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Collaboration in Education: The Phenomenon and Process of Working Together

In this article we propose a model for collaboration in education. We begin by examining the roots of collaboration in consultation, collegiality, and cooperation. We then delineate the features of collaboration as phenomenon and process, offering the view that through talk, action, and reflection among individuals a community of learners emerges. Finally, we suggest that collaboration can create a space that enables us to challenge taken-for-granted ways of working together and to bring about transformation in educational practice.

Cet article propose un modèle de collaboration en éducation. On se penche d'abord sur les racines de la collaboration dans la consultation, la collégialité et la coopération. Par la suite, on découpe les caractéristiques de la collaboration comme phénomène et processus pour présenter l'optique selon laquelle le dialogue, l'action et la réflexion par des individus mènent à l'émergence d'une communauté d'apprenants. En dernier lieu, on propose que la collaboration puisse donner lieu à une remise en question des façons de travailler ensemble qui sont tenues pour acquises d'une part, et à des transformations dans la pratique pédagogique d'autre part.

The term *collaboration* has been used in the educational research literature for quite some time to describe groups of people working together (Hafernik, Messerschmitt, & Vandrick, 1997; Lieberman, 1986, 1992; Miller, 1990; Skau, 1987; Tikunoff & Ward, 1983). Some of these projects are deemed successful, others less so. Often not clear is the collaborative aspect of these projects. Most educators would agree that collaboration involves bringing people and groups together for a common purpose. Others would argue that simply dividing up the labor is not collaboration (Elliott & Woloshyn, 1997) and that collaboration involves some kind of transformation in the participants (Clark et al., 1996).

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Although genuine collaboration can be demanding, we believe it has the potential to transform education in ways that other forms of partnership cannot.

We are teacher educators in a mid-sized university. Our interest in collaboration began when each of us was involved in separate collaborative research projects. In sharing our stories with one another, we found that each of us was struggling to understand her experience. And so we embarked on a process of "collective self reflection" (Schratz, 1993) about the meaning of collaboration and its implications in education. This article reflects our growing understanding of what collaboration means when educators come together to research their practice. We define research in education broadly. In our view, research encompasses the search for ways to improve practice, to construct knowledge, and to transform self.

Others have investigated collaboration (Brock Education, 1997; Educational Leadership, 1986; Teaching Education, 1992) describing projects at all levels of education. A common form of collaboration occurs between teachers and university researchers. There are many other configurations as well such as consultants or teachers working with other teachers, faculty advisors working with student teachers and their cooperating teachers, and doctoral students exploring their relationship with their mentors (Christiansen, Goulet, Krentz, & Maeers, 1997; Peter-Koop, Santos-Wagner, Breen, & Begg, 2003).

Tikunoff and Ward (1983) identified what they call the "essential characteristics" of collaboration:

1. researchers and practitioners work together at all phases of the inquiry process;
2. the research effort focuses on "real world" as well as theoretical problems;
3. mutual growth and respect occur among all participants; and
4. attention is given to both research and implementation issues from the beginning of the inquiry process. (p. 466)

These essential characteristics resonated with us, but fell short of explaining the depth of our experiences. We were not alone. For example, as a result of their collaboration, Clark along with her university and school colleagues grew "increasingly aware of how much each ... changed," and came to "see [themselves] and one another differently" (Clark et al., 1996, p. 222). Hafernik et al. (1997), collaborating within the academy, found they were able to "make contributions to [their] institution, profession, and community" and that their collaboration provided each of them with "a built-in support system" (pp. 33-34).

With others we realized that collaboration does not just happen. For example, Kapuscinski (1997), a teacher educator, writes about what she had originally believed to be a successful collaborative study with five interns and their cooperating teachers. Years later she says that she was "saddened by the arrogance and insensitivity [she] had displayed in the planning and conducting of an entire project" that "had fostered an atmosphere that stifled the participatory process" (p. 8). Although Kapuscinski "had thought that organizing meetings would ensure participation," and that "collaboration would occur naturally," she realized that at the time she "had given little thought to roles and relationships within a collaborative project" (p. 9). Sometimes partners may be unclear as to what is expected of them. Elliott and Woloshyn's

(1997) study of seven collaborative partnerships, for example, led them to argue that "confusion among partners about how collaboration functions" creates a "major obstacle to the creation of equitable and functional collaborative partnerships" (p. 24).

In the various stories of collaboration, we could see common themes (compare Tikunoff & Ward, 1983), but were unsure of what made these projects collaborative: what set them apart from other ways of coming together in education. We asked ourselves, What happens in collaboration? Why do some experiences work while others fail? How do we know when we are collaborating? We seemed to lack the language to express our evolving understanding of collaboration. It was also difficult to separate the parts from the whole, to delineate features that in collaboration are interconnected.

We spent many hours talking to one another, trying to name the processes and components that we could identify from our experiences and from those of others. The beginning of a model emerged that might help explain the *what* (phenomenon) and the *how* (process) of collaboration. In combining the features that we have identified in a model, we are taking a first step toward the creation of what Lakoff and Johnson (1999) refer to as an "ideal case prototype." A prototype "allow[s] us to evaluate category members relative to some conceptual standard" (p. 19). We believe that this model has the potential to respond to the question: Is collaboration appropriate in this particular context and for these specific goals?

This article presents our current thinking about the phenomenon and process of collaboration in education. In it we discuss what we believe to be essential elements of effective collaboration. We begin by examining the historical roots of collaboration in education: consultation, collegiality, and cooperation. Next we explore emerging constructs in what we consider to be the essence of collaboration. Finally, we discuss the process of collaboration itself, drawing on our individual and collective experiences.

The Roots of Collaboration

Any new social practice is the transformation of a previously existing pattern of action (Wertsch & Tulviste, 1996). Collaboration as a phenomenon in the educational context probably has its roots in more familiar practices: in the three Cs of consultation, collegiality, and cooperation (Krentz, Goulet, Christiansen, & Maeers, 1996). We think that collaborative projects contain some elements of all three. In the following section we briefly describe each of the three Cs to show how consultation, collegiality, and cooperation explain some parts of the collaborative process, but do not account for the whole collaborative experience.

Consultation

Consultation, which usually involves some kind of talk, the seeking or giving of information or advice, or the sharing of expertise is an important part of collaboration. Listening is central to the consultative process; it is a way of knowing (Belenky, Clinchy, Goldberger, & Tarule, 1986). In consultation, listening helps shape "relationships that provide women [for example] with experiences of mutuality, equality, and reciprocity" that build "capacities for

knowing" (p. 38). These foundations support the collaborative process, but are not the whole of collaboration. Something more is required.

Collegiality

Collegiality is another important part of collaboration. It implies an equitable and friendly relationship among colleagues: a relationship where everyone's knowledge and experience are valued. Little (1990) writes about weak and strong forms of collegiality. For her its strongest form is "joint work" such as team teaching, planning, observation, action research, and mentoring. In our thinking, joint work implies some kind of collective commitment on the part of those who work together. For Belenky et al. (1986) collegiality holds the seeds of "transformative relationships with peers" (p. 38), and "connected knowing" (p. 101) grows out of relationships in which participants are reciprocally "connected" to one another. Caring for the other is part of the collegiality that informs collaborative efforts. Collegiality, however, cannot be forced on a partnership (Hargreaves, 1992) by the university, nor can it be mandated by school administrators. Calling a collegial partnership collaborative is not enough to make it so. Clandinin and Connelly (1996) refer to the stories of such partnerships as "cover stories" in education.

Cooperation

Although cooperation is part of collaboration, the two processes are different (Hord, 1986). The best of consultation and collegiality seem to converge in cooperative endeavors where participants agree on common goals and work together to bring them to reality. Cooperation, however, is not yet collaboration, although cooperation requires efforts to understand other people's knowledge. As noddings (1984) explains, "in the intellectual domain our caring represents a quest for understanding" (p. 169). In the cooperative mode participants strive together to achieve a mutual goal. It is through understanding the knowledge each brings to the process that the goal can be achieved.

The difference between cooperation and collaboration became clear to us in the story of a cooperative venture between a university and a school (Krentz & Warkentin, 1994). This project was an attempt to "cooperate in pre-service teacher education and in-service staff development" (p. 3) and was initiated by the administration of a school board and a faculty of education. It began as a cooperative venture, with the university and the school seeking mutual benefits and sharing the goal of improved early childhood education. For much of the life of the project, implementation in the school was top-down. As time went on, however, the project evolved into a collaborative one.

Toward the end of the five-year partnership, teachers began to take ownership for the action research and plan as well as direct the project. Decision-making no longer resided solely with those in positions of power at each institution. As a project participant commented,

> It took a little longer than we thought it might, and I think it was a real learning for us in that you don't empower teachers by just telling them that they now have power. There is a growth process involved and teachers have to find that out for themselves. (Krentz & Warkentin, 1994, Field notes)

Project practitioners evolved from being the objects of change to being directors of their own actions in the project. A project participant summarizes this idea as follows:

> When I think about what the Project was really about—an opportunity for everybody to grow—then I see a growth aspect in this approach for everyone. And that includes the university personnel who were involved because they had an opportunity to see theory into practice and be part of the resources that helped it happen. And I would expect that probably all of us have learned to find our way, and learned more about the need to form a partnership. (Krentz & Warkentin, 1994, Field notes)

The story of this project helped us to understand that success in collaboration is linked to the sharing of both ownership of the project and its leadership. Sharing ideas about classroom practice and trying to implement new approaches to teaching and learning involved all the people and the resources that they had to offer the project. Each participant came to understand that the changes that were being made were a result of everyone's contribution.

Our experiences taught us that collaboration is a particular way of coming together, thinking, and acting. Collaboration matures over time through contributions that each participant makes through the processes involved in consultation, collegial interactions, and cooperation. The following section presents our thinking about collaboration as a phenomenon and as a process.

Collaboration as Phenomenon and Process

Collaboration can be viewed as both phenomenon and process. By this we mean that it can be described in terms of the qualities of experience being examined, and it can also be described in terms of how that experience occurs (Connelly & Clandinin, 1990). Our exploration of collaboration as phenomenon and process has led us to a closer examination of its main features, which are presented in the remainder of this article. We have identified these features according to how participants establish and maintain relationships, work with others to achieve the project goals, and are transformed by process. We label these features as *ways of being*, *ways of doing*, and *ways of becoming*. Ways of being, ways of doing, and ways of becoming interact with one another in collaboration. These processes are cyclical and iterative, shaping the collaboration over time (see Figure 1).

Ways of Being

Collaborative partners find themselves spending much time establishing and maintaining relationships. A researcher in a collaborative project is not a detached observer, but a committed colleague who reflects on his or her research practice. In other forms of research, the university expert often enters a relationship in order to improve, change, or understand a teacher's practice. In collaborative research, participants strive to overcome past hierarchical relationships and to acknowledge the different expertise of each. In the relationship, partners seek to improve, change, or understand their personal practice. Each partner contributes to the collaboration in varying ways and to varying degrees perhaps, but all are committed to self-reflection, the improvement of practice, and the understanding and development of theory. Such a

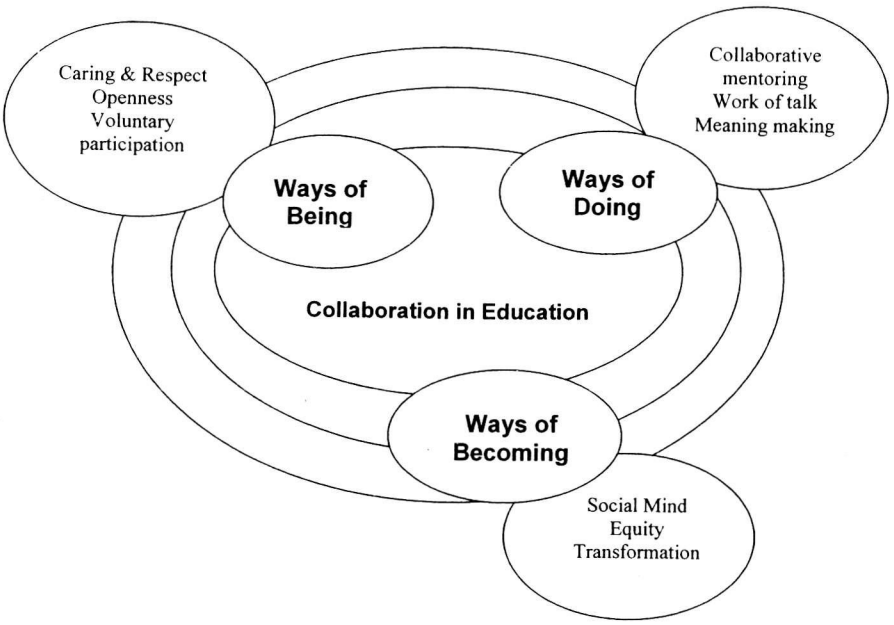

Figure 1. Collaboration in education.

stance requires appropriate ways of being, the main components of which we have identified as caring and respect, openness, and voluntary participation.

Caring and respect

In projects considered to be collaborative, caring and respect for self, the other, and the project itself are essential. A climate of caring lays the foundation for all collaborative work. In collaboration, each partner respects and values the other's ideas and strengths, and his or her way of doing things. Respecting the other is an important part of collaboration because there are times when one has to subordinate personal ideas in order to achieve a joint goal (Tudge, 1993).

In their research in First Nations teacher education in Northern Canada, Goulet and Aubichon (1997) report that they learned they would have to change the feedback structure in order to accommodate their partners who favored an oral mode of reflection. In designing the research project, the researchers had consulted the literature and planned the research process whereby they would summarize their field notes and provide these notes to participants for written feedback. Some participants were also asked to keep journals. Because the First Nations participants had not been genuinely involved in the planning process, their ways of knowing and communicating were not taken into account in the development of the research plan. Thus the requested information from them was not forthcoming. Over time, through interaction, listening, and opening space for participants to express themselves in their preferred modes of communication, researchers were able to set aside their notions of appropriate engagement. They came to value and demonstrate respect for the choices made by the participants. The Northerners then began inviting the researchers to listen to oral presentations that dealt with the reality

of First Nations peoples: their histories, struggle for survival, healing, and the implementation of self-determination. In the ensuing discussions, participants spoke from the heart in "moments of deep emotion and clarity of vision that had a profound effect on all" (p. 125).

In collaboration it is important to listen to one another, value every contribution, and enable each group member to have a sense of belonging. Participants need to be prepared to give and take in a way that respects both self and others. It is in a climate of respect and caring that trust is able to develop: trust in self from the encouragement of others and trust in others as one's work and ideas are received openly and dealt with respectfully. As O'Neill (1990) suggests, "an atmosphere of trust needs to be created in order that one can speak honestly and freely" (p. 89).

Collaboration is challenging because the human element of social interaction is a major part of every collaborative project. Conflict, then, is to be expected. The purpose of collaboration is not to avoid critique and conflict, but to deal with both respectfully and constructively. Collaborative partners identify strengths in one another's ideas and actions and build on them rather than tearing them down. How partners manage conflict in collaboration can move them, as Tannen (1998) suggests, from debate to dialogue. One of us was recently involved in an overseas collaborative teacher education project that included the development of a research proposal. Over a three-month period there was commitment on the part of both partners to the proposal because securing funding for the project was considered essential. The two partners had different personal styles and cultural expectations. At times disagreements surfaced that threatened to stall the planning process. Nonetheless, because both partners believed in the project itself, they were able to put their disagreements aside and work creatively most of the time. It could well be that collaborative work needs deadlines for achievable goals in order to keep participants focused on something outside of themselves and to some extent on something outside of their relationship. An identifiable outcome is an important motivating factor.

The purpose of a collaborative project is extremely important even if that purpose is not clearly defined at the outset. Caring for the project and commitment to the purpose could provide the volition to continue when difficulties arise. Therefore, although the relationship is always on the table in collaborative projects, there may be times when the resolution of personal conflicts needs to be suspended temporarily—when disagreements need to take a back seat to the task at hand. Although allegiance to the project can occasionally supersede the attention to others and to relationships in collaboration, in the end it is both the project itself and the human interaction that provide the focal point of caring.

Openness

For us, participants in a collaborative project are committed to creating space for all voices to be heard. One voice cannot dominate others. Participants are responsible for developing their own voices in the collaboration while remaining aware of the other's right to speak.

Listening in order to understand the other is an important aspect of openness. Hearing other perspectives and accepting other ways of being and know-

ing are part of the collaborative process. Reflection on practice is inherent in collaboration, and so the experience of other participants and their views of collaboration are valued along with intuitive knowledge, because such knowledge often includes reflection on complex experiences that have yet to be clarified. Openness to the perspectives of all collaborative partners allows the group to draw on the expertise of each group member, enriching the knowledge, skills, and understanding of the group as a whole.

For example, Christiansen and Devitt (1997) taught parallel courses in the teacher education program at their university. This professor and seconded teacher decided to collaborate in a reflection on practice. The two soon discovered that before they could conduct research together, they first had to work on the development of a collaborative relationship based on honesty. Openness in collaboration means that partners are ready to reflect on their own practice as well as on their roles in both the collaborative project and the process. In this regard it is important to be honest about how we see ourselves in relation to the project. Openness means being willing to give and receive feedback regarding one's own and others' positions in the collaborative project. Collaborative partners allow themselves to become willing to having their ideas and actions questioned. Openness and trust are interdependent. Sometimes feedback may be direct, or it may be subtler in the form of suggestions or questions raised. Collaborative partners need to attend to these indirect messages and ask for clarification if it is needed. Critical assessment would appear to be an essential element in collaboration.

Stewart (1997) advises that participants in collaborative projects need to acknowledge and deal honestly with issues of status and power. There may be risks associated with this. The power may be as subtle as having the ability to exclude another participant from the group or more visible in the formal vestiges of role designation (e.g., the project director). Roles outside the group—a teacher working with a director of education or a graduate student working with a supervisor—can affect the participant's willingness to be open with others.

Initially participants in a collaborative project may feel insecure. As they begin to express their feelings and needs, they receive an indication of the level of trust they can expect in the collaboration. Here other members of the group need to provide the support that leads to trusting relationships and self-confidence. This is important because the level of trust combined with the level of commitment can affect the willingness of participants to share openly in collaboration. At the same time, collaborators need to be willing to give to and receive help from one another. Self-disclosure and feedback can be threatening in a group with inequitable power relationships; honesty requires shared power. In collaborative projects partners may struggle to deal with traditional ways of being that vest power, authority, and voice in one or a few people. For us this does not mean that power is always equally distributed in a collaborative group, but that power relationships are recognized, dealt with when necessary, and shift according to the expertise and will of each group member. Dealing with status and power means that participants are open to issues of equity—open to creating a space where all voices can be heard.

Voluntary participation

Our experience has led us to believe that collaboration implies voluntary participation at all stages of the project. In the beginning there may be a commitment to the project and a willingness and energy to see it through to completion. As the project proceeds, collaboration can require a tremendous investment of time and intellectual and emotional energy. A reassessment of the initial commitment may be needed. More often, though, the time and effort required lead to a recommitment and renegotiation of roles, leadership responsibilities, as well as new understandings of others. Renegotiation of commitment becomes a negotiation of emerging or evolving roles rather than a discussion about the viability of the project itself. The work of McAlpine and Crago (1997) illustrates this point. In their research they used what they called both "formal" and "informal" consent, defining formal consent as an agreement between collaborative partners to see the task through to completion and informal consent as "an ongoing process of negotiating participation ... to co-construct the direction of the research and to reaffirm or renegotiate earlier decisions" (p. 109).

Ways of Doing

In this section we explore the features of how participants in collaboration engage in activity with others to achieve project goals. We have called this *ways of doing*. Collaborative mentoring, the work of talk, and meaning-making are its key components.

Collaborative mentoring

As we came together to think, write about, and do collaboration, we sometimes found ourselves having to deal with personal and professional pressures that made it difficult for an individual to contribute fully to the group. When this happened, responsibilities were renegotiated so that we could keep our project on track. At various times each of us took on a leadership role when necessary. It was more, however, than just individuals taking turns leading the group or renegotiating our roles and responsibilities. We were engaged in a process of collaborative mentoring (Mullen, 2000).

Collaborative mentoring implies accepting responsibility for helping one another make meaning of individual experiences and strive for a shared understanding. In our attempt to understand the meaning of collaboration, we found that we were sometimes unsure of the direction we needed to take. Sometimes it was an individual expressing an opinion, asking a question, or sharing a reading. Sometimes it was the combination of all of us, stimulating one another's thinking, and sharing our ideas, that allowed us to move forward. We were able to challenge others and be challenged ourselves, to go beyond the surface explanation of experience to reach a much deeper meaning. We now understand this process of both sharing and challenging as an example of collaborative mentoring. Such a process is not only "reflective and empowering," but also contributes to the "development of ... synergistic relationships" (Mullen, 2000, p. 4).

The work of talk

We suggest above that consultation is an important part of collaboration and that consultation usually involves some kind of talk. In collaborative projects,

speaking, listening, reading, and writing are part of the work of talk. These aspects of language and communication remind us that collaboration is rooted in consultation. We talk to form relationships and express caring. Tannen (1998) suggests that "in conversation we form the interpersonal ties that bind individuals together" (p. 25). Talk enables us to exchange with other members of a group the information needed to live our lives as a cooperative group of people with shared goals, mutual trust, and respect; in other words, a community of learners (Jalongo, 1991).

We also talk in order to understand. Through talk we capture the salient points of our experiences as we describe them to others. Past experiences are remembered as thoughts that are given shape and expression. In giving oral expression to our thoughts, we express ideas not only for others, but also for ourselves. Our speech assists our reflective thinking process; as we verbalize ideas we organize thoughts. The act of verbalization gives us the opportunity to process those ideas again as we hear them objectified in speech (Vygotsky, cited in Van de Veer, 1996).

In collaboration, talking in order to make meaning of our experiences is differentiated from daily conversation in that it is informed talk: informed by the theory and the reflective practice of self and others. We are not merely sharing our experiences, but are talking to help ourselves reflect on, make meaning of, and improve our practice. The work of talk includes thoughtful reflection on our own and others experiences.

Informed talk helps to bring meaning to our experience in that it acts as a mediator between experience and meaning. It is a "cultural artifact" (Cole, 1996) used to assist our thinking; a tool we use when reflecting on experience. Cole explains that cultural artifacts include language.

> An artifact is an aspect of the material world that has been modified over the history of its incorporation into goal-directed human action. By virtue of the change wrought in the process of their creation and use, artifacts are simultaneously ideal (conceptual) and material. They are ideal in that their material form has been shaped by their participation in the interactions of which they were previously a part and which they mediate in the present ... the properties of artifacts apply with equal force whether one is considering language or the more usually noted forms of artifacts such as tables and knives that constitute material culture. (p. 117)

Cultural artifacts such as informed talk allow a person to have an understanding of the world that sense alone cannot provide, because artifacts facilitate the "intermingling of 'direct, natural, phylogenetic' and 'indirect, cultural' aspects of experience" (Cole, 1996, p. 119). In our struggle to understand the essence of collaboration, we found ourselves constructing diagrams, creating new language, and using language in new ways to express our thinking about collaboration. It seemed we were in the process of shaping the cultural artifacts needed to help us name, and thus come to a shared understanding of, our various experiences.

Meaning-making

Collaborative mentoring and the work of talk facilitate meaning-making in collaboration. We see meaning as both socially and individually constructed through reflection on experience in interaction with the collaborative project

and with other participants and their views. In collaborative projects, we use the interaction with others to make meaning of experience. We access cultural artifacts through other people who are the carriers of the artifacts through speech or action. Although cultural artifacts are the products we use as mediators, the process of mediation takes place in the realm of social interaction. This is especially the case for meaning-making in collaboration where we use our talk and the talk of others to create informed talk, and in so doing come to clarify our thinking, to reach a deeper level of understanding.

Such was the case one holiday Monday. Our group had gathered to co-write a piece on the essential aspects of collaboration. For a while the discussion consisted primarily of turn-taking and responding as we shared ideas and explored our thinking. At one point we were stuck in an awkward place where our articulation was fuzzy at best. None of us was satisfied with our understanding. We felt it was incomplete. Little by little, people assumed different roles in the discussion. One of us started asking questions and verbalizing her doubts about our view of collaboration. Another began drawing a diagram on the chalkboard in an attempt to capture the ideas that were emerging. As she did so, the rest of us responded to the diagram in ways that caused her to erase some parts and add others. As we thought about the various versions of the diagram, another member suggested other ideas related to collaboration. We soon found ourselves focusing on both the diagram that was evolving on the chalkboard and on new ideas being put forward by other people: new ideas to which we responded and that in turn changed the diagram. This interactive process continued until we succeeded in clarifying our thinking.

The events of that holiday Monday were typical of how we had come to work with one another. The story illustrates how collaborative mentoring and the work of talk are used to make meaning of experiences. It is this interactive nature of meaning-making that has potential for transforming self, one's understanding, and one's practice through collaboration. We have named this process *ways of becoming*.

Ways of Becoming

Through negotiation and working together, a climate of caring and mutual respect is created that facilitates the development of trust and the ability to be open in relationships with collaborative partners. The openness of each participant in collaboration informs the talk of the others; partners care for those with whom they collaborate as well as for the ideas that come out of that collaboration. A climate of caring, respect, and commitment to self, others, and the project make the collaborative process possible. Such a climate is essential in collaboration because it enables the individual and the group to move through a process of change and be transformed.

The social mind

The story of our work together on that holiday Monday illustrates the functioning and importance of the "social mind" (Del Rio & Alvarez, 1995) in meaning-making. In collaboration individuals create and make use of the social mind. Through talk, action, and reflection a group emerges. As expertise, knowledge, and experience are shared, joint analysis and collective self-reflection help to create the social mind where internal knowledge and thought processes are

externalized in talk for all to use. Talk and collective reflection allow us to exchange information needed for the group to share common understandings. In the process we have access to and can use one another's tools of analysis (cultural artifacts). This process enables us to support one another's thinking so that we can go beyond what we would have been able to achieve by ourselves alone. In talk we ask questions that help another person focus, rethink, or clarify an idea. Others use our ideas in the process of building and developing their own. Del Rio and Alvarez describe this thinking process.

> The subject ... acts, thinks, wants, considers, remembers, and so forth, using two main sources mutually integrated: the classical mind of psychologists, her or his mind or brain under the skin; and the distributed mind, the loans, resources, funds, or mediated tools that are offered to her or him in her or his cultural space—mainly social mediations [of others] ... and the instrumental mediations [of technology]. (p. 394)

Each participant has access to the social mind of the group. Individual thinking is both an internal process and the result of external influences in the environment. One person may support our thinking by using a symbol (or a diagram) that helps us solve a problem, or a story may resonate and clarify the interpretation of our experience. In collaboration individuals create and make use of the social mind that extends beyond the immediate participants through informed talk as the theory and experiences of others not physically present in the group are shared and become part of the group knowledge and shared understanding.

Equity

In contemporary educational practice, the term *collaboration* is often used to refer to interactive groups where some degree of equity is expected. To us collaboration means much more. In our experience, collaboration in education implies that participants cooperate with one another in a relationship in order to accomplish mutually agreed-on goals. Rooted in cooperation, collaboration enables an individual to build relationships with others in a project, thus creating a community of learners that produces outcomes that change each and enables new ways of being and new ways of knowing to occur; these affect the collaborative process as it moves through time. Collaboration is an iterative, recursive, helical process situated in practice.

Through collaboration, educational change can be viewed in a new light. In the past researchers often used their knowledge to examine and define how others should change. In a collaborative project all parties are led to reflect on their own practice—as teachers, professors, researchers, or administrators—separately and in conjunction with others. Collaboration involves an examination of the individual and the social and how these two interact, not just for others, but for the self as well, because in collaboration we recognize that in sharing power we can only change self. How we do so may affect others, but in collaboration the decision to change, both what and how, resides with each individual.

Others have struggled with the challenge of understanding how equity is possible in collaborative projects. For example, Drake and Basaraba (1997) asked, "Who held the power in our relationship? Was it equally shared?" (p.

213). Issues of power may vary from individual to individual. In this project the university researcher felt powerless because she had to be careful to maintain a good working relationship to continue the project, whereas for the teacher issues of power were irrelevant because she could leave the project at any time if she felt that it was interfering with her teaching. They resolved the question of power when they "addressed [their] shifting role as expert. While Susan [the researcher] was the expert on the curriculum model, Jan [the teacher] was the expert in day-to-day implementation and student evaluation" (p. 213). In this context, the issue of power evolved into a "complementary relationship" in which they were "interdependent—stronger together than alone" (p. 213).

Collaboration invites rather than mandates. In learning how to be equitable in collaboration, we may gain insight into how to be more equitable in other relations and situations as well. This does not happen automatically, because most of us have been socialized to work in hierarchical relationships in institutional settings. Collaboration can create a space where we can step out of our roles with their inherent reified hierarchical structures and assumptions. Collaboration enables us to become a community of self-reflective learners in equitable relationships with others.

Transformation

The process of reflection on practice and meaning-making in collaboration is one of transformation. We are beginning to understand the role of experience in the construction of individual and collective knowing. Like Dewey (1938) we see experiences as continual and interactive in nature. In sharing our experiences with others, we look back and separate one experience from another through its enduring qualities and unique features. As we bring meaning to experiences, we see the causal connections and are able to reflect on them (Dewey, 1934). Our understanding of our experiences changes. Collaborative conversations seem to lead to an increased awareness of the reality of the other. Each person selects from the collective experience those aspects that are the most meaningful. From this process comes the ability to make decisions about oneself and one's actions in future events. In this way we become transformed and empowered to make changes in our individual practice.

Closing Thoughts

In this article we identify the features of collaboration in a model. In doing so we have created an abstract, ideal representation of a human process that takes place in the real world of action. We believe that collaborative projects are socially constructed in given cultural contexts at societal, institutional, and personal levels. The individual is part of that context and brings to the collaboration knowledge, experience, perspectives, and goals—all of which may be both personal and professional. Those goals can be interpreted in various ways. Collaboration can be compromised by the constraints of differing social, cultural, and political contexts and the power differentials in those contexts. At the same time, knowledge of the essential features of collaboration can alleviate some of the potential problems experienced in past collaborative projects (Elliott & Woloshyn, 1997; Kapuscinski, 1997) and differentiate it from other forms of working together in educational research. When difficulties do arise in

collaborative projects, the model can also serve as an analytical tool to understand and overcome problems.

When collaboration is successful, it is a powerful way of working together and making change in education. In collaboration individuals come together for a purpose. Participants develop relationships that create a group. From the work of that group, both process and product outcomes emerge. The salient features of collaboration—the ways of being, ways of doing, and ways of becoming—shape and define the process as collaborative. Throughout the process these features are always present with one or more aspects of each dominant at any given time.

The initial purpose of the collaboration may need clarification and even renegotiation from time to time during the life of the project. Ultimately it is the individual who decides whether she or he is willing to make a commitment to that purpose and to the other project participants. The work of the group creates both product and process outcomes that have the potential to change the understandings and actions of the individual and the group. This in turn sets future directions for both. The focus and direction of the collaborative project become more clearly defined; relationships grow and develop; individuals recommit to the project and to one another; product outcomes are achieved. When one project comes to an end, partners may continue together, growing beyond the collaboration that brought them together in the first place, or they may move on to another project. Regardless of the future, the individual has been transformed.

Through the meaning-making process in collaboration, new ways of being and knowing evolve. Communities of learners are often part of this evolution; such communities can become the creators of new forms of practice. There can be other outcomes as well. As a result of their experience, Kagan, Freeman, Horton, and Rountree (1993) concluded that in collaborative projects, "it could well be that the process is in the product, and that in learning to understand and care about others, one rediscovers oneself" (p. 508).

Our growing understanding of collaboration is an outcome of our experiences in many varied collaborative projects. As we continue to explore collaboratively the meanings of educational events, we find ourselves involved in the construction of what Kagan et al. (1993) have called "epistemological networks" (p. 508). Elsewhere Lyons (1990) has argued that a concern for epistemological issues lies at the very heart of teaching. Working in collaborative projects can challenge us to go beyond currently taken-for-granted, reified forms of interaction in education. Collaboration has the potential to provide an alternative, not only to how we think and theorize about educational improvement, but also to how we experience teaching, learning, and change.

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