

The Ecology of Learning and Work: Learning for Transformative Work Practices

Marilyn E. Laiken, Ph.D., Associate Professor of Adult Education
Ontario Institute for Studies in Education of the University of Toronto,
Toronto Ontario, Canada
mlaiken@oise.utoronto.ca

Abstract:

It has been said that “the unexamined life is not worth living” (Socrates). Yet, in the current work and educational climate of increasing pressure to produce relentlessly, a key to success has been all but eliminated. Our recent research (Laiken, 2001; Laiken, Edge, Friedman & West, forthcoming) has highlighted managing the paradox of task versus process, or action versus reflection, as a critical factor in blocking or facilitating transformative learning. This chapter assumes a reciprocal relationship between personal and systemic transformation processes. As such, it examines the design of a graduate course to help students experience and apply their learning in managing the action/reflection tension to team work in organizations across work sectors. By creating an

environment in which learners can safely experiment with new behaviour, reflect on the outcomes, and extrapolate principles which can then be applied in future team experiences, the graduate course results in learning which is described by students as transformative. The application of this learning to improve the functioning of their own course “team”, as well as teams in their workplace settings, is demonstrated through scenario descriptions drawn from final course papers. A case is made for attention to managing the action/reflection polarity through dialogic processes, in order to create classroom and workplace contexts which are transformative learning and work environments.

Key words/phrases:

Action/reflection; dialogue; transformative learning; transformative work practices

INTRODUCTION

It has been said that “the unexamined life is not worth living” (Socrates). Yet, in the current work and educational climate of increasing pressure to produce relentlessly, a key to success has been all but eliminated. This is the ability to create a space for collective reflection, learning, and ultimately personal, organizational, and potentially social, transformation.

Our recent research (Laiken, 2001; Laiken, Edge, Friedman & West, forthcoming) has highlighted managing the paradox of task versus process, or action versus reflection, as a critical factor in blocking or facilitating transformative learning. This involves the ability to step back from the task at hand periodically, to reflect on *how* the work is proceeding, in order to become progressively more able to manage the task effectively, whether individually, as a work team or as a whole organization.

At the Ontario Institute for Studies in Education of the University of Toronto, graduate students in our Adult Education specialization, “Workplace Learning and Change”, are studying to be change practitioners across work sectors. All of them have an interest in creating authentic, transformative work environments, and are using their graduate education to experience and learn about this for themselves and their constituents.

Authentic learning environments and authentic workplaces have much in common. They tend to be ones in which collaborative partnerships prevail over hierarchical power relationships; leadership is enabling rather than controlling; differences are viewed as rich resources for learning rather than challenges to be “managed”; reflection and critical thinking are encouraged through the development of vibrant communities of practice; conflicting ideas are surfaced through genuine dialogue, often leading to expanded thinking and revised world views; and “wholeness” is valued – both in the individual as a whole person (body, mind, emotions) and in the understanding of groups and organizations as living systems.

Probably the most important characteristic of these environments is the prizing of congruence between beliefs and behaviour. However this rarely describes the reality. Rather, an authentic learning or working environment is one in which participants may see themselves in a *process* of continuously striving for such congruence. This involves being clear at the outset about one’s values and vision of an ideal, and then being willing to acknowledge honestly instances in which the reality may be out of sync with that vision. The task then is to conscientiously work towards closing the gap.

Graduate education programs in traditional universities are challenging places in which to create authentic learning environments that fit this description. Like the traditional workplace, they are generally hierarchically structured and tend to

create power-over positions for those in leadership roles, encourage competition as opposed to collaboration through their funding and reward (ie: grading) systems, use adversarial approaches such as collective bargaining or appeals procedures to resolve conflicts, and often implicitly allow and support critique which is judgmental and silencing as opposed to exploratory and inviting. Most significantly, genuine dialogue, honest expression of feelings and the opportunity to focus on process as well as content are clearly devalued - making it difficult, if not impossible to close the gap between espoused values and practiced behaviour.

And yet, we learn what we live. If our students are to help create transformative environments in their own work organizations, we believe that they must first experience such environments in their graduate education.

Our intention in the Workplace Learning and Change specialization is to engage learners in theory and practice that generates consciousness through interaction and reflection. Although our expectation is that the experience will be personally transformative, we also assume a reciprocal relationship between personal and systemic transformation processes. By creating an environment in which learners can safely experiment with new behaviour, reflect on the outcomes, and extrapolate principles which can then be applied in future experiences, our graduate courses foster systemic consciousness through collaborative

participation, developmental leadership and critical reflection regarding current organizational practices.

We believe, as expressed by Fritjof Capra (2002), that:

To build a sustainable society for our children and future generations, we need to fundamentally redesign many of our technologies and social institutions so as to bridge the wide gap between human design and the ecologically sustainable systems of nature. (p. 99)

We recognize social contexts as potentially transformative, and therefore strive to help our graduate students create work environments in which “the structures, norms and processes embody transformative ecological values – (those of) participation, partnership, mutual respect and responsibility, reflection, communication and collaborative inquiry, creativity and ...a sense of the whole” (Taylor, 2002, p.5). In our program, this is accomplished through courses designed to reflect the values and approaches that we aim to demonstrate and model.

In one of the courses that I teach, entitled: “Developing and Leading High Performing Teams: Theory and Practice” (referred to in this paper as “course 1107”), we are experimenting with a particular design that surfaces the action/reflection paradox for the purpose of learning how to manage this polarity. This becomes important if we consider that transformational practice is dependent on an opportunity for reflective, critical thinking (Mezirow, 1991; Cranton, 1994).

This chapter examines the design of the 1107 learning environment, in an effort to shed light on how engaging in dialogic conversations helps learners to manage the action/reflection tension, educationally and organizationally. It draws on data from both our recently completed research project, conducted to examine models of organizational learning (Laiken, 2001; Laiken et al, forthcoming), and from the writings of recent 1107 students in their final papers for the course.

THE PROBLEM

At the organizational level, across work sectors, our students agree with our research findings that whether the product is defined as services or goods, the general tendency is to view time spent on specific task completion as the only legitimate form of work. Divergent thinking, although touted as an organizational value with phrases such as “thinking out of the box”, is in reality only barely tolerated, before convergence towards action (or in Nike’s terms, “just do it”) overrules.

However, as Capra (2002) notes:

Being creative means being able to relax into uncertainty and confusion. In most organizations this is becoming increasingly difficult, because things move too fast. People feel that they have hardly any time for quiet reflection, and since reflective consciousness is one of the defining characteristics of human nature, the results are profoundly dehumanizing. (p. 126)

For instance, in one of the organizations from our research (Laiken, 2001, p.8), a worker comments:

Oh, they look bored at the meeting, and they don't make notes, and they think, "well, didn't we already discuss this"? So people try to speed up the tempo, you know at the meetings, and it's a good thing, because there's work to do. But on the other hand, it's also a forum where you can think – we need to meet, because there will be issues – you know there are – that we should get a little deeper into.

Decades of experience and research in adult learning (Lewin, 1951; Argyris and Schön, 1978; Kolb, 1984; Cranton, 1994) have convinced educators that an opportunity to reflect on one's lived experience is an absolutely essential component of learning which results in attitudinal and behavioural change. In the workplace, an opportunity for such reflection not only increases productive capacity as well as individual knowledge and skill, but also, in fact, results in personal and sometimes, organizational learning which is transformative.¹ As workers engage in critical, reflective conversations about the results of a mutual project and their interactions within it, they not only devise improved approaches for further work, they also explore their own values, assumptions and interpersonal processes. Where an unexamined experience may tend to simply be repeated, a conscious examination of learning from direct experience surfaces distorted assumptions, and has the potential to revise established world views. The paradoxical outcome for an organization is a case of slowing down in order to speed up. Decision-making is improved, effectiveness is increased, and

¹ Transformative learning is defined by Patricia Cranton (1994) as "the development of revised assumptions, premises, ways of interpreting experience, or perspectives on the world by means of critical self-reflection" (p. xii).

overall productivity and work satisfaction are enhanced through systematically incorporated periods of collective reflection (Laiken, 2001; Laiken et al, forthcoming; Senge et al, 2000; Argyris, 1990; Capra, 2002).

Nevertheless, the workplace persists in devaluing this activity by using derogatory language such as “mushy” or “touchy-feely”, and through maintaining systems, processes and behaviours which relegate critical reflection to an isolated corner, if it is supported at all. As a team member in one of our research sites notes:

...but it does take work, though, I mean, you think about a team – it doesn't just happen on its own. It takes its course – and the problem is, people get so caught up with doing the other work they have to do that they don't take the time to build their team, and so the team work doesn't get improved. (Laiken, 2001, p. 9)

When personality or work-style differences (Kolb, 1984) surface in a team meeting, the pressure to move to task closure reinforces convergent work approaches. The assimilative thinkers who could encourage deeper analysis, or the divergent thinkers who might help expand the possibilities, often play second fiddle to an action orientation which is reinforced by work pressures to make a decision and move on. What is lost in this process is the potential for learning that could both inform future action and expand personal consciousness.

Helen reflects on her own attitude towards process at the start of the 1107 course:

I personally viewed the frequent “time outs” as being selfish and unproductive to the class goal ... I recognized the time that a team project would take, and feared that if we continued to stop and look at our team process, we would run out of time. As a working parent taking two courses, I valued the task time, and was resistant to seeing value in the process.

Additionally, when one considers the fact that the skills involved in critical reflection are not as valued, and therefore taught or practiced minimally in the action-oriented workplace, it is not surprising that these skills are generally under-developed among workers, regardless of personal style differences. Thus, although the need for balance between “task” and “process” is sometimes recognized, the implementation is fraught with difficulties.

One of the key barriers is a disinclination to engage in open dialogue that holds the potential for conflict. Inevitably, as a group of people begins to examine together a shared work experience, the differences that define their uniqueness will surface. In an earlier study (Laiken, 1993) conducted with senior managers, team leaders and members from two private-sector organizations, we found that “an intellectual understanding does not appear to be sufficient. No matter how much it is accepted that surfacing and managing conflict is a normal, healthy productive process in a team’s life, most team members and leaders appear to be frightened of the outcomes and disinclined to engage” (p.33).

Reflecting on the issue of conflict within the 1107 context, Yolande says:

The team experience, especially the group facilitation with Barbara, helped me discover a part of me that prefers to avoid conflict. If the conflict is of the

more factual and neutral nature, I am not afraid to deal with it openly, and I am able to listen to others and build on others' opinions. But if the conflict is more personal, relating to people's feelings, personality, or has a moral or ethical element to it, I tend to avoid it. (Final paper, 1107, 2001)

A GRADUATE COURSE RESPONSE TO THE CHALLENGE

How then do we, as adult educators, enable reflective opportunities that have potential learning outcomes to be incorporated into productivity-oriented workplace settings? And how do we personally learn the skills required to engage in such reflection, so that we may teach them to others? These are key questions which have surfaced in course 1107 over the years. Our Adult Education graduate students engage in this inquiry experientially, through a course design which unfolds during seven full-day sessions over a period of thirteen weeks.

The first day is devoted to orienting the learners to the course design, beginning to build the group of twelve people as a team, and introducing Hersey and Blanchard's Situational Leadership Model (1988) as a skeletal framework from which to build the theoretical components of the course. The theories represent current and classic research on developing effective work teams, and are introduced experientially during the morning sessions of the remainder of the course.

At the end of the first meeting, the students form co-facilitating pairs for each of the remaining six sessions. The course design then proceeds as follows.

In the mornings, theory is introduced covering such areas as the phases of team development; team goal-setting, problem-solving, decision-making, communication and conflict management; managing difference; and dealing with intractable problems as polarities. The purpose of these theoretical frameworks is to provide a “conceptual map” to help students examine their lived experience of team membership and leadership, both in the workplace and during the afternoon peer-led team meetings throughout the course. These pieces are initially introduced and taught by the instructor; however, the content is eventually determined by the interests and learning needs of all class participants, and often involves guest lecturers, films, site visits, and simulated experiences. Examples of such participant-determined content have included an examination of style/personality differences in a team through such instruments as Kolb’s Learning Style Inventory (1984) and the Myers-Briggs Type Indicator (1998), guest lectures to explore Barry Johnson’s concept of “Polarity Management” (1992), and an exploration of Peter Senge’s “ladder of inference” (1994) as an approach to managing the leaps of abstraction from observations to assumptions which inevitably occur in a working team.

The afternoon session is divided into two components. The first is an hour and three-quarter meeting of the class group as a working “team”, led by the co-facilitating pairs of students chosen during the first class. The task, process and facilitation of these meetings is entirely decided by the members, who are also asked to determine a method for evaluating their progress as a team in all of these areas. The outcome of this evaluation is worth 50% of each student’s grade. The instructor acts as a “coach” to the co-facilitators prior to and during the team sessions, if needed. Otherwise she simply observes, collecting data to help with the next segment. The purpose of this component is to generate the team experience which provides grist for the learning mill. It is during this segment of the day that students experience the typical behaviour of team members as they complete a task such as setting team objectives, planning for implementation of activities to accomplish these goals and evaluation of their individual and collective success. The grading task simulates a work team experience of peer evaluation, an activity that is increasingly becoming a norm for progressive teams in organizational settings.

The final hour of the day is devoted to a team “debrief”, the ultimate purpose of which is to help students learn the skills of successfully achieving task goals through action, while maintaining an effective team process through reflection. This segment, which is initially facilitated by the instructor, and eventually co-led by all team members, provides a structured reflective opportunity to examine the team’s behaviour and provide individual feedback to members and co-facilitators.

The observations of “team life” are intentionally related back by the instructors and students to theoretical concepts introduced in the morning sessions.

Sarah comments on the impact of this part of the course design:

The debrief for this session offered many insights into appropriate leadership for this stage. For example, the co-facilitators had prepared an agenda but had realized just before the session that it was too structured, so discarded it. This was a good decision, because it allowed the group members to have more control over the session, thereby sharing the power... Because the co-facilitators adjusted their leadership style to be less directive, the group was able to air our differences and work through our issues. (Final paper, 1107, 2001)

The path to this kind of awareness is a dialogic approach intended to encourage critically reflective conversations. Learners practice the skills required to engage successfully in dialogue, including advocating their own views, as well as inquiring into the views of others, with the intention of promoting understanding of differences (Ellinor and Gerard, 1998; Isaacs, 1993; Brenegan, 2000). They are introduced to such concepts as “the ladder of inference” (Senge, 1994, Argyris and Schön, 1978), to help them manage the tendency to leap from observed behaviour to undiscussed interpretations and assumptions. They practice the skills of self-disclosure and giving and receiving feedback on observable behaviour (Luft, 1970), and are encouraged to see conflict and expression of difference as a rich opportunity for learning (Laiken, 1994).

About this experience, Sharon says:

The team enabled a dialogue process to occur by creating a safe, “holding” environment for our discussion. From the early stages of our team

development, we had established a supportive, accepting climate for our meetings...This container had the capacity to hold the diversity within our team. Opposing views were welcomed as an essential contribution, each worthy of consideration. (Final paper, 1107, 2001)

The face to face interaction in class is supported by several additional vehicles for reflection, which help reinforce the experiential learning approach. These include a course requirement that each student maintain a personal reflective journal of his or her experience; a learning partnership which is formed early in the course and used in any way the learners choose; and a web site (Web Knowledge Forum) which is available for on-line conversations between classes.

LEARNING TO ENGAGE IN DIALOGUE

Though clearly course 1107 has an impact, the question still remains about exactly how this is achieved. In an earlier article (Laiken, 1997), I introduced a variation of Bandura's (1974) behavioural theory model. It helps to examine the various stages of learning through which an individual or group might progress, to enable the kind of collective reflection described in the last section. I have become aware of the fact that this is exactly the process that my 1107 students experience in class and exemplify in their workplaces, as they and their colleagues learn the art and practice of dialogue.

The stages are as follows:

1. Lack of awareness (unconscious incompetence): In this stage, differences in ideas, styles, approaches, commitment, etc. may cause discomfort, but there is no expectation that it is possible to address this within the work/learning context.

In describing this phase within a client community service team, Evelyn says:

... There are conflicts between some professional groups about roles, and some team members have reacted to these and other issues through absenteeism and a general lack of enthusiasm for the task at hand... Team members tend to talk about the issues outside of the group format, which might help to alleviate some frustration, but does not provide the team with the ability to move forward. (Final paper, 1107, 2001)

2. Awareness without action (conscious incompetence): In this stage, there is an awareness of issues needing to be discussed more openly, but neither the willingness nor the ability to make these discussible in the work/learning context.

A transcript of a conversation from Vanessa's recent nursing team meeting

provides an example of this stage in the workplace:

As we simmered down a little, Margaret asked, "So how do we get into this muck? I know we do it, but here we are – nurses, with supposedly great interpersonal skills, grand communication skills and lots of ability for active listening. Where do we go wrong?"

"Well, I think we may be able to listen and empathize, but I think we are not so skilled at giving feedback and talking clearly about our experiences. That's not what they teach you in nursing, at least not when I graduated!" Dorothy interjected, "Yes if someone says something weird or off-base at team, people just shut up or change the subject. We're not really good at clarifying,

especially something that is contentious”. “Or something that upsets us”, added Anne. “We are much more likely to talk about it after the meeting in small groups”. “Yes”, said Margaret, “and that’s where it really can start to get out of hand”. (Final paper, 1107, 2001)

The work at these two levels involves helping people to invite feedback on the impact of their behaviour on others; helping them explore the assumptions that are driving this behaviour; and helping them be open to having these assumptions questioned by others who bring a different perspective to the table. The impact of this type of engagement is to prevent trips up the previously mentioned “ladder of inference” (Senge et al, 1994):

- From observable data gleaned from experiences with each other
- To “data” that we select from what we observe
- To personal and cultural meanings that we add
- To assumptions we make based on those meanings
- To conclusions we draw rooted in our assumptions
- To beliefs we adopt or generalizations that we make
- To actions we take based on those beliefs.

The next stage is:

3. The ability to act on awareness, with effort (conscious competence): In this stage a group is able, possibly with facilitative help, to surface and expose assumptions in order to more openly explore differences.

Here, learners prevent their trip up the ladder of inference by becoming more aware of their own thinking and reasoning through critical reflection, and begin to engage genuinely with each other through dialogue. This involves slowing down their thought processes so that they avoid moving quickly from the concrete data of direct observation to a generalization that is not tested. Participants learn to spot these leaps because they often cause confusion and tension in a conversation. At this point, rather than ignoring the tension, they learn to acknowledge the leap, and examine it by testing their understandings against the experience of others.

Reflecting on her engagement with this process in 1107, Tess says:

During our fifth meeting a team member declared: “I don’t look forward to coming to this class and I don’t know why.” That moment held an indescribable intensity in the team... As the conversation continued, conflicting views and feelings surfaced. I felt the energy begin to shift. The team allowed the space for working through internal and interpersonal conflicts. The collective strength and vulnerabilities of the team began to surface, as individuals shared responsibility for leadership on specific issues. In these moments I began to feel part of a dialogue – with myself and in the group.

Once the differences have surfaced and are understood clearly by all, the last phase of the model becomes relevant. This is:

4. The ability to hold the polarities, and maintain the communication (unconscious competence): This stage involves the ability to interact with

others who have qualitatively different views, styles, backgrounds, etc. in a way that values the other individuals and their ideas, while simultaneously maintaining the integrity of one's own beliefs, and allowing oneself to be influenced by the differences.

As is almost always the case in complex interactions, the issues on the table here are not problems to solve, but polarities to manage. It is likely that a variety of viewpoints will all be potentially credible, while at the same time seeming contradictory. It is in creating a container to hold these differences, and through them to clarify and revise one's own thinking, that the potential for transformation occurs.

In her final paper, Sharon describes how her class team progressed through all four stages within a few weeks:

The first barrier to effective team functioning occurred after our fourth team meeting. Following the session, half of the team met at a restaurant across the street from the school. Emotions ran high. Some of the team members were deeply disturbed by our team's performance. Several individuals who were not present were labeled as "disruptive to our team process" and identified as barriers to achieving our expected team outcomes. (Stage 1)

As a group, we eventually realized that we were responsible for creating the barrier to our team functioning. What could be more damaging to our team development than holding this "gripe" session, labeling team members and raising conflict issues with only half of the team present? We recognized that the only way this barrier could be broken was to address the areas of conflict with the group as a whole at our next team meeting. (Stage 2)

Fortunately, at the next meeting, with support from each other, the team facilitators and the teacher, the team members who were struggling with conflict were able to articulate their issues and successfully resolve them within the team. (Stage 3)

Following this, as a group we reaffirmed our commitment to our team norm of honesty, and the need for each member to call for a “time out” to examine our process when s/he was experiencing a barrier to team functioning.
(Stage 4)

Conclusion

In our 1107 course, as in the “learning organizations” of our research (Laiken et al, forthcoming), learners and workers have struggled in their own way with the action/reflection paradox. The class teams and organizations that have been able to actually balance their task and process activities, and include reflective opportunities in the course of a work/learning day, are beginning to demonstrate the ability to manage difference in new ways. In the end, I believe it is this notion of learning in the moment through genuine dialogue, which holds a promise of personal and organizational transformation. Nonaka and Takeuchi (1995) say:

Although knowledge is always created by individuals, it can be brought to light and expanded by the organization through social interactions in which tacit knowledge is transformed into explicit knowledge... Tacit knowledge is created by the dynamics of culture resulting from a network of (verbal and non-verbal) communications within a community of practice. (p. 115)

Our graduate students are becoming skillful, through courses like 1107, in helping to create such work environments. Says Helen:

As I read the transcripts from the taping of class six, I can now see how the class used honesty, balance between task and process, respect for each other, and effective communication (our class norms) to become unstuck and accept the diversity in the class. We moved from the stuck position to a position that valued the benefits of the polarities of task and process. The synergy and enthusiasm within the class was positive and inclusive. We had

valued and celebrated both sides of the poles of task and process, and it felt great. (Helen, final paper, course 1107, 2001)

REFERENCES

- Argyris, C. (1990). *Overcoming organizational defenses: Facilitating organizational learning*. Boston: Allyn & Bacon.
- Argyris, C. & Schön, D. (1978). *Organizational learning: A theory of action perspective*. Reading, Mass.: Addison-Wesley.
- Bandura, A. (1974). Behaviour theory and the models of man. *The American Psychologist*, 29 (Dec.), 859-869.
- Brenegan, L. (2000). *Dialogue and process consulting*. Unpublished Master's thesis. Toronto: Ontario Institute for Studies in Education of the University of Toronto.
- Briggs, K. & Myers, I. (1998). *Myers-Briggs Type Indicator*. Palo Alto: Consulting Psychologists Press, Inc.
- Capra, F. (2002). *The hidden connections: Integrating the biological, cognitive, and social dimensions of life into a science of sustainability*. New York: Doubleday.
- Cranton, P. (1994). *Understanding and promoting transformative learning: A guide for educators of adults*. San Francisco: Jossey-Bass.
- Ellinor, L. and Gerard, G. (1998). *Dialogue: Rediscover the transforming power of conversation*. New York: John Wiley & Sons.
- Hersey, P. & Blanchard, K. (1988). *Management of organizational behaviour: utilizing human resources (5th edition)*. Englewood Cliffs, NJ: Prentice-Hall.
- Isaacs, W. (1993). Taking flight: Dialogue, collective thinking and organizational learning. *Organizational Dynamics*, 22: 24-39.
- Johnson, B. (1992). *Polarity management: Identifying and managing unsolvable problems*. Amherst, MA: HRD Press, Inc.
- Kolb, D. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall.
- Laiken, M. (2001). *Models of organizational learning: paradoxes and best practices in the post-industrial workplace*. In conference proceedings of

- the 21st OD World Congress, Vienna, Austria, July 16-21, 2001. Charles A. Rarick, (Ed.). pp. 1-16.
- Laiken, M.; Edge, K.; Friedman, S.; West, K. (forthcoming). *From informal to organizational learning in the post-industrial workplace*.
- Laiken, M. (1997). Collaborative processes for collaborative organizational design: The role of reflection, dialogue and polarity management in creating an environment for organizational learning. *Organization Development Journal*, 15 (4): 35-4
- Laiken, M. (1994). *Conflict in teams: Problem or opportunity?* Lectures in Health Promotion Series No. 4, Centre for Health Promotion, University of Toronto.
- Laiken, M. (1993). The myth of the self-managing team. *Organization Development Journal*, 12 (2): 29-34.
- Lewin, K. (1951). *Field theory in social science*. New York: Harper & Row.
- Luft, J. (1970). *Group processes: An introduction to group dynamics (2nd Ed.)*. Palo Alto, California: National Press.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-Bass.
- Nonaka, I. & Takeuchi, H. (1995). *The knowledge-creating company*. New York: Oxford University Press.
- Senge, P.; Kleiner, A.; Roberts, C.; Ross, R.; Roth, G. & Smith, B. (2000). *The dance of change: The challenges to sustaining momentum in learning organizations*. New York: Doubleday Currency.
- Senge, P.; Roberts, C.; Ross, R.; Smith, B. & Kleiner, A. (1994). *The fifth discipline fieldbook: Strategies and tools for building a learning organization*. New York: Doubleday Currency.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Doubleday Currency.
- Taylor, M. (2002). *Draft outline of Learning Toward Ecological Consciousness: Selected Transformative Practices* (unpublished).

Acknowledgements

I gratefully acknowledge the following students² from two sections of my graduate course in Fall, 2001, “Developing and Leading High Performing Teams: Theory and Practice”, who have graciously offered me permission to use ideas and quotes from their final course papers for this chapter. From them and their colleagues in this program, I continue to learn so much:

Janet Anderson

Susie Blackstien-Adler

Judith Franks

Terence Frater

Bev Hardy

Ursula Jorch

Myra Kreick

Caitlin Riddolls

Patricia Robinson

Hannah Sauer

Wang Yi

Mark McManus

I also wish to acknowledge all of the participant organizations from our recently completed research on organizational learning (Laiken, M.; Edge, K.; Friedman, S.; West, K., forthcoming). I particularly thank the ten organizations whose employees generously contributed their time through the completion of questionnaires, and the members of the four case organizations who participated as interviewees, as well as their workplaces which provided support during all phases of the research process.

² The names in the text have been changed to pseudonyms to protect confidentiality

