

Organizational Consultation XVIII

Development: Part One

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In an appreciative-oriented consulting process, attention must be paid to development of the human capital in the organization. The objective in this fourth consultative strategy is to encourage the acquisition and full development of skills, knowledge, and aptitudes of employees and others associated with the organization that are compatible with and help to further the values, mission, goals and aspirations of the organization.

Some organizational leaders are likely to view any appreciative approach to the development of human resources as an oxymoron, like “swift justice” or “carefree home ownership.” How can a program be both developmental and appreciative? When someone needs developing, doesn’t that mean they are deficient in some way? How can one appreciate the strengths of another person while also planning their further development? I would propose that these two terms, *appreciation* and *development*, are not contradictory. They are quite complimentary.

Development is not just about acquiring new skills and knowledge; it is also about nourishing and building on existing strengths and enriching one’s own understanding of self and other people. This is a key concept in engaging an appreciative strategy of consultation.

A colleague of mine, Bob Shukraft, has suggested that during the first half of life we develop by expanding and extending the use of new skills and knowledge. This concept of development does focus on deficits. Furthermore, this focus is quite appropriate given that deficits are inevitably associated with youth and the processes of maturation. However, Shukraft suggests that a different meaning should be assigned to the term *development* during the second half of life. Development now refers to shifting priorities and perspectives. We don’t develop by gaining new knowledge and skill; rather, we develop by seeing the world in new ways and shifting our personal values, needs and ways of engaging other people. Most people working in organizations are mature, accomplished adults; it is imperative, therefore, that the second, appreciative model of development be given as much attention as the youthful, deficit-oriented model.

Given that this second model is best understood from an appreciative perspective, I offer several suggestions in this essay and the next two concerning the ways in which employee development can be approached in an appreciative manner. In this essay I describe four modes in which to design and implement employee development programs. In the next essay I consider five sources of training and educational expertise that can be found in any organization. I conclude this survey in the third essay by identifying ten basic strategies for effective, and appreciative, human resource development. In each instance, I link developmental program ideas and strategies to the appreciative strategies I have described in other essays in this series, thereby enabling an appreciative consultant to help their client liberate the human resource potentials in his or her organization in an even more effective manner.

Employee Development: Four Modes of Training and Education

Employee development in an organization comes in many different forms and occurs at many different times during the career of an employee. Developmental activities during the 20th Century were provided primarily at the start of an employee's employment in the organization or at the point when the employee assumed a new position in the organization. A quite different assumption is made in many contemporary organizations. Training and education are assumed to be of great value as an ongoing part of the developmental processes of the organization.

The emerging emphasis on organizational learning further suggests that the most important set aptitudes an employee should possess relate directly to their abiding interest in and capacity to learn over their lifetime. It is not so much what an employee brings to her first job that will determine her success in the organization. Career success is based much more on her interest in acquiring and ability to acquire the skills and knowledge needed for the second, third and fourth job she performs in the organization. Even if she remains in her current job for many years, the contemporary knowledge worker must be a skillful and willing learner. Inevitably, she will need new skills and knowledge to cope effectively with the changes that are going to occur in her job.

In keeping with this emerging emphasis on lifelong learning, the human resource development (HRD) manager in a contemporary organization must increasingly devote attention to something

more than the amount an employee has learned in a training or education program. The old, deficit-based model no longer works. The deficit model suggests that the trainer or education with a full pitcher will pour her knowledge or skills into the empty mug of the trainee or student. We now know that the mug is never empty and the pitcher isn't always full. Attention is now being given to the *retention* and *transfer of learning*. What's in the mug six months later and how have the ingredients of the mug been used on the job? Which skills have the employee retained and actually used three or four months after the conclusion of a training program? How much knowledge has the employee retained six months following the education program and how is this knowledge being applied in solving problems, making plans, or arriving at informed decisions?

Given these shifting concerns regarding employee development, new HRD priorities are being set in selecting among four primary modes of employee training and education: (1) intensive/off-site programs, (2) intensive/on-site programs, 3) distributed/on-site programs and (4) just in time programs. I will briefly describe each of these four modes and suggest their most appropriate use in a developmental context that emphasizes retention and transfer of learning.

Mode One: Intensive/Off-Site Programs

This form of training and education is often considered the *Rolls Royce* of employee development. It is very expensive and typically reserved for only the upper-level administrators of an organization. The training or education program may be held at an elegant hotel or even a resort. I worked for many years with a large energy company that conducted training programs for its senior administrators at beautiful resorts and spas in the Ozarks of Arkansas or at the Woodlands in Eastern Texas. Typically, these sites come fully equipped for the vacationing learner with golf courses, exercise facilities, and catered, gourmet meals.

Chart One
Four Modes of Training and Education

| Mode of Training/Education | Amount of Learning | Transfer of Learning | Cost of Training/Education |
|-----------------------------------|--|-----------------------------|--|
| Intensive/Off-Site | HIGH | LOW | HIGH |
| Intensive/On-Site | MODERATE | MODERATE | MODERATE |
| Distributed/On-Site | LOW | HIGH | MODERATE |
| Just In Time | VARIABLE (DEPENDENT ON LEARNER) | VERY HIGH | VARIABLE (HIGH INITIAL COSTS) |

Among those who work in nonprofit and governmental organizations, these off-site programs are more likely to be offered at less-expensive retreat sites or church camps. I have often worked with human service agencies that hold their training programs during the off-season at summer camp facilities. Participants cook their own meals, clean their own dishes, and provide their own evening entertainment. Much of this may occur around a fire in the wood-burning stove or fireplace—there being no other sources of heat! While these latter facilities are much more Spartan, they often generate a greater sense of camaraderie and provide fewer distractions and typically more intense learning than is the case with the much more luxurious corporate resorts. Regardless of the location, be it swank or sparse, this form of development is costly. Time must

be allocated for these off-site programs. Furthermore, expensive trainers, educators or facilitators are often hired to conduct these programs.

Typically, the new administrator is sent off to either an educational program run by her parent company or to a program that involves administrators from many organizations. The internal executive program, run by the parent company, is particularly popular in very large international corporations. In smaller organizations, and in many nonprofit and governmental organizations, the new administrator is sent off with newly minted executives from other organizations to a regional or national institute. Programs of this latter type have been offered for many years by independent training institutions such as The Center for Creative Leadership and The NTL Institute, as well as by many respected graduate schools of management, for example, Harvard University, Stanford University and UCLA. In recent years, upper-level executives from other countries, such as Taiwan and Thailand, have come to the United States to engage in similar inter-institutional educational and training institutes. In many cases, these programs offer graduate degrees to compliment the rich inter-institutional and cross-cultural learning that occurs.

The internally run executive programs often last for several weeks. They are lengthy because in most instances they are designed to accomplish multiple goals. For instance, I conducted high-level management development programs for many years with a major high-tech company. The participants were all men and women who had been appointed during the previous three months to the position of vice president in one of the operational units of the corporation. These participants received training in strategic planning, making use of a computer-based simulation prepared by a prestigious business school. They also learned in how to work effectively in cross-disciplinary and cross-cultural teams.

The latter learning was particularly valuable, since many of these new vice presidents had never worked extensively with other executives at the company who come from other countries and cultural traditions. I was responsible for the cross-cultural training, while other external consultants provided training and education in the areas of planned organizational change and international finance and marketing. A small internal training staff at the corporation designed and coordinated the two-week program. Several of the senior vice presidents of the corporation dropped by the training site, which was located in a

major hotel near the corporate headquarters. They offered corporate updates and inside information on corporate politics, thereby informally inviting the new VP's into the inner circle of corporate leadership.

The intensive/off-site mode of training and education is sometimes used for the initial orientation of new employees. This is most often the case when the orientation is directed toward the training of new employees in a set of skills that are critical to the success and security of the organization. Flight attendants, for instance, are trained in facilities, complete with simulated airplane cabins, that are especially designed for intensive learning. Various utility companies have similarly established training centers that offer programs preparing new hires to climb telephone poles, monitor control panels or test for water quality. The managers of fast-food restaurants may be similarly trained at Hamburger College or Pizza U, a center of training which the parent company or franchiser owns and runs.

This mode of development is intended for the transmission of a large amount of material, regardless of the level of training or education, or the nature of the setting in which the employee development program takes place. Participants have little to distract them from the lessons they are learning. They often are given assignments to complete during the evening and spend many hours with other participants in preparing case studies, analyzing spreadsheets or simply learning from one another. If attention is directed exclusively to quantity of learning, then this mode of development is of greatest benefit. However, with attention being directed in recent years to the transfer of learning, there is a growing concern about the benefit inherent in this mode. When learners are overloaded with a massive amount of information that can't readily be digested in a short period of time nor integrated with real life experiences, then there is often a significant decline in retained knowledge and skills.

My colleague, Elinor Greenberg describes learners who are *theory-rich, but experience-poor*. While she uses this phrase primarily to describe young college students, it is equally appropriate when assigned to those learners who have just emerged from an intensive, off-site program. They have acquired many theories but have few experiences that will anchor these theories and provide them with meaning. Even when the learner is a mature and seasoned administrator, the

new concepts are not always easy to link directly to experiences on the job. This is especially the case if the administrator is in the midst of a major job shift.

The message is clear. Other modes of development should be considered when designing a comprehensive program of training and education. Intensive/off-site programs are uniquely suited to personal reflection, interpersonal dialogue and simulated encounters with emotionally charged issues, such as taking steps as a flight attendant to prepare for an emergency landing or confront terrorism. This mode of development, however, is not particularly well suited to the learning of material that is conceptually quite complex or to the learning of a new set of subtle and situation-specific skills, such as managerial supervision or confrontation with irate customers. The other three modes, to which I now turn, are often more appropriate.

Mode Two: Intensive/On-Site Programs

This mode of development is the most widely used of the four we are considering. It is particularly common with regard to entry-level orientation and training programs. The new employee is brought into a training room during her first day of employment. Along with one or two other new employees, she is given a folder or notebook with information about the organization, as well as a copy of the organization's personnel policies. She may watch a brief video recording of the organization's president welcoming her to the company. The president also typically conveys something about the basic mission and vision of the organization or about company expectations regarding employee performance: "100 percent all the time;" "The customer always comes first!" "We are never satisfied with anything less than highest quality service!" This initial session is usually followed with a tour of the facilities and informational meetings with representatives from many different departments. The orientation session typically concludes with more focused orientation to the department in which the employee will work. This often includes some training in the use of specific tools and/or detailed instruction in the use of job-related procedures.

This orientation program might be somewhat more innovative. New employees, for instance, might be given an opportunity to meet informally over lunch, or at an intramural baseball game, with other employees in their department or there may be a departmental reception for the new

employee. As in the case of the intensive/off-site programs, the employee might also be given the opportunity to participate in a simulated version of her new job. This might, for instance, include an in-basket exercise that exposes the new employee to a set of issues that she is likely to address when she begins to perform in her new job. The new employee is asked to offer her own response to each issue, which is described in an in-basket memo, invoice, or letter. She then receives feedback from the trainer and is given an opportunity to try it again. This type of exercise is particularly appropriate for a new employee who must make judgment calls, rather than relying on the company's policy and procedure manual. In-basket exercises are very appropriate for new employees who must sell automobiles, field telephone questions from the field, or respond to customer complaints.

The intensive/on-site mode is commonly used not just for new employee orientation, but also for the ongoing training and education of lifelong learning employees. I work with a county government, for instance, that periodically offers full day management training programs to its mid managers. These managers are expected to concentrate fully on the training program during these full day meetings: "no appointments, no cell phones during the session and please stay away from your desk during breaks!" Another organization with which I consult provides a series of one and two daylong programs to all its employees on a wide range of topics. These programs range from new software programs and departmental budgeting to strategies for handling difficult customers and strategies for effective appraisal of subordinate performance. All these programs are offered at this organization's training facility, which is located right in the middle of this organization's complex of buildings.

Given the logistical simplicity and relatively low cost of intensive/on-site programs it is little wonder that this mode is so commonly used by those organizations that offer many education and training events. There are additional reasons for the popularity of this mode. The intensive/on-site program is the easiest of the four modes to manage. It takes place inside the organization and at one point in time—nothing too complicated or unpredictable. Furthermore, like the intensive/off-site mode this second mode is conducive to the dissemination of rather large amounts of information in a relatively short period of time. The training staff has the participant's undivided attention for a specific period of time. This mode also shares with the

first, intensive/off-site, mode the disadvantage of condensed learning. The retention and transfer of learning in both modes is often limited because this learning is isolated from the employee's real-life experience. The third and fourth modes address these disadvantages—though have their own drawbacks.

Mode Three: Distributed/On-Site Programs

This third mode of employee development is becoming much more popular, especially with the increasing emphasis being placed on retention and transfer of learning—rather than just amount of initial learning. Typically, the program offering is distributed over several sessions. Time is provided between sessions for the participants to try out the new skills or knowledge they have just acquired. This mode of development maximizes retention and transfer of learning. It also motivates employees to learn even more in follow up sessions, given their experience in successfully or not so successfully applying the new skills or knowledge in their workplace. In addition to identifying learners who are theory rich, but experience poor, Elinor Greenberg identified learners who are *experience rich, but theory poor*. These are mature, accomplished learners who need a conceptual framework to make sense of a wealth of life experiences. The distributed mode of employee development provides optimal conditions for the experience rich, but theory poor, learners who wish to acquire meaningful conceptual frameworks that are intimately related to the challenges they face in their daily work.

The distributed/on-site program holds a distinct advantage over the first two modes not only regarding the long-term lifelong learning employee, but also the new employee. Rather than giving the new employee a rich, and perhaps indigestible, portion of the information at the start of her orientation program, it may be better to give the new employee a brief orientation and then place them out in the workplace. The new employee comes back several days later for a second orientation session. He may be much more motivated to learn about the history of the organization or may pay closer attention to the policies and procedures of the organization, having experienced its operations first-hand and having been confronted with several challenges for which he wasn't yet fully prepared. A third session might be scheduled one week later and perhaps a fourth session at a one month or two monthlong interval. In this way, there is less to learn at each session and more of an experiential context in which to place the new learning.

The distributed mode does have some shortcomings and is not always appropriate for the acquisition of new skills and knowledge. First, there may be certain skills and knowledge that a new employee must acquire before entering the workplace. This is why flight attendants receive intensive training before they begin serving real passengers. This is why physicians don't practice on patients before they are fully prepared and why engineers get degrees and licenses before they begin to design a real bridge. In most instances, distributed modes of development should be used for the transmission of "nonessential" skills and knowledge. It is unfair, to either the new employee or those people whom the new employee serves, to let these neophytes out on the street without adequate preparation—regardless of how motivating this challenge might be.

There is a second drawback. The distributed mode is not very efficient. Any training or education program requires a warmup period during which the participants are getting back into a learning frame of mind. This often takes one or two hours. Thus, the warm up period reduces the amount of time devoted specifically to the content to be learned or skill to be acquired. When the training or education is broken into a series of short sessions, there must be a warm period at the start of each session, thereby reducing the amount that is learned at each session. Other factors also tend to reduce the amount of time devoted to new learning. Information that was conveyed in previous sessions typically must be reviewed at follow up sessions. This increases the retention of previously learned information, but further reduces the amount of information that can be conveyed in any one session. The repetition and review help insure that the participants do retain the information being conveyed, but it requires lowered expectations regarding the amount that is learned.

A third drawback can also be identified. The distributed mode is often a logistical headache for those managing training and education in an organization. Multiple sessions must be scheduled. Participants must be reminded of the follow up sessions and there is the inevitable problem of some participants being unable to attend all the sessions. What do you do with those who have missed a session? Provide them with individual sessions? This can be very time-consuming and expensive. Does the training staff just let them skip the session? If the information indispensable? What do you do when they ask questions at future sessions regarding material

that has already been covered in the session they missed? Does this set a bad precedence for other program participants?

There are also the innumerable problems associated with gaining support from the employee's boss for the employee's absence. And what about colleagues who often must pick up the employee's workload? It is usually much easier to gain permission for a one-time absence, even if it is for an extended period of time, than for repeated short-term absences from the workplace. Much as it takes time to adjust to the learning mode when attending a distributed program, so it takes time to get back into the work mode after returning from this program. Part of the distraction back at the work site concerns the transfer of learning from the training or education program; however, this distraction is not always appreciated by those working with the employee while he is transferring the new skills or knowledge. They are more likely to perceive this transfer as clumsiness, confusion, or a lack of attention: "What's wrong with Jim. He's like this every time he comes back from one of those silly training sessions." "I don't know what Susan is learning at that seminar, but whatever it is, it has certainly messed things up around here!"

What does all of this suggest? The advantages and drawbacks all point to organizational maturity. A distributed program that is offered on-site is often best used when there is fairly sophisticated and broad-based support for employee development in the organization. An organization that is actually committed to learning will embrace distributed learning. This commitment must move past rhetoric if distributed education and training is to be something more than an annoyance. An organization that embraces distributed development must fully embrace the need for ongoing education and training. Its leaders must seek to create a learning organization that is aligned with a rapidly changing world of technology and a world of shifting customer wants and needs.

If these organizational conditions do not exist, there are still ways in which the distributed mode can be effective. The distributed program can be designed in ways that address some of the drawbacks. The initial session can be rather lengthy, like an intensive program, and the follow-up sessions can be rather brief or individualized. Over the past five years, distributed programs have often been structured as intensive programs that are followed up with individualized

coaching. In this way, the rich learning that occurs in the intensive programs is coupled with the rich transfer of learning that occurs when additional sessions are distributed, by means of coaching, over a more extended period of time. In the future, we are likely to see much more frequent coupling of intensive training and education with coaching. We are also likely to see frequent coupling of intensive training and education with the fourth mode of employee development, just-in-time training and education, to which I now turn.

Mode Four: Just-In-Time Programs

Technology has made this fourth mode of employee development suddenly quite viable, though, from an historical perspective, it is the oldest mode of training and education. We need only look back to a time when just-in-time employee development was known as apprenticeship. A young man or woman would apprentice with a master craftsman and learn by doing prior to being admitted to the craft guild. At first, the apprentice would be given menial tasks to accomplish, such as sweeping the floor. The apprentice would then be given increasingly challenging tasks that began to relate directly to the craft for which he was being trained.

There were often an increasingly difficult and demanding set of tasks that the apprentice had to perform before becoming a journeyman and eventually a master craftsman. The apprentice, for instance, might be given a block of wood to cut and sand to perfection or he might be required to prepare a particular cream sauce or soufflé before being admitted to the guild. This just-in-time learning was powerful and effective, not only because the apprentice learned a new skill or acquired new knowledge precisely at the point when he needed it, but also because the learning occurred within the context of trust and tradition. The master craftsman was not simply a trainer or educator; the master exemplified values and a lifestyle the apprentice hoped to emulate. This is an important lesson in the design of employee development programs. The interpersonal element must not be ignored. Training and education require trust and a sense of tradition.

In more recent years, we find the use of just in time education and training in organizations that hire new employees whom they expect can hit the ground running with little need for any orientation or education. Whatever new skills and knowledge an employee needs can be acquired by simply asking the advice of more senior members of the organization, by reading an

instruction manual, or by learning from experience. While most large organizations commit time and money to employee development programs, it is important to recognize that the vast majority of organizations in our contemporary society are too small or financially strapped to offer much in the way of employee development. They can't afford formal training programs nor are such programs appropriate. The leaders of these closely held organizations either provide no training or education, or they turn to some form of apprenticeship and find ways to make this just-in-time model work in their own organization.

Given the long-standing apprenticeship programs and the informal learn-as-you-go programs of development in most small organizations, one can conclude, from one perspective, that just-in-time development is the oldest and most widely practiced of the four modes. From another perspective, however, this fourth mode represents a dramatic departure from the three modes of development that dominated 20th Century HRD. Shifts toward this fourth mode that are taking place in the first years of the 21st Century may lead to the demise of many formal training and education programs.

This shift centers on the availability of just-in-time education via electronic/digital media. Often called "on-demand" learning, this new form of training and education is perfectly suited to a world of tight-scheduling, continual interruptions, complex and ongoing change, and an insatiable request for new skills and greater knowledge on the part of contemporary knowledge worker. Training and education are no longer *synchronous*, with all learners assembled in one place and at one time to acquire new skills or knowledge. Just-in-time and on-demand programs are *asynchronous*, for each learner can now chose her own time and place to receive training or education.

For this on-demand learning to be successful, the material being prepared must be brief and compatible with digital formats. Small chunks of information are presented. This information is linked to other small information units. The material must also be easy to comprehend. It must be geared to the lowest common denominator of learners and can't be based on the assumption that the learner already has mastered related skills or retained foundation knowledge. On-demand learning also requires a multi-tiered structure. Applications and practice activities are interwoven

with conceptual material. Learners branch off to higher order lessons after receiving feedback regarding their mastery of specific skills or comprehension of specific knowledge.

Several years ago, I met with the CEO of a major financial firm. He pointed to the computer on his desk when asked about the future training and education needs in his organization. He noted that his Vice President for Human Resources expects that all the training and education programs in his corporations will be placed on-line within the coming two years. This includes his company's orientation program for new employees. In fact, part of my work with his corporation included conducting a set of interviews with him regarding his company's history. These interviews were recorded on video and will be interspersed as video clips with the written text of the company's new orientation program.

New employees will be invited to begin their job immediately after a very brief welcome by the president and head of the new employee's department. The new employee will be able to access a wide range of topics regarding the organization they have just joined. In this way, the new employee can select their own sequence of topics and study each topic on demand at their own desired pace and, in many instances, in the location which is most conducive for their own learning. This might be in their place of work or it might be at home. The president also pointed to the computer in his office as future source of all training and education in his organization. He envisions interactive conferencing among employees, following review of role-played scenarios that have been recorded on video and placed on the company's computer network.

This visionary and computer-literate president also envisions linkages between his own organization and many other financial organizations as they jointly prepare on-line training and education programs on international finance, governmental monetary policies and pending state and federal legislation that could impact on their strategic planning initiatives. This president spoke of many other potential uses of the computer (and Internet) for his company's training and education program; however, the most important point he made was that training and education would occur just-in-time, when it was most needed by his employees. He believed that the leaders of HRD in contemporary organizations should no longer try to anticipate the educational

and training needs of their employees. HRD leaders should instead create resources for employees to use when they themselves determine that these resources are needed.

There are many positive points to be made about the just-in-time mode of development and its two derivatives: on-demand learning and e-learning. This mode of development is not only coming into vogue, it also is highly appreciative. It is appreciative in that employees are assumed to be self-motivated and self-directed learners. Just-in-time programs begin with the assumption that employees can skillfully diagnose their workplace needs, so that they might decide what and when they should learn something new. It is also assumed that employees are knowledgeable. They know what they need to know. Just-in-time development is also appreciative in its emphasis on employee access to information, in its futuristic visions, and in its predilection toward inter-organizational cooperation in the gathering and dissemination of learning programs.

These are clearly not only ways in which just-in-time development is appreciative, but also ways in which this fourth mode of development is likely to be of greatest benefit to contemporary organizations. The just-in-time program envisioned by our president of the financial firm is geared specifically for the new self-motivated, knowledge worker who wishes to influence the environment in which she works. An appreciative environment is needed if just-in-time programs are to thrive. Obviously, the conditions for new learning play a key role in defining this environment, especially in a learning organization. Just-in-time training and education are indispensable strategies in any appreciative employee development initiative.

The negative side of this fourth mode is interwoven with the positive side. The assumptions about self-motivation and self-direction are often questionable. Do we really know what we don't know? Can we skillfully diagnose the needs of our workplace when we are so intimately involved in the daily operations of this workplace? There are numerous other questions concerning assumptions about an employee's skill and knowledge. Employees will become effective just-in-time learners only after they have mastered the technology of e-learning instruction. This is a major training and education challenge for most organizations that are filled

with employees who are comfortable with only a minimal number of computer applications. Effective just-in-time development also requires that employees learn how to learn in a rather isolated setting, independent of the support and encouragement they usually receive from not only a live instructor but also their fellow students.

Obviously, just-in-time learning requires extensive employee orientation, and it must offer demonstrable advantages for the e-learning employee. This form of learning may be most effectively employed if it is coupled with effective performance appraisal systems, to which I turn in future essays. An employee can partially base his decision to gain new skills and knowledge on the feedback he has received from his supervisor, and, in the case of 360 Degree feedback systems, other colleagues as well. An employee thus knows what she needs to know and can effectively diagnose the needs of her own workplace, in part because she can benefit from insights offered by her colleagues. The Human Resource Bank, which I described in earlier essays, can also assist the just-in-time learning process. When an employee can easily access a bank of information about the talents of other employees in her organization, then they can readily contact these people to acquire needed skills and knowledge. In this way, the employee bypasses the impersonality of e-learning and the complexity of computer-based on-demand training and education programs.

Just in time training and education also generates a set of unique problems and shortcomings that can't easily be addressed with effective performance appraisal systems or human resource banks. First and foremost, computer-mediated instruction lacks the interpersonal contact and social context that made apprenticeships, as traditional forms of just in time learning, so powerful and effective. The on-demand program can neither offer an encouraging slap on the back when the learner is successful nor explain to the learner why and how he made a mistake when he is unsuccessful. The human element has been taken out of the equation. This, in turn, can lead to inadequate education and training. Developmental programs are limited to technical and cerebral matters. Minimalist learning modules are designed to address only the most trivial issues. This dilution of HRD is unacceptable in most contemporary organizations—especially given the recent emphasis on emotional intelligence and interpersonal relationships (high touch) as a

necessary counterbalance to the inevitably push in most organizations toward greater technological complexity (high tech).

There must be something more to training and education than just the images that appear on a computer screen. Just-in-time programs must either be coupled with intensive off-site or on-site programs or integrated with one of the distributed education programs that I identified when describing the third mode of development.

A more tangible shortcoming of just-in-time development concerns the startup costs for e-learning programs. While our financial firm president was quite wise in proposing that future computer-based programs in his organization should be produced in cooperation with other financial firms, there is still a large up-front cost associated with most computerized training and educational programs. These costs include not only the expense of new hardware and software, but also expenses associated with the preparation of multiple training and education modules that will be available to employees at any time and in any setting.

Education and training programs being offered through the other three developmental modes can always be adjusted to fit a specific context and can be adopted for specific learning styles and needs. Who is attending the session? We'll shift how we approach topic X. What has recently been happening in this organization? We can include some material that is specific to this issue. What is the nature of the relationship among the participants? We can add a specific exercise that will take advantage of this dynamic. A computer-based program, by contrast, does not have a context, nor can it be automatically tailored to the unique needs or styles of the specific learners taking the program. Thus, the computer-based program must be everything to everyone. This is a tall order, especially given that we are all still neophytes when it comes to digitalized education and training. All of this suggests large up-front costs for just-in-time programs.

There is yet another financially related shortcoming associated with just-in-time development. The intensive and distributed modes of employee development produce programs that will inevitably be updated, for each program is slightly different from any previous program that has been offered. Updating is not automatic when it comes to the fourth mode: just-in-time

programs. Someone must keep track of the program, for it is not automatically updated. Those of us who have become involved with digitalized education have made an often-painful discovery: computer-based training and education programs must have a doting parent, otherwise they soon become ignored or unwanted orphans. This suggests that just in time programs are likely to cost money even after the up-front costs have been met. This is not an inexpensive mode of employee development, as some visionaries, who are enamored with digital technologies, would have us believe. This form of employee development is here to stay, but not without some costs—nor without that human touch which makes all forms of training and education come alive for the learner.

Ultimately, any organization will benefit from the use of all four modes of development. Each holds great promise and yields important benefits for any contemporary organization that is faced with the challenge of becoming a learning organization. Just-in-time development certainly will become more prevalent in the near future. It is not a panacea, nor will it be effective if divorced from the human touch and if it is isolated from the other three modes of development. These other three modes counter the individualism of e-learning with collegiality and a sense of community. Intensive and distributed training and education programs also counter the convenience of on-demand education and training with the discipline of extended, thoughtful analysis. This critical discipline is fostered in those developmental programs that pull people out of their routine, out of their habits of mind, and out of their rutted relationships. The just-in-time mode of development provides no sanctuary for reflection and change, the other three modes do.