for improvement. Most students become skilled in such self-evaluation with teachers' assistance, and their written goals for the coming months serve as a resource in the students' decision making in the classroom and in the adults' support of the children's daily activities. Some students for whom this self-monitoring and management is more of a challenge develop a more specific "contract" with the teacher and their parents to help them learn to manage their daily decision making.

Collaboration occurs throughout the whole program, among all members. Children work in collaboration with other children and adults throughout the day in ways that are intended to promote learning to lead and support group processes as well as to make use of others as resources. At first, newcomers may see this as permissiveness and may not see skills in contributing to interpersonal problem solving and group processes as relevant to "academic" learning. In our survey, the more experienced co-ops frequently indicated the importance of learning interpersonal problem-solving skills and learning to work with others as both leaders and group members.

The children's learning how to build on each others' ideas collaboratively is supported by a study by Matusov, Bell, and Rogoff (1994) that found that pairs of OC children were more likely to work together with consensus, building on each other's ideas collaboratively, and to assist each other collaboratively in structured out-of-class tasks than were children from a neighborhood traditional school that had less emphasis on collaboration.

The children are also collaborators with the adults, rather than adversaries of the adults or mere products of the system. Although newcomers worry, with so many activities and changing adults in the classroom, where the continuity is from one day to the next, an important source of continuity is collaboration with the children. For example, if children are reading novels in shared-reading groups with different co-ops on successive days, it is not necessary for each co-oper to be on top of what happened (in the book or in the group) before the day begins. The children can tell the co-oper what is going on. Such reflection on the reading and the group's efforts provides the children with the opportunity to summarize for a nonartificial purpose (i.e., the co-oper needs the information, rather than simply testing the children on whether they understand the story). A co-oper who asks the children "What are we supposed to be doing today?" provides the children with a chance to reflect on the purpose of their activity and to report their difficulties in understanding in ways that an adult who is thus informed can help them to manage. If adults only were in charge of things and "in the know," children would not need to reflect on what they did yesterday and how it relates to what they are going to do today.

The collaborative nature of the program applies to the adults involved, not just the children. Ideally, the teachers are closely involved with each other across classrooms, and the teachers and parents in each classroom build on each other's efforts. Newcomers often worry that they need to make sure that each child is receiving their instruction equally; oldtimers begin to see that overall the children balance out in their involvements in different activities with different people. They help the teacher stay abreast of children who may be having difficulties, but otherwise trust that the teacher is monitoring the bigger picture for each child's learning.

In a community of learners, the whole is greater than the sum of the parts and different people have differing roles. A resource of a community is that each person has multiple opportunities to get involved with the subject matter, connecting with different individuals. One child may get excited about writing commercials about children's books while another may hit it off with another co-oper's activity and begin their writing career with enthusiasm about creating poems about food. As a co-oper in her sixth year suggested in response to our survey question asking for suggestions to help new co-ops learn how to co-op, "Recognize that *some* projects will give some children a lot. Other projects or co-ops will probably reach the ones missed by one's own."

Learning New Practices through Participation

The paradigm shift experienced by adult newcomers who begin to understand a community of learners is promoted by the same processes for the adults as is the children's learning of the curriculum of the school: emphasis on the process of learning with facilitation by those who understand, inherent motivation with responsibility for choices, evaluation during the process of participation, and

collaboration. As pointed out by the former OC principal, Carol Lubomudrov (in press), and former OC teachers Marilyn Johnston, Theresa Cryns, and Marcy Clokey-Till (in press), the collaborative decision making and learning processes among the adults in the program mirror the processes that the community of learners is intended to produce with the children.

Often, community members express frustration at the extent to which committees and classrooms need to revisit decisions and procedures that have already been devised ("reinventing the wheel"). However, just like each new classroom of children needs to participate in the *process* of learning to read and do arithmetic and solve problems together (rather than having knowledge "transmitted" to them in an adult-run model), each new generation of adult participants needs to participate in the *process* of learning to lead in a community of learners. Neither the children nor the co-ops discover the process on their own (as in a children-run model); with their participation with others in ongoing structured activities they begin to see and become part of the continually dynamic structure of practice. This process is consistent with Tharp and Gallimore's (1988) description of the necessary collaborative arrangements between teachers and administrators in school restructuring.

By encouraging involvement with respect for differing perspectives, experienced OC teachers assist the development of adult members of the community who may work from adult-run and children-run models. In the process of participation with teachers guiding *them* according to the community of learners model, newcomers can begin to work within it and to transform their participation. For example, Leslee Bartlett, a seasoned OC teacher, reported that when she helps a co-oper in their activity with children, she does not try to convert them to her own model but instead helps them from the point of view and philosophical model the co-oper seems to use (July 1994, personal communication). By helping with the *co-oper's* problems in classroom activity with the co-oper's own teaching approach, the seasoned OC teacher collaborates with the co-oper and supports participation in the community of learners model. The teacher involves the co-oper in collaboratively reflecting on why, for example, there was "a disciplinary problem" (from the perspective of the adult-run model) in the activity or why the children refused to do as they were told. Through this collaboration with the teacher, the co-oper thus has the opportunity to learn how to collaborate with the children. A similar but more detailed description of how a seasoned educator collaborates with a new teacher to improve her teaching is provided by Tharp and Gallimore (1988).

The facts that the community of learners philosophy is difficult for many middle-class researchers, teachers, and parents to understand at first glance, and that it is commonly assimilated to the more familiar one-sided dichotomy, provide evidence that the community of learners model is a different paradigm than the one-sided adult-run and children-run models. The observation that newcomers to the community of learners model often seem to need to participate themselves in the practices to align their thinking with the philosophy is consistent with the idea that learning itself is a process of transformation through participation in shared endeavors.

The process of learning through participation is often overlooked in efforts to produce change in adults' understanding, even by people who recognize its importance in children's learning—for example, as in school reform efforts. R. Gallimore (personal communication, June, 1994) provides an example as he discusses efforts to change teachers' practices. In Gallimore's case, the aim is to encourage more conversational classroom discourse formats (a reform effort with some relation but not just the same as creating a community of learners):

Historically, teachers have tended to control discourse in ways that greatly restricted students' participation. Efforts to diversify classroom discourse have often sought a more conversational, discursive style found in teaching/learning activities outside of school. Certain kinds of literacy functions cannot be taught through disjointed, question-answer sequences. In more conversational exchanges, children learn to critique multiple interpretations of texts, to take multiple perspectives, and marshal and weigh evidence. As long as involvement in the activity is high, even silent participants get a "cognitive work-out." They are "participant-observers in the activity," a stage that precedes actual practice.

Since at least the 1920s, there have been major efforts to diversify teacher discourse to include more conversational interactions. Yet most of these efforts have failed, and they failed because the focus was exclusively on the experiences of the students. Most of the training was based on the same model of instruction that the innovators were trying to diminish in the teachers' classrooms. The trainers asked the teacher to do as they said, not as they did.

But when the trainers do as they ask the teachers to do, better results are obtained. . . . It is a reflexive phenomenon. Teachers were not "trained" or "taught" how to conduct conversational lessons. Conversational instruction and learning is not only an end, but the means to that end.

As can be seen in Gallimore's description, what it takes for adults to change their way of thinking about teaching and learning is the kind of participation that is more widely seen as important for children's own learning.

Examining the Three Models from the Perspective of a Theory of Participation

This chapter has argued that the community of learners model of instruction differs in principled and coherent ways from two versions of one-sided instructional models—adult-run and children-run learning. The community of learners model is based on a consideration of learning in terms of people's transformation of participation, and conceives of participants as having shared responsibility for learning, with guidance in joint endeavors provided by some participants. In contrast, the one-sided adult-run and children-run models are based on conceptualization of learning as transmission of knowledge by an expert or acquisition of knowledge by a novice, with a passive role assumed for people other than the one responsible for learning. In adult-run instruction, adults devise and manage learning activities, attempting to make children learn, while the children's role is limited to

being willing to accept the information delivered; in children-run instruction, children develop activities spontaneously, while adults attempt to stay clear or simply provide an enriched learning environment. The three models thus differ in their working assumptions, with the community of learners model being based on mutuality that is likely to involve some asymmetries in roles and responsibilities, and the two one-sided models being based on assumptions that only one side (the adult or the child) is active in promoting learning.

All three models can be examined from the perspective of a transformation of participation theory to consider what is learned in each. If learning and development are conceived of as processes of transformation of participation (Rogoff, Baker-Sennett, Lacasa, and Goldsmith, 1995), school or family engagements based on any of the three models can be examined for the learning that would accompany the process of participation in each. In other words, it is not only in a community of learners model that learning would occur. But the learning of participants in a community of learners would differ in principled ways from that of participants in adult-run or children-run models.

There appear to be few differences in learning of the academic matter of school between students from U.S. schools organized according to the community of learners and adult-run models. (However, graduates of the OC have the reputation of showing greater conceptual understanding of mathematics, oral and written expression, science, and social science, and sometimes less attention to mechanics such as spelling and punctuation than do graduates of their more traditional adult-run neighborhood schools.)

The differences between a school based on a community of learners model and one using the traditional adult-run model appear to be greatest in other aspects of the students' learning that have to do with the nature of their participation: In communities of learners, students appear to learn how to coordinate with, support, and lead others, to become responsible and organized in their management of their own learning, and to be able to build on their previous interests to learn in new areas and to sustain motivation to learn. In adult-run models, students learn how to manage individual performance that is often measured against the performance of others, to carry out tasks that are not of personal interest and may not make sense to them, to demonstrate their skills in the format of basal text answers and test questions, and to figure out the criteria by which adults will judge their performance to be better than that of others.

Clearly, both kinds of learning can be seen to have a place in preparing children for the adult world; judging the worth of the two requires value judgments related to how one sees the adult worlds for which the children are preparing. In addition, judging the value of the two models requires consideration of the other functions and special interests that schools and curricula serve in the nation's political and economic system, such as selecting children who will receive opportunities for special programs or higher education.

Rogoff et al. (1993) suggested that individuals can become "fluent" in more than one philosophy of learning and its practices. Indeed, Toma (1993, personal communication) has suggested that in Japanese child development an important

aspect of learning is becoming skilled in several models of learning, and coming to understand the different circumstances of each (with Japanese elementary education structured similarly to a community of learners and after-school study "juku" classes structured more as adult-run instruction).

The point of this chapter has been to articulate the philosophical differences between the community of learners and the adult-run and children-run instructional models for consideration and to argue that whatever choices are made, learning is a matter of how people transform through participation in the activities of their communities. Children learn to read, write, perform computations, etc., through their transforming participation in shared endeavors in which these processes are useful. Likewise, adults who are newcomers to a philosophy of teaching and learning come to understand it through their transforming participation as they engage in shared endeavors with other people in which the philosophy is used.

The distinctness of the community of learners model from either one-sided model is supported by the difficulties that newcomers face in understanding the coherent basis of a new philosophy of learning. For many researchers, practitioners, and parents—more familiar with the adult-run model—coming to understand the community of learners model, and the theory of transformation of participation on which it is based, seems to require the same sort of participation in shared endeavors that is often cited as important for children's learning.

Acknowledgments

We are grateful to the Spencer Foundation and the National Institute of Mental Health for their support of the research and thinking reported here, and to Leslee Bartlett, Carolyn Goodman Turkanis, and Brewster Smith for their comments on a previous draft of this paper. We are especially indebted to the teachers, parents, and students of the OC in Salt Lake City for the opportunity to learn from their insights, and to the Salt Lake City School District. Some portions of this chapter overlap partially with two articles by Rogoff (1994: in press).

Notes

1. Of course, there is variation from classroom to classroom and from family to family. Our aim here is to draw attention to a prevailing pattern that operates at a structural level, widely regarded as defining what instruction is (or what learning depends on) in U.S. middle-class schools and families.
2. Again, thanks to Lave and Wenger (1991) for the terms and the ideas they represent.
3. Although the philosophy of learning used in the OC does not correspond with that of the assessment procedures of traditional tests, OC students usually perform at or above the level of the students in the other schools. The reputation of OC graduates among

junior high school teachers is that the students are especially well prepared in conceptual aspects of mathematics and writing, oral expression, management of their own learning, effective use of teachers as resources, social maturity, and group and community leadership. Interviews with recent graduates and their parents are consistent in reporting that OC students are especially well prepared in academic skills, managing their time and resources, motivation to learn, and leadership (Rogoff, Matusov, and White, unpublished data).

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